







# All of The Above



Presents



# Autumn



# Happy Equinox!

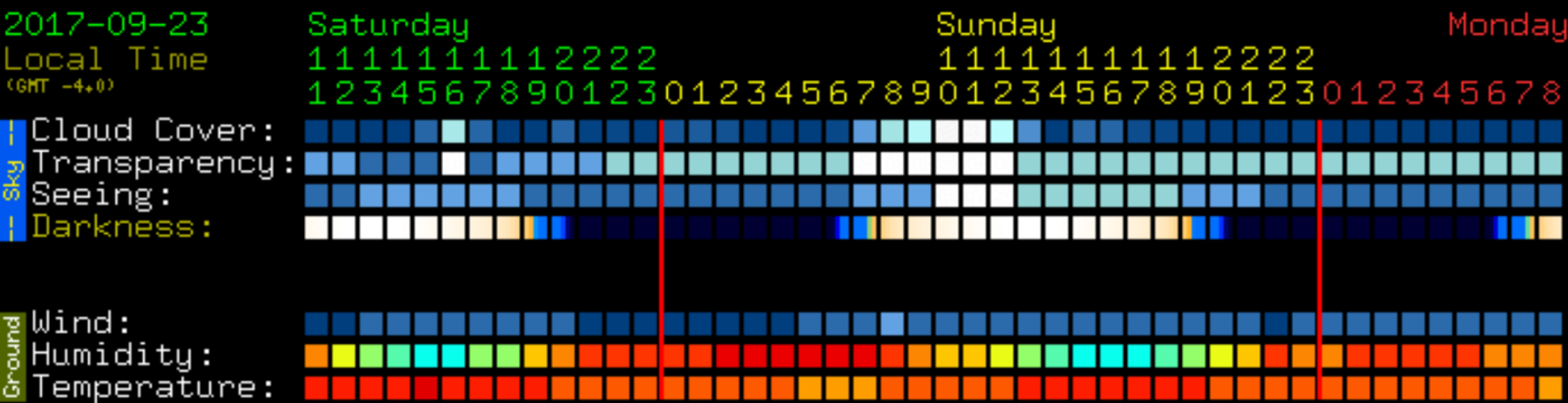
**September 22, 2017: 4:02 PM EDT**

**Currently gaining 2:04 of darkness every day!**



# Current Conditions at Jon Wood Field

## Charlie Elliott WLC Clear Sky Chart



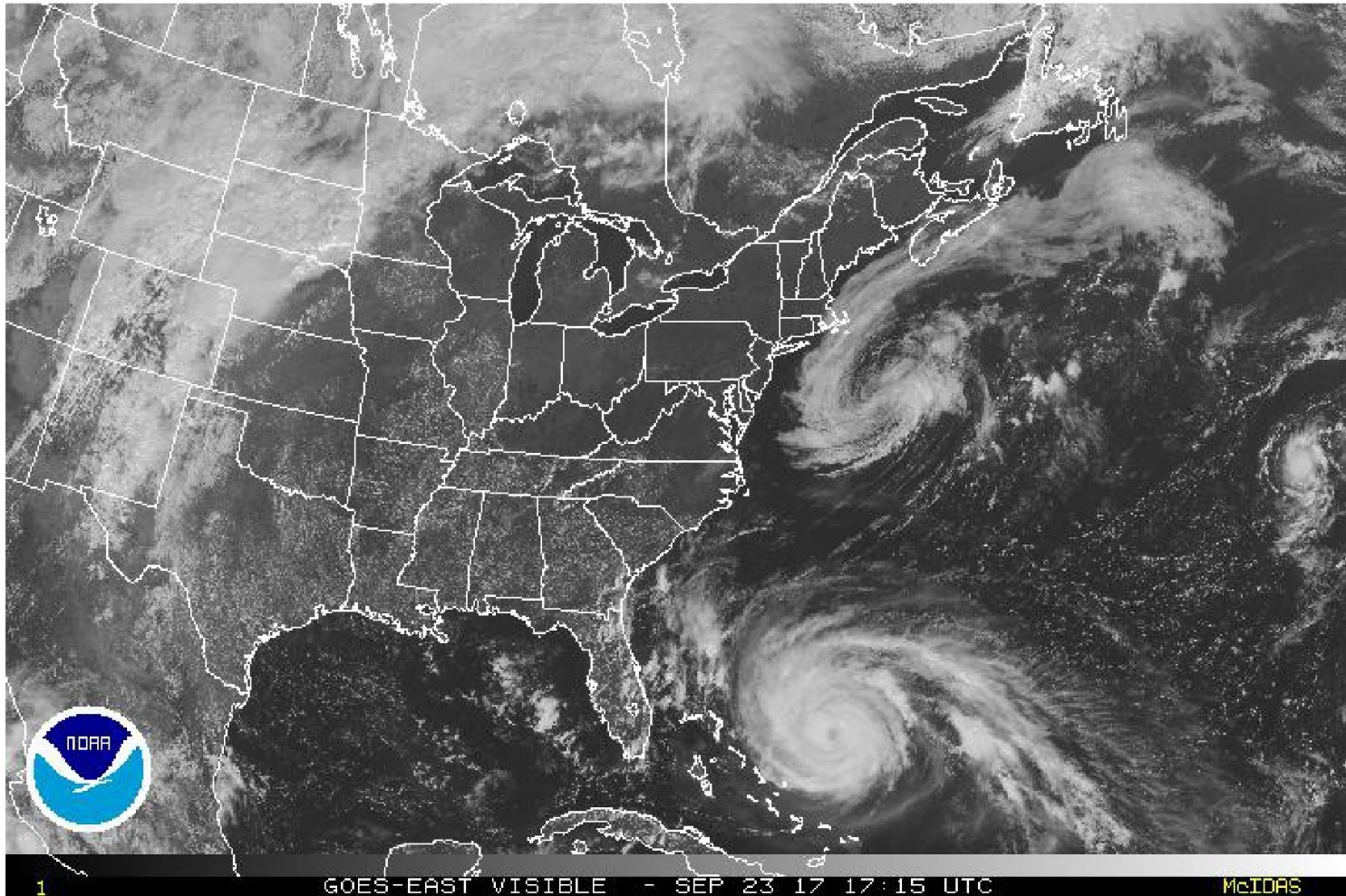
© 2017 A.Danko. forecast: A.Rahill data: Environment Canada Environnement Canada  
 Does not consider forest fire smoke.





