

Prospective Imaging Objects – October 14 2023

Astronomical Data

Sunrise	Sunset	Astronomical Dusk	Astronomical Dawn	Imaging	New Moon
06:31am	05:55 pm	07:17 pm	05:37 am	10:20	Oct 14

Hardware Info

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

How to use this document


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

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

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

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

Primary Focus



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.


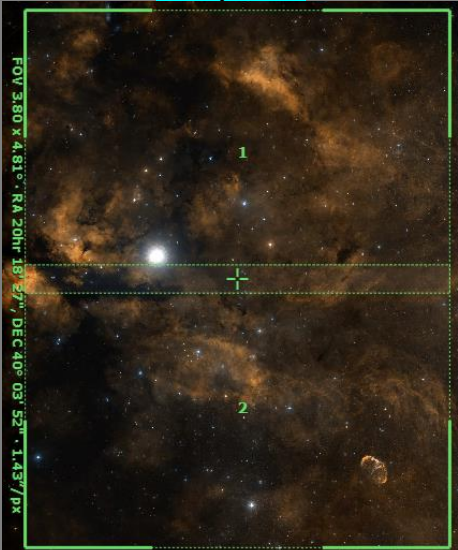
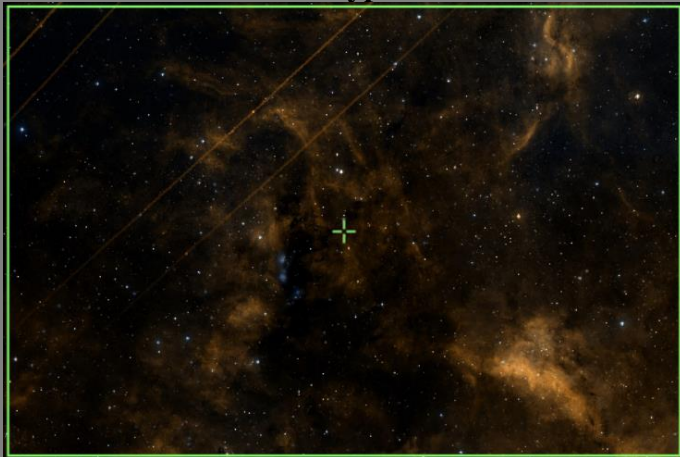
07: Imaging Window – Ideally the time the object is 45° above the horizon. Southern objects with negative DEC that do not peak above 45° are indicated with a *. Imaging window for these objects may be based on 30° or even 25° above horizon for the imaging window.

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.


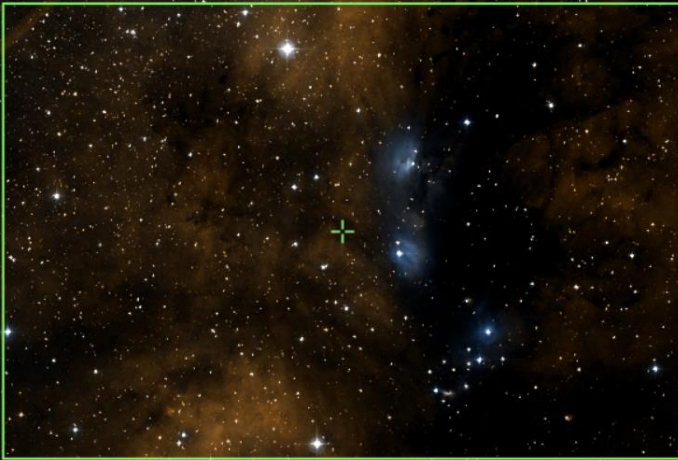
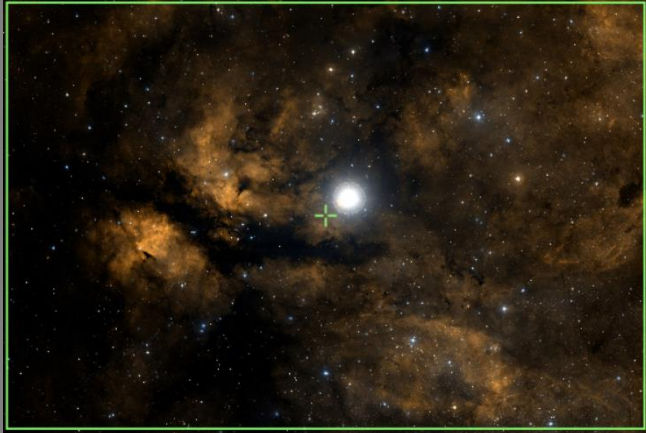
Prospective Imaging Objects – October 14 2023

<p>NGC-6894 (PK 69-2.1) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 16' 24" 30° 33' 57"</p> <p>Close Star: SAO-71070 (64 Cyg) Catalog Objects: NGC-6994 Imaging Window: 07:17 – 10:45 Transit: 07:12 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>IC-4997 (PK 58-10.1) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Sagitta Coordinates: 20h 20' 09" 16° 43' 56"</p> <p>Close Star: SAO-106316 (Rotanev) Catalog Objects: IC-4997 Imaging Window: 07:17 – 10:22 Transit: 07:16 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Blue Flash Nebula (NGC-6905) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Delphinus Coordinates: 20h 22' 24" 20° 06' 18"</p> <p>Close Star: SAO-108378 (Markab) Catalog Objects: NGC-6905 Imaging Window: 07:17 – 10:32 Transit: 07:18 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

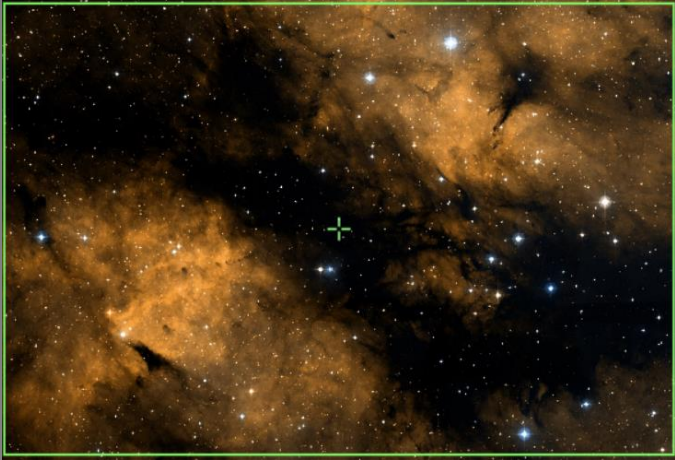


Prospective Imaging Objects – October 14 2023

<p>Cooling Tower (M-29 (NGC-6913) Config: [C11HD ZWO6200MC]</p> <p>Type: Open Cluster</p> <p>Constellation: Cygnus Coordinates: 20h 24' 06" 38° 29' 36"</p> <p>Close Star: SAO-90981 (Scheat) Catalog Objects: M-29/NGC-6913 Imaging Window: 07:17 – 11:03 Transit: 07:20 85°</p>	<p>C-11 HD: Primary Focus</p> 
<p>NGC-6914 Region Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: Frame 1: RA=20hr 18' 27" DEC=41°12'10" Frame 2: RA=20hr 18' 38" DEC=38°55'33"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: NGC-6914 Imaging Window: 07:17 – 11:07 Transit: 07:20 81°</p>	<p>C-11 HD: HyperStar v4 Composite!</p> 
<p>NGC-6914 Region Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 22' 52" 42° 38' 53"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: NGC-6914 Imaging Window: 07:17 – 11:07 Transit: 07:20 81°</p>	<p>C-11 HD: HyperStar v4</p> 

Prospective Imaging Objects – October 14 2023

<p>NGC-6914 Region Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 24' 48" 42° 29' 00"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: NGC-6914 Imaging Window: 07:17 – 11:07 Transit: 07:20 81°</p>	<p>C-11 HD: Focal Reducer</p> 
<p>NGC-6914 Region Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 25' 07" 42° 24' 34"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: NGC-6914 Imaging Window: 07:17 – 11:07 Transit: 07:20 81°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Butterfly Nebula (IC-1318) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 22' 57" 40° 09' 33"</p> <p>Close Star: SAO-67174 (Vega) Catalog Objects: IC-1318 Imaging Window: 07:17 – 11:07 Transit: 07:21 80°</p>	<p>C-11 HD: HyperStar v4</p> 

Prospective Imaging Objects – October 14 2023

<p>Butterfly Nebula (IC-1318) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 26' 59" 40° 06' 52"</p> <p>Close Star: SAO-67174 (Vega) Catalog Objects: IC-1318 Imaging Window: 07:17 – 11:07 Transit: 07:21 80°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Butterfly Nebula (IC-1318) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 25' 40" 40° 17' 34"</p> <p>Close Star: SAO-67174 (Vega) Catalog Objects: IC-1318 Imaging Window: 07:17 – 11:07 Transit: 07:21 80°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p><small>Butterfly Nebula (IC-1318) Constellation: Cygnus the Swan RA = 20h 26m 59.5s, DEC = +40° 06' 52.0", Size = 62.3 x 28.5 arcmin, Orientation: 0.134deg E of N (Pixel scale = 0.441 arcsec/pixel, F1.279mm) Image taken: January 2020, 01.11. Exposure: 3x10s, 227 Config: C11 HD, ZWO6200MC, C11 HD, 2x2.5" filter Exposure: 10s, 200mag/Frame, Gain: 5000 (Offset: 100)</small></p>
<p>Fireworks Galaxy (NGC-6946) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Cepheus Coordinates: 20° 34' 54" 60° 08' 60"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: NGC-6946 Imaging Window: 07:17 – 11:15 Transit: 07:30 63°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – October 14 2023

Pelican & N. America Nebula (IC-5070)

Config: C11-HD | HS | ZWO6200MC

Type: **Bright Nebula**

Constellation: **Cygnus**

Coordinates:

Frame 1:

RA=20hr56'10" DEC=44°55'07"

Frame 2:

RA=20hr56'10" DEC=42°37'57"

Close Star: **SAO-50180** (57 Cygni)

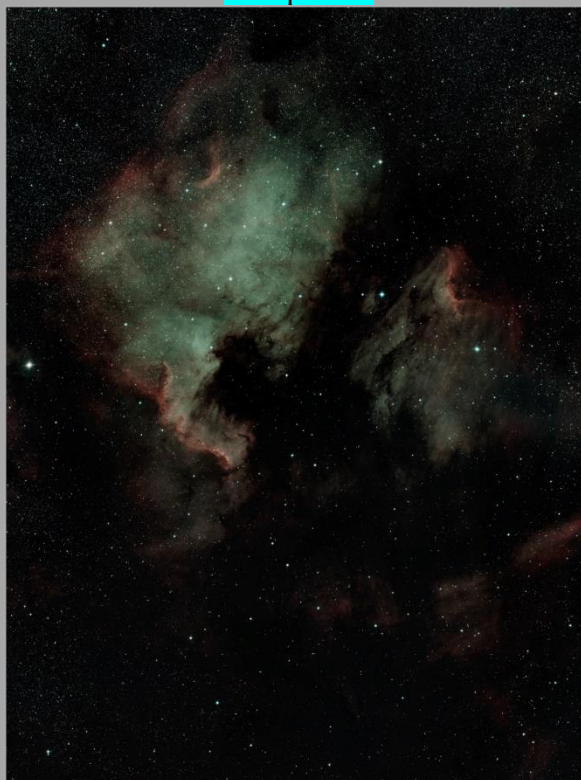
Catalog Objects: [IC5070](#)

Imaging Window: **07:17 – 11:35**

Transit: **07:46 | 79°**

C-11 HD: HyperStar v4

Composite!



North America (NGC-7000) and Pelican (IC-5070) Nebula
Constellation: Cygnus the Swan
RA: 20h 56m 10.78s DEC: 44° 55' 07.18" Size: 200 x 270 arcsec Orientation: 0 deg E of N (True) scale = 1.411 arcsec/pixel (F0.9 filter)

James Volder (Data) | 2022.08.26-2022.09.06 Location: Chandler, AZ
Config: C-11HD HyperStar v4 OPT Radwin Total Ultra ZWO6200MC
Exposure Info: (Music: 101 & 121 Imagi.Star) Gain: 100 Offset: 50

Pelican & N. America Nebula (IC-5070)

Config: C11-HD | HS | ZWO6200MC

Type: **Bright Nebula**

Constellation: **Cygnus**

Coordinates:

20h 57' 29"

44° 10' 10"

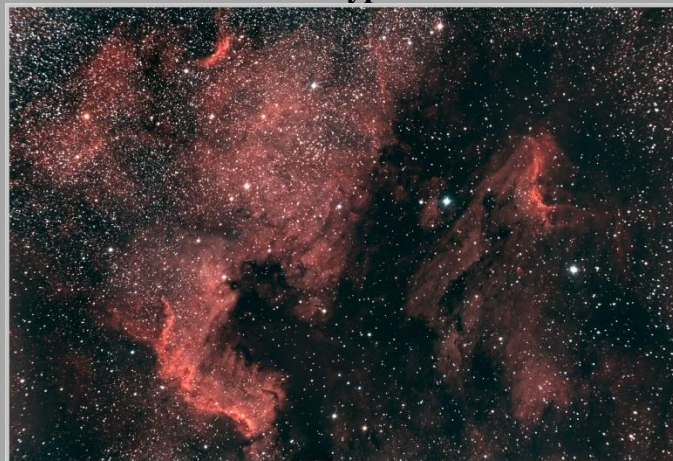
Close Star: **SAO-50180** (57 Cygni)

Catalog Objects: [IC5070](#)

Imaging Window: **07:17 – 11:35**

Transit: **07:46 | 79°**

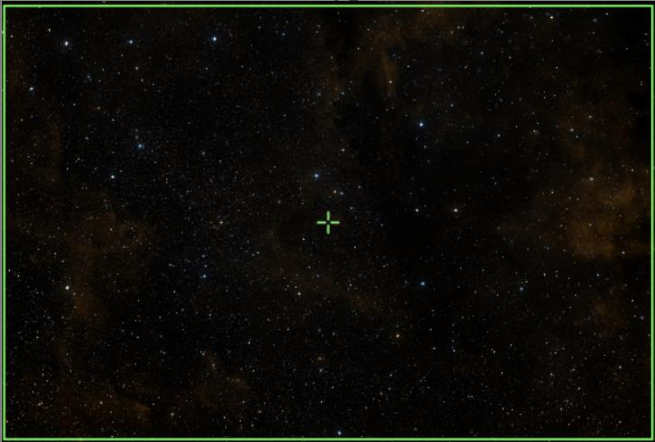
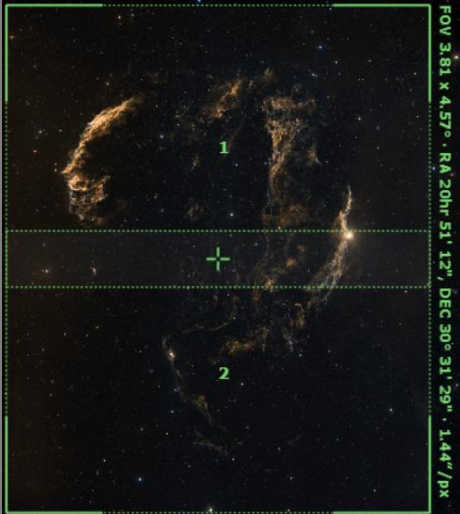
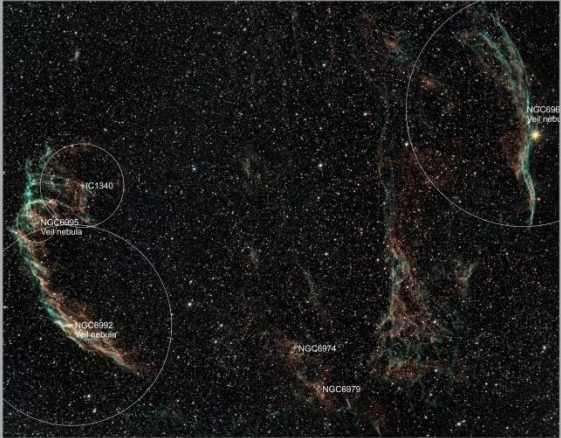
C-11 HD: HyperStar v4






North American Nebula (NGC 7000) Pelican Nebula (IC 5070) and Open Star Cluster (NGC 6997)
Constellation: Cygnus the Swan

James Volder | 2019.02.20
Config: C11 HyperStar / Astromech C15-CCD / DSO 158L
Exposure Info: (55Min)Gain: 3200 Offset: 180

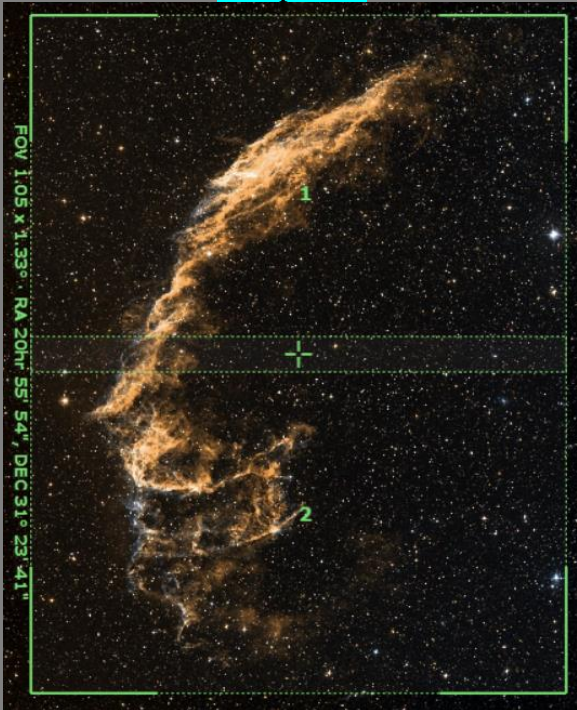

Prospective Imaging Objects – October 14 2023

<p>Northern Coal Sack (LDN-904) Config: C11-HD HS ZWO6200MC</p> <p>Type: Dark Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 51' 52" 39° 13' 34"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: LDN-904 Imaging Window: 07:17 – 11:33 Transit: 07:48 84°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Veil Nebula (NGC-6960) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: P1: RA: 20h51'12" DEC: 31°32'26" P2: RA: 20h51'12" DEC: 29°30'31"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960, 6992, 6995 Imaging Window: 07:17 – 11:23 Transit: 07:48 80°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p> 
<p>Veil Nebula (NGC-6960) Config: C11-HD HS ZWO6200MC</p> <p>Type: Supernova Remnant</p> <p>Constellation: Cygnus Coordinates: 20h 51' 15" 31° 03' 60"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960, 6992, 6995 Imaging Window: 07:17 – 11:23 Transit: 07:48 80°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 




Prospective Imaging Objects – October 14 2023

<p>Witch's Broom (NGC-6960) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: P1: RA=20hr 46' 20" DEC=30° 54' 54" P2: RA=20hr 46' 20" DEC=30° 17' 06"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960</p> <p>Imaging Window: 07:17 – 11:23 Transit: 07:48 80°</p>	<p>C-11 HD: Focal Reducer Composite!</p> 
<p>Pickering's Triangular Wisp Config: C11-HD FR ZWO6200MC </p> <p>Type: Supernova Remnant Constellation: Cygnus Coordinates: 20h 48' 16" 31° 37' 17"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960 Imaging Window: 07:17 – 11:23 Transit: 07:48 80°</p>	<p>C-11 HD: Focal Reducer</p> 
<p>M-72 (NGC-6981) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Aquarius Coordinates: 20h 53' 28" -12° 32' 11"</p> <p>Close Star: SAO-108378 (Markab) Catalog Objects: M-72/NGC-6981 Imaging Window: *07:17 – 10:31 Transit: 07:49 44°</p>	<p>C-11 HD: Primary Focus</p> 


Prospective Imaging Objects – October 14 2023

<p>Network Nebula (NGC-6992) Config: C11-HD FR ZWO6200MC </p> <p>Type: Supernova Remnant</p> <p>Constellation: Cygnus Coordinates: P1: RA= 20hr 55' 54" DEC= 31° 42' 35" P2: RA= 20hr 55' 54" DEC= 31° 04' 47"</p> <p>Close Star: SAO-70474 (Gienah) Catalog Objects: NGC-6992 Imaging Window: 07:17 – 01:27 Transit: 07:52 88°</p>	<p>C-11 HD: Focal Reducer Composite!</p> 
<p>M-73 (NGC-6994) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Aquarius Coordinates: 20h 59' 00" -12° 37' 60"</p> <p>Close Star: SAO-108378 (Markab) Catalog Objects: M-73/NGC-6994 Imaging Window: *07:17 – 10:31 Transit: 07:54 44°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<p>Fetus Nebula (NGC-7008) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 00' 33" 54° 32' 38"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: NGC-7008 Imaging Window: 07:17 – 11:46 Transit: 07:56 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Planetary Nebula NGC-7008 Constellation: Deneb RA = 21h 00m 33.00s DEC = 54° 32' 38.00" (J2000) Observation: 9/24/23 (1h) Filter: none = 8177 min (104) (8x300min)</p> <p style="font-size: x-small; text-align: right;">James Yoder - Deneb (2023-09-27 20:17:00) - Cygnus - 12 Config: C-11 HD: Atlas 1846 ZWO6200MC Focal Reducer: 2x ImageSharp - Color: RGB - 100%</p>
<p>Iris Nebula (NGC 7023) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 01' 36" 68° 10' 00"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: NGC-7023 Imaging Window: 07:17 – 11:19 Transit: 07:57 55°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Iris Nebula (NGC 7023) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 01' 36" 68° 10' 00"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: NGC-7023 Imaging Window: 07:17 – 11:19 Transit: 07:57 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">NGC-7023 Iris Nebula in Cepheus</p> <p style="font-size: x-small; text-align: right;">James Yoder 2018.03.04</p>

