



# All of The Above

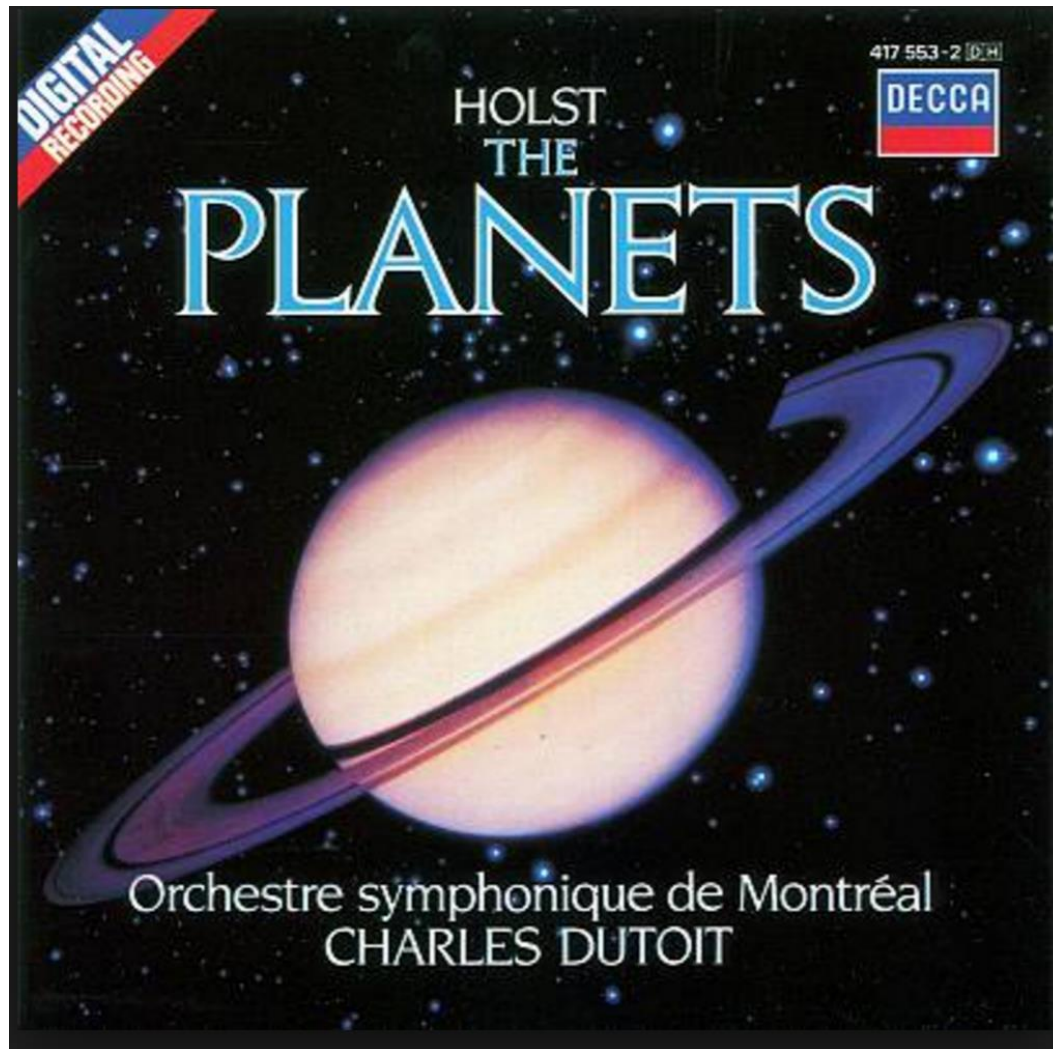
Presents

# King Jupiter





# Musical Score:

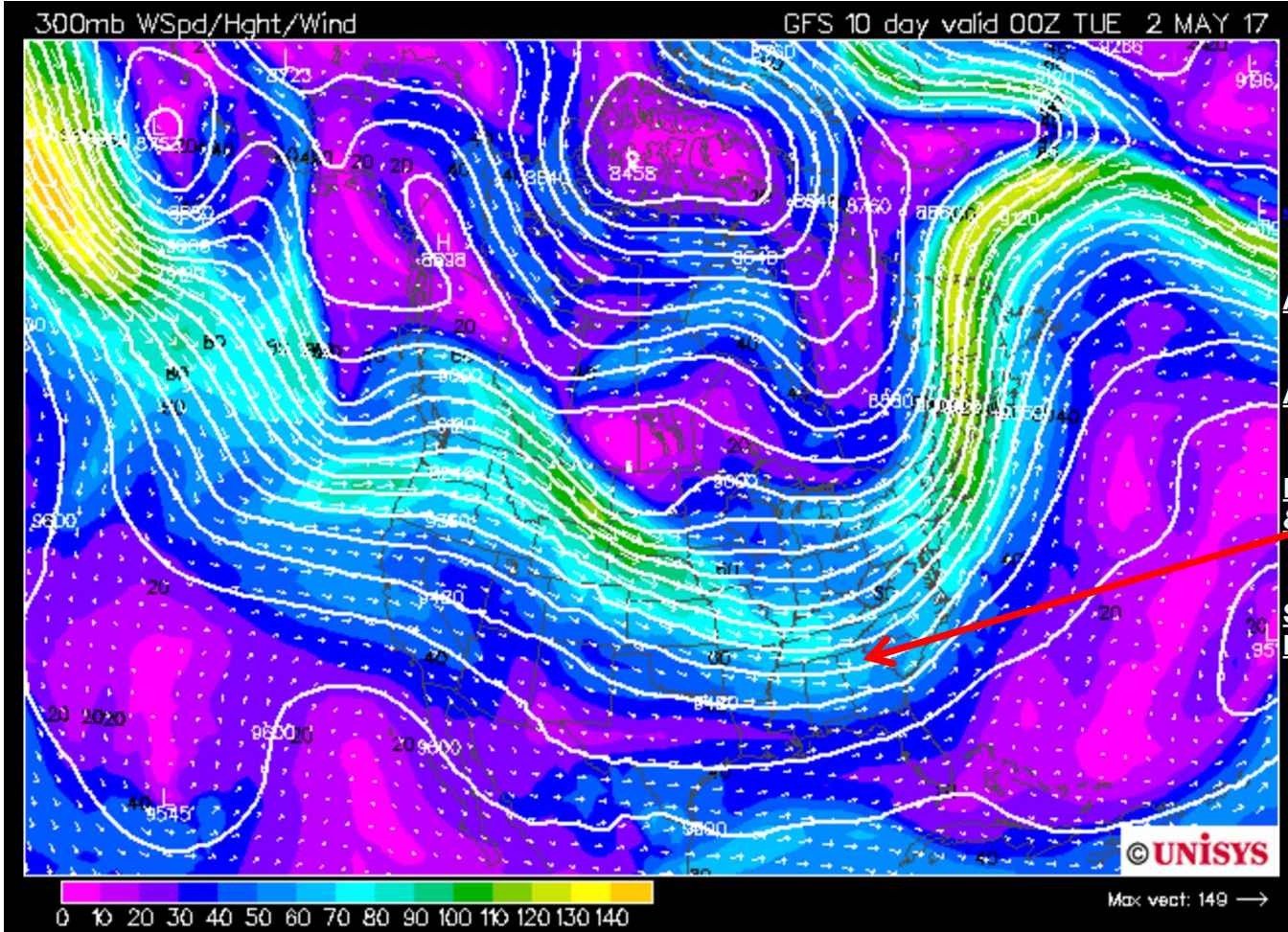