# Current Conditions at Jon Wood Field

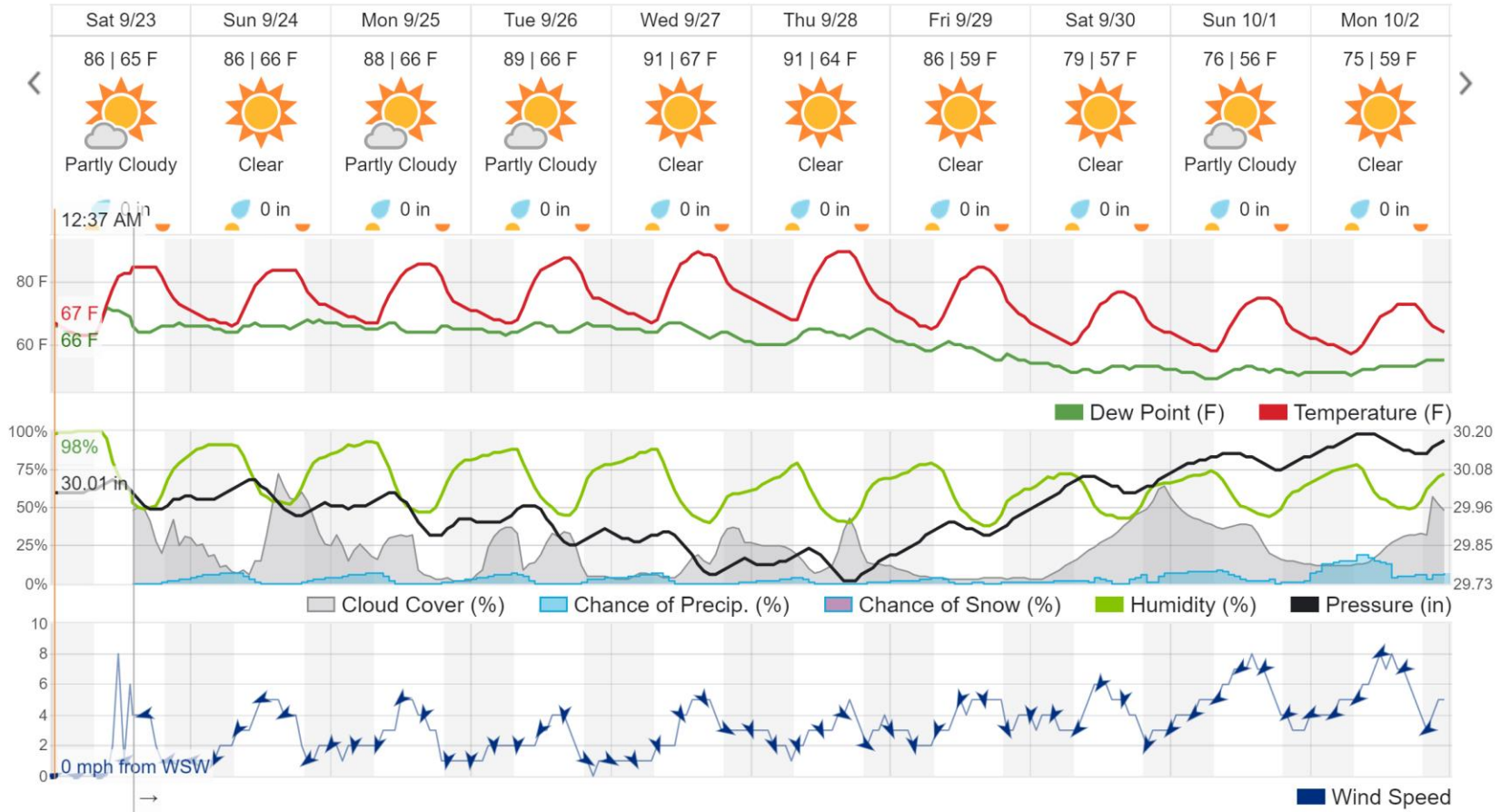
(visible satellite: <http://www.ssd.noaa.gov/goes/east/eaus/flash-vis.html>)





# Current Conditions at Jon Wood Field

(Weather forecast data by [www.wunderground.com](http://www.wunderground.com))

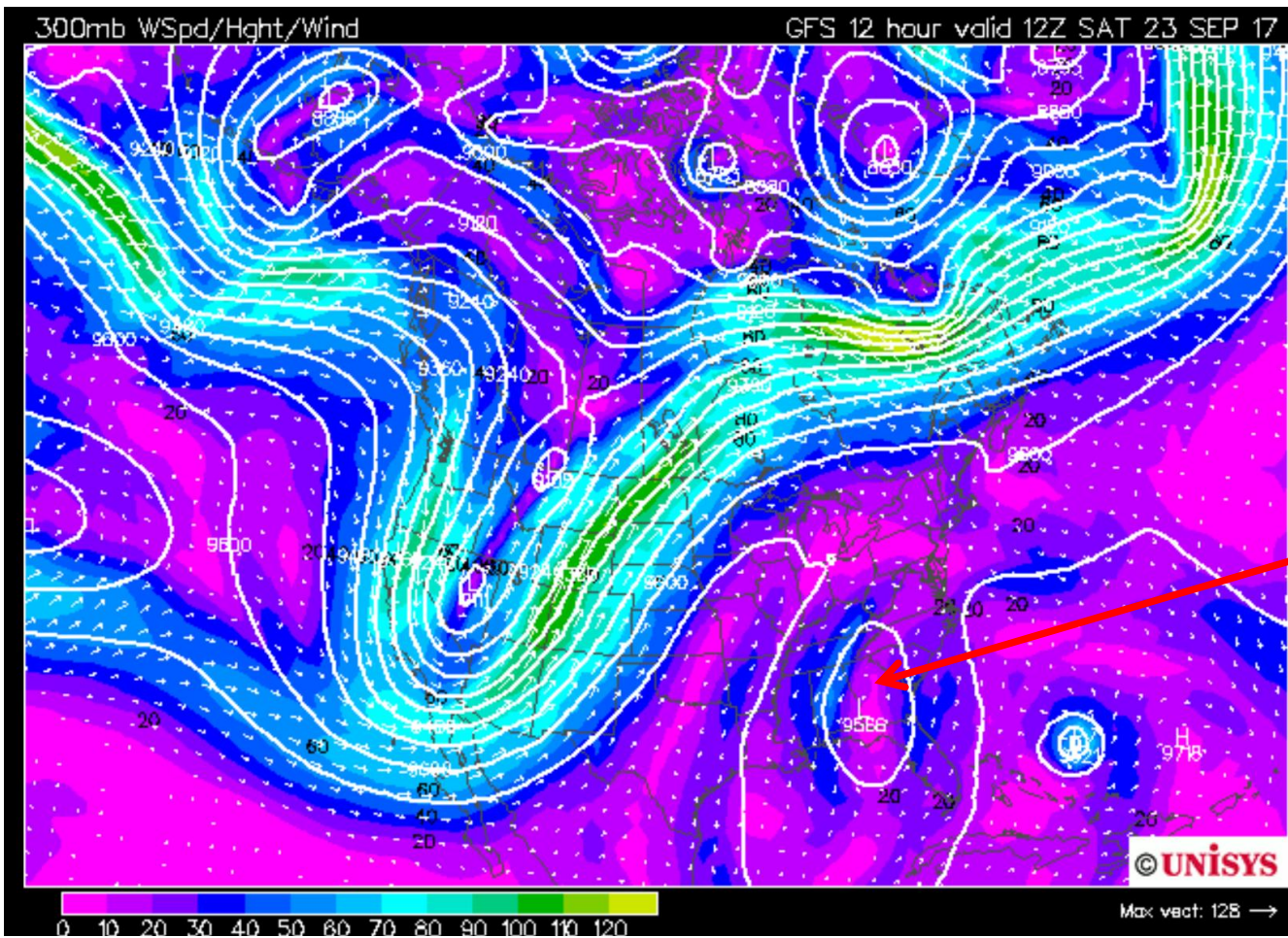






# Current Conditions at Jon Wood Field

(Jet Stream data by [www.weatherstreet.com](http://www.weatherstreet.com))