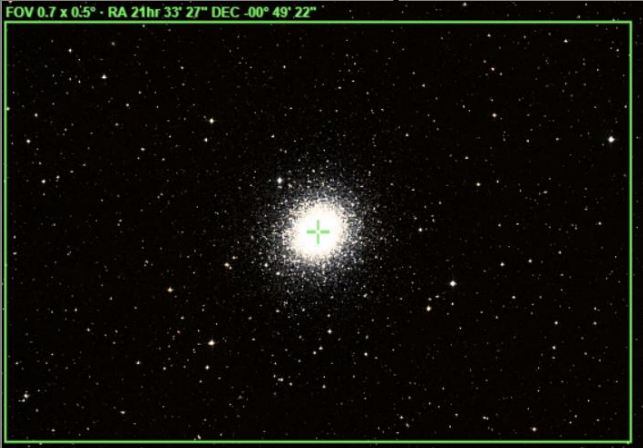
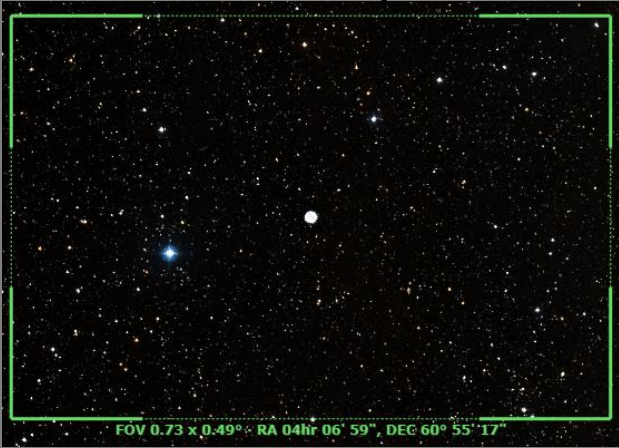

Prospective Imaging Objects – October 14 2023

<p>Saturn Nebula (NGC-7009) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Aquarius Coordinates: 21h 04' 11" -11° 21' 47"</p> <p>Close Star: SAO-191524 (Fomalhaut) Catalog Objects: NGC-7009 Imaging Window: *07:17 – 10:48 Transit: 08:00 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-7026 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 06' 19" 47° 51' 10"</p> <p>Close Star: SAO-50456 Catalog Objects: NGC-7026 Imaging Window: 07:17 – 11:52 Transit: 08:02 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.48° - RA 21hr 06' 19", DEC 47° 51' 10" - 0.28"/px</p>
<p>NGC-7027 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 07' 02" 42° 14' 12"</p> <p>Close Star: SAO-50456 Catalog Objects: NGC-7027 Imaging Window: 07:17 – 11:49 Transit: 08:02 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.48° - RA 21hr 07' 02", DEC 42° 14' 12" - 0.28"/px</p>

Prospective Imaging Objects – October 14 2023

<p>NGC-7048 (PK 88-1.1) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 14' 15" 46° 17' 21"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: NGC-7048 Imaging Window: 07:17 – 11:59 Transit: 08:10 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Pegasus Cluster (M-15) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Cepheus Coordinates: 21h 29' 58" 12° 10' 03"</p> <p>Close Star: SAO-127029 (Enif) Catalog Objects: M-15/NGC-7078 Imaging Window: 07:17 – 11:19 Transit: 08:25 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-39 (NGC-7092) Config: C11-HD FR ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Cygnus Coordinates: 21h 31' 56" 48° 26' 46"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: M-39/NGC-7092 Imaging Window: 07:17 – 12:17 Transit: 08:27 75°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 

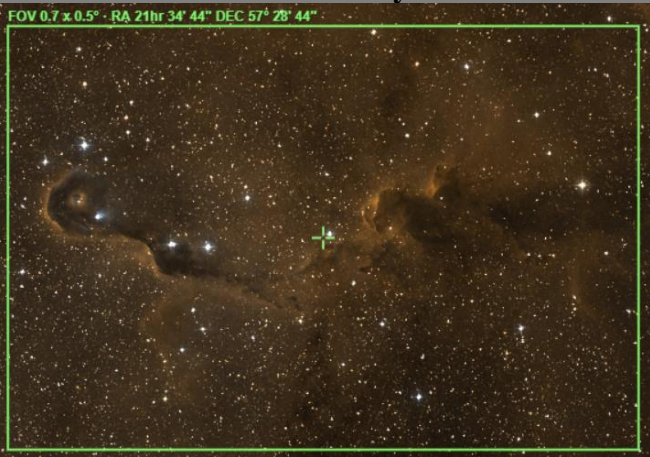
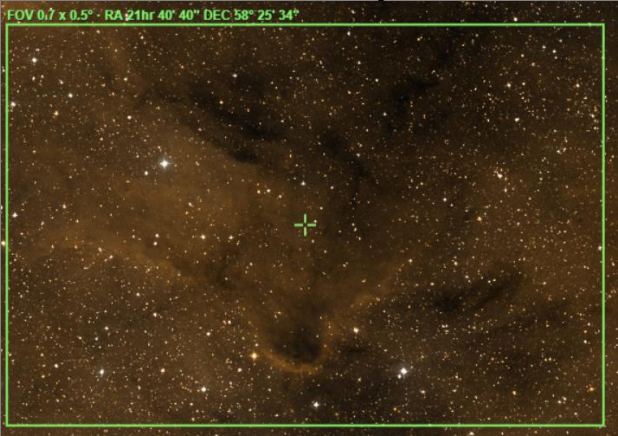

Prospective Imaging Objects – October 14 2023

<p>M-2 (NGC-7089) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Aquarius Coordinates: 21h 33' 27" 00° 49' 22"</p> <p>Close Star: SAO-127029 (Enif) Catalog Objects: M-2/NGC-7089 Imaging Window: 07:17 – 10:33 Transit: 08:29 56°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.7 x 0.5° - RA 21hr 33' 27.00\"</p>
<p>NGC-7094 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Pegasus Coordinates: 21h 36' 53" 12° 47' 22"</p> <p>Close Star: SAO-127029 (Enif) Catalog Objects: NGC-7094 Imaging Window: 07:17 – 11:28 Transit: 08:32 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.73 x 0.49° - RA 04hr 06' 59.00\"</p>
<p>Elephant Trunk (IC-1396) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 39' 58" 57° 33' 34"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: IC-1396/Sh2-131 Imaging Window: 07:17 – 12:22 Transit: 08:34 66°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">Elephant Trunk Nebula (IC-1396) Constellation: Cepheus</p> <p style="text-align: right; font-size: small;"> Filter: HyperStar v4 Exposure: 2000 Config: C11 HyperStar v4 HS ZWO6200MC Exposure Info: 2000x1500 (Gain: 1200) Offset: 100 </p>




Prospective Imaging Objects – October 14 2023

<p>Elephant Trunk (IC-1396) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 40' 00" 58° 03' 31"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: IC-1396/Sh2-131 Imaging Window: 07:17 – 12:22 Transit: 08:34 66°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Elephant Trunk (IC-1396) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 34' 39" 57° 29' 02"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: IC-1396/Sh2-131 Imaging Window: 07:17 – 12:22 Transit: 08:34 66°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Elephant Trunk (IC-1396) Config: C11HD ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 41' 50" 56° 43' 48"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: IC-1396/Sh2-131 Imaging Window: 07:17 – 12:22 Transit: 08:34 66°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<p>Elephant Trunk (IC-1396) Config: C11HD ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 34' 44" 57° 28' 44"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: IC-1396/Sh2-131 Imaging Window: 07:17 – 12:22 Transit: 08:34 66°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Elephant Trunk (IC-1396) Config: C11HD ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 40' 40" 58° 25' 34"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: IC-1396/Sh2-131 Imaging Window: 07:17 – 12:22 Transit: 08:34 66°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-30 (NGC-7099) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Capricornus Coordinates: 21h 40' 22" -23° 10' 43"</p> <p>Close Star: SAO-164644 (Scheddi) Catalog Objects: M-30/NGC-7099 Imaging Window: *07:17 – 09:58 Transit: 08:36 34°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – October 14 2023

<p>NGC 7139 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 46' 07" +63° 47' 54"</p> <p>Close Star: SAO-019302 (Alderamin) Catalog Objects: NGC-7139 Imaging Window: 07:17 – 12:19 Transit: 08:41 60°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-7139 Constellation: Cepheus RA = 21h 46m 07.2s, DEC = +63deg 47' 54.0" Size = 18.5 x 13.9 arcmin Orientation = 0.7deg E of N Pixel scale = 0.277 arcsec/pixel FL = 2000mm James Yoder Date: 2022-12-19 Location: Chandler, AZ Config: C-11 HD-PRF Track Libra ZWO6200MC Exposure Info: 27 frames @ 2min Gain: 100 Offset: 50 </p>
<p>Dark Cocoon (B-168, IC 5146) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 49' 08" 47° 28' 16"</p> <p>Close Star: SAO-5105 (Rho Cygni) Catalog Objects: B-168, IC-5146 Imaging Window: 07:17 – 12:34 Transit: 08:44 76°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center; font-size: small;">FOV 3.81 x 2.54° · RA 21hr 49' 08", DEC 47° 28' 16"</p>
<p>Cocoon Nebula (IC-5146) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 52' 00" 47° 22' 37"</p> <p>Close Star: SAO-5105 (Rho Cygni) Catalog Objects: IC-5146 Imaging Window: 07:17 – 12:39 Transit: 08:49 76°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center; font-size: small;">FOV 1.05 x 0.70° · RA 21hr 52' 00", DEC 47° 22' 37"</p>

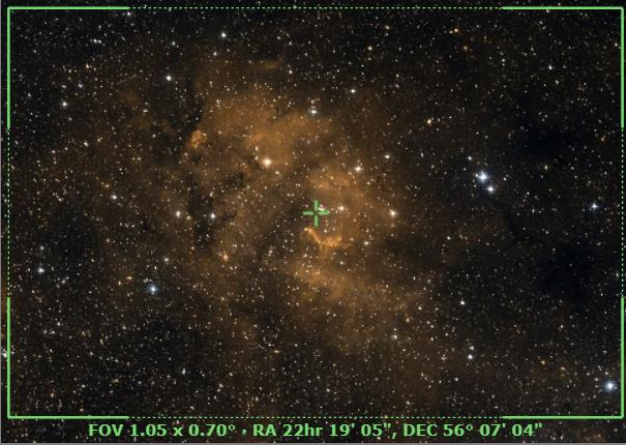
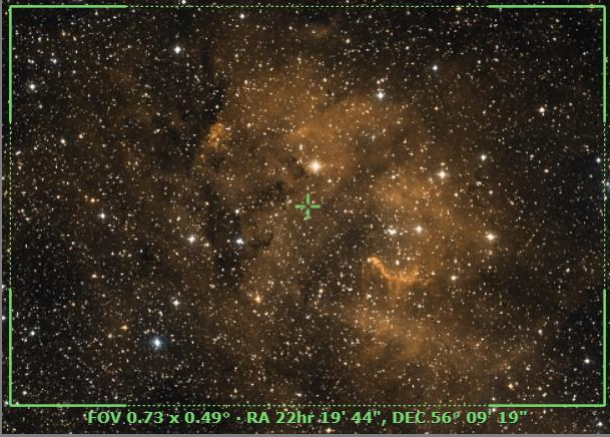

Prospective Imaging Objects – October 14 2023

<p>Cocoon Nebula (IC-5146) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 53' 24" 47° 16' 00"</p> <p>Close Star: SAO-5105 (Rho Cygni) Catalog Objects: IC-5146 Imaging Window: 07:17 – 12:39 Transit: 08:49 76°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Dark Shark (LDN-1235) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 11' 49" 73° 12' 16"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: LDN-1235 Imaging Window: 08:21 – 01:47 Transit: 11:04 50°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Helix Nebula (NGC-7293) Config: C11HD ZWO6200MC </p> <p>Type: Planetary nebula</p> <p>Constellation: Aquarius Coordinates: 22h 29' 39" -20° 48' 36"</p> <p>Close Star: SAO-164644 (Delta Cap) Catalog Objects: NGC-7293 Imaging Window: *07:39 – 11:15 Transit: 09:25 36°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<p>Wolf's Cave (VdB-152) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 17' 03" 70° 21' 54"</p> <p>Close Object: Cave Nebula (SH2-155) Close Star: SAO-20268 (Iota Cephei) Imaging Window: 07:17 – 01:32 Transit: 09:52 50°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Wolf's Cave (VdB-152) Config: C11-HD FR ZWO6200MC </p> <p>Constellation: Cepheus Coordinates: 22h 13' 42" 70° 30' 32" 90° Rotation</p> <p>Close Object: Cave Nebula (SH2-155) -44min differential Close Star: SAO-20268 (Iota Cephei) Catalog Objects: B-168, IC-5146</p> <p>Imaging Window: 07:17 – 01:32 Transit: 09:52 50°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>SH2-132</p> <p>Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 22' 39" 55° 38' 22"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: SH2-132 Imaging Window: 07:17 – 01:03 Transit: 09:14 67°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 



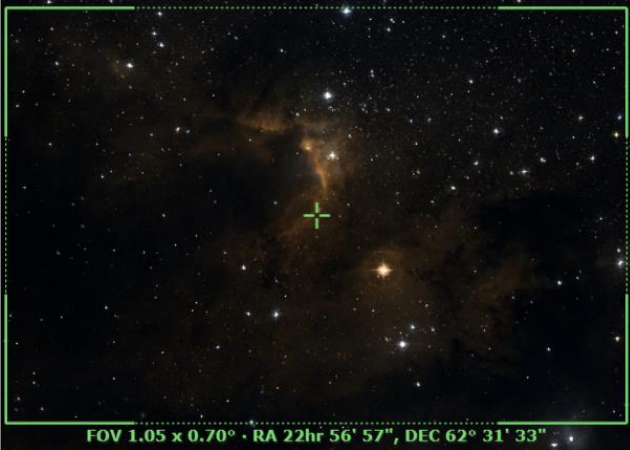
Prospective Imaging Objects – October 14 2023

<p>SH2-132 Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 19' 05" 56° 07' 04"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: SH2-132 Imaging Window: 07:17 – 01:03 Transit: 09:14 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">FOV 1.05 x 0.70° · RA 22hr 19' 05" · DEC 56° 07' 04"</p>
<p>SH2-132 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 19' 44" 56° 09' 19"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: SH2-132 Imaging Window: 07:17 – 01:03 Transit: 09:14 67°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.73 x 0.49° · RA 22hr 19' 44" · DEC 56° 09' 19"</p>
<p>Stephan's Quintet & NGC 7331 (NGC 7317, 7331) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Pegasus Coordinates: 22h 36' 40" 34° 13' 25" Camera Rotation = 115° East (-245)</p> <p>Close Star: SAO-72191 (1 Lacertae) Catalog Objects: NGC7317, NGC7331 Imaging Window: 07:17 – 01:09 Transit: 09:31 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">FOV 1.05 x 0.70° · RA 22hr 36' 40" · DEC 34° 13' 25"</p>

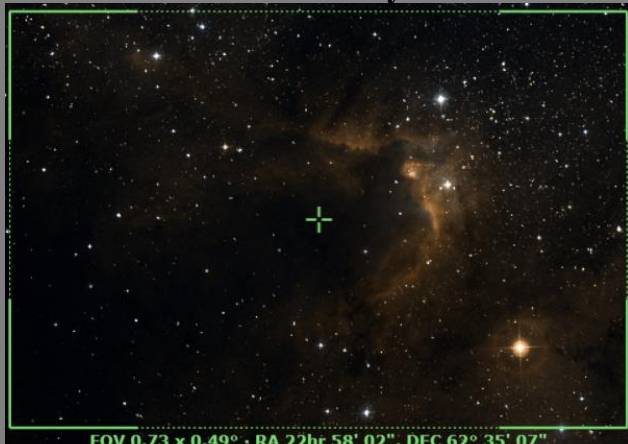


Prospective Imaging Objects – October 14 2023

<p>Stephan's Quintet Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Pegasus Coordinates: 22h 36' 06" 33° 58' 01"</p> <p>Close Star: SAO-72191 (1 Lacertae) Catalog Objects: NGC7317 Imaging Window: 07:17 – 01:09 Transit: 09:31 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.73 x 0.49° · RA 22hr 36' 06", DEC 33° 58' 01"</p>
<p>NGC-7331 Group (NGC-7331) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Pegasus Coordinates: 22h 37' 15" 34° 24' 51"</p> <p>Close Star: SAO-72191 (1 Lacertae) Catalog Objects: NGC-7331 Imaging Window: 07:17 – 01:11 Transit: 09:32 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">NGC 7331, NGC 7335, NGC 7337 Galaxy Group</p> <p style="text-align: right;">James W. Mearns 2015.09.11</p>
<p>Wizard Nebula (SH 2-142)</p> <p>Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 47' 26" 58° 03' 03"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: SH2-142 Imaging Window: 07:17 – 01:28 Transit: 09:40 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">FOV 1.05 x 0.70° · RA 22hr 47' 26", DEC 58° 03' 03"</p>

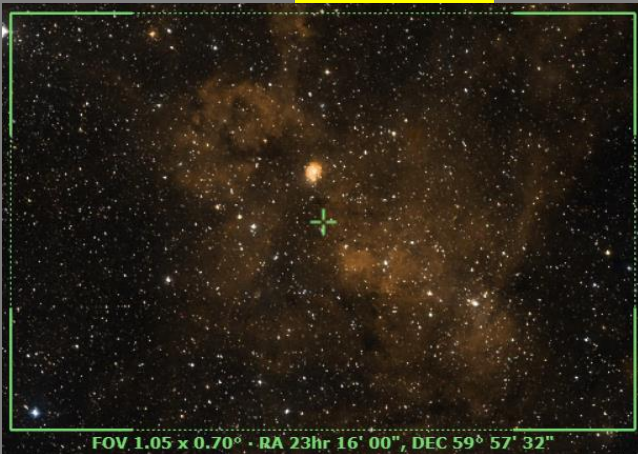


Prospective Imaging Objects – October 14 2023

<p>Wizard Nebula (SH 2-142)</p> <p>Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cepheus</p> <p>Coordinates: 22h 47' 26" 58° 03' 03"</p> <p>Close Star: SAO-20268 (Iota Cephei)</p> <p>Catalog Objects: SH2-142</p> <p>Imaging Window: 07:17 – 01:28</p> <p>Transit: 09:40 89°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Wizard Nebula (NGC-7380) Constellation: Cepheus RA: 22h 47m 26s, DEC: 58° 03' 03" Size: 40.8 x 27.2 arcmin Orientation: 9.2deg E of N Pixel scale: 0.441 arcsec/pixel F1.200mm James Votaw (Drexel) 2013 F1.25, 2019 03 14 Location: Chandler, AZ E-quip: C-11 HD, Achromatic, 1.1 x 1.1 CFW, 1.200 mm Exposure: 14h, 33 frames @ 10s, Gain: 1200, Offset: 100</small></p>
<p>Cave Nebula (SH2-155)</p> <p>Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus</p> <p>Coordinates: 23h 00' 57" 62° 04' 09"</p> <p>Close Star: SAO-20268 (Iota Cephei)</p> <p>Catalog Objects: SH2-155</p> <p>Imaging Window: 07:17 – 01:32</p> <p>Transit: 09:52 61°</p>	<p>C-11 HD: HyperStar v4</p>  <p><small>SH2-155 (Cave Nebula) Constellation: Cepheus RA: 23h 00m 57s, DEC: 62° 04' 09" Size: 40.8 x 27.2 arcmin Orientation: 9.2deg E of N Pixel scale: 0.441 arcsec/pixel F1.200mm James Votaw (Drexel) 2013 F1.25, 2019 03 14 Location: Chandler, AZ E-quip: C-11 HD, HyperStar v4, 1.1 x 1.1 CFW, 1.200 mm Exposure: 14h, 33 frames @ 10s, Gain: 1200, Offset: 100</small></p>
<p>Cave Nebula (SH2-155)</p> <p>Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus</p> <p>Coordinates: 22h 56' 57" 62° 31' 33"</p> <p>Close Star: SAO-20268 (Iota Cephei)</p> <p>Catalog Objects: SH2-155</p> <p>Imaging Window: 07:17 – 01:32</p> <p>Transit: 09:52 61°</p>	<p>C-11 HD: Focal Reducer</p>  <p>FOV 1.05 x 0.70° · RA 22hr 56' 57", DEC 62° 31' 33"</p>