# Current Conditions at Jon Wood Field

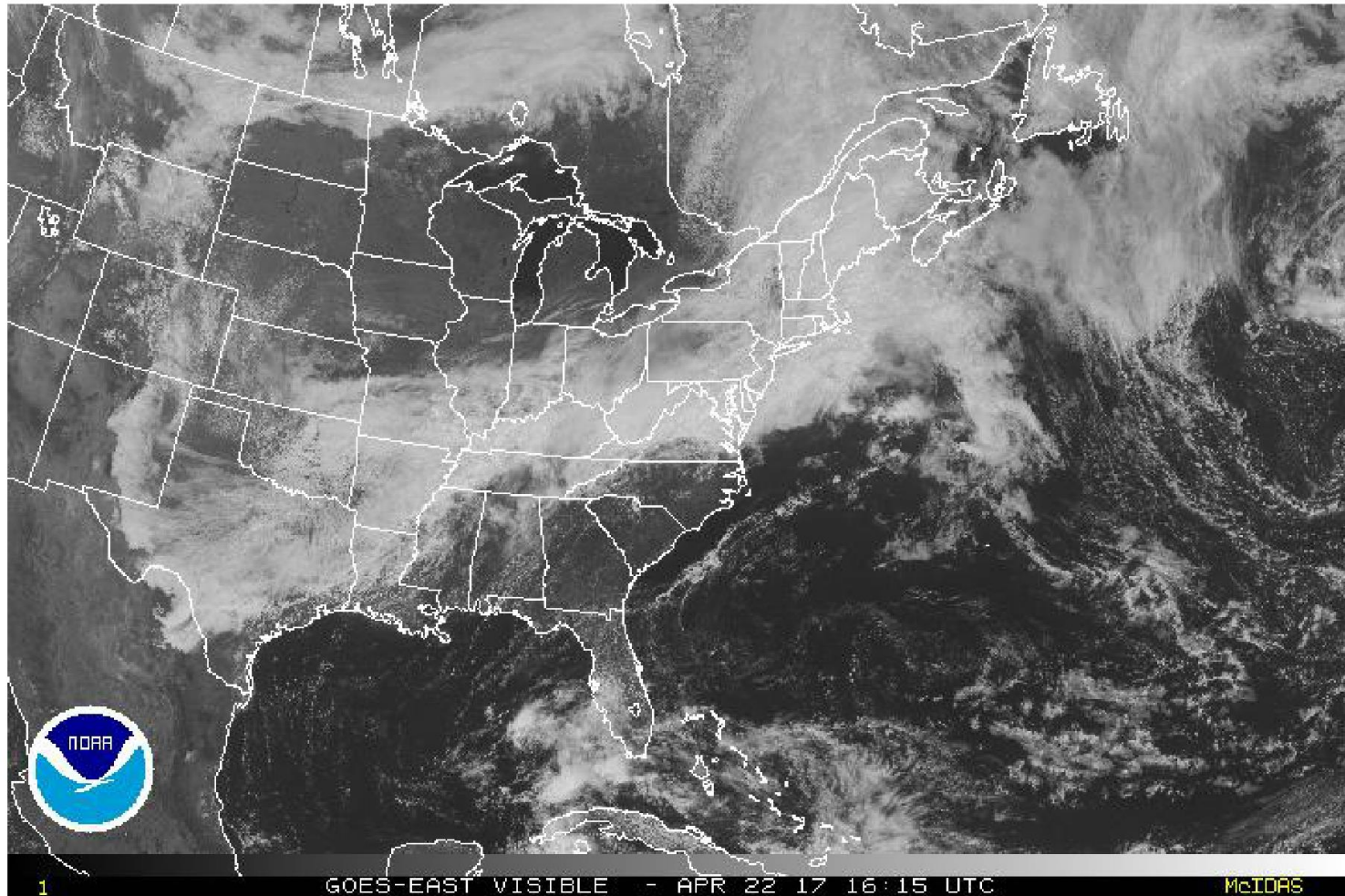
(Jet Stream data by [www.weatherstreet.com](http://www.weatherstreet.com))