# The Solar System: September 23, 2017

Body	Constellation	Rise	Set	When to View
Sun	Virgo	7:25 AM	7:31 PM	Sooner than later
Moon	Libra	10:34 AM	9:54 PM	Right after the Potluck
Mercury	Leo	6:25 AM	7:06 PM	Barely before sunrise
Venus	Leo	5:19 AM	6:24 PM	Before dawn
Mars	Leo	5:54 AM	6:44 PM	Ditto
Jupiter	Virgo	9:27 AM	8:42 PM	Early evening
Saturn	Ophiuchus	1:50 PM	11:48 PM	Evening
Uranus	Pisces	8:37 PM	9:39 AM	All night long
Neptune	Aquarius	6:39 PM	6:04 AM	All night long
Pluto	Sagittarius	3:36 PM	1:41 AM	Next summer







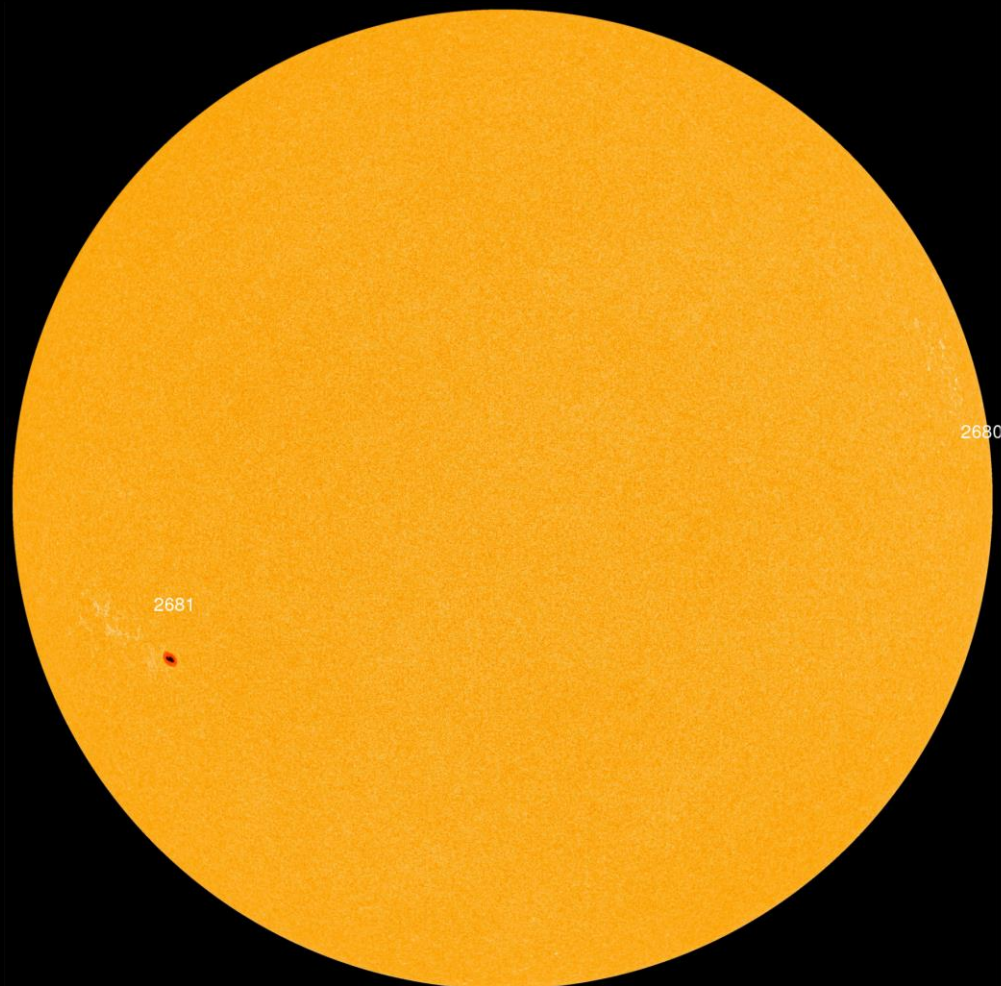
# The Solar Update





# The Sun: September 23, 2017

Image by [www.spaceweather.com](http://www.spaceweather.com)







# The Sun-H $\alpha$ : September 23, 2017

Image by [www.gong2.nso.edu](http://www.gong2.nso.edu) – Cerro Tololo, Chile

National Solar Observatory  
Integrated Synoptic Program  
(NISP)