Prospective Imaging Objects – October 14 2023

<p>Cave Nebula (SH2-155) Config: C11HD ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 56' 57" 62° 31' 33"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: SH2-155 Imaging Window: 07:17 – 01:32 Transit: 09:52 61°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.49° • RA 22hr 58' 02", DEC 62° 35' 07"</p>
<p>NGC-7479 (PGC-70419) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Pegasus Coordinates: 23h 04' 58" 12° 18' 37"</p> <p>Close Star: SAO-127340 (Baham) Catalog Objects: NGC-7479 Imaging Window: 07:17 – 12:54 Transit: 10:00 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center; font-size: x-small;">NGC-7479 Constellation: Pegasus RA = 23h 04m 58.2s DEC = +12deg 18' 37.3" Size = 31.4 x 21.0 arcmin Orientation: 0.0 deg E of N Pixel scale = 0.446 arcsec/pixel FL=2000mm James Yoder Location: Maunakea Ground, (2020-10-16), Chandler, (2020-10-19), AZ Config: C-11 HD Bender Skyline OBY 126 Exposure Info: 1600ms/5min Gain: 3200 OBYSet: 180</p>
<p>Lobster Claw and Bubble Nebula (SH2-157) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cassiopeia Coordinates: 23h 18' 25.8" 60° 31' 17.8"</p> <p>Close Star: SAO-21133 (Caph) Catalog Objects: SH2-157, NGC-7635 Imaging Window: 07:17 – 01:56 Transit: 10:11 63°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center; font-size: x-small;">Lobster Claw and Bubble Nebula(NGC-7635) Constellation: Cassiopeia RA = 23h 18m 25.8s DEC = +60deg 31' 17.8" Size = 2.68 x 1.79 deg Orientation: 0deg E of N Pixel scale = 2.28 arcsec/pixel FL=540mm James Yoder Date(s) 2020-10-21 Location: Chandler, AZ Config: C-11 HD HyperStar V4 Astrocam: C11S4-CCD OBY 126 Exposure Info: 260ms/5min Gain: 3200 OBYSet: 180</p>



Prospective Imaging Objects – October 14 2023

<p>Lobster Claw (SH2-157) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cassiopeia Coordinates: 23h 16' 00" 59° 57' 32"</p> <p>Close Star: SAO-21133 (Caph) Catalog Objects: SH2-157 Imaging Window: 07:17 – 01:56 Transit: 10:11 63°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">FOV 1.05 x 0.70° - RA 23hr 16' 00", DEC 59° 57' 32"</p>
<p>Bubble Nebula (NGC-7635) Config: C11HD ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 23h 20' 12" 61° 11' 00"</p> <p>Close Star: SAO-21133 (Caph) Catalog Objects: NGC-7635, SH2-162 Imaging Window: 07:17 – 01:58 Transit: 10:15 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">Bubble Nebula (NGC-7635) Constellation: Cassiopeia</p>
<p>Pegasus Cluster (NGC-7619) Config: C11-HD FR ZWO6200MC </p> <p>Type: Cluster of Galaxies</p> <p>Constellation: Pegasus Coordinates: 23h 20' 13" 08° 11' 08"</p> <p>Close Star: SAO-128085 (g Piscium) Catalog Objects: NGC-7619 Imaging Window: 07:34 – 12:57 Transit: 10:15 65°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">FOV 1.05 x 0.70° - RA 23hr 20' 13", DEC 08° 11' 08"</p>

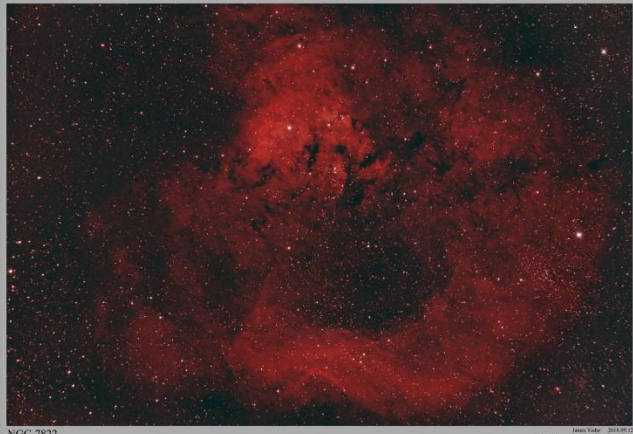
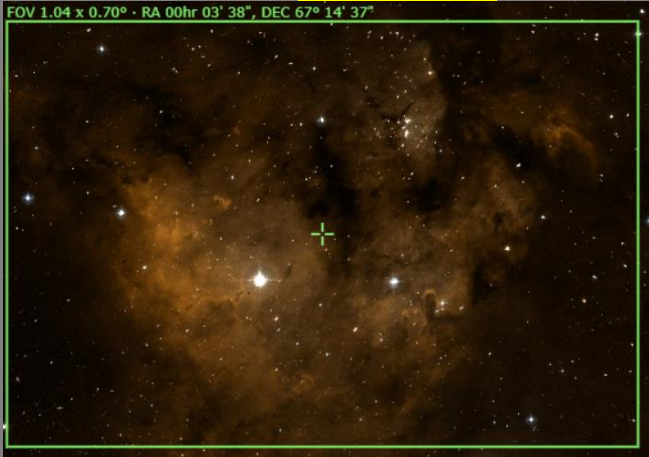
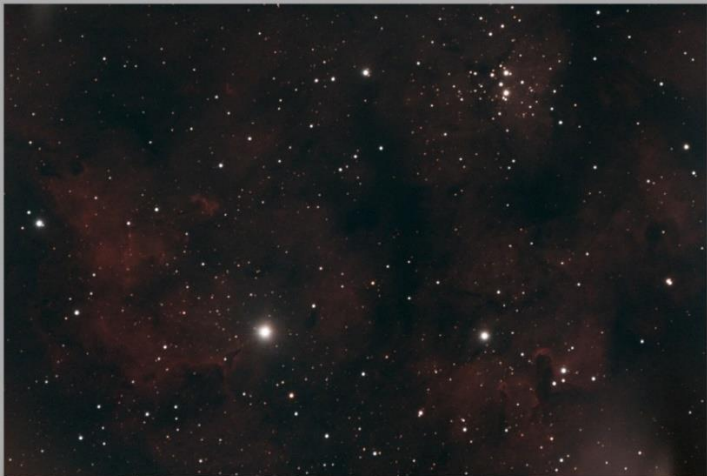
Prospective Imaging Objects – October 14 2023

<p>Pegasus Cluster (NGC-7619) Config: C11HD ZWO6200MC </p> <p>Type: Cluster of Galaxies</p> <p>Constellation: Pegasus Coordinates: 23h 20' 13" 08° 10' 57"</p> <p>Close Star: SAO-128085 (g Piscium) Catalog Objects: NGC-7619 Imaging Window: 07:34 – 12:57 Transit: 10:15 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.73 x 0.49° · RA 23hr 20' 13", DEC 08° 10' 57"</p>
<p>M-52 (NGC-7654) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Cassiopeia Coordinates: 23h 24' 48" 61° 36' 00"</p> <p>Close Star: SAO-21133 (Caph) Catalog Objects: M-52 Imaging Window: 07:17 – 02:02 Transit: 10:20 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.73 x 0.49° · RA 23hr 24' 48", DEC 61° 36' 00"</p>
<p>Blue Match Nebula (SH2-155) Config: C11-HD HS ZWO6200MC</p> <p>Type: Reflection Nebula</p> <p>Constellation: Andromeda Coordinates: 23h 39' 24" 48° 51' 37" Nearby: NGC-7686 Close Star: SAO-73765 (Alpheratz) Catalog Objects: VdB 158/ LBN 534 Imaging Window: 07:17 – 02:15 Transit: 10:25 81°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">FOV 3.81 x 2.54° · RA 23hr 39' 35", DEC 48° 54' 43"</p>


Prospective Imaging Objects – October 14 2023

<p>Caroline's Rose (NGC-7789) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Cassiopeia Coordinates: 23h 57' 37" 56° 42' 21"</p> <p>Close Star: SAO-21607 (Shedar) Catalog Objects: NGC-7789 Imaging Window: 07:17 – 02:41 Transit: 10:52 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-7822 (Ced-214) Config: C11-HD HS ZWO6200MC</p> <p>Type: Emission Nebula Constellation: Cepheus</p> <p>Coordinates: Frame 01 RA: 00hr 03' 42" DEC: 67° 41' 45" Frame 02 RA: 00hr 03' 42" DEC: 65° 35' 15"</p> <p>Close Star: SAO-10818 Catalog Objects: Ced 214, NGC 7822, SH2-171</p> <p>Imaging Window: 07:32 – 02:22 Transit: 10:57 56°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p> 



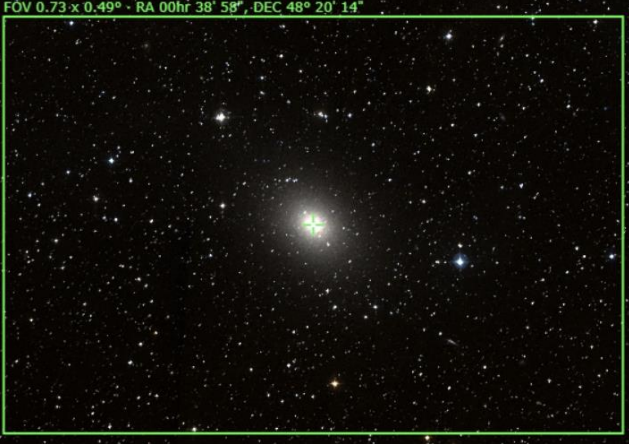
Prospective Imaging Objects – October 14 2023

<p>NGC-7822 (CED-214) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cepheus Coordinates: 00h 01' 27" 67° 28' 37"</p> <p>Close Star: SAO-20268 Catalog Objects: NGC-7822/CED-214 Imaging Window: 07:32 – 02:22 Transit: 10:57 56°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">NGC-7822 Constellation: Cepheus</p> <p style="font-size: x-small; text-align: right;">Image Name: 2023_08_12 Location: Chandler AZ Config: C-11 HD HyperStar v4 C11HD Exposure Info: 23 Exposures Gain: 1300 Offset: 170</p>
<p>NGC-7822 (CED-214) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cepheus Coordinates: 00h 03' 38" 67° 14' 37"</p> <p>Close Star: SAO-20268 Catalog Objects: NGC-7822/CED-214 Imaging Window: 07:32 – 02:22 Transit: 10:57 56°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: x-small; color: green;">FOV 1.04 x 0.70° - RA 00hr 03' 38", DEC 67° 14' 37"</p>
<p>NGC-7822 (CED-214) Config: C11HD ZWO6200MC </p> <p>Type: Emission Nebula Constellation: Cepheus Coordinates: 00h 01' 56" 67° 23' 05"</p> <p>Close Star: SAO-10818 Catalog Objects: Ced 214, NGC 7822, SH2-171 Imaging Window: 07:32 – 02:22 Transit: 10:57 56°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">Bright Nebula NGC-7822 (Ced 214) Constellation: Cepheus RA = 00h 01m 41.300s DEC = +67deg 23' 05.100" Size = 42.8 x 28.9 arcmin. Pixel scale = 0.845"/pixel</p> <p style="font-size: x-small; text-align: right;">Image Name: 2023_08_14 Location: Chandler AZ Config: C-11 HD Astromaster CS 8x4.2 ZWO6200MC Exposure Info: 23 Exposures Gain: 1200 Offset: 180</p>


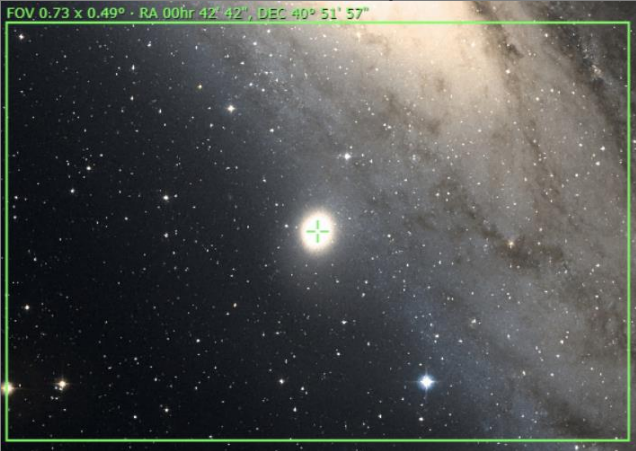
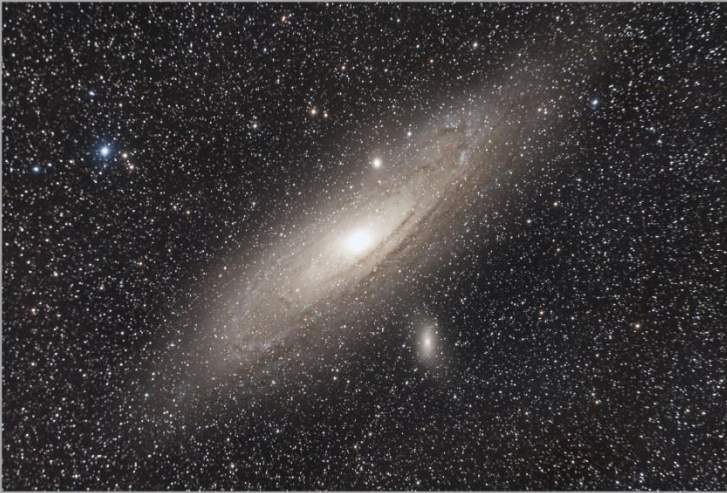
Prospective Imaging Objects – October 14 2023

<p>Bow-Tie Nebula (NGC-40) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cepheus Coordinates: 00h 13' 01" 72° 31' 21"</p> <p>Close Star: SAO-20268 Catalog Objects: NGC-40 Imaging Window: 08:16 – 02:00 Transit: 11:08 51°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Andromeda Galaxy Group Config: C11HD ZWO6200MC </p> <p>Type: Cluster of dim galaxies Peak:</p> <p>Constellation: Andromeda Coordinates: 00h 17' 58" 30° 03' 03"</p> <p>Close Star: SAO-73765 (Alpheratz) Catalog Objects: NGC 67-72 et. El.</p> <p>Imaging Window: 07:40 – 02:46 Transit: 11:13 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-147 & NGC-185 Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Pair</p> <p>Constellation: Cassiopeia Coordinates: 00h 36' 22" 48° 26' 42"</p> <p>Close Star: SAO-21609 (Shedar) Catalog Objects: NGC-147, NGC-185 Imaging Window: 07:38 – 03:18 Transit: 11:28 75°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 

Prospective Imaging Objects – October 14 2023

<p>NGC-147 & NGC-185 Config: C11-HD FR ZWO6200MC</p> <p>Type: Galaxy Pair</p> <p>Constellation: Cassiopeia Coordinates: Frame 01 RA: 00hr 38' 33" DEC: 48° 25' 44" Frame 02 RA: 00hr 33' 21" DEC: 48° 25' 44"</p> <p>Close Star: SAO-21609 (Shedar) Catalog Objects: NGC-147, NGC-185 Imaging Window: 07:38 – 03:18 Transit: 11:28 75°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p>  <p style="font-size: small; text-align: center;">Dwarf Galaxies NGC-185, NGC-147 Constellation: Cassiopeia RA = 00h 33m 29s DEC = 48° 25' 44.10" Size = 12.1 x 9.2 arcmin (Observed: 0.843deg E-W; Pixel scale = 0.97 arcsec/pixel) Date: 2023-08-07 Location: Andover Crossroads, Andover, MA Config: C11-1.1 Focal Reducer Filter: None Filter: None Exposure: 1000 x 1000 x 1000 (3000 x 3000) Gain: 2000 (DN/ADU) Filter: None</p>
<p>NGC-147 Config: ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cassiopeia Coordinates: 00h 33' 07.245" 48° 30' 18.030"</p> <p>Close Star: SAO-37375 Catalog Objects: NGC-147</p> <p>Imaging Window: 07:38 – 03:18 Transit: 11:28 75°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small; text-align: center;">Dwarf Galaxy NGC-147 Constellation: Cassiopeia RA = 00h 33m 07.245s DEC = 48° 30' 18.030" Size = 49.7 x 33.5 arcmin (Pixel scale = 0.579 arcsec/pixel) Date: 2023-08-07 Location: Andover Crossroads, Andover, MA Config: C11-1.1 Filter: None Filter: None Exposure: 1000 x 1000 x 1000 (3000 x 3000) Gain: 2000 (DN/ADU) Filter: None</p>
<p>NGC-185 Config: C11-HD ZWO6200MC</p> <p>Type: Dwarf Spheroidal Galaxy</p> <p>Constellation: Cassiopeia Coordinates: 00h 38' 58" 48° 20' 14"</p> <p>Close Star: SAO-21609 (Shedar) Catalog Objects: NGC-147 Imaging Window: 09:32 – 04:48 Transit: 01:22 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> <p style="text-align: center; color: green;">FOV 0.73 x 0.49° - RA 00hr 38' 58", DEC 48° 20' 14"</p>  <p style="font-size: small; text-align: center;">Dwarf Galaxy NGC-185 Constellation: Cassiopeia RA = 00h 38m 58.00s DEC = 48° 20' 14.00" Size = 49.7 x 33.5 arcmin (Pixel scale = 0.579 arcsec/pixel) Date: 2023-08-07 Location: Andover Crossroads, Andover, MA Config: C11-1.1 Filter: None Filter: None Exposure: 1000 x 1000 x 1000 (3000 x 3000) Gain: 2000 (DN/ADU) Filter: None</p>




Prospective Imaging Objects – October 14 2023

<p>M-110 Config: C11-HD ZWO6200MC</p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Andromeda Coordinates: 00h 40' 22" 41° 41' 07"</p> <p>Close Star: SAO-73765 (Sirrah) Catalog Objects: M-110 Imaging Window: 07:49 – 03:22 Transit: 11:35 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-110 (NGC-205) Constellation: Andromeda RA = 00h 40m 21.0s, DEC = +41d 41' 07.0" (Star = +41.2 27.7 arcsec / Orientation: N, Mag. of N: (Pixel scale = 0.446 arcsec/pixel) / F/5.762x)</p>
<p>M-32 Config: C11-HD ZWO6200MC</p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Andromeda Coordinates: 00h 42' 42" 40° 51' 57"</p> <p>Close Star: SAO-73765 (Sirrah) Catalog Objects: M-32 Imaging Window: 07:52 – 03:22 Transit: 11:37 83°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">FOV 0.73 x 0.49° - RA 00hr 42m 42s, DEC 40d 51m 57s</p>
<p>Andromeda Galaxy (M 31) Config: C11 HS ZWO6200MCc </p> <p>Type: Galaxy Peak: Oct 1 Constellation: Andromeda Coordinates: 00h 43' 03.089" 41° 18' 37.05"</p> <p>Close Star: SAO-54281 Catalog Objects: M-31, M-32, M-110, NGC-224, NGC-206</p> <p>Imaging Window: 07:51 – 03:24 Transit: 11:37 82°</p>	<p style="text-align: center;">Hyperstar</p>  <p style="font-size: small;">The Great Andromeda Galaxy (M-31 & M32) Constellation: Andromeda</p>

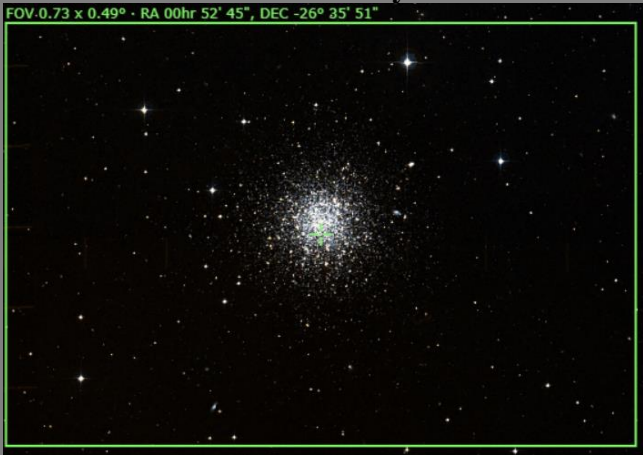


Prospective Imaging Objects – October 14 2023

<p>M-31, M-32 Config: C11-HD HS ZWO6200MC</p> <p>Type: Andromeda Galaxy</p> <p>Constellation: Andromeda Coordinates: 00h 42' 44" 41° 16' 08" Angle: 133° East</p> <p>Close Star: SAO-73765 (Sirrah) Catalog Objects: M-31, M-32 Imaging Window: 07:51 – 03:24 Transit: 11:37 82°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>NGC246, NGC255, PGC 2689 Config: C11-HD HS ZWO6200MC</p> <p>Type: Planetary Nebula, 2 Galaxies</p> <p>Constellation: Cetus Coordinates: 00h 47' 00" -11° 40' 40"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-246 Imaging Window: *08:57 – 02:23 Transit: 11:42 45°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Skull Nebula (NGC-246) Config: C11-HD ZWO6200MC</p> <p>Type: Planetary Nebula</p> <p>Constellation: Cetus Coordinates: 00h 47' 03" -11° 52' 17"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-246 Imaging Window: *08:57 – 02:23 Transit: 11:42 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