# Current Conditions at Jon Wood Field

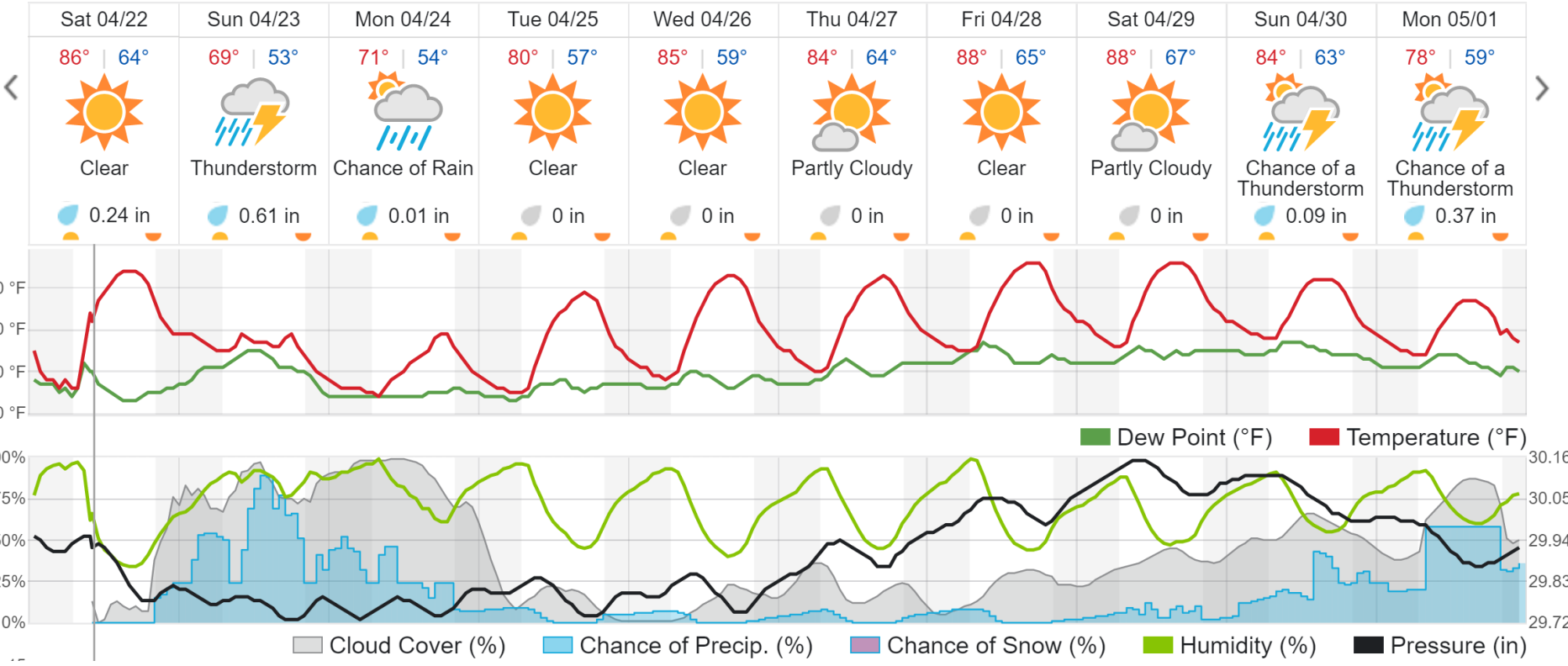
(visible satellite: <http://www.ssd.noaa.gov/goes/east/eaus/flash-vis.html>)





# Current Conditions at Jon Wood Field

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





# The Solar System: April 22, 2017

Body	Constellation	Rise	Set	When to View
Sun	Pisces	6:57 AM	8:13 PM	Too much for my liking
Moon	Aquarius	4:36 AM	4:12 PM	On the way to work
Mercury	Pisces	6:43 AM	7:50 PM	Wait for it.....4/29
Venus	Pisces	5:13 AM	5:27 PM	Morning star
Mars	Aries	8:25 AM	10:29 PM	Meh
Jupiter	Virgo	6:45 PM	6:26 AM	The King is up all night
Saturn	Sagittarius	12:24 AM	10:22 PM	Graveyard Shift
Uranus	Pisces	6:39 AM	7:32 PM	Someday, but not now
Neptune	Aquarius	4:51 AM	4:15 PM	Ditto
Pluto	Sagittarius	1:55 AM	11:59 AM	See previous