Cerro Tololo, Chile  
UT: 2017/09/23 14:56



GONG H-Alpha / 6562.8 A





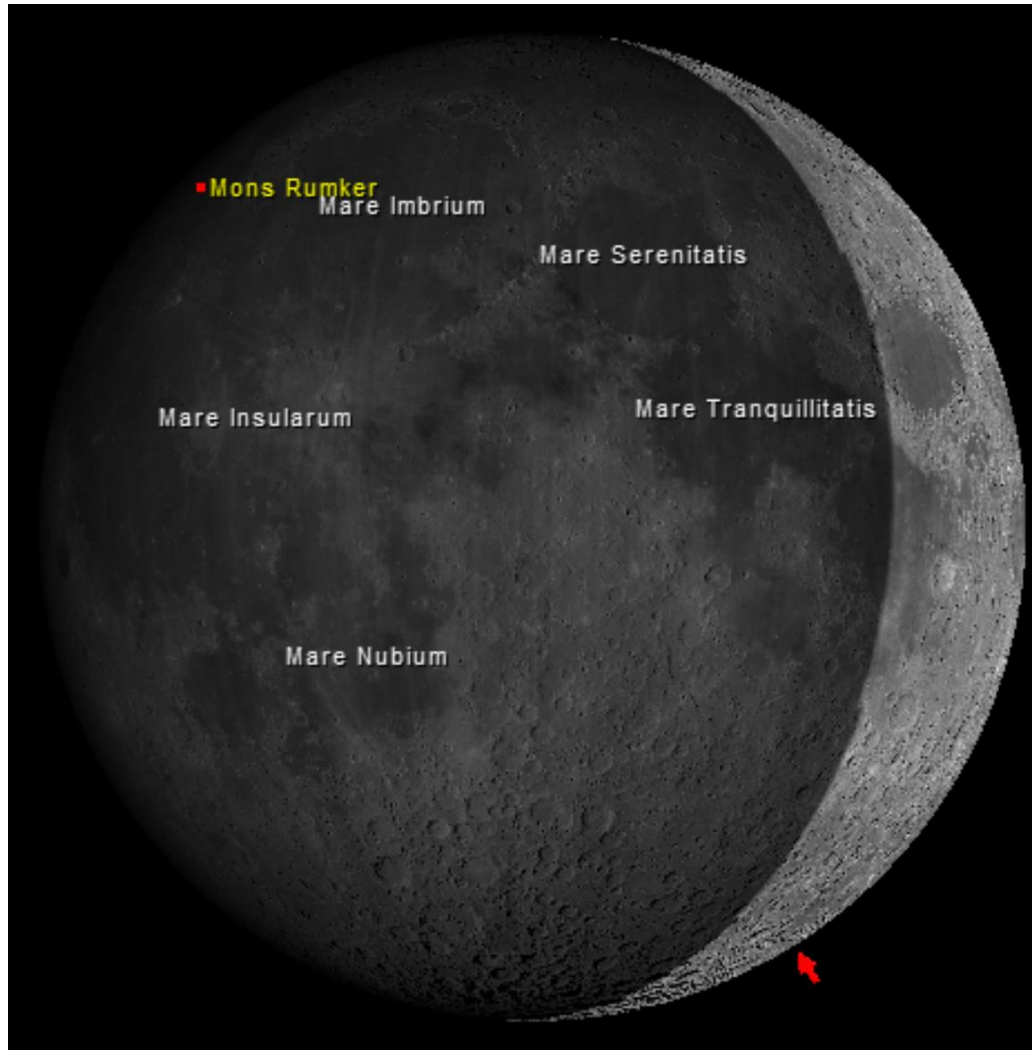
# The Lunar Update







# The Moon: September 23, 2017



**Lunation: 3.6 Day**

**Illumination: 13.4%**

**Mag: -6.4**

**Distance:**

**244,215 mi**

**393,027 km**

**1.32 Light Second**

**Apparent Diameter: 30.2'**

**Location: Libra**



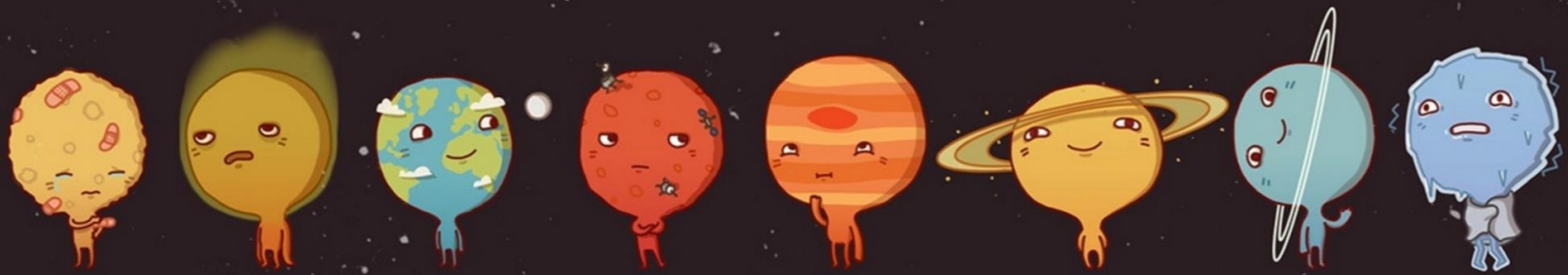
# Lunar Events for September / October

- **September 20<sup>th</sup> – New Moon**
- **September 27<sup>th</sup> – 1<sup>st</sup> Quarter**
- **October 5<sup>th</sup> – Full Moon**
- **October 12<sup>th</sup> – Last Quarter**
- **October 19<sup>th</sup> – New Moon**





# Solar System Update





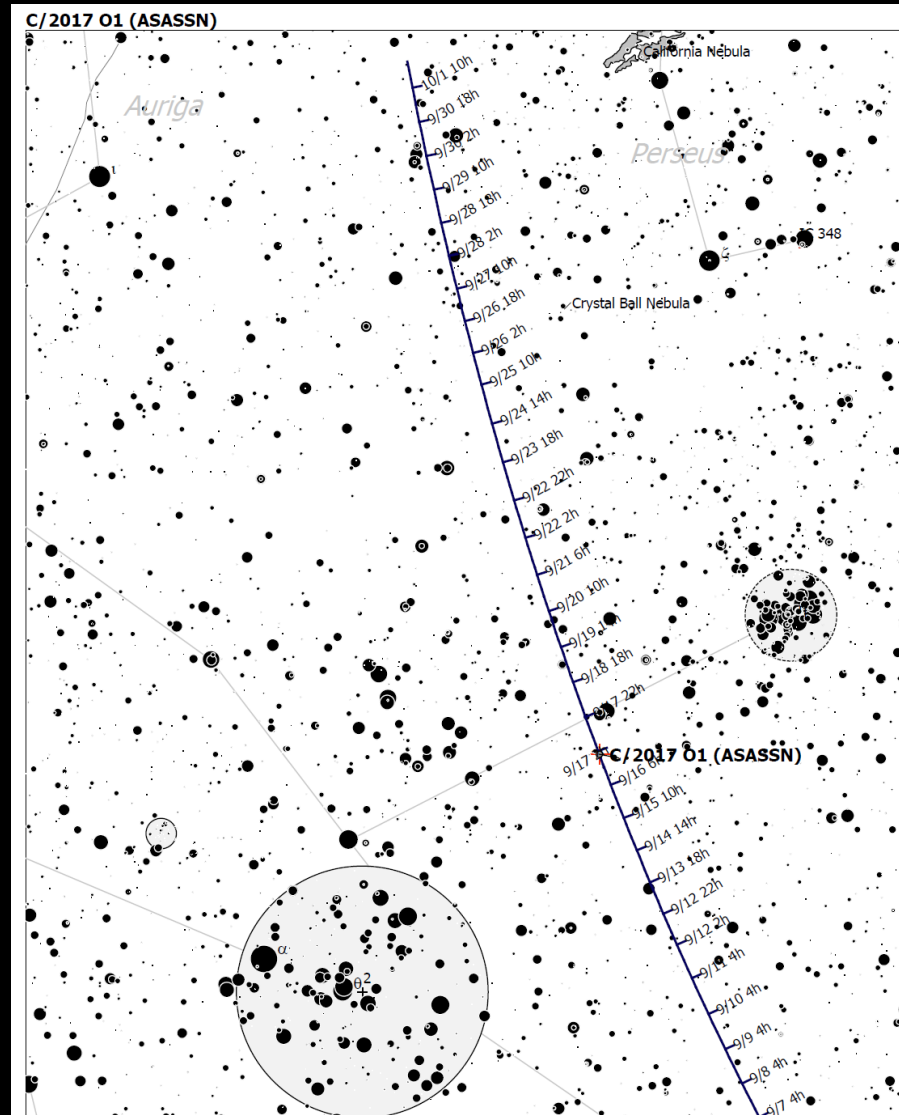
# Saturn (still hanging in there)



S



# Comet C/2017 O1 (ASASSN1)







# Asteroid Update or Space Rocks



# SPACE ROCKS



# Constellation Update

## Stale in the West:

Scorpius  
Corona Borealis

Serpens Caput  
Ophiuchus

## Meridian Crossing:

Capricornus  
Equuleus  
Cepheus  
Cygnus

Sagitta  
Microscopium  
Piscus Austrinus  
Aquarius

## Fresh from the East:

Pisces  
Triangulum  
Aries

Sculptor  
Cetus  
Perseus



A star chart showing various constellations connected by blue lines. The background is a dark blue/black sky filled with numerous small white stars. Several prominent stars are labeled in white text: Capella (top right), Pollux (far right), Deneb (middle left), and Vega (bottom left). The central text is in a bold yellow font.