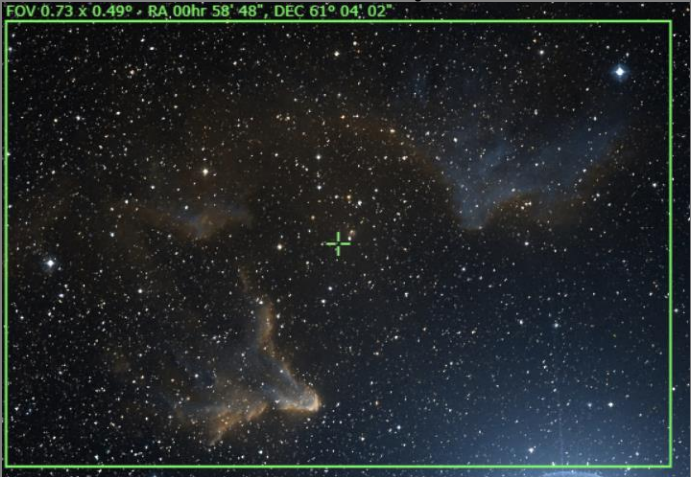
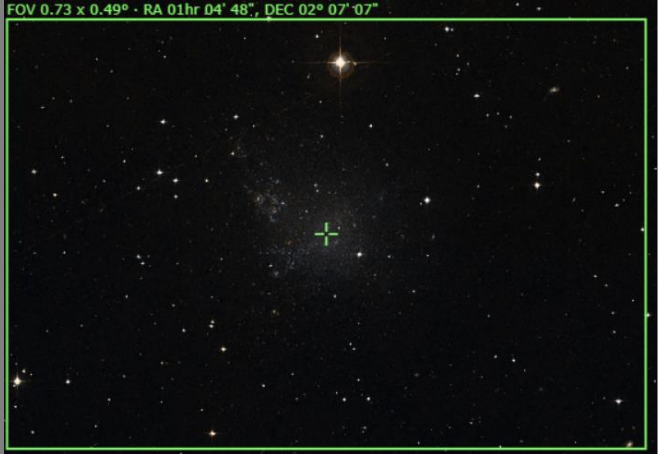
Prospective Imaging Objects – October 14 2023

<p>Needle's Eye Galaxy (NGC 247) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 00hr 47' 12" -20° 44' 38"</p> <p>Close Star: SAO-147420 Catalog Objects: NGC 247</p> <p>Imaging Window: *09:08 – 02:12 Transit: 11:42 36°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Needle's Eye Galaxy (NGC-247) Constellation: Cetus RA = 00h 47m 12s, DEC = -20deg 44' 38" Size = 41 x 3.757 pixels Orientation: 6.65deg E of N Pixel scale = 0.448 arcsec/pixel FL = 2000mm</small></p> <p><small>James Yoder Date: 2023-08-11 2023-08-12 Location: Chandler, AZ Config: C-11 HD Shade Baglow QHY128K Exposure Info: 1000ms/Frame Gain: 3200 Offset: 180</small></p>
<p>NGC-288, NGC-253 Config: C11-HD HS ZWO6200MC</p> <p>Type: Globular and Galaxy</p> <p>Constellation: Sculptor Coordinates: 00h 50' 03" -25° 54' 37"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-288, NGC-253 Imaging Window: *10:03 – 01:28 Transit: 11:48 31°</p>	<p>C-11 HD: HyperStar v4</p>  <p><small>Sculptor galaxy (NGC-253) and Globular Cluster (NGC-288) Constellation: Sculptor RA = 00h 50m 03s, DEC = -25deg 54' 37" Size = 3.14 x 2.09 deg Orientation: 0deg E of N Pixel scale = 3.228 arcsec/pixel FL = 540mm</small></p> <p><small>James Yoder Date: 2023-12-14 Location: Maricopa General Trailhead, AZ Config: C-11HD HyperStar V4 Shade Baglow QHY128K Exposure Info: 210ms/Frame Gain: 3200 Offset: 180</small></p>
<p>Sculptor Galaxy (NGC-253) Config: C11-HD ZWO6200MC</p> <p>Type: Spiral Galaxy</p> <p>Constellation: Sculptor Coordinates: 00h 47' 33" -25° 17' 15"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-253 Imaging Window: *09:41 – 01:39 Transit: 11:42 30°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Sculptor Galaxy (NGC 253) Constellation: Sculptor</small></p> <p><small>James Yoder Date: 2023-08-21 Location: Chandler, AZ Config: C11 Starizona L.F. Corrector Shade Moon Filter QHY128K Exposure Info: 1000ms/Frame Gain: 3200 Offset: 180</small></p>




Prospective Imaging Objects – October 14 2023

<p>NGC-288 Config: C11-HD ZWO6200MC</p> <p>Type: Globular Cluster</p> <p>Constellation: Sculptor Coordinates: 00h 52' 45" -26° 35' 51"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-288 Imaging Window: *10:03 – 01:28 Transit: 11:48 31°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p>FOV: 0.73 x 0.49° · RA 00hr 52' 45", DEC -26° 35' 51"</p>
<p>NGC-188 Config: C11-HD FR ZWO6200MC</p> <p>Type: Open Cluster</p> <p>Constellation: Cepheus Coordinates: 00h 47' 30" 85° 15' 30"</p> <p>Close Star: SAO-308 (Polaris) Catalog Objects: NGC-188 Imaging Window: *07:28 – 03:52 Transit: 11:42 38°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p>FOV 1.04 x 0.70° · RA 00hr 47' 30", DEC 85° 15' 30"</p>
<p>NGC-281 Config: C11-HD FR ZWO6200MC</p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cassiopeia Coordinates: 00h 53' 00" 56° 37' 00"</p> <p>Close Star: SAO-11482 (Navi) Catalog Objects: NGC-281 Imaging Window: 08:09 – 03:35 Transit: 11:52 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p>NGC-281 Pacman Nebula</p> <p>James Yoder 2015-09-11</p>

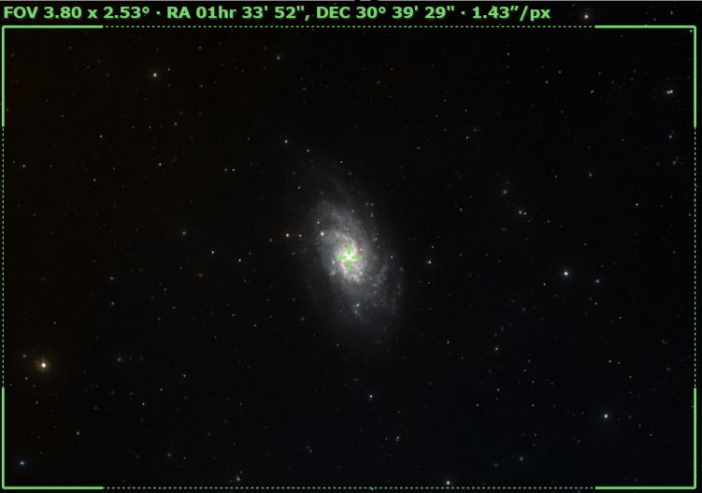


Prospective Imaging Objects – October 14 2023

<p>IC-59, IC-63 Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cassiopeia Coordinates: 01h 03' 11" 60° 42' 24"</p> <p>Close Star: SAO-11482 (Navi) Catalog Objects: IC-59, IC-63 Imaging Window: 08:09 – 03:35 Transit: 11:52 62°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>IC-59, IC-63 Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cassiopeia Coordinates: 00h 58' 48" 61° 04' 02"</p> <p>Close Star: SAO-11482 (Navi) Catalog Objects: IC-59, IC-63 Imaging Window: 08:09 – 03:35 Transit: 11:52 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>IC-1613 Config: C11-HD ZWO6200MC</p> <p>Type: Irregular Dwarf Galaxy</p> <p>Constellation: Cetus Coordinates: 01h 04' 48" 02° 07' 07"</p> <p>Close Star: SAO-75151 (Hamal) Catalog Objects: IC-1613 Imaging Window: 09:45 – 02:18 Transit: 12:00 59°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<p>Minkowski's Object (Arp-133) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Cluster Constellation: Cetus Coordinates: 01h 25' 27" -01° 29' 03"</p> <p>Close Star: SAO-75151 (Hamal) Catalog Objects: ARP-133 Imaging Window: 10:19 – 02:22 Transit: 12:20 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Firefox Nebula (Sh 2-188) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Cassiopeia Coordinates: 01h 31' 37" 58° 21' 22"</p> <p>Close Star: SAO-22268 (Ruchbah) Catalog Objects: Sh 2-188</p> <p>Imaging Window: 08:38 – 04:12 Transit: 12:25 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-103 (NGC-581) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Cassiopeia Coordinates: 01h 33' 31" 60° 39' 44"</p> <p>Close Star: ISO-22268 (Ruchbah) Catalog Objects: M-103/NGC-581</p> <p>Imaging Window: 08:44 – 04:12 Transit: 12:28 63°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<p>Triangulum Galaxy (M-33) Config: C11 HS ZWO6200MC</p> <p>Type: Galaxy Constellation: Triangulum Coordinates: 01h 33' 52" 30° 39' 29"</p> <p>Close Star: SAO-74996 Catalog Objects: M33, NGC598</p> <p>Imaging Window: 08:55 – 04:02 Transit: 12:28 87°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Triangulum Galaxy (M-33) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy Peak: Oct 14 Constellation: Triangulum</p> <p>Camera Rotation - 90°</p> <p>Coordinates: 01h 33' 52" 30° 39' 29"</p> <p>Close Star: SAO-74996 Catalog Objects: M33, NGC598</p> <p>Imaging Window: 08:55 – 04:02 Transit: 12:28 87°</p>	<p style="text-align: center;">CH11-HD Focal Reducer 90° Rotation</p> 
<p>Triangulum Galaxy (M-33) Config: ZWO6200MC </p> <p>Type: Galaxy Peak: Oct 14 Constellation: Triangulum Coordinates: 01° 34' 53.37" 30° 45' 11.2"</p> <p>Close Star: SAO-74996 Catalog Objects: M33, NGC598</p> <p>Imaging Window: 08:55 – 04:02 Transit: 12:28 87°</p>	<p style="text-align: center;">Primary Focus</p> 

Prospective Imaging Objects – October 14 2023

<p>M-74 Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy Peak: Constellation: Pisces Coordinates: 01h 36' 42" 15° 46' 60"</p> <p>Close Star: ISO-91781 (Algenib) Catalog Objects: M-74</p> <p>Imaging Window: 09:27 – 03:35 Transit: 12:31 72°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Spiral Galaxy M-74 (NGC-628) Constellation: Pisces RA = 01h 36m 42.52s DEC = +15deg 46' 59.83" Size = 42.7 x 28.3 arcmin. Pixel scale = 0.441 arcsec/pixel</small></p> <p><small>James Voigt Location: Massacre Grounds, Tisbury, AZ Config: C-11 HD ZWO6200MC Exposure Info: 480img@5min (Gain: 3200) (Offset: 180)</small></p>
<p>Little Dumbbell Nebula (M-76) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Perseus Coordinates: 01h 42' 18" 51° 34' 17"</p> <p>Close Star: ISO-37375 Catalog Objects: M-76</p> <p>Imaging Window: 08:46 – 04:27 Transit: 12:37 72°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Little Dumbbell Nebula (M-76, NGC-650) Constellation: Perseus RA = 01h 42m 15.3s DEC = +51deg 34' 17.5" Size = 36.8 x 24.5 arcmin. Orientation: 0.4deg E of N Pixel scale = 0.446 arcsec/pixel FL=200mm</small></p> <p><small>James Voigt Location: Massacre Grounds, 2020, 00, 143, Chandler, 2020, 09, 09, AZ Config: C-11 HD ZWO6200MC Exposure Info: 480img@5min (Gain: 3200) (Offset: 180)</small></p>
<p>Nautilus Galaxy (NGC-772) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Aries Coordinates: 01h 59' 19" 19° 00' 27"</p> <p>Close Star: ISO-75012 (Sheratan) Catalog Objects: NGC-772</p> <p>Imaging Window: 09:42 – 04:05 Transit: 12:54 76°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Nautilus Galaxy (NGC-772) Constellation: Aries RA = 01h 59m 19.1s DEC = +19deg 00' 27.1" Size = 36.8 x 24.5 arcmin. Orientation: 0.4deg E of N Pixel scale = 0.446 arcsec/pixel FL=200mm</small></p> <p><small>James Voigt Location: Massacre Grounds, 2020, 09, 09, Chandler, 2020, 09, 09, AZ Config: C-11 HD ZWO6200MC Exposure Info: 480img@5min (Gain: 3200) (Offset: 180)</small></p>

Prospective Imaging Objects – October 14 2023

<p>Hand chi Persei (NGC 869, 884) Config: C11-HD HS ZWO6200MC</p> <p>Type: Double Open Cluster Peak: October 28 Constellation: Perseus Coordinates: 02hr 20' 31" 56° 54' 05"</p> <p>Close Star: SAO-22258 (Ruchbah) Catalog Objects: NGC 869, 884</p> <p>Imaging Window: 09:29 – 05:04 Transit: 01:17 66°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Edge On Galaxy (NGC 891) Config: C1 LF ZWO6200MC </p> <p>Type: Galaxy Peak: Oct 27 Constellation: Andromeda Coordinates: 02h 23' 43.29" 42° 25' 46.4"</p> <p>Close Star: SAO-37734 Catalog Objects: NGC891</p> <p>Imaging Window: 09:30 – 05:04 Transit: 01:17 81°</p>	<p style="text-align: center;">Primary Focus</p>  <p><small>Edge On Spiral Galaxy NGC 891</small></p>
<p>NGC-925 (PGC 9332) Config: C11-HD ZWO6200MC </p> <p>Type: Galaxy Constellation: Triangulum Coordinates: 02h 27' 17" 33° 34' 44"</p> <p>Close Star: SAO-55306 (Beta Trianguli) Catalog Objects: NGC925/PGC9332</p> <p>Imaging Window: 09:44 – 05:00 Transit: 01:22 90°</p>	<p style="text-align: center;">Primary Focus</p>  <p><small>NGC-925 Primary Focus Galaxy in Triangulum</small></p>

Prospective Imaging Objects – October 14 2023

Fish Head Nebula (IC-1795)

Config: |C11-HD|FR|ZWO6200MC|

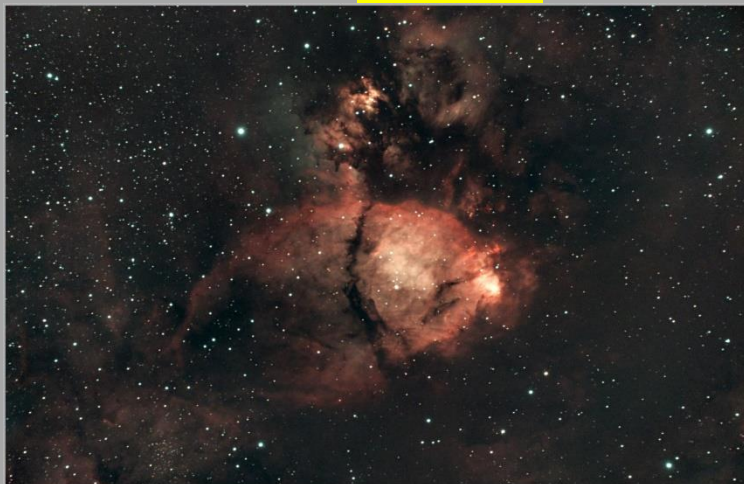
Type: **Bright Nebula**
Constellation: **Cassiopeia**

Coordinates:
02h 27' 03"
62° 02' 31"

Close Star: **SAO-38787** (Mirfak)
Catalog Objects: [IC-1795](#)

Imaging Window: **09:39 – 05:02**
Transit: **01:20 | 87°**

CH11-HD **Focal Reducer**



Fish Head Nebula (IC-1795)
Constellation: Cassiopeia
SAO-38787 (Mirfak) - RA: 02h 27m 03s - DEC: 62° 02' 31" - Magnitude: 4.5 - Distance: 1000 light years - IC-1795

Heart and Soul Nebulas

Config: C11 | HS | ZWO6200MC

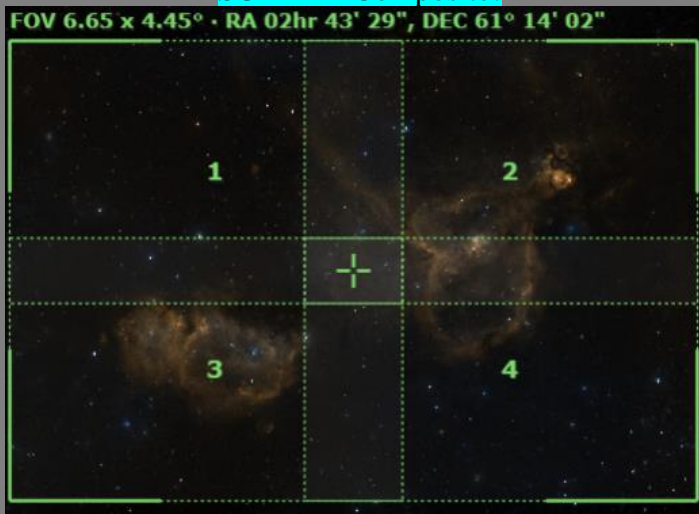
Type: **Diffuse Nebula**

Constellation: **Cassiopeia**
Coordinates (RA, DEC):
Pane 1: **02hr 55' 41"**, **62° 09' 11"**
Pane 2: **02hr 31' 16"**, **62° 09' 11"**
Pane 3: **02hr 54' 58"**, **60° 15' 00"**
Pane 4: **02hr 31' 59"**, **60° 15' 00"**

Close Star: **SAO-38787** (Mirfak)
Catalog Objects: [IC-1848](#)

Imaging Window: **10:02 – 05:30**
Transit: **01:46 | 63°**

C-11 HD: HyperStar v4
SUPER-4 Composite!



Heart Nebula (IC 1805)

Config: C11-HD | HS | ZWO6200MC

Type: **Diffuse Nebula**
Peak: **October 31**
Constellation: **Cassiopeia**
Coordinates:
02hr 31' 16"
61° 21' 36"

Close Star: SAO-12031
Catalog Objects: [IC 1805](#)


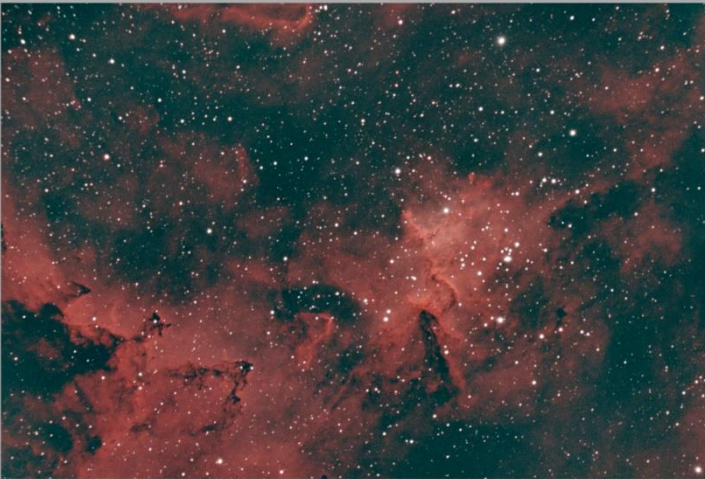

Imaging Window: **09:45 – 05:10**
Transit: **01:27 | 63°**

C-11 HD: HyperStar v4



Heart Nebula (IC 1805)
Constellation: Cassiopeia
James Yoder - 2019.09.20
Location: Chandler, AZ
Config: |C11|HyperStar|Astronomik|C13-C-CD|QHY128K|
Exposure Info: 25Frames/Sum (Gain: 3000 | Offset: 180)




Prospective Imaging Objects – October 14 2023

<p>Heart Nebula (IC 1805) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Constellation: Cassiopeia Coordinates: 02hr 26' 36" 62° 06' 53"</p> <p>Close Star: SAO-12031 Catalog Objects: IC 1805</p> <p>Imaging Window: 09:45 – 05:10 Transit: 01:27 63°</p>	<p style="text-align: center;">CH11-HD Focal Reducer</p>  <p style="font-size: small;">Heart Nebula core (IC-1805) Constellation: Cassiopeia RA = 02h 26m 36.50s DEC = +62deg 06' 53.00" Date = 2023-08-08 21:44:44.646666 Pixel scale = 0.927 arc/pixel James Webb 2023-08-08 Location: Chandler, AZ Config: C11-HD 0.7 Reducer Astromaster CLS-CCD ORV128C Exposure Info: 300img/5min Gain: 3000 Offset: 100</p>
<p>Heart Nebula (IC-1805) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: October 31 Constellation: Cassiopeia Coordinates: 02hr 32' 42" 61° 27' 00"</p> <p>Close Star: SAO-12031 Catalog Objects: IC 1805</p> <p>Imaging Window: 09:45 – 05:10 Transit: 01:27 63°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Heart Nebula Core (IC-1805) Constellation: Cassiopeia James Webb 2023-08-14 Config: C1 Starline LF Reducer OPT Trail Filter ORV128C Exposure Info: 200img/5min Gain: 3100 Offset: 170</p>
<p>M-77, NGC 1055 Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 02hr 42' 14" 00° 14' 28" Angle: 90°</p> <p>Close Star: SAO-110665 Catalog Objects: M-77, NGC-1055, NGC-1068</p> <p>Imaging Window: 11:26 – 03:47 Transit: 01:36 57°</p>	<p style="text-align: center;">CH11-HD Focal Reducer</p>  <p style="font-size: small;">Galaxies NGC-1055, M-77, NGC-1072 Constellation: Cetus RA = 02h 42m 21.5s DEC = +00deg 14' 13.5" Size = 55.2 x 39.3 arcmin Orientation: -90. Mag E of N Pixel scale = 0.579 arcsec/pixel FL=1456mm James Webb 2023-08-20 22:26:21.22 Location: Chandler, AZ Config: C11-HD 0.7 Reducer Filters: Baader Skyglow, CLS-CCD, IDAS LPS-42 Camera: ORV128C Exposure Info: 340img/5min Gain: 3200 Offset: 100</p>