# The Solar Update

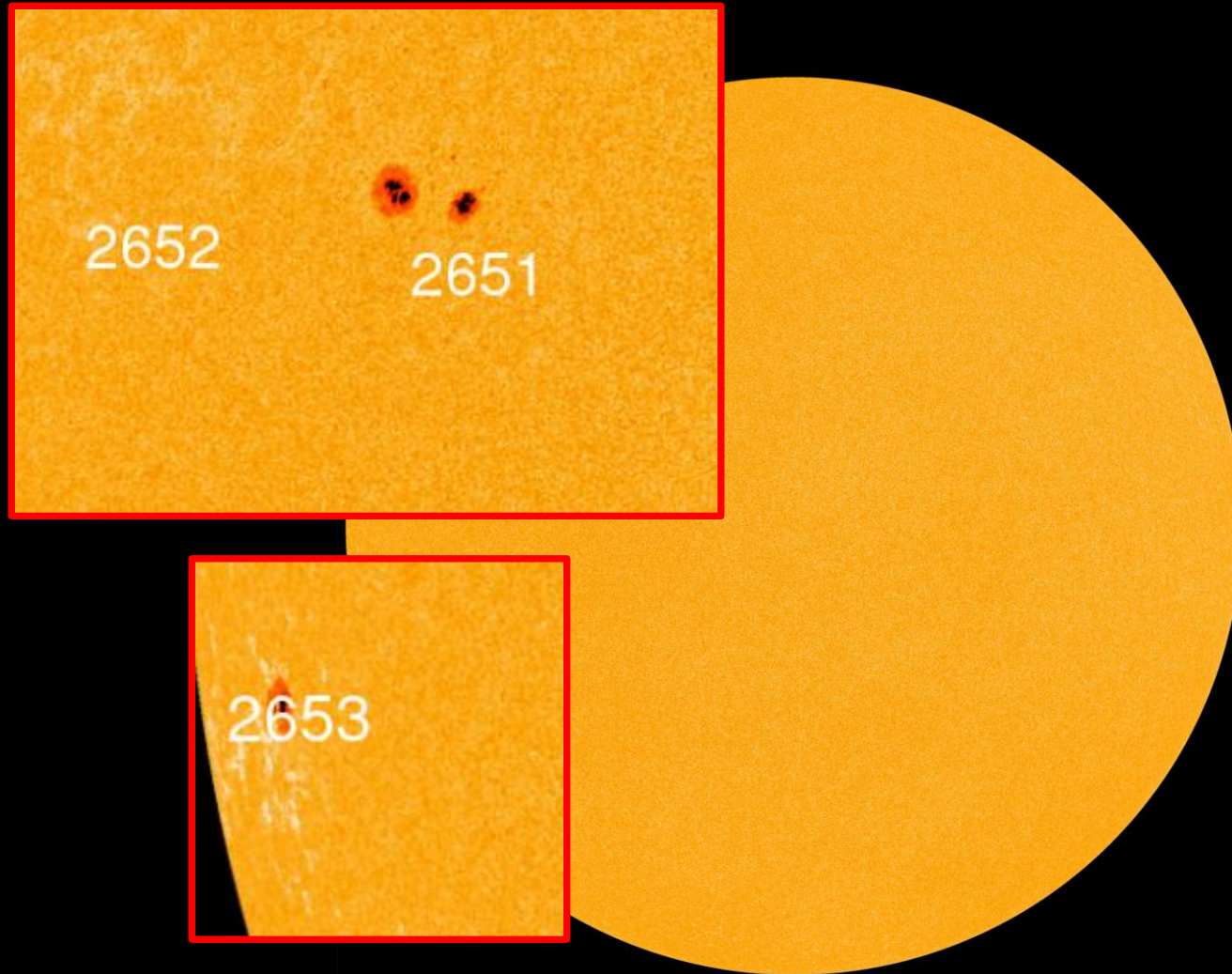






# The Sun: April 22, 2017

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





# The Sun-H $\alpha$ : April 22, 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: 2017/04/22 14:28



GONG H-Alpha / 6562.8 A





# The Sun: April 22, 2017

## Sunspot Report

:Product: 0422SRS.txt

:Issued: 2017 Apr 22 0030 UTC

# Prepared jointly by the U.S. Dept. of Commerce, NOAA,  
# Space Weather Prediction Center and the U.S. Air Force.

#

Joint USAF/NOAA Solar Region Summary

SRS Number 112 Issued at 0030Z on 22 Apr 2017

Report compiled from data received at SWO on 21 Apr

I. Regions with Sunspots. Locations Valid at 21/2400Z

Nmbr	Location	Lo	Area	Z	LL	NN	Mag	Type
------	----------	----	------	---	----	----	-----	------