# Valorie's Constellations of the Month

Capella

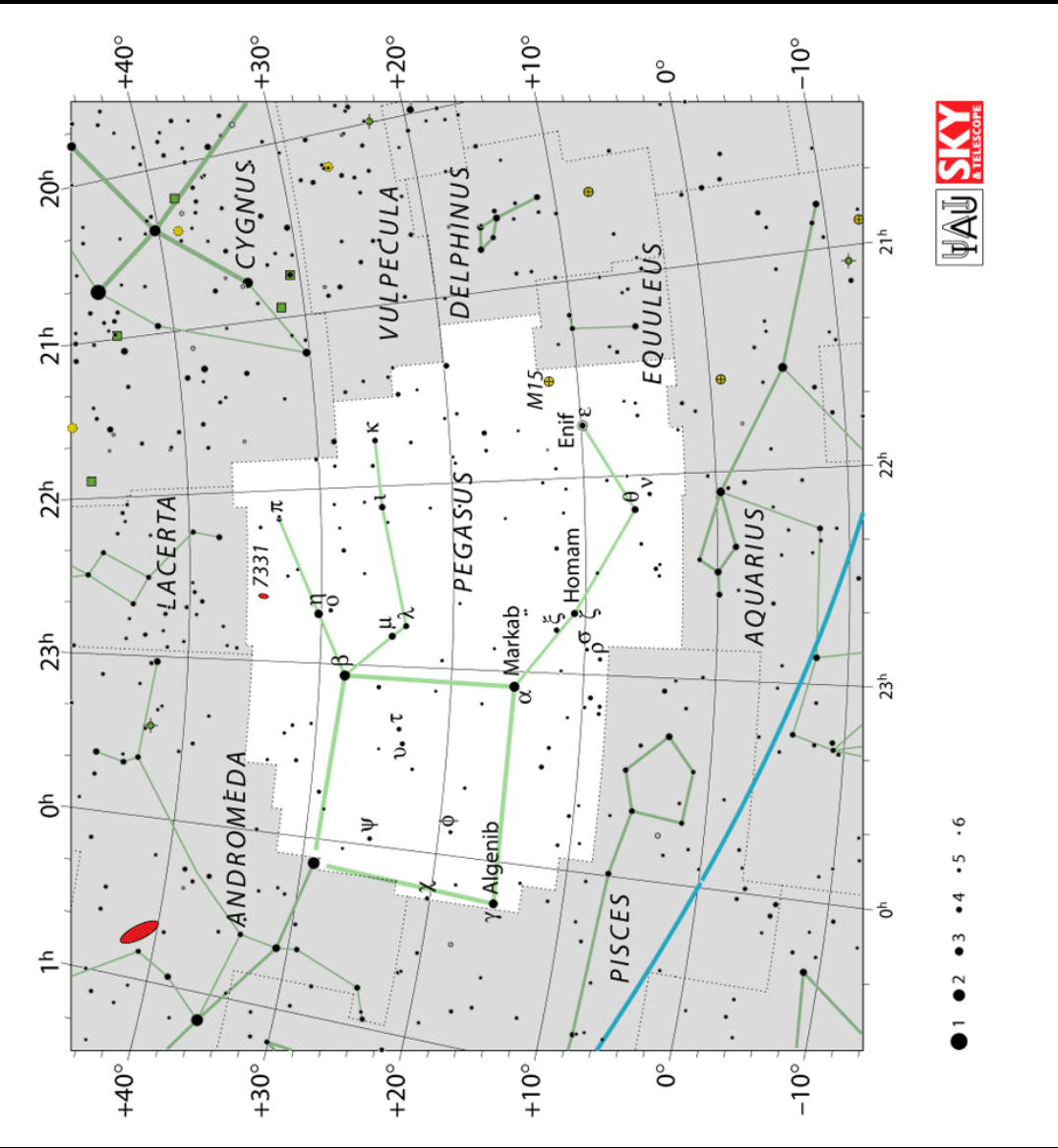
Pollux

Deneb

Vega



# Pegasus – The Winged Horse





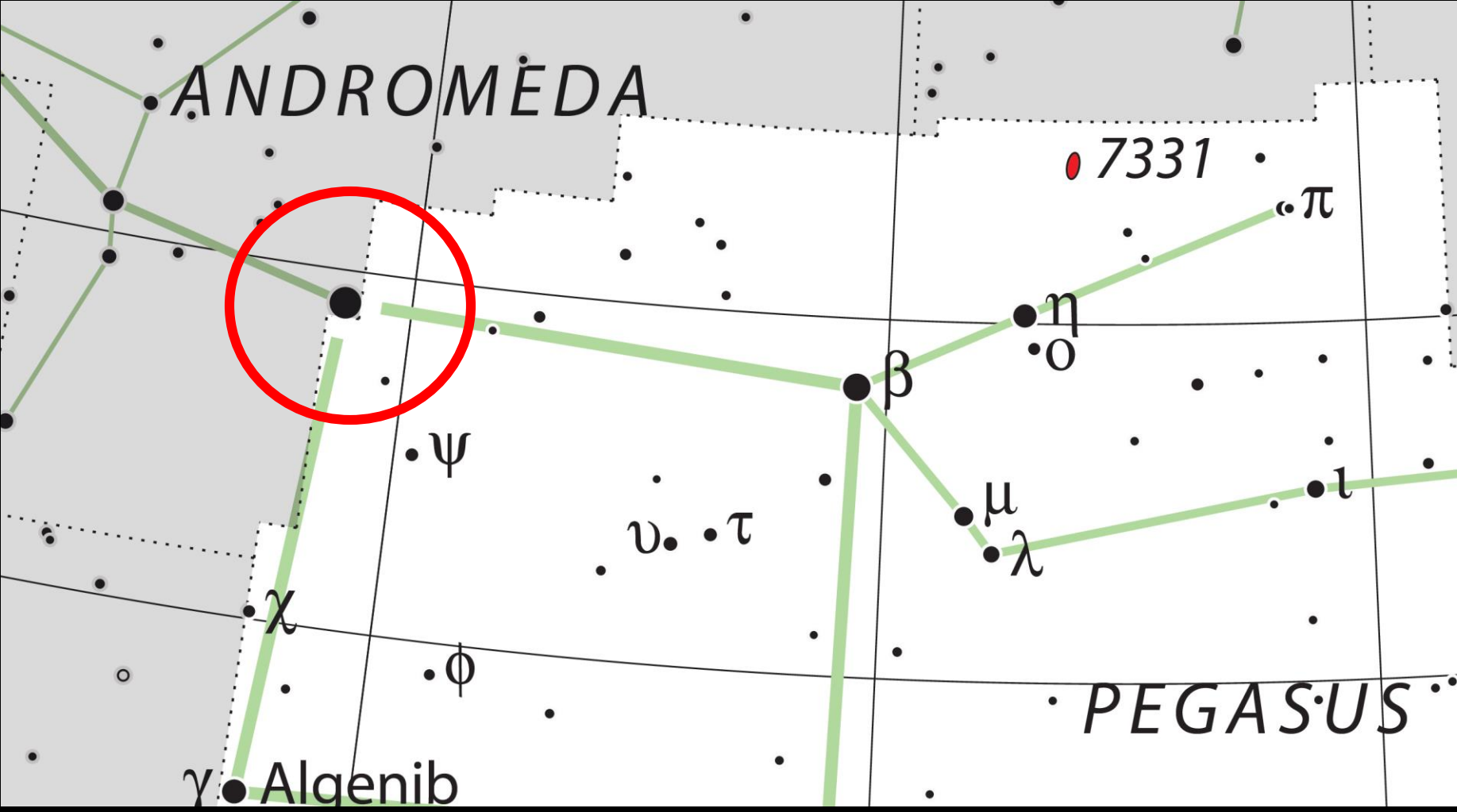
# Pegasus – The Winged Horse





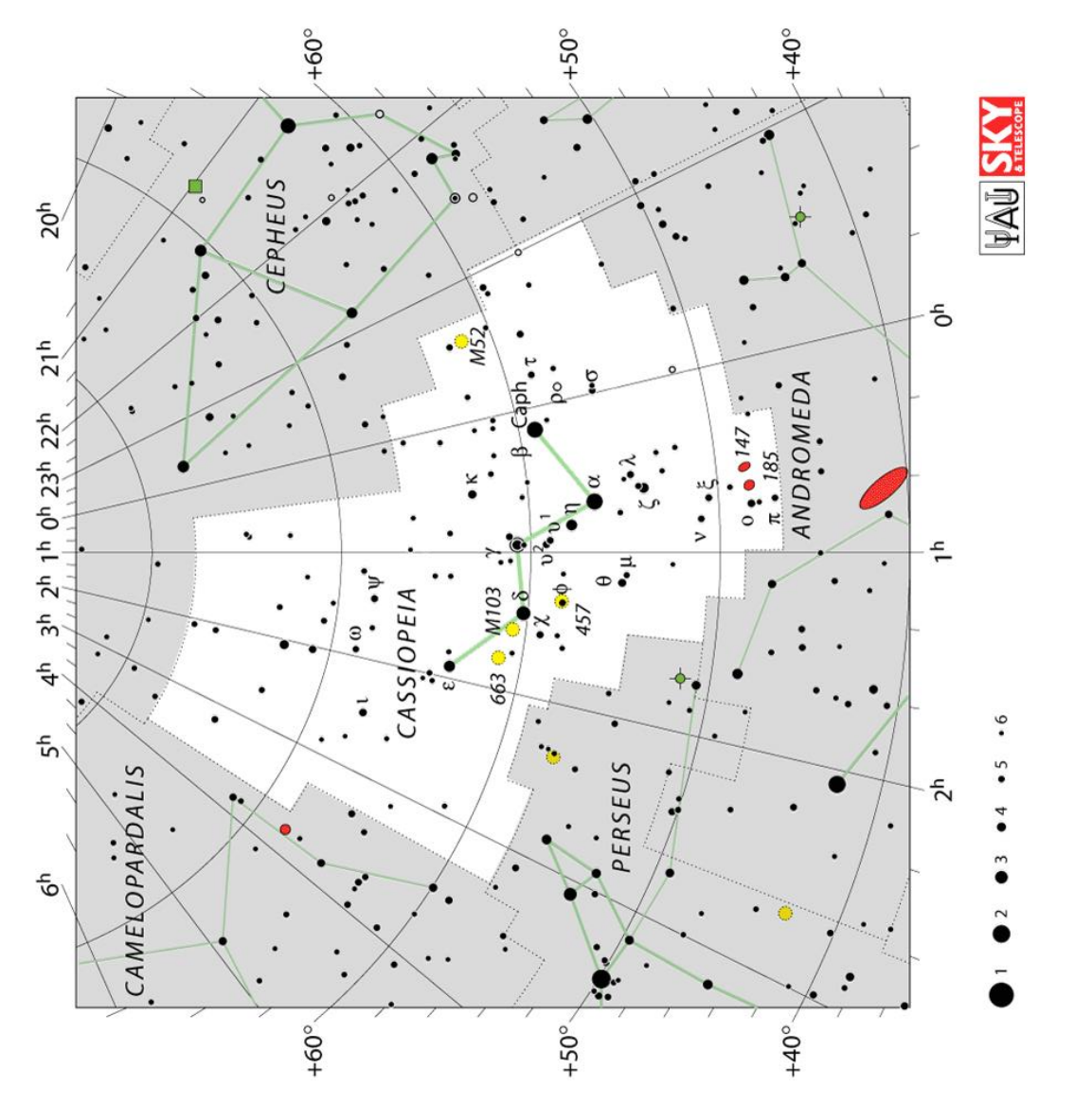


# Pegasus – The Winged Horse





# Cassiopeia – The Queen



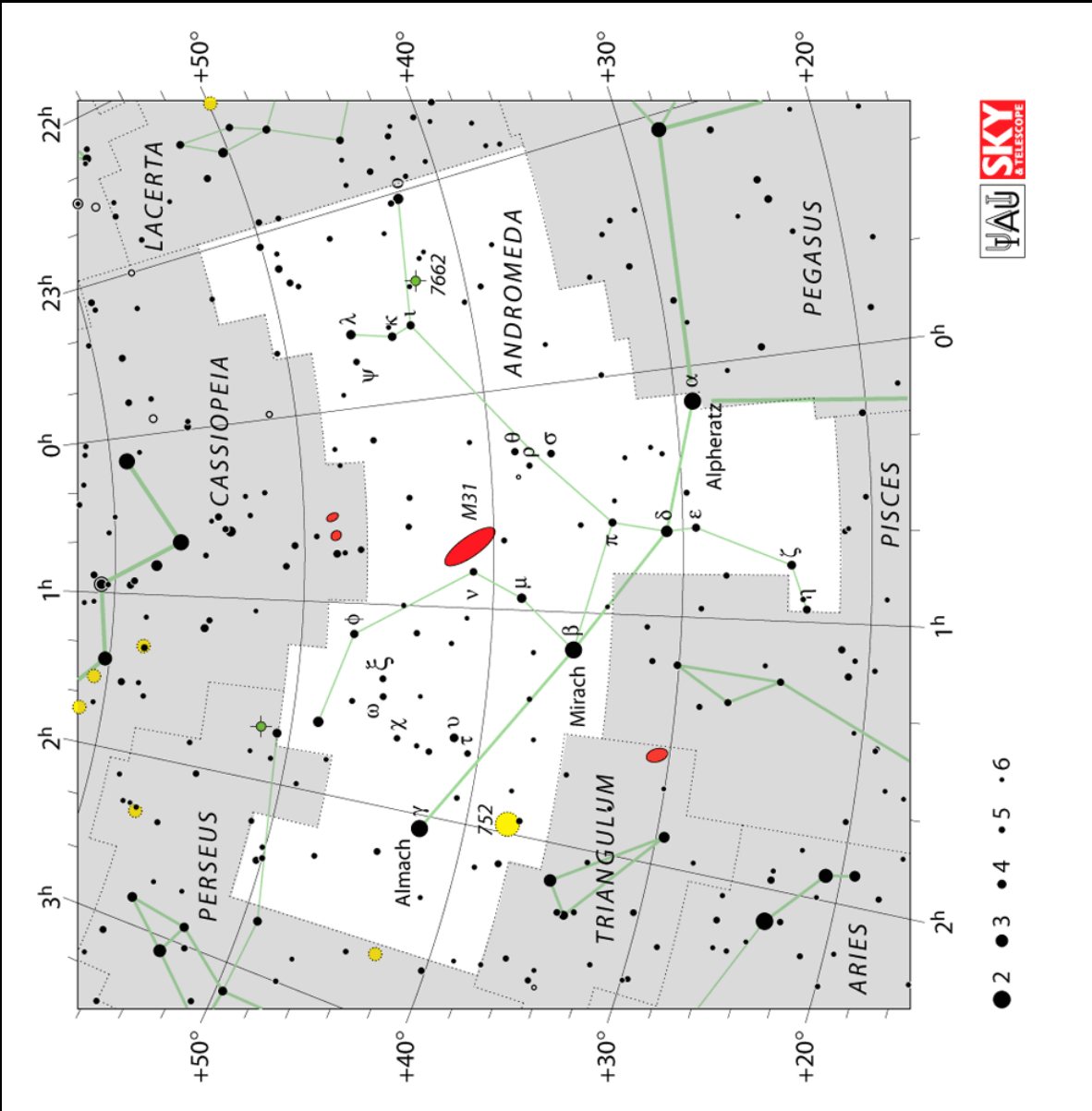


# Cassiopeia – The Queen





# Andromeda – Chained Princess





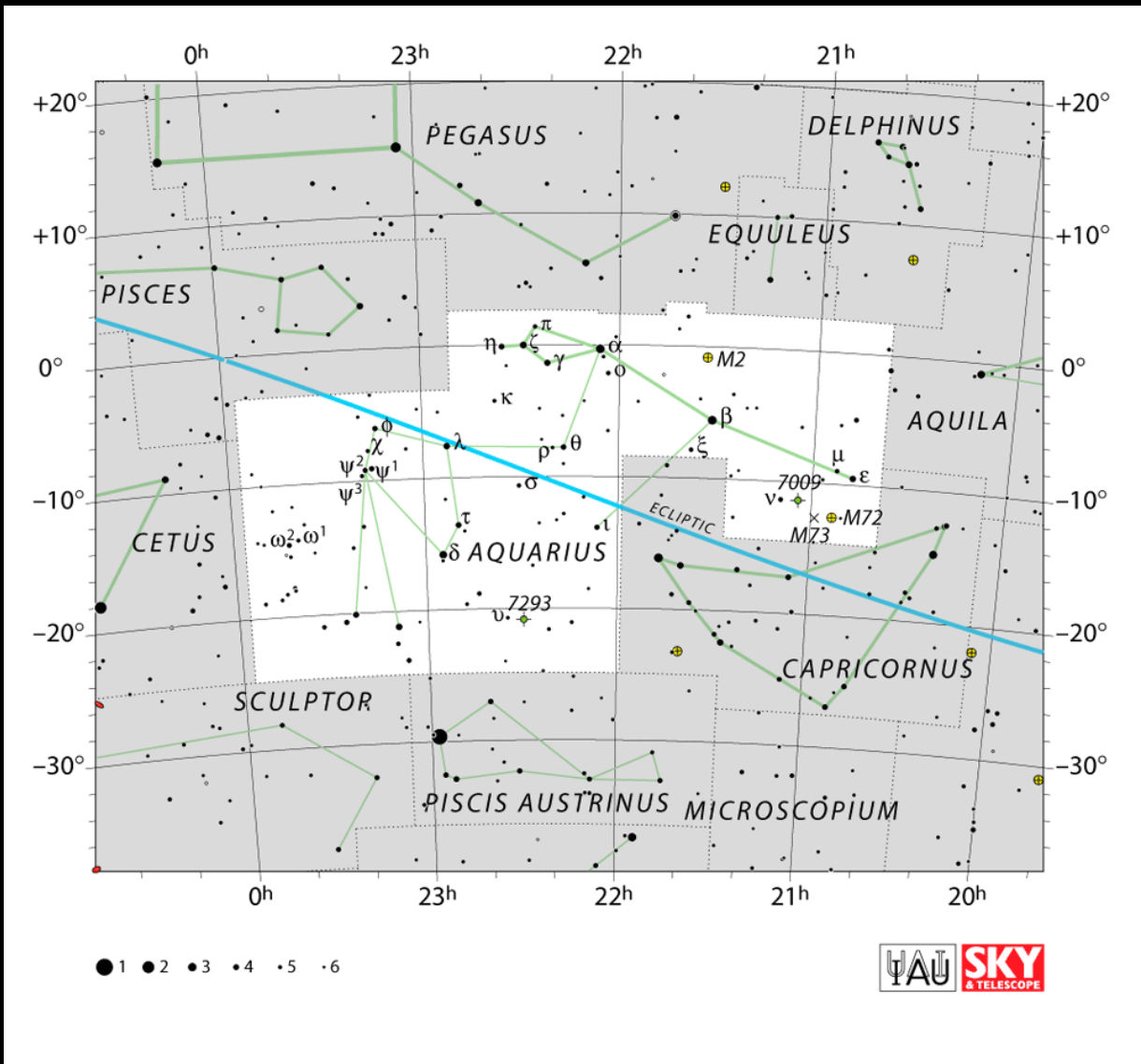


# Andromeda – Chained Princess



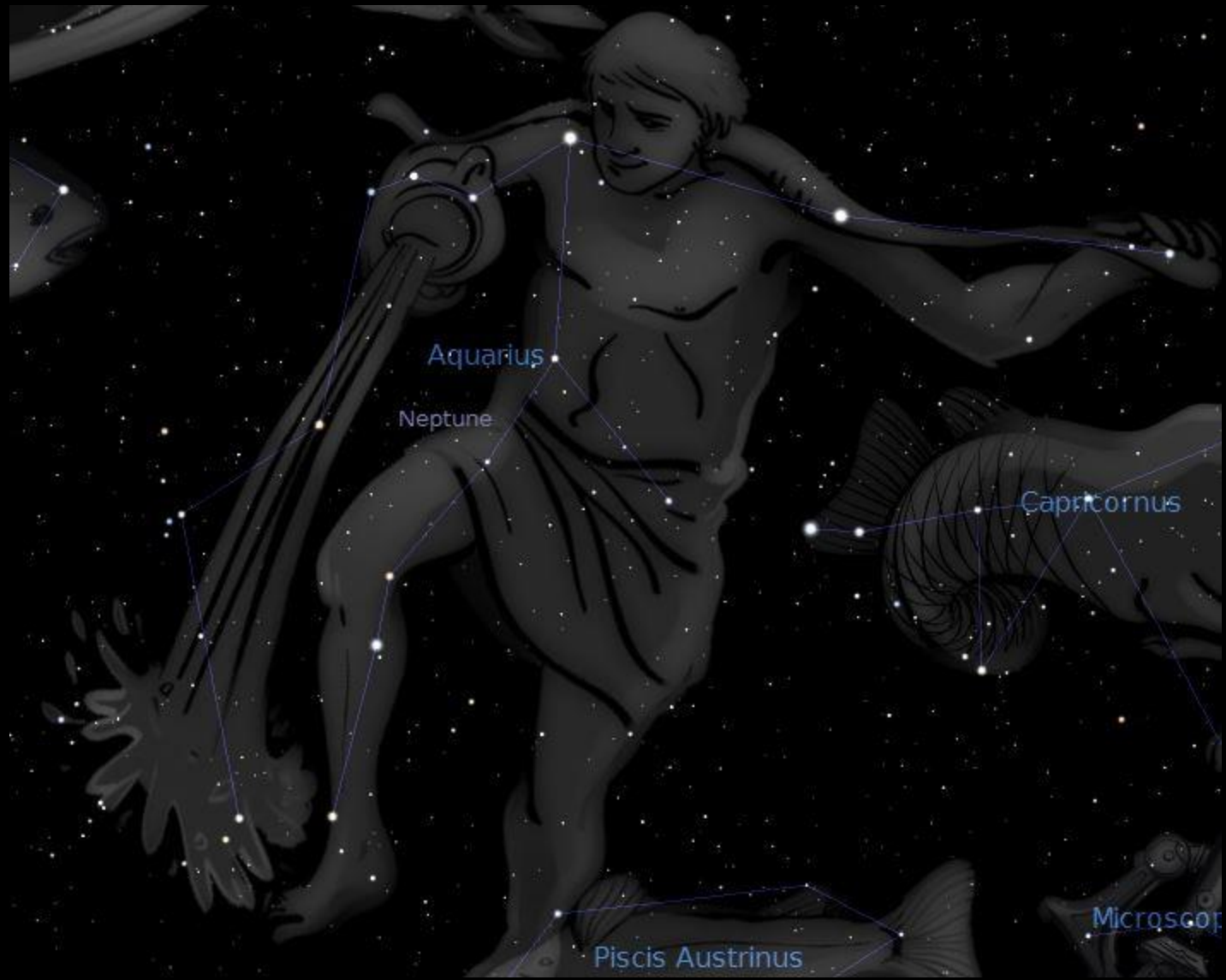


# Aquarius – The Water Bearer



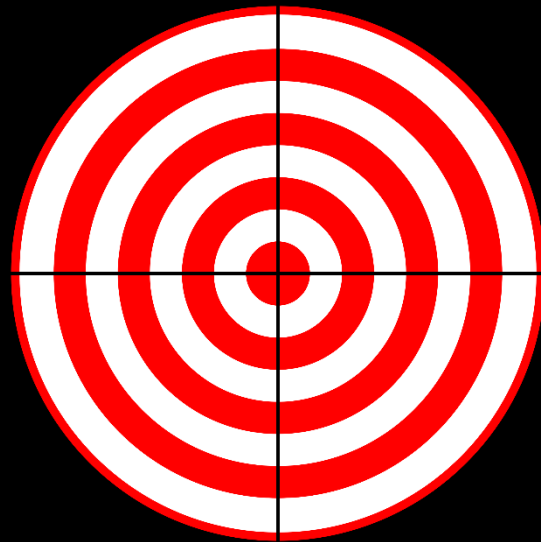


# Aquarius – The Water Bearer







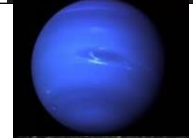