Prospective Imaging Objects – October 14 2023

<p>NGC-1055 Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 02hr 41' 50" 00° 29' 48"</p> <p>Close Star: SAO-110665 Catalog Objects: NGC-1055</p> <p>Imaging Window: 11:26 – 03:47 Transit: 01:36 57°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M 77 (NGC 1068) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 02hr 42' 34" 00° 02' 07"</p> <p>Close Star: SAO-110665 Catalog Objects: M 77, NGC-1068</p> <p>Imaging Window: 11:39 – 03:45 Transit: 01:37 57°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-34 (NGC-1039) Config: C11-HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Perseus Coordinates: 02h 42' 05" 42° 45' 42"</p> <p>Close Star: SAO-38592 (Algol) Catalog Objects: M-34/NGC-1039</p> <p>Imaging Window: 09:49 – 05:24 Transit: 01:37 81°</p>	<p style="text-align: center;">Primary Focus</p> 

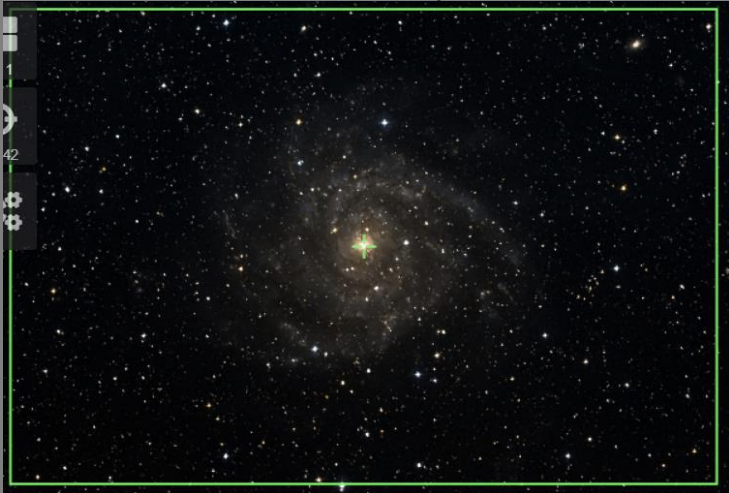


Prospective Imaging Objects – October 14 2023

<p>Soul Nebula (IC-1848) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Peak: Constellation: Cassiopeia Coordinates: 02hr 57' 16" 60° 37' 37"</p> <p>Close Star: SAO-38787 (Mirfak) Catalog Objects: IC 1848</p> <p>Imaging Window: 10:02 – 05:30 Transit: 01:46 63°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Soul Nebula (IC-1848) Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;">Juno Yule - 2018-08-20 Location: Chandler, AZ Config: C11 HyperStar Apm2000 LRGB 1200x1280 Exposure Info: 240mins@5min (Gain: 3200) OffSet: 180 </p>
<p>Soul Nebula (IC-1848) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Cassiopeia Coordinates: 02hr 57' 16" 60° 37' 37"</p> <p>Close Star: SAO-38787 (Mirfak) Catalog Objects: IC 1848</p> <p>Imaging Window: 10:02 – 05:30 Transit: 01:46 63°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Soul Nebula (IC-1848) Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;">Juno Yule - 2018-12-09 Location: Chandler, AZ Config: C11 Stronova LF Redox TRAC Blue QHY128C Exposure Info: 270min@5min Gain: 300 Offset: 180 </p>
<p>Perseus Galaxy Cluster Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster Peak: Constellation: Perseus Coordinates: 03hr 19' 58" 41° 29' 13"</p> <p>Close Star: SAO-38592 (Algol) Catalog Objects: Abell-426, NGC1275, 1278, 1272, Et. Et.</p> <p>Imaging Window: 10:28 – 05:37 Transit: 02:14 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<p>NGC-1333 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: November 13 Constellation: Perseus Coordinates: 03hr 29' 15" 31° 20' 12"</p> <p>Close Star: SAO-56799 Catalog Objects: NGC 1333</p> <p>Imaging Window: 10:49 – 05:37 Transit: 02:23 88°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Robins Egg Nebula (NGC-1360) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Fornax Coordinates: 03hr 33' 15" -25° 52' 16"</p> <p>Close Star: SAO-168460 Catalog Objects: NCC-1360</p> <p>Imaging Window: *02:33 – 04:14 Transit: 02:28 31°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>IC-348 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Perseus Coordinates: 03hr 44' 26" 32° 10' 54"</p> <p>Close Star: SAO-147420 Catalog Objects: IC-348</p> <p>Imaging Window: 11:03 – 05:37 Transit: 02:39 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


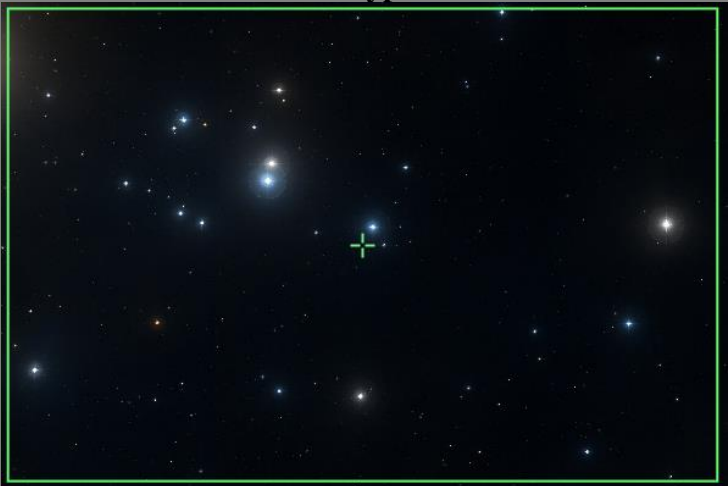
Prospective Imaging Objects – October 14 2023

<p>IC-342 Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy Peak: Constellation: Camelopardalis Coordinates: 03hr 46' 48" 68° 05' 44"</p> <p>Close Star: SAO-12031 (Segin) Catalog Objects: IC-342</p> <p>Imaging Window: 11:19 – 05:37 Transit: 02:41 55°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Pleiades (M 45) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula Peak: November 16 Constellation: Taurus Coordinates: 03hr 46' 07" 24° 11' 18"</p> <p>Close Star: SAO-56799 Catalog Objects: M45</p> <p>Imaging Window: 11:19 – 05:37 Transit: 02:41 81°</p>	<p>C-11 HD: HyperStar v4</p>  <p><small>The Pleiades (M-45) Constellation: Taurus</small></p> <p><small>James Yoder 2019-10-10 Location: Mountain View, CA Config: C11 HyperStar (QHY12K) Exposure Info: 200img/Star (Gain: 3100) (Offset: 170)</small></p>
<p>Pleiades (M-45) Config: C1 LF ZWO6200MC </p> <p>Type: Bright Nebula Peak: November 16 Constellation: Taurus Coordinates: 03hr 46' 15.932" 24° 12' 07.154"</p> <p>Close Star: SAO-56799 Catalog Objects: M45</p> <p>Imaging Window: 11:19 – 05:37 Transit: 02:41 81°</p>	<p>Primary Focus</p>  <p><small>The Pleiades (M-45) Constellation: Taurus</small></p> <p><small>James Yoder 2019-09-27 Location: Mountain View, CA Config: C11 LF Coronado Starwave (QHY12K) Exposure Info: 200img/Star (Gain: 3200) (Offset: 180)</small></p>


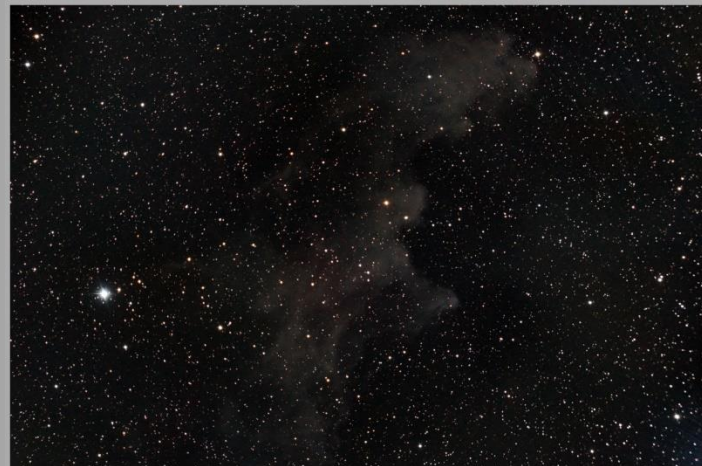

Prospective Imaging Objects – October 14 2023

<p>California Nebula (NGC 1499) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Peak: November 22 Constellation: Perseus Coordinates: 04hr 01' 22" 36° 21' 19"</p> <p>Close Star: SAO-56840 Catalog Objects: NGC 1499</p> <p>Imaging Window: 11:16 – 05:37 Transit: 02:57 87°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">California Nebula (NGC-1499) Constellation: Perseus</p> <p style="font-size: x-small; text-align: right;">James Voder 2019.08.31 Location: Chandler, AZ Config: C11 HyperStar Astronomik U.S.A.-CCD C11-12k Exposure Info: 223img/5min Gain: 3200 Offset: 180</p>
<p>Oyster Nebula (NGC 1501) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Camelopardalis Coordinates: 04hr 06' 58" 60° 55' 3.5"</p> <p>Close Star: SAO-038787 (Mirfak) Catalog Objects: NGC-1501</p> <p>Imaging Window: 11:18 – 05:37 Transit: 03:01 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">NGC-1501 (Oyster Nebula) Constellation: Camelopardalis RA = 04h 06m 58.2s DEC = +60deg 55' 03.5" Size = 18.5 x 13.9 arcmin Orientation = 0.5deg E of N Pixel scale = 0.277 arcsec/pixel FL = 2800mm</p> <p style="font-size: x-small; text-align: right;">James Voder Dainis 2021.12.19 Location: Chandler, AZ Config: C-11 HD GPT Triad Radon Ultra ZWO 6200MC Exposure Info: 12.7img/2min Gain: 100 Offset: 50</p>
<p>Crystal Ball Nebula (NGC 1514) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Taurus Coordinates: 04hr 09' 17" 30° 46' 35"</p> <p>Close Star: SAO-56799 Catalog Objects: NGC-1514</p> <p>Imaging Window: 11:30 – 05:37 Transit: 03:03 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">NGC-1514 (Crystal Ball Nebula) Constellation: Taurus RA = 04h 09m 17.6s DEC = +30deg 46' 36.0" Size = 18.5 x 13.9 arcmin Orientation = 0.5deg E of N Pixel scale = 0.278 arcsec/pixel FL = 2800mm</p> <p style="font-size: x-small; text-align: right;">James Voder Dainis 2020.12.09 Location: Chandler, AZ Config: C-11 HD GPT Triad Ultra ZWO 6200MC Exposure Info: 44.8img/2min Gain: 100 Offset: 50</p>



Prospective Imaging Objects – October 14 2023

<p>Cleopatra's Eye (NGC 1535) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Eridanus Coordinates: 04hr 14' 16" -12° 44' 20"</p> <p>Close Star: SAO-131907 (Rigel) Catalog Objects: NGC-1535</p> <p>Imaging Window: *12:27 – 05:37 Transit: 03:08 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Planetary Nebula NGC-1535 (Cleopatra's Eye) Date/Time: 2023-08-08 00:22:59 (Location: Abisko, AC) Constellation: Eridanus Config: C-11 HD (Foc: 1800) (ZWO6200MC) RA=04:14:16.15 DEC=-12:44:20.0 Size=22.4x15.1 Distance:0.049 C/N:174 Scale=0.378 exposure:1.0 E=2000mm Exposure:Info:exposure:330 exposure:Gain:100 Offset:50</p>
<p>Hind's Variable Nebula (NGC 1555) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Taurus Coordinates: 04hr 21' 54" 19° 32' 00"</p> <p>Close Star: SAO-94027 (Aldebaran) Catalog Objects: NGC-1555</p> <p>Imaging Window: 12:03 – 05:37 Transit: 03:16 76°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> <p style="text-align: center; color: green;">FOV 0.73 x 0.48° · RA 04hr 21' 54", DEC 19° 32' 00"</p> 
<p>Hyades (C 41, Mel 25) Config: C11-HD HS ZWO6200MC</p> <p>Type: Open Cluster Constellation: Taurus Coordinates: 04hr 26' 34" 15° 31' 39"</p> <p>Close Star: SAO-56840 Catalog Objects: Mel 25</p> <p>Imaging Window: 12:17 – 05:37 Transit: 03:21 73°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 




Prospective Imaging Objects – October 14 2023

<p>Trifid of the North (NGC 1579) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Perseus Coordinates: 04hr 30' 12" 35° 16' 60"</p> <p>Close Star: SAO-56799 Catalog Objects: NGC-1579</p> <p>Imaging Window: 11:44 – 05:37 Transit: 03:24 88°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Witch Head Nebula (IC 2118) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula Peak: Constellation: Eridanus Coordinates: 05hr 05' 19.872" -06° 56' 00.365"</p> <p>Close Star: SAO-131794 Catalog Objects: IC 2118</p> <p>Imaging Window: *12:49 – 05:37 Transit: 03:59 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 arcsecond </p> <p style="font-size: x-small; text-align: right;">James Yoder 2019-09-28 Location: Chandler, AZ Config: C11 HyperStar Baader Steglobe CDDV126c Exposure Info: 54frames@90s 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: *12:49 – 05:37 Transit: 03:59 49°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<p>Foxface Nebula (NGC 1788) Config: C11 HS ZWO6200MCc 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: 02:11 – 05:37 Transit: 04:01</p>	<p style="text-align: center;">Hyperstar</p> 
<p>Foxface Nebula (NGC 1788) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 05' 52" -03° 22' 22"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 02:11 – 05:37 Transit: 04:01</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: 02:11 – 05:37 Transit: 04:01</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



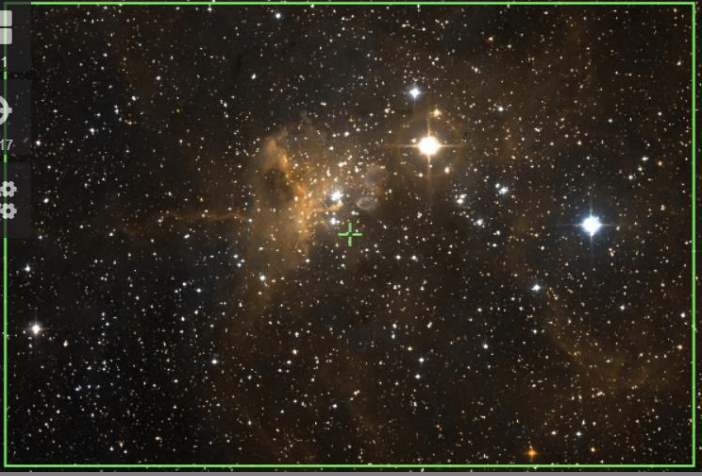
Prospective Imaging Objects – October 14 2023

<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: 12:32 – 05:37 Transit: 04:10 89°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Flaming Star Nebula (IC-405, IC-410, IC-417) Constellation: Auriga</p> <p style="font-size: x-small; text-align: right;"> Config: C-11HD HyperStar v4 - Auriga/IC-405 RA = 05h 19m 35.62s DEC = +33deg 49' 10.12" Exposure: 10s x 10000 Frames Gain: 2000 (Offset: 100) </p>
<p>Flaming Star Nebula (IC 405) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Auriga Coordinates: 05hr 15' 55" 34° 29' 08"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 405</p> <p>Imaging Window: 12:32 – 05:37 Transit: 04:10 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Flaming Star Nebula (IC-405) Constellation: Auriga</p> <p style="font-size: x-small; text-align: right;"> Config: C11-HD (5.7 Reducer) Filter: OpenStair 4-0 (Canon) CH1212C Exposure: 10s x 10000 Frames Gain: 2000 (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: 12:32 – 05:37 Transit: 04:10 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – October 14 2023

<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: 12:39 – 05:37 Transit: 04:17 90°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Tadpole Nebula (IC-410) <small>Constellation: Auriga RA: 05h 22m 51.55s, DEC: +33deg 23' 31.80" - 13Mag 27.22AP Size: 18.5 x 28.8 arcmin Orientation: Mag 5. of N. Pixel scale: 0.63 arcsec/pixel F5-1055nm Config: C11-HD F5-1055nm Focal Reducer Filter: Clearing Software: Sequence Generator (SNG) Exposure Info: 0.50sec/Frame Gain: 2300 Offset: 100</small></p>
<p>Tadpoles (IC 410) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga Coordinates: 05hr 22' 37" 33° 23' 03"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 410</p> <p>Imaging Window: 12:39 – 05:37 Transit: 04:17 90°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Tadpole Nebula (IC-410) <small>Constellation: Auriga RA: 05h 22m 35.01s, DEC: +33deg 23' 03.10" - 13Mag 27.00AP Size: 42 x 28.8 arcmin Pixel scale: 0.642 arcsec/pixel Config: C11 HD Software: SNG Filter: Clearing Software: Sequence Generator (SNG) Exposure Info: 2.00sec/Frame Gain: 2300 Offset: 100</small></p>
<p>M-79 (NGC-1904) Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Globular Cluster Peak: Constellation: Lepus Coordinates: 05hr 24' 11" -24° 31' 25"</p> <p>Close Star: SAO-170457 Catalog Objects: M 79</p> <p>Imaging Window: *03:02 – 05:26 Transit: 04:18 32°</p>	<p style="text-align: center;">C-11 HD: Primary Focus *x2</p> 

Prospective Imaging Objects – October 14 2023

<p>Spirograph Nebula (IC 418) Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Lepus Coordinates: 05hr 27' 28" -12° 41' 48"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: IC 418</p> <p>Imaging Window: *01:39 – 05:37 Transit: 04:21 44°</p>	<p>C-11 HD: Primary Focus *x2</p> 
<p>The Spider and the Fly (M-77, NGC-1055, NGC-1931) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga</p> <p>Camera Rotation - 90° Frame 01 RA: 05hr 30' 44"DEC: 34° 20' 41" Frame 02 RA: 05hr 27' 55"DEC: 34° 20' 41"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC-417, NGC-1931</p> <p>Imaging Window: 12:43 – 05:37 Transit: 04:22 89°</p>	<p>C-11 HD: Focal Reducer Composite!</p>  <p><small>The Spider and the Fly (IC-417 & NGC-1931) Constellation: Auriga RA: 05h 29m 47.50s DEC: -13deg 21' 14.50" Size: 68.0 x 43.3 arcmin Orientation: 0.36deg E of N Pixel scale: 0.625 arcsec/pixel F111919mm</small></p> <p><small>James VanDerKam (2004) 2018 12 20 21 22 Location: Chandler AZ Config: C11 HD 1.7 Focuser 1.8x Optical 1.8x Mirror 1.8x Camera C11 HD Exposure Info: Pac001_218mm01Star_Pac002_208mm01Star_Star_2200 (Offset: 180)</small></p>
<p>The Spider (IC 417) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga Coordinates: 05hr 28' 03" 34° 22' 58"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 417</p> <p>Imaging Window: 12:43 – 05:37 Transit: 04:22 89°</p>	<p>C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – October 14 2023

<p>Starfish Cluster (M-38) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Auriga Coordinates: 05hr 28' 43" 35° 51' 18"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: M-38</p> <p>Imaging Window: 12:42 – 08:03 Transit: 04:23 88°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-038 Starfish Cluster James Yoder 2019.09.30</p>
<p>The Fly (NGC 1931) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga Coordinates: 05hr 31' 24" 34° 15' 00"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: NGC 1931</p> <p>Imaging Window: 12:47 – 05:37 Transit: 04:25 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">1931</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: 01:10 – 05:37 Transit: 04:28 79°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: x-small;">Crab Nebula (Messier-1) James Yoder Date(s) 2022.02.05, 07, 08, 09, 10 Location: Chandler, AZ Constellation: Taurus Config: C-11 HD Filter: OIII Radius Ultra OIII128c [RA = 5h 34m 31.3s DEC = +22deg 00' 34.4" Size = 31.5 x 21.0 arcmin Orientation: -0.34deg Pixel scale = 0.447 arcsec/pixel FL = 2750mm Exposure Info: 1756ms@46ms Gain: 3200 ObsSer: 180</p>

Prospective Imaging Objects – October 14 2023

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: 02:53 – 05:37

Transit: 04:29

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"