2651	N12E30	071	0130	Cao	05	07	Beta	
------	--------	-----	------	-----	----	----	------	--

2652	N13E45	056	0010	Hrx	01	01	Alpha	
------	--------	-----	------	-----	----	----	-------	--

2653	S09E76	025	0040	Hax	02	01	Alpha	
------	--------	-----	------	-----	----	----	-------	--

IA. H-alpha Plages without Spots. Locations Valid at 21/2400Z Apr

Nmbr	Location	Lo
------	----------	----

None

II. Regions Due to Return 22 Apr to 24 Apr

Nmbr	Lat	Lo
------	-----	----

None



# The Lunar Update!

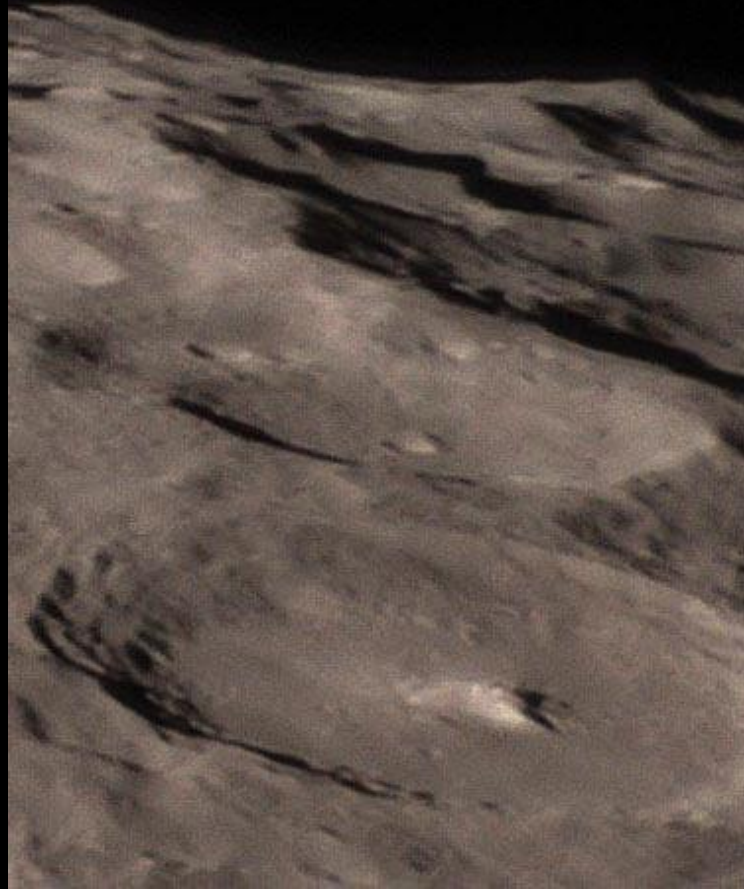
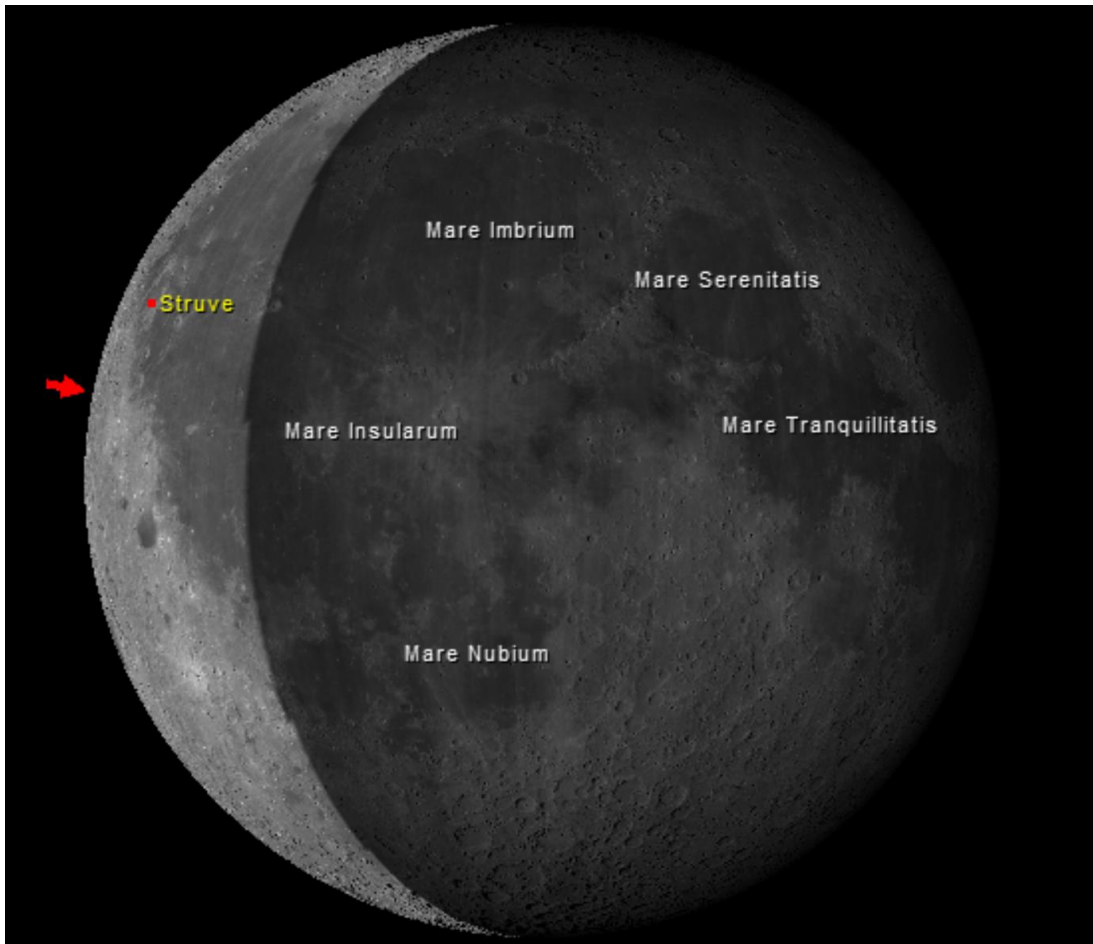


Image by Mike Shaw: Craters Moretus and Short



# The Moon: April 22, 2017



**Lunation: 25.5 Day**

**Illumination: 17.5%**

**Mag: -7.1**

**Distance:**

**235,106 mi**

**379,279 km**

**1.27 Light Second**

**Apparent Diameter: 31.5'**

**Location: Aquarius**



# Lunar Events for April/May

- **April 26<sup>th</sup> – New Moon**
- **April 27<sup>th</sup> – Moon at Perigee**
- **May 2<sup>nd</sup> – 1<sup>st</sup> Quarter**
- **May 7<sup>th</sup> – Moon in conjunction with Jupiter**
- **May 10<sup>th</sup> – Full Moon**
- **May 25<sup>th</sup> – New Moon**



# Solar System Update





# Jupiter – Planet of the Month

Opposition April 7<sup>th</sup> -- Mag -2.5

- Diameter: 86,881 mi (11x Earth)
- Volume: 1,300 Earths
- Rotation: 9.925 hours
- Orbit: 11.86 years
- Max size 2017: 44.3"
- April 22<sup>nd</sup> size: 44.0"







Date and Time

Date and Time			Julian Day		
2017	/	4	/	22	22
				:	5
				:	59



Date and Time [X]