# September /September Target Lists







# September/October Target List: Relaxing Naked Eye and Binocular






Target	Type	Constellation	Notes	Image
M30	GC	Capricornus	Great globular cluster in Capricornus. Easy to observe	
M2	GC	Aquarius	Brilliant globular cluster in Aquarius. Must see.	
Neptune	P	Aquarius	8 <sup>th</sup> planet from the sun. Small blue dot near Lambda Aquarii	
Delta Cephei	S	Cepheus	Prototype Cepheid variable star. Mag +3.6-4.3, Period 5.3 days.	
M31	GX	Andromeda	Andromeda Galaxy: Because it's that time of year so get to it!	



# September/October Target List:

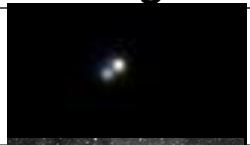



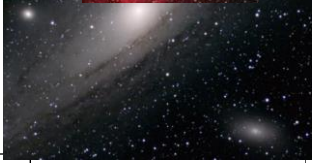
## Intriguing

### Small to medium telescopes

Target	Type	Constellation	Notes	Image
NGC 7789	OC	Cassiopeia	"Caroline's Rose": Mag+6.69, 25', Large and rich open cluster	
NGC 7662	PN	Andromeda	"Blue Snowball", Mag +8.3, 0.5'x0.5', Bright blue/green PN. Use OIII filter	
NGC 7331	GX	Pegasus	"Deerlick Galaxy": Elongated Spiral galaxy, Mag +9.5, 10.2'x4.2'	
NGC 7479	GX	Pegasus	Caldwell 44: Barred spiral near Markab. Mag+10.9, 4'x3'	
M32	GX	Andromeda	Another companion to M31: Required so just go with it.	



# September/October Target List: Taxing Light Buckets

Target	Type	Constellation	Notes	Image
Pi Aquilae	DS	Aquila	Mag + 6.3, +6.8, blue and white pair, 1.5" separation.	
Sh 2-88	EN	Vulpecula	Tough Emission nebula, use OIII filter, 17' x 9'	
NGC 7923	PN	Aquarius	"Helix Nebula": Mag +7.59, 14'x12', Use OIII for best view	
NGC 281	BN	Cassiopeia	"Pac Man Nebula": Large and diffuse. Use OIII filter. Mag+7.4	
M110	GX	Andromeda	M31's companion. Catch it while you are looking at M31.	



# September / October Observing Challenge: Comet C/2017 O1

- 8<sup>th</sup> – 10<sup>th</sup> Magnitude
- Moving through Taurus
- Entering Perseus on 9/27
- Entering Camelopardalis 10/16







# Summary of Celestial Events to Note:

- **September / October – Comet C/2017 O1 (ASASSN1) visible.**
- **October 14<sup>th</sup> – Next Charlie Elliott Astronomy Meeting**
- **October 15<sup>th</sup> – First day of PSSG**



# Clear Skies