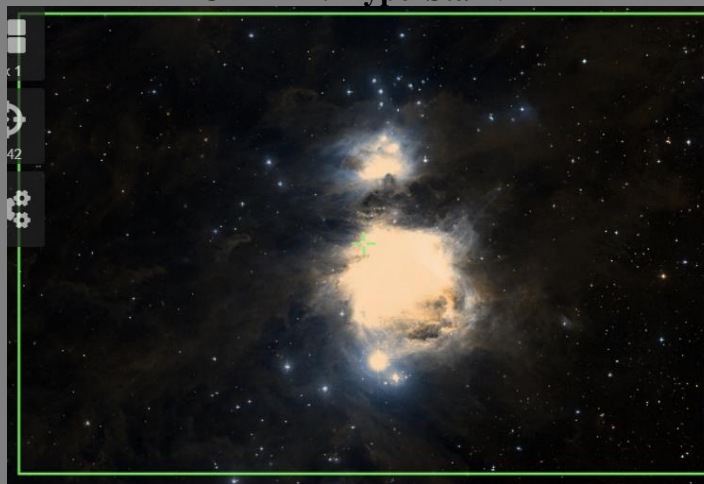
Close Star: SAO-132542 (Saiph)

Catalog Objects: [M 42](#)




Imaging Window: 02:53 – 05:37

Transit: 04:29

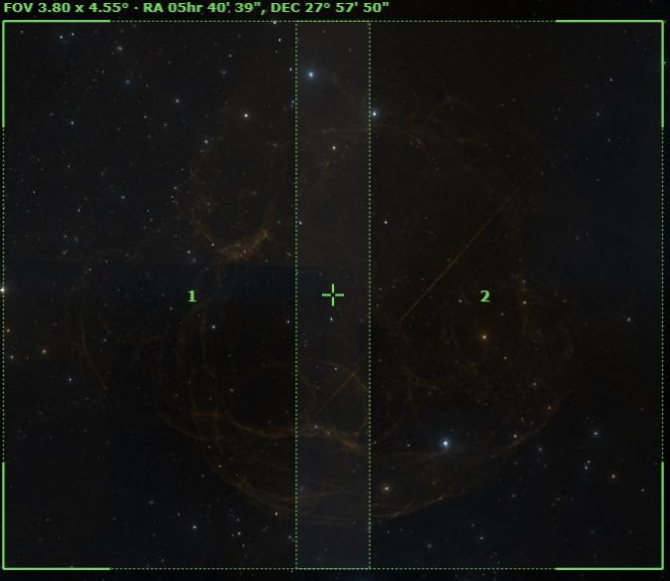
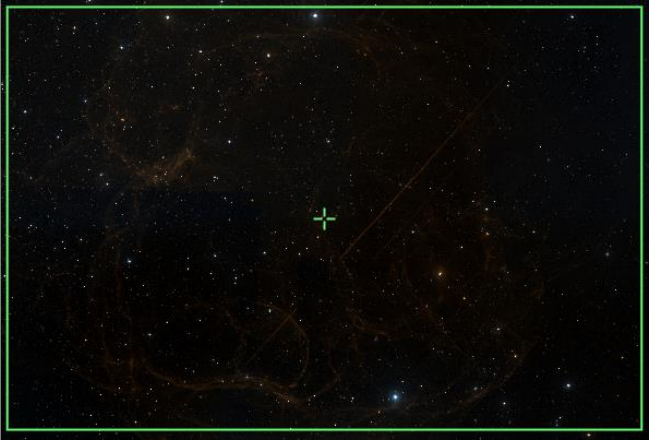
C-11 HD: HyperStar v4






Prospective Imaging Objects – October 14 2023

<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: 02:53 – 05:37 Transit: 04:29</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 2019-01-15 Location: Chandler, AZ Config: C1 Starmus LE Reducer ZWO6200MC ZWO6200MC Exposure Info: 35frames/300s Gain: 3200 (Offset: 180)</p>
<p>Running Man Nebula (NGC 1977) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 16" -04° 41' 47"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 1977</p> <p>Imaging Window: 02:49 – 05:37 Transit: 04:29 52°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Pinwheel Cluster (M-36) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Auriga Coordinates: 05hr 36' 18" 34° 08' 27"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: M-36/NGC-1960</p> <p>Imaging Window: 12:52 – 05:37 Transit: 04:30 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">Pinwheel Cluster (M-36, NGC-1960) Constellation: Auriga</p> <p style="font-size: x-small; text-align: right;">James Webb 2019-01-15 Location: Chandler, AZ Config: C11 Starmus LE Reducer ZWO6200MC ZWO6200MC Exposure Info: 35frames/300s Gain: 3200 (Offset: 180)</p>




Prospective Imaging Objects – October 14 2023

<p>Simeis 147 (SH2-240) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Taurus</p> <p>Camera Rotation - 90° Coordinates: Frame 01 RA: 05hr 45' 38" DEC: 27° 56' 31" Frame 02 RA: 05hr 36' 28" DEC: 27° 56' 31"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: SH2-240</p> <p>Imaging Window: 01:04 – 05:37 Transit: 04:33 85°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite-2</p> 
<p>Simeis 147 (SH2-240) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Taurus Coordinates: 05hr 39' 04" 28° 00' 00"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: SH2-240</p> <p>Imaging Window: 01:04 – 05:37 Transit: 04:33 85°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 

Prospective Imaging Objects – October 14 2023

<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: 02:37 – 05:37 Transit: 02:37 54°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Horsehead and Flame Nebula Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">Image Date: 2023-10-12 Location: Chandler, AZ Config: C11 HyperStar ZWO6200MC Exposure Info: 148x300/Star (Gain: 3200) Offset: 170</p>
<p>Flame Nebula (NGC 2024) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 41' 45.843" -01° 49' 31.401"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 2024</p> <p>Imaging Window: 02:37 – 05:37 Transit: 02:37 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Flame Nebula (NGC-2024) Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">Image Date: 2023-10-12 Location: Chandler, AZ Config: C11 HD ZWO6200MC ZWO6200MC Exposure Info: 178x300/Star (Gain: 3200) Offset: 180</p>
<p>Horsehead Nebula (B 33) Config: C1 LF ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 40' 59" -02° 31' 47"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: B 33</p> <p>Imaging Window: 02:39 – 05:37 Transit: 04:35 54°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Horsehead Nebula (IC-434) Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">Image Date: 2023-10-12 Location: Chandler, AZ Config: C11 Starizona LF Reducer ZWO6200MC ZWO6200MC Exposure Info: 298x300/Star (Gain: 3200) Offset: 170</p>

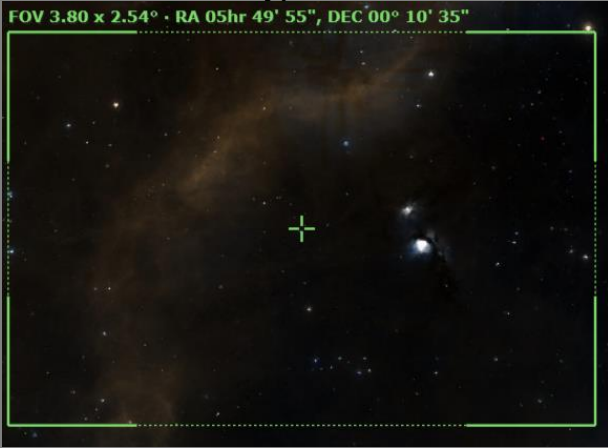
Prospective Imaging Objects – October 14 2023

<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: 01:51 – 05:37 Transit: 04:36 66°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>NGC-2022 Constellation: Orion RA = 05h 42m 06.6s DEC = +09deg 04' 54.9" Size = 18.5 x 13.9 arcmin Orientation: 0.3deg E of N Pixel scale = 0.277 arcsecond FL=2900mm James Yoder (Dane) 2023.12.09.18 Location: Chandler, AZ Config: C-11 HD OPT F1nd Ultra ZWO6200MC Exposure Info: 50 frame(s) 2min Gain: 100 Offset: 50 </small></p>
<p>NGC 1961 Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy Peak: Constellation: Camelopardalis Coordinates: 05hr 43' 27" 69° 20' 48"</p> <p>Close Star: SAO-40750 (Menkalinan) Catalog Objects: NGC 1961</p> <p>Imaging Window: 01:20 – 05:37 Transit: 04:36 54°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Galaxy Cluster (NGC-1961 et al.) Constellation: Camelopardalis RA = 05h 43m 15.80s DEC = +69deg 20' 43.50" Size = 42.3 x 28.5 arcmin Pixel scale = 0.441 arcsecond James Yoder 2019.01.22 Location: Mesa Verde (Arizona), Tinseltown, NJ Exposure Info: 30 frame(s) 5min Gain: 1000 Offset: 100 </small></p>
<p>M-78 Config: C11-HD FR ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion</p> <p>Frame 01 RA: 05hr 47' 05"DEC: 00° 20' 09"</p> <p>Frame 02 RA: 05hr 47' 05"DEC: -00° 14' 43"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: M 78</p> <p>Imaging Window: 02:32 – 05:37 Transit: 04:41</p>	<p>C-11 HD: Focal Reducer Composite!</p>  <p><small>FOV 1.04 x 1.28°. RA 05hr 47' 04" DEC 00° 02' 43"</small></p>

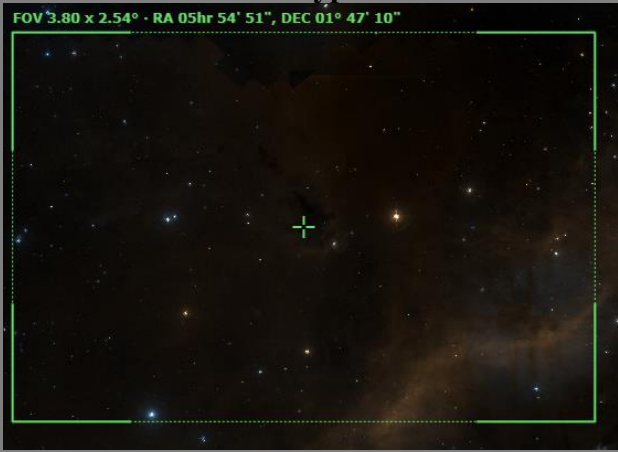

Prospective Imaging Objects – October 14 2023

<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 (Anilam) Catalog Objects: M 78</p> <p>Imaging Window: 02:32 – 05:37 Transit: 04:41</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 (Anilam) Catalog Objects: M 78</p> <p>Imaging Window: 02:32 – 05:37 Transit: 04:41</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: 01:10 – 05:37 Transit: 04:46 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – October 14 2023

<p>LDN-1622 Complex Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula & Nebula Peak: Constellation: Orion</p> <p>Coordinates: Pane 1: 05hr 50' 40", 01° 46' 30" Pane 2, 05hr 50' 40", 00° 14' 57"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622 Imaging Window: 02:31 – 05:37 Transit: 04:49 59°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p> 
<p>LDN-1622 (Region 01) Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula & Nebula Peak: Constellation: Orion</p> <p>Coordinates: 05hr 51' 00" 00° 59' 47"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622 Imaging Window: 02:31 – 05:37 Transit: 04:49 59°</p>	<p style="text-align: center;">HyperStar</p> 
<p>LDN-1622 (Region 02) Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula & Nebula Peak: Constellation: Orion</p> <p>Coordinates: 05hr 49' 55" 00° 10' 35"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622 Imaging Window: 02:31 – 05:37 Transit: 04:49 59°</p>	<p style="text-align: center;">HyperStar</p> 


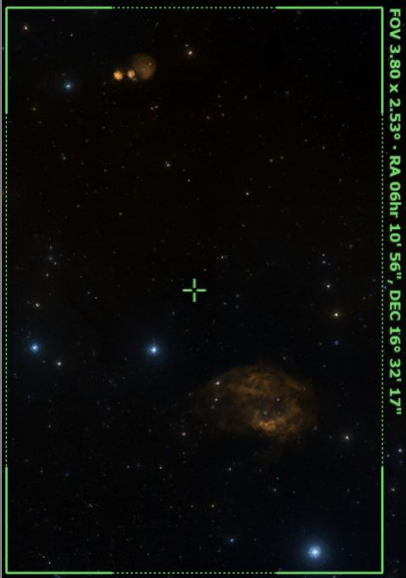
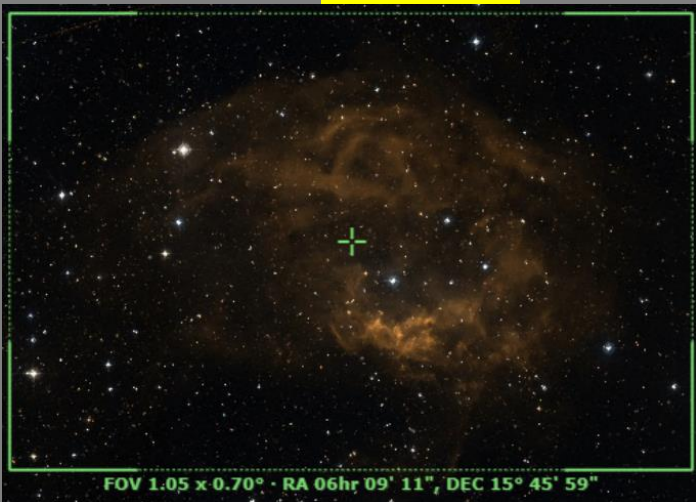
Prospective Imaging Objects – October 14 2023

<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: 02:31 – 05:37 Transit: 04:49 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 (Alnilam) Catalog Objects: LDN 1622</p> <p>Imaging Window: 02:31 – 05:37 Transit: 04:49</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>

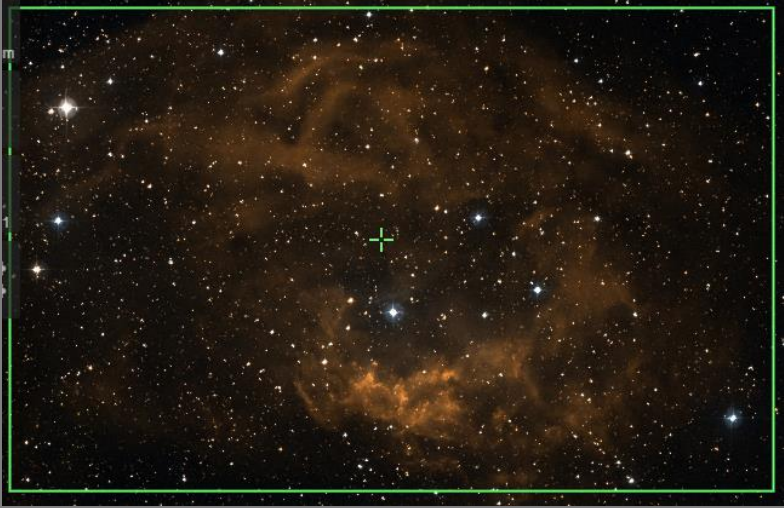

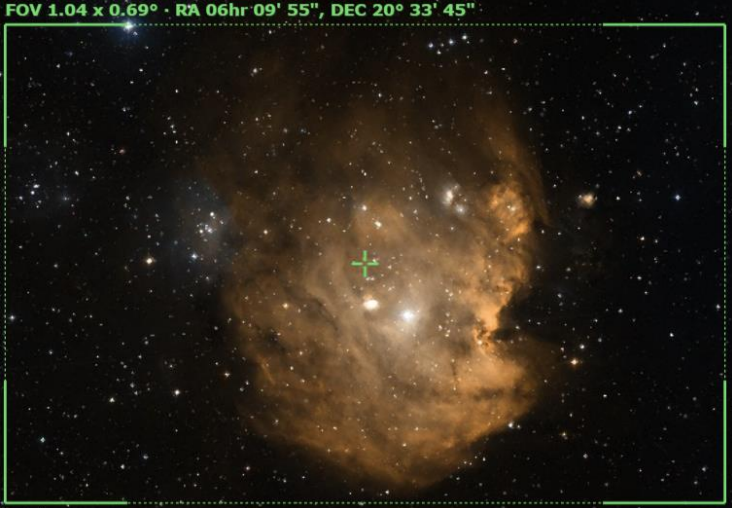
Prospective Imaging Objects – October 14 2023

<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: 02:31 – 05:37 Transit: 04:49</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>
<p>LDN 1622 Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 54' 55" 01° 49' 49"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622</p> <p>Imaging Window: 02:31 – 05:37 Transit: 04:49</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>
<p>Angel Nebula (NGC 2170) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Monoceros Coordinates: 06hr 08' 26" -06° 25' 24"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 2170</p> <p>Imaging Window: 03:32 – 05:37 Transit: 05:01</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>




Prospective Imaging Objects – October 14 2023

<p>Angel Nebula (NGC 2170) Config: C11HD ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Monoceros Coordinates: 06hr 08' 23" -06° 19' 23"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 2170</p> <p>Imaging Window: 03:32 – 05:37 Transit: 05:01</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Angel Nebula (NGC-2170) Constellation: Monoceros RA: 06h 08m 23.0s DEC: -06d 19m 23.0s Size: 41.2 x 37.5 arcmin Orientation: 0 deg E of N (Post-rotate: 0.446 arcmin/px) FL: 2000mm James Webb Location: Mission Grounds (2020 R1 R1), Chandler (2020 R1 R1), AZ Config: C-11 HD, Bino, Starline (SPT) 13x Exposure Info: 978img/9min Gain: 2500 0.8sec 180</p>
<p>IC-2162 & SH 2-261 Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 10' 56" 16° 32' 17" Angle: 90° East</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC-2162 Sh 2-261</p> <p>Imaging Window: 01:57 – 05:37 Transit: 05:07 72°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">FOV 3.80 x 2.53° - RA 06hr 10' 56" DEC 16° 32' 17"</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: 01:57 – 05:37 Transit: 05:07 72°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">FOV 1.05 x 0.70° - RA 06hr 09' 11" DEC 15° 45' 59"</p>




Prospective Imaging Objects – October 14 2023

<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: 01:57 – 05:37 Transit: 05:07 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-35, NGC-2158 Config: C11-HD FR ZWO6200MC </p> <p>Type: Open Cluster Pair Constellation: Gemini Coordinates: 06hr 08' 39" 24° 14' 48"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: M-35/NGC-2168, NGC-2158</p> <p>Imaging Window: 01:40 – 05:37 Transit: 05:03 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: 01:48 – 05:37 Transit: 05:03 77°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> <p style="font-size: small; text-align: center;">FOV 1.04 x 0.69° · RA 06hr 09' 55", DEC 20° 33' 45"</p> 


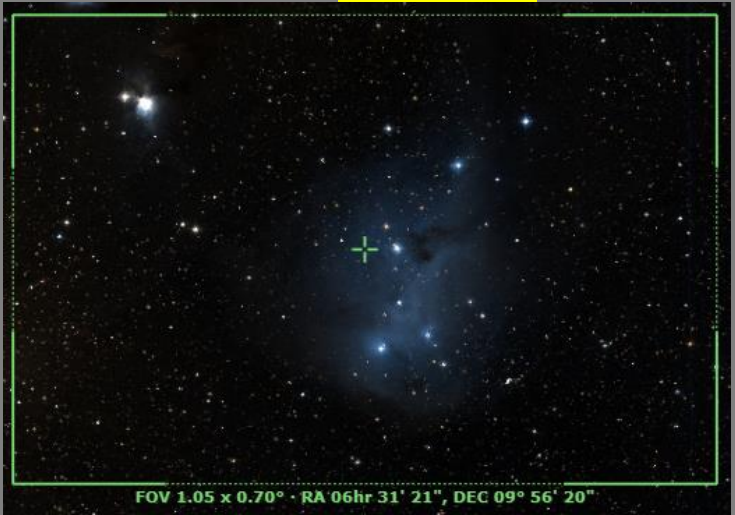

Prospective Imaging Objects – October 14 2023

<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: 01:48 – 05:37 Transit: 05:03 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Monkey Head Nebula (NGC-2174) Constellation: Orion RA = 06h 09m 49.31s, DEC = +20deg 29' 52.00" Size = 31.1 x 26.6 arcmin Pixel scale = 0.446 arcsec/pixel FL = 2.730mm James Volder 2023-08-14 Location: Chandler, AZ Config: C-11 HD Astromark C15-C20 QHY128C Exposure Info: 37 frames @ 3min Gain: 3200 Offset: 100</p>
<p>IC 2162 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 06hr 12' 25" 17° 59' 26"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC 2162</p> <p>Imaging Window: 01:57 – 05:37 Transit: 05:07 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Bright Nebula IC-2162 Constellation: Orion RA = 06h 12m 24.60s, DEC = +17deg 59' 18.237" Size = 42.3 x 23.89 arcmin Pixel scale = 0.441 arcsec/pixel James Volder 2023-08-22 Location: Chandler, AZ Config: C-11 HD Astromark C15-C20 QHY128C Exposure Info: 23 frames @ 3min Gain: 3200 Offset: 100</p>
<p>Jellyfish Nebula (IC 443) Config: C11-HD HS ZWO6200MC</p> <p>Type: Supernova Remnant Peak: Constellation: Gemini Coordinates: 06hr 19' 56" 23° 06' 17"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC 443</p> <p>Imaging Window: 01:51 – 05:37 Transit: 05:10 79°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Jellyfish Nebula (IC-443) Constellation: Gemini RA = 06h 19m 23.0s, DEC = +23deg 06' 17.0" Orientation: Along E of N Pixel scale = 2.28 arcsec/pixel FL = 540mm James Volder Date(s) 2020-10-21 Location: Chandler, AZ Config: C-11 HD HyperStar v4 Astromark C15-C20 QHY128C Exposure Info: 51 frames @ 3min Gain: 3200 Offset: 100</p>