Date and Time				Julian Day					
2017	/	4	/	23	3	:	1	:	21







Date and Time

Date and Time			Julian Day		
2017	/	5 / 17	6	:	2 : 31

ids



**Mercury at greatest western elongation – May 17**



# Constellation Update

## Last Chance for the Jon Wood Field

**Gemini**

**Cancer**

**Camelopardalis**

**Canis Minor**

**Lynx**

## High in the Sky (neck breakers):

**Corvus**

**Crater**

**Hydra**

**Virgo**

**Coma Berenices**

**Bootes**

**Canes Venatici**

**Ursa Major**

## Fresh from the East:

**Draco**

**Hercules**

**Corona Borealis**

**Libra**

**Serpens Caput**

**Cepheus**

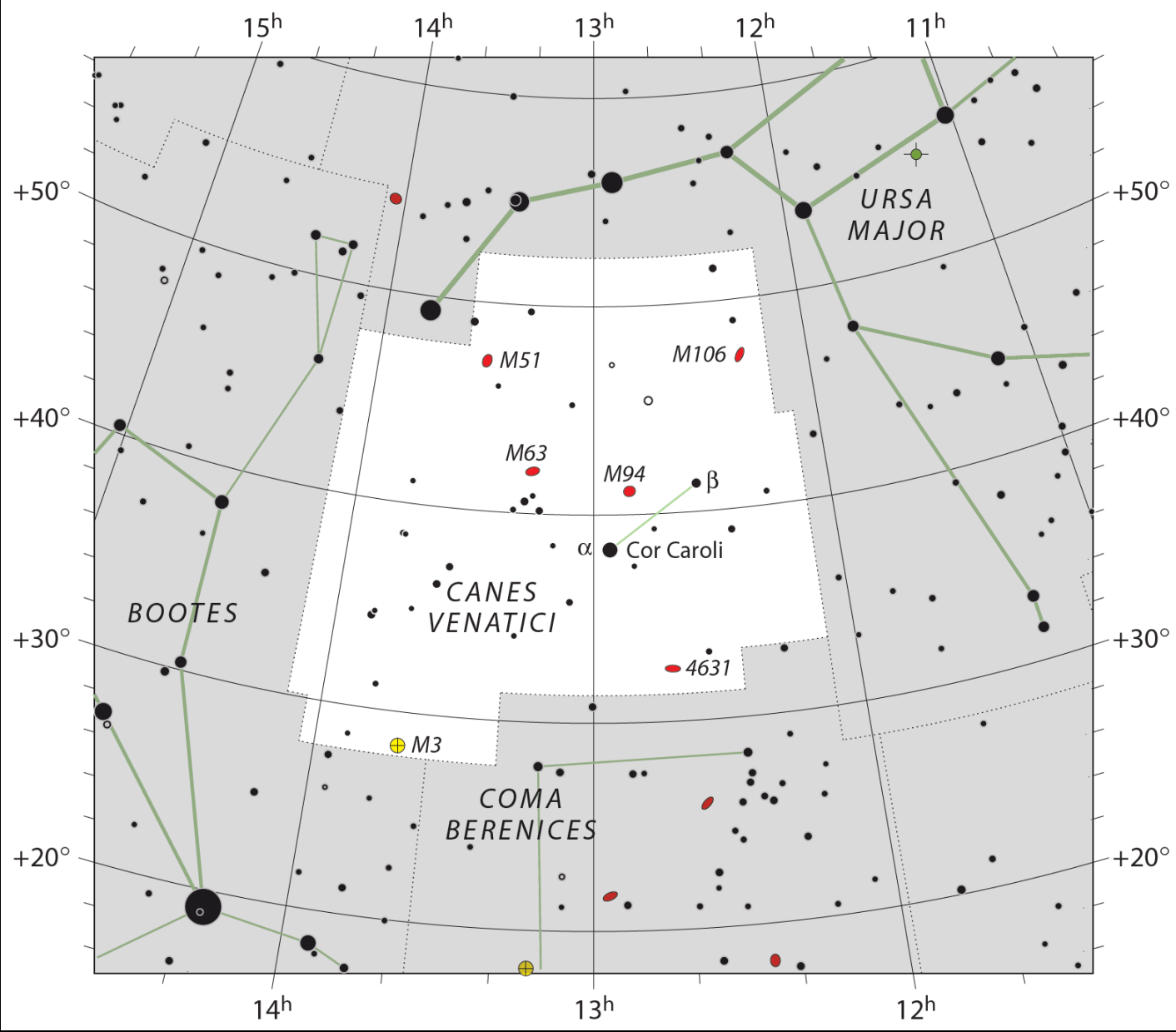




# Valorie's Constellations of the Month:

- **Canes Venatici**
- **Coma Berenices**
- **Sextans**
- **Leo, Leo Minor, Ursa Major**



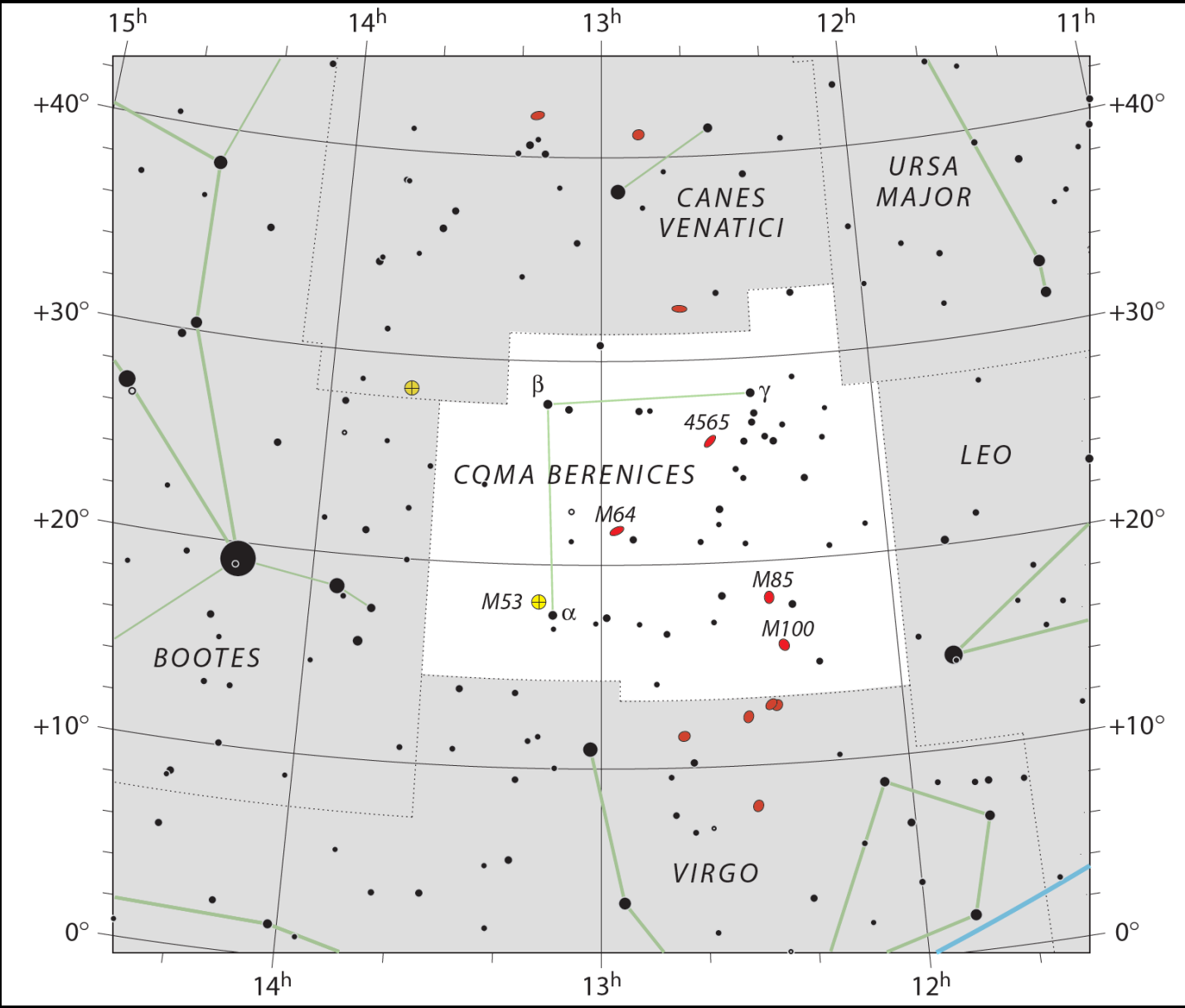




Canes Venatici

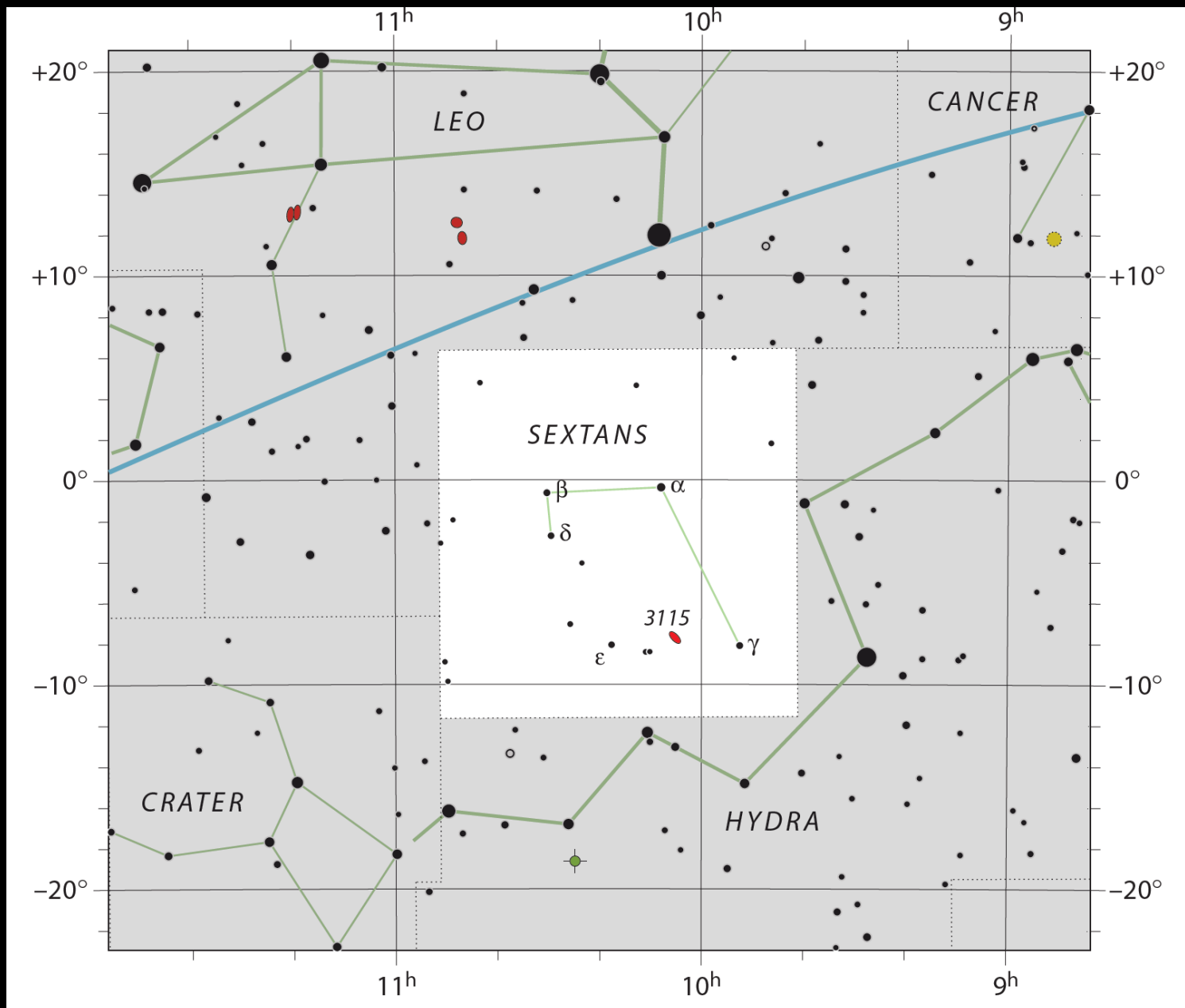
Com



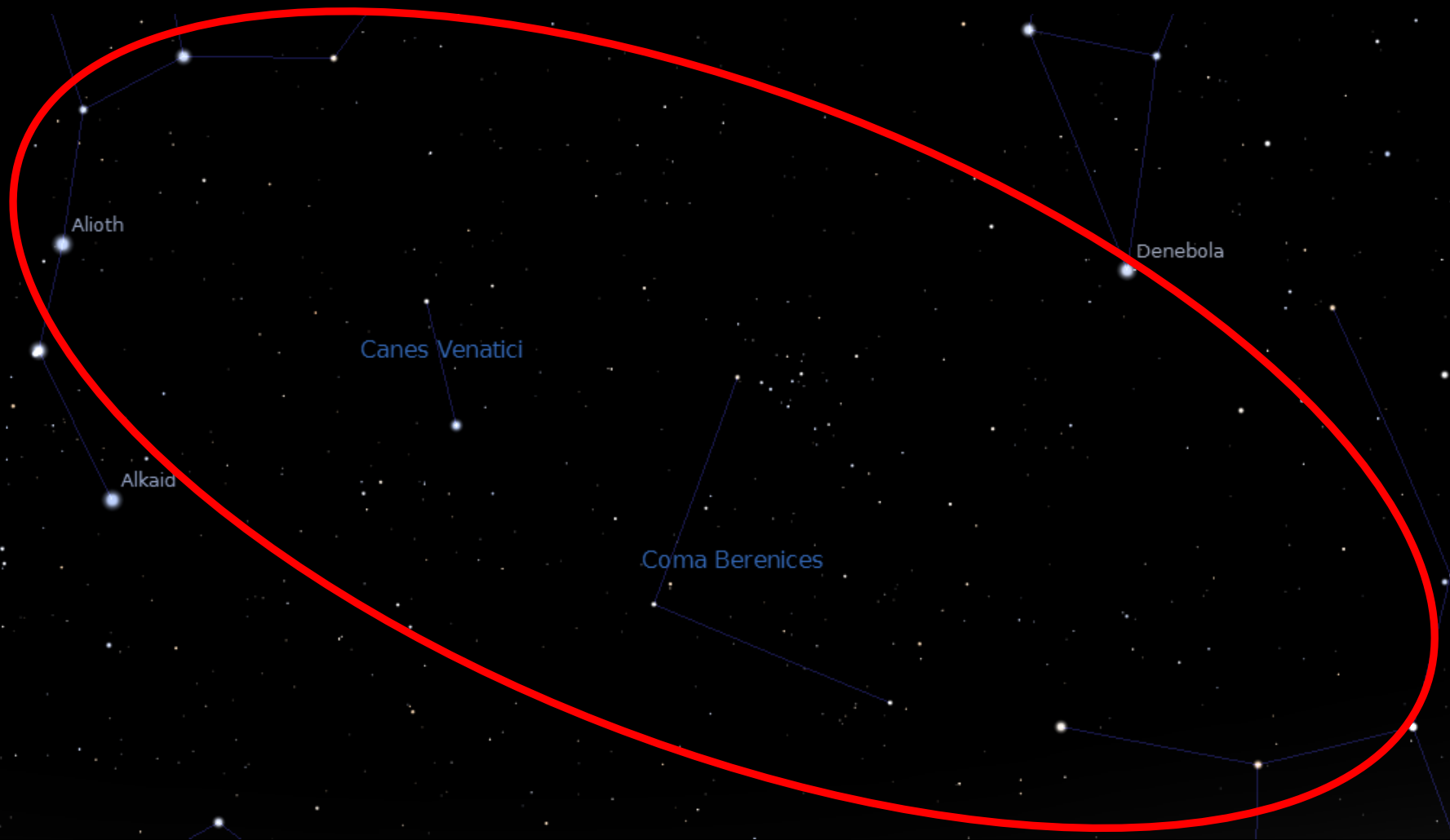




Coma Berenices









# Van Macatee's AP Target of the Month: "Something with Billions"



Image: Markarian's Chain by Van Macatee










# April/May Target Lists










# April/May Target List: Relaxing Piece of cake

Target	Type	Constellation	Notes	Image
Jupiter	P	Virgo	King of Planets. Best views of 2017 are in April. Get to it!	
V Hydrae	CS	Hydra	Carbon star claiming to be the reddest star in the sky. Mag +7.0, RA 10 52 28, Dec -21 20 39	
M5	GC	Serpens	Lovely little globular cluster in Serpens Caput. Mag +6.6	
M13	GC	Hercules	M-Freakin-13!!! Need I say more? Mag +5.8	
Kappa Boo	DS	Bootes	Double star in Bootes. Mag +4.6, +6.6 @ 13.4" separation.	



# April/May Target List: Intriguing

## Small to medium telescopes

Target	Type	Constellation	Notes	Image
NGC 4435 - NGC 4438	GX	Virgo	"The Eyes". Pair of galaxies at the end of Markarian's Chain. Mag +10.2, +10.8	
Epsilon Boo	DS	Bootes	Very tight double star in Bootes. Mag +2.4, +4.9 @ 2.8". Good seeing required.	
M53	GC	Coma Berenices	Globular Cluster Mag +7.7. Located next door to globular cluster NGC 5053, Mag +9.7	