Prospective Imaging Objects – October 14 2023

<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: 02:54 – 05:37 Transit: 05:25 62°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Rosette Nebula (NGC 2237, 2248, 2249, 2250, 2246) C-11 Hyperstar 1600iso 12min</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: 02:54 – 05:37 Transit: 05:25 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: 02:54 – 05:37 Transit: 05:25 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



Prospective Imaging Objects – October 14 2023

<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: 02:38 – 05:37 Transit: 05:25 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: 02:38 – 05:37 Transit: 05:25 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: 02:38 – 05:37 Transit: 05:25 80°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – October 14 2023

<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: 02:50 – 05:37 Transit: 05:33 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: 02:48 – 05:37 Transit: 05:35 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p> 
<p>Christmas Tree & Cone Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 40' 47" 09° 42' 40" Angle: 90° East</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2264/Sh 2-273</p> <p>Imaging Window: 02:48 – 05:37 Transit: 05:35 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 

Prospective Imaging Objects – October 14 2023

<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: 02:48 – 05:37 Transit: 05:35 67°</p>	<p>Primary Focus</p>  <p>NGC 2264: Christmas Tree Cluster James Mader, 2015.01.18</p>
<p>Cone Nebula-1 (NGC 2264) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 41' 07" 09° 27' 52"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2264</p> <p>Imaging Window: 02:48 – 05:37 Transit: 05:35 67°</p>	<p>C-11 HD: Primary Focus</p> 

Blank
Page

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

HyperStar: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	NGC-6914	07:17 – 11:07	07:20	03	Composite2! Cygnus: Bright Nebula
HyperStar	Nebula	Nebula	NGC-6914	07:17 – 11:07	07:20	03	Cygnus: Bright Nebula
HyperStar	Nebula	Nebula	IC-1318	07:17 – 11:07	07:21	04	Cygnus: Butterfly Nebula
HyperStar	Nebula	Nebula	IC-5070	07:17 – 11:35	07:46	06	Composite2! Cygnus: Pelican & N America Nebula
HyperStar	Nebula	Nebula	IC-5070	07:17 – 11:35	07:46	06	Cygnus: Pelican & N America Nebula
HyperStar	Nebula	Nebula	NGC-6960	07:17 – 11:23	07:48	07	Composite2! Cygnus: Veil Nebula
HyperStar	Nebula	Nebula	NGC-6960	07:17 – 11:23	07:48	07	Cygnus: Veil Nebula
HyperStar	Nebula	Nebula	IC-1396	07:17 – 12:22	08:334	13	Cepheus: Elephant Trunk
HyperStar	DN, Nebula	Nebula	B-168	07:17 – 12:34	08:44	16	Cygnus: Dark Cocoon
HyperStar	Nebula	Nebula	SH2-132	07:17 – 01:03	09:14	18	Cepheus: Bright Nebula
HyperStar	Nebula	Nebula	SH2-155	07:17 – 01:32	09:52	21	Cepheus: Cave Nebula
HyperStar	Nebula	Nebula	SH2-157	07:17 – 01:56	10:11	22	Cassiopeia: Lobster Claw and Bubble Nebula
HyperStar	Nebula	Nebula	NGC-7822	07:32 – 02:22	10:57	25	Composite2! Cepheus: Nebula
HyperStar	Nebula	Nebula	NGC-7822	07:32 – 02:22	10:57	26	Cepheus: Nebula
HyperStar	Nebula	Neb, OC	NGC-457	08:27 – 04:01	12:14	34	Cassiopeia: Open Cluster NGC-457 & Dolphin Neb
HyperStar	Nebula	Nebula	IC-1848, 1805	10:02 – 05:30	01:46	39	Composite4! Cassiopeia: Heart and Soul Nebulas
HyperStar	Nebula	Nebula	IC-1805	09:45 – 05:10	01:27	39	Cassiopeia: Heart Nebula
HyperStar	Nebula	Nebula	IC-1848	10:02 – 05:30	01:46	42	Cassiopeia: Soul Nebula
HyperStar	Nebula	Nebula	NGC-1499	11:16 – 05:37	02:57	45	Perseus: California Nebula
HyperStar	Nebula	Nebula	IC-405	12:32 – 05:37	04:10	49	Auriga: Flaming Star Nebula
HyperStar	Nebula	Nebula	M-42	02:52 – 05:37	04:29	53	Composite6! Orion: Orion Complex
HyperStar	Nebula	Nebula	M-42	02:52 – 05:37	04:29	53	Orion: Orion Nebula
HyperStar	Nebula	Nebula	SH2-240	01:04 – 05:37	04:33	55	Composite2! Taurus: Simeis 147 Bubble
HyperStar	Nebula	Nebula	SH2-240	01:04 – 05:37	04:33	55	Taurus: Simeis 147 Bubble

Prospective Imaging Objects – October 14 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	NGC-2024, B33	02:37 – 05:37	02:37	56	Orion: Flame and Horsehead Nebula
HyperStar	Nebula	Nebula	LDN-1622	02:31 – 05:37	04:49	59	Composite2! Orion: Band Complex
HyperStar	Nebula	Nebula	LDN-1622	02:31 – 05:37	04:49	59	Orion: Band Complex
HyperStar	Nebula	Nebula	LDN-1622 R1	02:31 – 05:37	04:49	59	Orion: Band Region 1
HyperStar	Nebula	Nebula	LDN-1622 R2	02:31 – 05:37	04:49	59	Orion: Band Region 2
HyperStar	Nebula	Nebula	LDN-1622 R3	02:31 – 05:37	04:49	59	Orion: Band Region 3
HyperStar	Nebula	Nebula	IC-2162, SH2-261	01:57 – 05:37	05:07	62	Rotation Orion: Interesting Composition
HyperStar	Nebula	Nebula	IC-443	01:51 – 05:37	05:10	64	Gemini: Jellyfish Nebula
HyperStar	Nebula	Nebula	NGC-2237	02:54 – 05:37	05:25	66	Monoceros: Rosette Nebula
HyperStar	Nebula	Nebula	IC-2169	02:38 – 05:37	05:25	67	Monoceros: Bright Nebula, & Dark Nebula Region

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

HyperStar: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Broad Spectrum	Dark Neb	LDN-904	07:17 – 11:33	07:48	07	Cygnus: Northern Coal Sack (LDN-904)
HyperStar	Broad Spectrum	Dark Neb	B-168	07:17 – 01:32	09:52	18	Cepheus: Wolf's Cave
HyperStar	Broad Spectrum	Ref Neb	NGC-7686	07:17 – 02:15	10:25	24	Andromeda: Blue Match Nebula
HyperStar	Broad Spectrum	Galaxies	NGC-147	07:38 – 03:18	11:28	27	Cassiopeia: Galaxy Pair NGC-147 & NGC-185
HyperStar	Broad Spectrum	Galaxy	M-31	07:51 – 03:24	11:37	29	Andromeda: The Great Andromeda Galaxy
HyperStar	Broad Spectrum	Galaxy	M-31	07:51 – 03:24	11:37	29	Rotation! Andromeda: Andromeda Galaxy
HyperStar	Broad Spectrum	Gal & GC	NGC-288, 253	*10:03-01:28	11:48	31	Sculptor: Galaxy and Globular pair
HyperStar	Broad Spectrum	Ref Neb	IC-59	08:09 – 03:35	11:52	33	Cassiopeia: Bright Nebula
HyperStar	Broad Spectrum	Galaxy	M-33	08:55 – 04:02	12:28	36	Triangulum: Triangulum Galaxy
HyperStar	Broad Spectrum	OC	NGC-869, 884	09:29 – 05:04	01:17	38	Perseus: Hand chi Persei
HyperStar	Broad Spectrum	Refl Neb	M-45	11:19 – 05:37	02:41	44	Taurus: Pleiades Open Cluster
HyperStar	Broad Spectrum	OC	C-41	12:17 – 05:37	03:21	46	Taurus: Hyades Star Cluster
HyperStar	Broad Spectrum	DN	IC-2118	*12:49-05:37	03:59	47	Eridanus: Witch Head Nebula
HyperStar	Broad Spectrum	BN	NGC-1788	02:11 – 05:37	04:01	48	Orion: Foxface Nebula

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

Focal Reducer: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	NGC-6914 Reg	07:17 – 11:07	07:20	04	Cygnus: NGC-6914 Region
Focal Reducer	Nebula	Nebula	IC-1318	07:17 – 11:07	07:21	05	Cygnus: Butterfly Nebula
Focal Reducer	Nebula	Nebula	NGC-6960	07:17 – 11:23	07:48	08	Composite 2! Cygnus: Witch's Broom
Focal Reducer	Nebula	Nebula	NGC-6960	07:17 – 11:23	07:48	08	Cygnus: Pickering's Triangular Wisp
Focal Reducer	Nebula	Nebula	NGC-6992	07:17 – 01:27	07:52	09	Composite 2! Cygnus: Network Nebula
Focal Reducer	Nebula	Nebula	NGC-7023	07:17 – 11:19	07:57	10	Cepheus: Iris Nebula
Focal Reducer	Nebula	Nebula	IC-1396-1	07:17 – 12:22	08:34	14	Cepheus: Bright & Dark Nebula Region-1
Focal Reducer	Nebula	Nebula	IC-1396-2	07:17 – 12:22	08:34	14	Cepheus: Bright & Dark Nebula Region-2
Focal Reducer	Nebula	Nebula	IC-5146	07:17 – 12:39	08:49	16	Cygnus: Cocoon Nebula
Focal Reducer	Nebula	Nebula	SH2-132	07:17 – 01:03	09:14	19	Cepheus: Bright Nebula
Focal Reducer	Nebula	Nebula	SH2-142	07:17 – 01:29	09:40	20	Cepheus: Wizard Nebula
Focal Reducer	Nebula	Nebula	SH2-155	07:17 – 01:32	09:52	21	Cepheus: Cave Nebula
Focal Reducer	Nebula	Nebula	SH2-157	07:17 – 01:56	10:11	23	Cassiopeia: Lobster Claw
Focal Reducer	Nebula	Nebula	NGC-7822	07:32 – 02:22	10:57	26	Cepheus: Diffuse Nebula
Focal Reducer	Nebula	Nebula	NGC-246, 255	*08:57-02:23	11:42	30	Cetus: Planetary Nebula & 2 Galaxies
Focal Reducer	Nebula	Nebula	NGC-281	08:09 – 03:35	11:52	32	Cassiopeia: Pack Man Nebula
Focal Reducer	Nebula	Nebula	IC-1795	09:39 – 05:02	01:20	39	Cassiopeia: Fish Head Nebula
Focal Reducer	Nebula	Nebula	IC-1805	09:45 – 05:10	01:27	40	Cassiopeia: Heart Nebula
Focal Reducer	Nebula	Nebula	IC-405	12:32 – 05:37	04:10	49	Auriga: Flaming Star Nebula
Focal Reducer	Nebula	Nebula	IC-410	12:39 – 05:37	04:17	50	Auriga: Tadpoles
Focal Reducer	Nebula	Nebula	NGC1055,1931	12:43 – 05:37	04:22	51	Composit2! Rotation! Auriga: Spider & Fly
Focal Reducer	Nebula	Nebula	NGC-1977	02:49 – 05:37	04:29	54	Orion: Running Man Nebula
Focal Reducer	Nebula	Nebula	M-78	02:38 – 05:37	04:41	57	Composit2! Orion: Dark Nebula Region
Focal Reducer	Nebula	Nebula	M-78	02:38 – 05:37	04:41	58	Orion: Dark Nebula Region

Prospective Imaging Objects – October 14 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	NGC-2170	03:32 – 05:37	05:01	61	Monoceros: Angel Nebula
Focal Reducer	Nebula	Nebula	SH 2-261	01:57 – 05:37	05:07	62	Orion: Lower's Nebula
Focal Reducer	Nebula	Nebula	NGC-2174	01:48 – 05:37	05:03	63	Orion: Monkey Head Nebula
Focal Reducer	Nebula	Nebula	IC-443	01:51 – 05:37	05:10	65	Gemini: Jellyfish Nebula
Focal Reducer	Nebula	Nebula	NGC-2237	02:54 - 05:37	05:25	66	Monoceros: Roset Nebula Core
Focal Reducer	Nebula	Nebula	IC-2169	02:38 – 05:37	05:25	67	Monoceros: Blue Nebula
Focal Reducer	Nebula	Nebula	NGC-2264	02:48 – 05:37	05:35	68	Composite2! Monoceros: Xmas Tree & Cone
Focal Reducer	Nebula	Nebula	NGC-2264	02:48 – 05:37	05:35	68	Rotation! Monoceros: Xmas Tree & Cone

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

Focal Reducer: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Broad Spectrum	Open Cl	M-39	07:17 – 12:17	08:27	12	Cygnus: Open Cluster M-39
Focal Reducer	Broad Spectrum	Dark Neb	LDN-1235	08:21 – 01:47	11:04	17	Cepheus: Dark Shark
Focal Reducer	Broad Spectrum	Ref Neb	VdB-152	07:17 – 01:32	09:52	18	Rotation! Cepheus: Wolf's Cave
Focal Reducer	Broad Spectrum	Galaxies	NGC-7331 et. El.	07:17 – 01:09	09:31	19	Rotation! Pegasus: Stephan's Quintet & NGC 7331
Focal Reducer	Broad Spectrum	Galaxies	NGC-7619 et. El.	07:34 – 12:57	10:15	23	Pegasus: Pegasus Cluster of Galaxies
Focal Reducer	Broad Spectrum	Galaxies	NGC-147, 185	07:38 – 03:18	11:28	28	Composite 2! Cassiopeia: Galaxy Pair
Focal Reducer	Broad Spectrum	Open Cl	NGC-188	*07:28-03:52	11:42	32	Cepheus: Open Star Cluster NGC-188
Focal Reducer	Broad Spectrum	Galaxy	M-33	08:55 – 04:02	12:28	36	Rotation! Triangulum: Triangulum Galaxy
Focal Reducer	Broad Spectrum	Galaxies	M-77, NGC-1055	11:26 – 03:47	01:36	40	Cetus: Galaxy Pair
Focal Reducer	Broad Spectrum	DN/RN	NGC-1788	02:11 – 05:37	04:01	48	Orion: Foxface Nebula
Focal Reducer	Broad Spectrum	DN	LDN-1622	02:31 – 05:37	04:49	60	Composite2! Rotation Orion: Dark Nebula Region
Focal Reducer	Broad Spectrum	DN	LDN-1622	02:31 – 05:37	04:49	60	Orion: Dark Nebula Region
Focal Reducer	Broad Spectrum	OC	M-35, NGC-2158	01:40 – 05:37	05:03	63	Gemini: Open Cluster Pair

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

Primary Focus: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	PN	NGC-6894	07:17 – 10:45	07:12	02	Cygnus: PK 69-2.1 Small PN
Primary Focus	Nebula	PN	IC-4997	07:17 – 10:22	07:16	02	Saitta: PK 58-10.1 Small PN
Primary Focus	Nebula	PN	NGC-6905	07:17 – 10:32	07:18	02	Delphinus: Blue Flash Nebula Small PN
Primary Focus	Nebula	Nebula	NGC-6914 Reg	07:17 – 11:07	07:20	04	Cygnus: NGC-6914 Region
Primary Focus	Nebula	Nebula	IC-1318	07:17 – 11:07	07:21	05	Cygnus: Butterfly Nebula
Primary Focus	Nebula	PN	NGC-7008	07:17 – 11:46	07:56	10	Cygnus: Fetus Nebula Med PN
Primary Focus	Nebula	Nebula	NGC-7023	07:17 – 11:19	07:57	10	Cepheus: Iris Nebula
Primary Focus	Nebula	PN	NGC-7009	*07:17-10:48	08:00	11	Aquarius: Saturn Nebula
Primary Focus	Nebula	PN	NGC-7026	07:17 – 11:52	08:02	11	Cygnus: Small Planetary Nebula
Primary Focus	Nebula	PN	NGC-7027	07:17 – 11:49	08:02	11	Cygnus: Small Planetary Nebula
Primary Focus	Nebula	PN	NGC-7048	07:17 – 11:59	08:10	12	Cygnus: Small PN PK 88-1.1
Primary Focus	Nebula	PN	NGC-7094	07:17 – 11:28	08:32	13	Pegasus: Small/Med Planetary
Primary Focus	Nebula	DN & BN	IC-1396-1	07:17 – 12:28	08:34	14	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	Nebula	IC-1396-2	07:17 – 12:22	08:34	15	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	Nebula	IC-1396-3	07:17 – 12:22	08:34	15	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	PN	NGC-7139	07:17 – 12:19	08:41	16	Cepheus: Med Planetary Nebula
Primary Focus	Nebula	Nebula	IC-5146	07:17 – 12:39	08:49	17	Cygnus: Cocoon Nebula (IC-5146)
Primary Focus	Nebula	PN	NGC-7293	*07:39-11:15	09:25	17	Aquarius: Helix Nebula
Primary Focus	Nebula	Nebula	SH2-132	07:17 – 01:03	09:14	19	Cepheus: Bright Nebula
Primary Focus	Nebula	Nebula	SH2-142	07:17 – 01:28	09:40	21	Cepheus: Wizard Nebula
Primary Focus	Nebula	Nebula	SH2-155	07:17 – 01:32	09:52	22	Cepheus: Cave Nebula
Primary Focus	Nebula	Nebula	NGC-7635	07:17 – 01:58	10:15	23	Cepheus: Bubble Nebula
Primary Focus	Nebula	Nebula	NGC-7822	07:32 – 02:22	10:57	26	Cepheus: Emission Nebula
Primary Focus	Nebula	PN	NGC-40	08:16 – 02:00	11:08	27	Cepheus: Bow-Tie Nebula

Prospective Imaging Objects – October 14 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	PN	NGC-246	*08:57-02:23	11:42	30	Cetus: Skull Nebula
Primary Focus	Nebula	Nebula	IC-59	08:09 – 03:35	11:52	33	Cassiopeia: Reflection Nebula
Primary Focus	Nebula	Nebula	SH2-188	08:38 – 04:12	12:25	35	Cassiopeia: Firefox Nebula
Primary Focus	Nebula	PN	M-76	08:46 – 04:27	12:37	37	Perseus: Little Dumbbell Nebula
Primary Focus	Nebula	Nebula	IC-1805	09:45 – 05:10	01:27	40	Cassiopeia: Heart Nebula
Primary Focus	Nebula	Nebula	IC-1848	10:02 – 05:30	01:46	42	Cassiopeia: Soul Nebula
Primary Focus	Nebula	Nebula	NGC-1333	10:49 – 05:37	02:23	43	Perseus: Reflection Nebula
Primary Focus	Nebula	Nebula	NGC-1360	*02:33-04:14	02:28	43	Fornax: Robins Egg Nebula
Primary Focus	Nebula	Nebula	IC-348	11:03 – 05:37	02:39	43	Perseus: Reflection Nebula
Primary Focus	Nebula	Nebula	NGC-1501	11:18 – 05:37	03:01	45	Camelopardalis: Oyster Nebula
Primary Focus	Nebula	Nebula	NGC-1514	11:30 – 05:37	03:03	45	Taurus: Crystal Ball Nebula
Primary Focus	Nebula	Nebula	NGC-1535	*12:27-05:37	03:08	46	Eridanus: Cleopatra's Eye
Primary Focus	Nebula	Nebula	NGC-1555	12:03 – 05:37	03:16	46	Taurus: Hind's Variable Nebula
Primary Focus	Nebula	Nebula	NGC-1579	11:44 – 05:37	03:24	47	Perseus: Trifid of the North
Primary Focus	Nebula	Nebula	IC-405	12:32 – 05:37	04:10	49	Auriga: Flaming Star Nebula
Primary Focus	Nebula	Nebula	IC-410	12:39 – 05:37	04:17	50	Auriga: Tadpoles
Primary Focus	Nebula	Nebula	IC-417	12:43 – 05:37	04:22	51	Auriga: The Spider
Primary Focus	Nebula	Nebula	NGC-1931	12:47 – 05:37	04:25	52	Auriga: The Fly
Primary Focus	Nebula	Nebula	M-1	01:10 – 05:37	04:28	52	Taurus: Crab Nebula
Primary Focus	Nebula	Nebula	M-42	02:53 – 05:37	04:29	54	Orion: The Orion Nebula
Primary Focus	Nebula	Nebula	NGC-2024	02:37 – 05:37	02:37	56	Orion: Flame Nebula
Primary Focus	Nebula	Nebula	B-33	02:39 – 05:37	04:35	56	Orion: Horsehead Nebula
Primary Focus	Nebula	Nebula	NGC-2022	01:51 – 05:37	04:36	57	Orion: Planetary Nebula
Primary Focus	Nebula	Nebula	M-78	02:32 – 05:37	04:41	58	Orion: Bright and Dark Nebula
Primary Focus	Nebula	Nebula	NGC-2170	03:32 – 05:37	05:01	62	Monoceros: Angel Nebula
Primary Focus	Nebula	Nebula	SH 2-261	01:57 – 05:37	05:07	63	Orion: Lower's Nebula
Primary Focus	Nebula	Nebula	NGC-2174	01:48 – 05:37	05:03	64	Orion: Monkey Head Nebula
Primary Focus	Nebula	Nebula	IC-2162	01:57 – 05:37	05:07	64	Orion: Bright Nebula
Primary Focus	Nebula	Nebula	IC-443	01:51 – 05:37	05:10	65	Gemini: Jellyfish Nebula

Prospective Imaging Objects – October 14 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	DN/BN	LDN-1622	02:31 – 05:37	04:49	61	Orion: Dark and Bright Nebula
Primary Focus	Nebula	DN	SH2-249	01:52 – 05:37	05:13	65	Gemini: Diffuse Nebula
Primary Focus	Nebula	DN	NGC-2237	02:54 - 05:37	05:25	66	Monoceros: Rosette Nebula Core
Primary Focus	Nebula	BN	IC-2169	02:38 – 05:37	05:25	67	Monoceros: Bright Blue Nebula
Primary Focus	Nebula	RN	NGC-2261	02:50 – 05:37	05:33	68	Monoceros: Hubble’s Variable Nebula
Primary Focus	Nebula						

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

Primary Focus: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	OC	M-29	07:17 – 11:03	07:20	03	Cygnus: Cooling Tower, Open Cluster NGC-6913
Primary Focus	Broad Spectrum	Galaxy	NGC-6946	07:17 – 11:15	07:30	05	Cepheus: Fireworks Galaxy
Primary Focus	Broad Spectrum	GC	M-72	*07:17–10:31	07:49	08	Aquarius: NGC-6981 Small Globular
Primary Focus	Broad Spectrum	OC	M-73	*07:17-10:31	07:54	09	Aquarius: NGC-6994 Small Open Cluster
Primary Focus	Broad Spectrum	GC	M-15	07:17 – 11:19	08:25	12	Cepheus: Pegasus Cluster Small Globular Cluster
Primary Focus	Broad Spectrum	GC	M-2	07:17 – 10:33	08:29	13	Aquarius: Med-Large Globular NGC-7089
Primary Focus	Broad Spectrum	GC	M-30	*07:17-09:58	08:36	15	Capricornus: Small-Med Globular NGC-7099
Primary Focus	Broad Spectrum	Galaxies	NGC-7317	07:17 – 01:09	09:31	20	Pegasus: Stephan's Quintet
Primary Focus	Broad Spectrum	Galaxies	NGC-7331	07:17 – 01:11	09:32	20	Pegasus: Galaxy Group NGC-7331
Primary Focus	Broad Spectrum	Galaxy	NGC-7479	07:17 – 12:54	10:00	22	Pegasus: Galaxy PGC-70419
Primary Focus	Broad Spectrum	Galaxies	NGC-7619 Et. El.	07:34 – 12:57	10:15	24	Pegasus: Pegasus Cluster of galaxies
Primary Focus	Broad Spectrum	OC	M-52	07:17 – 02:02	10:20	24	Cassiopeia: Open Cluster NGC-7654
Primary Focus	Broad Spectrum	OC	NGC-7789	07:17 – 02:41	10:52	25	Cassiopeia: Caroline's Rose
Primary Focus	Broad Spectrum	Galaxies	NGC 67-72 et. El.	07:40 – 02:46	11:13	27	Andromeda: Andromeda Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	NGC-147	07:38 – 03:18	11:28	28	Cassiopeia: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-185	09:32 – 04:48	01:22	28	Cassiopeia: Sm Elipical Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-110	07:49 – 03:22	11:35	29	Andromeda: Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-32	07:52 – 03:22	11:37	29	Andromeda: Companion to M-31
Primary Focus	Broad Spectrum	Galaxy	NGC-247	*09:08-02:12	11:42	31	Cetus: Needle's Eye Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-253	*09:41-01:39	11:42	31	Sculptor: Sculptor Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-288	*10:03-01:28	11:48	32	Sculptor: Med-Large Globular
Primary Focus	Broad Spectrum	Galaxy	IC-1613	09:45 – 02:18	12:00	33	Cetus: Irregular Dwarf Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-404	08:24 – 03:45	12:04	34	Andromeda: Mirachs Ghost
Primary Focus	Broad Spectrum	OC	NGC-457	08:27 – 04:01	12:14	34	Cassiopeia: Owl Cluster

Prospective Imaging Objects – October 14 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxies	Arp-133	10:19 – 02:22	12:20	35	Cetus: Minkowski's Object
Primary Focus	Broad Spectrum	OC	M-103	08:44 – 04:12	12:28	35	Cassiopeia: Open Cluster
Primary Focus	Broad Spectrum	Galaxy	M-33	08:55 – 04:02	12:28	36	Triangulum: Triangulum Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-74	09:27 – 03:35	12:31	37	Pisces: Med Face on Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-772	09:42 – 04:05	12:54	37	Aries: Nautilus Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-891	09:30 – 05:04	01:17	38	Andromeda: Edge on Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-925	09:44 – 05:00	01:22	38	Triangulum: Small Galaxy PGC-9332
Primary Focus	Broad Spectrum	Galaxy	NGC-1055	11:26 – 03:47	01:36	41	Cetus: Edge on Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-77	11:39 – 03:45	01:37	41	Cetus: Galaxy NGC-1068
Primary Focus	Broad Spectrum	OC	M-34	09:49 – 05:24	01:37	41	Perseus: Open Cluster NGC-1039
Primary Focus	Broad Spectrum	Galaxies	Abell-426	10:28 – 05:37	02:14	42	Perseus: Perseus Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxy	IC-342	11:19 – 05:37	02:41	44	Camelopardalis: Large Face-On Galaxy
Primary Focus	Broad Spectrum	OC	M-45	11:19 – 05:37	02:41	44	Taurus: Pleiades
Primary Focus	Broad Spectrum	DN	IC-2118	*12:49-05:37	03:59	47	Eridanus: Witch Head Nebula
Primary Focus	Broad Spectrum	DN	NGC-1788	02:11 – 05:37	04:01	48	Orion: Foxface Nebula
Primary Focus	Broad Spectrum	GC	M-79	*03:02-05:26	04:18	50	Lepus: Med Globular
Primary Focus	Broad Spectrum	Galaxy	IC-418	*01:39-05:37	04:21	51	Lepus: Spirograph Nebula
Primary Focus	Broad Spectrum	OC	M-38	12:42 – 08:03	04:23	52	Auriga: Starfish Cluster
Primary Focus	Broad Spectrum	OC	M-36	12:52 – 05:37	04:30	54	Auriga: Pinwheel Cluster
Primary Focus	Broad Spectrum	Galaxy	NGC-1961	01:20 – 05:37	04:36	57	Camelopardalis: Galaxy Group
Primary Focus	Broad Spectrum	OC	M-37	01:10 – 05:37	04:46	58	Auriga: Salt and Pepper Cluster

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

Primary Prospects

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HS1a	HyperStar	Nebula	Nebula	NGC-6914 Region	07:17 – 11:07	07:20	03	Composite2! Butterfly Nebula Region
	HyperStar	Nebula	Nebula	IC-1318	07:17 – 11:07	07:21	04	Cygnus: NGC-6914 Region
	HyperStar	Nebula	Nebula	NGC-6960	07:17 – 11:23	07:48	07	Composite2! Cygnus: Veil Nebula
HS2a	HyperStar	Nebula	Nebula, DN	B-168, IC-5146	07:17 – 12:34	08:44	16	Cygnus: Dark Cocoon
	HyperStar	Nebula	Nebula	SH2-132	07:17 – 01:03	09:14	18	Cepheus: Bright Nebula
	HyperStar	Nebula	Nebula	IC-59,63	08:09 – 03:35	11:52	33	Cassiopeia: Bright Nebula
HS2b	HyperStar	Broad Spectrum	Galaxy	M-33	08:55 – 04:02	12:28	36	Triangulum: Triangulum Galaxy
	HyperStar	Nebula	Nebula	M-42	02:53 – 05:37	04:29	53	Orion: Orion Nebula
HS1b	HyperStar	Nebula	Nebula	SH2-240	01:04 – 05:37	04:33	55	Composite2! Rotation Taurus: Nebula
	HyperStar	Nebula	Nebula	LDN-1622 R1	02:31 – 05:37	04:49	59	Orion: Wave Nebula
	HyperStar	Nebula	Nebula	IC-2162, SH2-261	01:57 – 05:37	05:07	62	Rotation Orion: Multiple Nebulas
HS2c	HyperStar	Nebula	Nebula	IC-2169	02:38 – 05:37	05:25	67	Monoceros: Nebula Region
	Focal Reducer	Nebula	Nebula	NGC-6914 Region	07:17 – 11:07	07:20	04	Cygnus: NGC-6914 Region
	Focal Reducer	Nebula	Nebula	IC-1318	07:17 – 11:07	07:21	05	Cygnus: Butterfly Nebula region
FR1a	Focal Reducer	Nebula	Nebula	NGC-6992	07:17 – 01:27	07:52	09	Composite2! Cygnus: Network Nebula
	Focal Reducer	Nebula	R Nebula	NGC-7023	07:17 – 11:19	07:57	10	Cepheus: Iris Nebula
	Focal Reducer	Nebula	Nebula	IC-1396	07:17 – 12:22	08:34	14	Cepheus: Elephant Trunk ROI (2)
	Focal Reducer	Nebula	Nebula, DN	IC-5146	07:17 – 12:34	08:49	16	Cygnus: Dark Cocoon
	Focal Reducer	Nebula	Nebula	SH2-132	07:17 – 01:03	09:14	19	Cepheus: Bright Nebula
FR2a	Focal Reducer	Broad Spectrum	Galaxies	NGC-7331 et. El.	07:17 – 01:09	09:31	19	Rotation Pegasus: Stephan's Quintet & NGC-7331
FR3a	Focal Reducer	Nebula	Nebula	SH2-142	07:17 – 01:28	09:40	20	Cepheus: Wizard Nebula
	Focal Reducer	Nebula	Nebula	Sh2-155	07:17 – 01:32	09:52	21	Cepheus: Cave Nebula

Prospective Imaging Objects – October 14 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	Focal Reducer	Broad Spectrum	Galaxies	NGC-7619	07:34 – 12:57	10:15	23	Pegasus: Pegasus Cluster of Galaxies
	Focal Reducer	Nebula	Nebula	NGC-7822	07:32 – 02:22	10:57	26	Cepheus: Diffuse Nebula
FR2b	Focal Reducer	Broad Spectrum	Galaxy	M-33	08:55 – 04:02	12:28	36	Rotation Triangulum: Triangulum Galaxy
FR1b	Focal Reducer	Broad Spectrum	DN,BN	NGC-1788	02:11 – 05:37	04:01	48	Orion: Foxface Nebula
	Focal Reducer	Nebula	Nebula	NGC-1977	02:49 – 05:37	04:39	54	Orion: Running Man Nebula
	Focal Reducer	Nebula	Nebula	M-78	02:32 – 05:37	04:41	55	Orion: Bright and Dark Nebula
	Focal Reducer	Nebula	Nebula	SH 2-621	01:57 – 05:37	05:07	62	Orion: Lower's Nebula
	Focal Reducer	Broad Spectrum	OC	M-35, NGC-2158	01:40 – 05:37	05:03	63	Gemini: Open Cluster Pair
	Focal Reducer	Nebula	Nebula	NGC-2174	01:48 – 05:37	05:03	63	Orion: Monkey Head Nebula
FR3b	Focal Reducer	Nebula	Nebula	IC-443	01:51 – 05:37	05:10	65	Gemini: Jellyfish Nebula
	Focal Reducer	Nebula	Nebula	NGC-2237	02:54 – 05:37	05:25	66	Monoceros: Rosette Nebula Core
	Focal Reducer	Nebula	Nebula	IC-2169	02:38 – 05:37	05:25	67	Monoceros: Blue Nebula
	Focal Reducer	Nebula	Nebula	NGC-2264	02:48 – 05:37	05:35	68	Comp2! Monoceros: Xmas Tree & Cone
	Primary Focus	Broad Spectrum	GC	M-72	*07:17-10:31	07:49	08	Aquarius: Sm Globular NGC-6981
GC1a	Primary Focus	Broad Spectrum	GC	M-2	07:17 – 10:33	08:29	13	Aquarius: Large Globular
	Primary Focus	Broad Spectrum	GC	M-30	*07:17-09:58	08:36	15	Capricornus: Med Globular
GC1b	Primary Focus	Broad Spectrum	GC	NGC-288	*10:03-01:28	11:48	32	Sculptor: Med/Large Globular
GC1c	Primary Focus	Broad Spectrum	GC	M-79	*03:02-05:26	04:18	50	Lepus: Sm/Med Globular
	Primary Focus	Nebula	PN	NGC-6894	07:17 – 10:45	07:12	02	Cygnus: Sm/Med Planetary
	Primary Focus	Nebula	PN	NGC-7009	*07:17-10:48	08:00	11	Aquarius: Saturn Nebula, Small PN
	Primary Focus	Nebula	PN	NGC-7027	07:17 – 11:49	08:02	11	Cygnus: Small Planetary
PN1a	Primary Focus	Nebula	PN	NGC-7048	07:17 – 11:59	08:10	12	Cygnus: Sm-med PN
	Primary Focus	Nebula	PN	NGC-7094	07:17 – 11:28	08:32	13	Pegasus: Sm/Med Planetary
	Primary Focus	Nebula	PN	NGC-40	08:16 – 02:00	11:08	27	Cepheus: Bow-Tie Nebula
PN1b	Primary Focus	Nebula	PN	NGC-246	*08:57 – 02:23	11:42	30	Cetus: Skull Nebula

Prospective Imaging Objects – October 14 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
PN1c	Primary Focus	Nebula	PN	NGC-1360	*02:33-04:14	02:28	43	Fornax: Robins Egg Nebula
	Primary Focus	Nebula	PN	IC-418	*01:39-05:37	04:21	51	Lepus: Spirograph Nebula
PF1a	Primary Focus	Broad Spectrum	Galaxy	NGC-6946	07:17 – 11:15	07:30	05	Cepheus: Fireworks Galaxy
	Primary Focus	Nebula	DN	IC-1396	07:17 – 12:22	08:34	15	Cepheus: Elephant Trunk ROI (3)
	Primary Focus	Nebula	Nebula	SH2-132	07:17 – 01:03	09:14	19	Cepheus: Bright Nebula
	Primary Focus	Broad Spectrum	Galaxy	NGC 7331 Etl El.	07:17 – 01:09	09:31	20	Pegasus: Stephan's Quintet
PF2a	Primary Focus	Nebula	Nebula	SH2-155	07:17 – 01:32	09:52	22	Cepheus: Cave Nebula
	Primary Focus	Broad Spectrum	Galaxies	NGC-7619 Et. El.	07:334 – 12:57	10:15	24	Pegasus: Pegasus Cluster of Galaxies
	Primary Focus	Broad Spectrum	Galaxies	NGC 67-72	07:40 – 02:46	11:13	27	Andromeda: Andromeda Galaxy Group
	Primary Focus	Nebula	Nebula	IC-59, 63	08:09 – 03:35	11:52	33	Cassiopeia: Bright Nebula
PF3a	Primary Focus	Broad Spectrum	Galaxy	IC-1613	09:45 – 02:18	12:00	33	Cetus: Irregular Dwarf Galaxy
	Primary Focus	Broad Spectrum	Galaxies	Arp-133	10:19 – 02:22	12:00	35	Cetus: Minkowski's Object
	Primary Focus	Nebula	Nebula	SH2-188	08:38 – 04:12	12:25	35	Cassiopeia: Firefox Nebula
	Primary Focus	Broad Spectrum	Galaxy	NGC-772	09:42 – 04:05	12:54	37	Aries: Nautilus Galaxy
	Primary Focus	Broad Spectrum	Galaxy	NGC-1055	11:26 – 03:47	01:36	41	Cetus: Edge on Galaxy
	Primary Focus	Broad Spectrum	Galaxy	M-77	11:39 – 03:45	01:37	41	Cetus: Galaxy
	Primary Focus	Broad Spectrum	Galaxies	Abell-426	10:28 – 05:37	02:14	42	Perseus: Perseus Galaxy Cluster
	Primary Focus	Nebula	Nebula	NGC-1333	10:49 – 05:37	02:23	43	Perseus: Bright Nebula
	Primary Focus	Nebula	Nebula	IC-348	11:03 – 05:37	02:39	43	Perseus: Bright Nebula
PF1b	Primary Focus	Broad Spectrum	Galaxy	IC-342	11:19 – 05:37	02:41	44	Camelopardalis: Face On Galaxy
PF2b	Primary Focus	Nebula	Nebula	NGC-1579	11:44 – 05:37	03:24	47	Perseus: Trifid of the North
	Primary Focus	Nebula	Nebula	NGC-1788	02:11 – 05:37	04:01	48	Orion: Foxface Nebula
	Primary Focus	Nebula	Nebula	IC-405	12:32 – 05:37	04:10	49	Auriga: Flaming Star Nebula
	Primary Focus	Nebula	Nebula	SH 2-261	01:57 – 05:37	05:07	63	Orion: Lower's Nebula
	Primary Focus	Nebula	Nebula	NGC-2237	02:54 – 05:37	05:25	66	Monoceros: Rosette Nebula Core
PF3b	Primary Focus	Nebula	Nebula	IC-2169	02:38 – 05:37	05:25	67	Monoceros: Blue Nebula

Prospective Imaging Objects – October 14 2023

Prospective Imaging Objects – October 14 2023

Imaging Summary October 14, 2023

Astronomical Dusk = 07:17

Astronomical Dawn = 05:37

Imaging Plans

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Imaging Schedule
HS1a	HyperStar	Nebula	Nebula	NGC-6914 Region	07:17 – 11:07	07:20	03	7:15 – 11:30
HS1b	HyperStar	Nebula	Nebula	SH2-240	01:01 – 05:37	04:33	55	12:30 – 05:37
HS2a	HyperStar	Nebula	Nebula, DN	B-168, IC-5146	07:17 – 12:34	08:44	16	07:17 – 11:30
HS2b	HyperStar	Broad Spectrum	Galaxy	M-33	08:55 – 04:02	12:28	36	11:30 – 02:30
HS2c	HyperStar	Nebula	Nebula	IC-2169	02:38 – 05:37	05:25	67	02:30 – 05:30
FR1a	Focal Reducer	Nebula	Nebula	NGC-6992	07:17 – 01:27	07:52	09	C1 07:15 – 11:15 C2 11:30 – 01:30
FR1b	Focal Reducer	Broad Spectrum	DN, BN	NGC-1788	02:11 – 05:37	04:01	48	02:00 – 05:37
FR2a	Focal Reducer	Broad Spectrum	Galaxies	NGC-7331 et. El.	07:17 – 01:09	09:31	19	R 07:17 – 01:00
FR2b	Focal Reducer	Broad Spectrum	Galaxy	M-33	08:55 – 04:02	12:27	36	R 01:00 – 04:30
FR3a	Focal Reducer	Nebula	Nebula	SH2-142	07:17 – 01:28	09:40	20	07:15 – 01:30
FR3b	Focal Reducer	Nebula	Nebula	IC-443	01:51 – 05:37	05:10	65	01:30 – 05:30
GC1a	Primary Focus	Broad Spectrum	GC	M-2	07:17 – 10:33	08:29	13	07:15 – 10:30
GC1b	Primary Focus	Broad Spectrum	GC	NGC-288	*10:03-01:28	11:48	32	10:30 – 01:30
GC1c	Primary Focus	Broad Spectrum	GC	M-79	*03:02-05:26	04:18	50	03:00 – 05:26
PN1a	Primary Focus	Nebula	PN	NGC-7048	07:17 – 11:59	08:10	12	07:15 – 12:00
PN1b	Primary Focus	Nebula	PN	NGC-246	*08:57-02:23	11:42	30	12:00 – 02:30
PN1c	Primary Focus	Nebula	PN	NGC-1360	*02:33-04:14	02:28	43	02:30 – 04:30
PF1a	Primary Focus	Broad Spectrum	Galaxy	NGC-6946	07:17 – 11:15	07:30	05	07:15 – 11:30
PF1b	Primary Focus	Broad Spectrum	Galaxy	IC-342	11:19 – 05:37	02:41	44	11:30 – 05:30
PF2a	Primary Focus	Nebula	Nebula	SH2-155	07:17 – 01:32	09:52	22	07:15 – 12:30

Prospective Imaging Objects – October 14 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Imaging Schedule
PF2b	Primary Focus	Nebula	Nebula	NGC-1579	11:44 – 05:37	03:24	47	12:30 – 05:30
PF3a	Primary Focus	Broad Spectrum	Galaxy	IDC-1613	09:45 – 02:18	12:00	33	09:30 – 02:30
PF3b	Primary Focus	Nebula	Nebula	IC-2169	02:38 – 05:37	05:25	67	02:30 – 05:30
	Primary Focus							