M100	GX	Coma Berenices	"The Blowdryer Galaxy". Don't ask me why they call it that. It's a stupid name. Mag +9.3	
M104	GX	Virgo	"The Sombrero Galaxy" – because you can wear it to keep the sun off your head. Mag +8.9	



# April/May Target List: Taxing Light Buckets

Target	Type	Constellation	Notes	Image
NGC 4710	GX	Coma Berenices	Edge on, unbarred spiral in Coma. Mag +11.9	
NGC 4302 - NGC 4298	GX	Virgo	Close pair of spiral galaxies. One on edge. Mag +12.7 and +11.4	
NGC 4762	GX	Virgo	Edge-on lenticular galaxy. Mag +10.0	
NGC 4567 - NGC 4568	GX	Virgo	“The Siamese Twins” – Interacting galaxies in Virgo. Mag +10.9	



# April/May Observing Challenge: Markarian's Chain

- Constellation: Virgo

- Contains 8 galaxies

- All with common motion

- Mag +8.9 to +12

- Contains M84, M86, NGC 4435/4438, NGC 4458, 4461, 4473, 4477





# Celestial Events to Note:

- **April 22<sup>nd</sup> – Lyrid meteor shower peaks**
- **April 27<sup>th</sup> – 30<sup>th</sup> – AAC Zombie Party at DAV**
- **April 29<sup>th</sup> – Venus at greatest brightness**
- **May 6<sup>th</sup> – Eta Aquariid meteor shower peaks**
- **May 17<sup>th</sup> – Mercury at greatest western elongation**
- **May 27<sup>th</sup> – Next CE Astronomy meeting / Officer Elections**



# Clear Skies!

