



The Star

Newsletter of the
Mount Cuba Astronomy Group

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Contact us at;

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Program Schedule:

Programs are at 7:30 at
Mt. Cuba Astronomical Observatory 1610 Hillside Mill
Road, Greenville, DE unless indicated otherwise.

June 11

Stars and Constellations of Summer

Presenter - TBA

We'll be spending the next several months waiting for cold fronts to clear the humidity filled nighttime skies. Dew caps will earn their keep as we wait for dark skies to arrive as late as 9:30 -10:00. The wait is worth it as an abundance of Deep Sky objects make their appearance. Join us in our last meeting of the lecture season as we explore what the summer sky has to offer.

Hank Bouchelle

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(302) 983-7830

Correspondance from the ORAS

An email was received by Hank from Tim Spuck, VP of the Oil Region Astronomical Society. Following is some of the text.

There's something magical that happens when a child looks through a telescope and sees the craters on the Moon or the rings of Saturn for the first time, or realizes we are ALL made of "stuff" from the stars. Their eye's light up and they almost jump out of their shoes. *At that moment, you know you've given a person something they will have for the rest of their life.* The Oil Region Astronomical Society believes every child, regardless of age, young or old, deserves this opportunity? Could you please share the link below with those affiliated with your organization, list serves you might be part of, or Facebook pages? We are attempting to jump start the effort through a "crowd sourcing" campaign, and any help you might be able to give would be greatly appreciated!!

<https://www.youcaring.com/nonprofits/ooi-i-m-made-of-stars/62374>

PUBLIC NIGHTS MCAO

Spring-Summer 2013

Hank Bouchelle, EdD

July 8 *Astronomical Coincidences*

Many observable astronomical events are due to convenient coincidences regarding the size and distance of the celestial objects involved. Knowing these can, for example, model the exact size and appearance of Earth from the Moon!

Sept. 23 *The Sun From Pluto*

While Pluto may no longer be considered a planet, it is quite far from the Sun. Simple facts can reveal precisely its appearance from this "demoted" planet. You will be surprised!

THROUGH THE TELESCOPE---- JUNE OBSERVATIONS

(Adapted from Astronomy Made Simple, 1955)

Boötes, is a constellation in the northern sky, located between 0° and $+60^\circ$ declination, and 13 and 16 hours of right ascension on the celestial sphere. The name comes from the Greek Βούτης, *Boōtēs*, meaning herdsman or plowman.

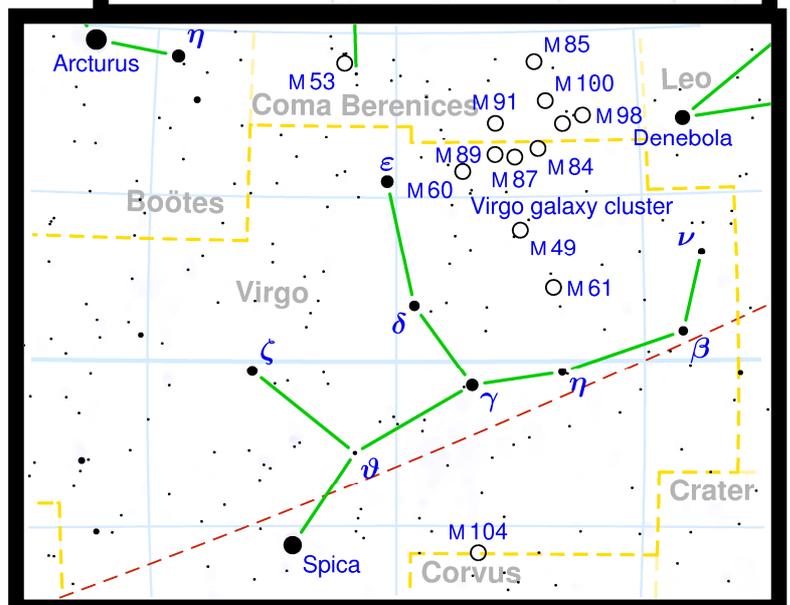
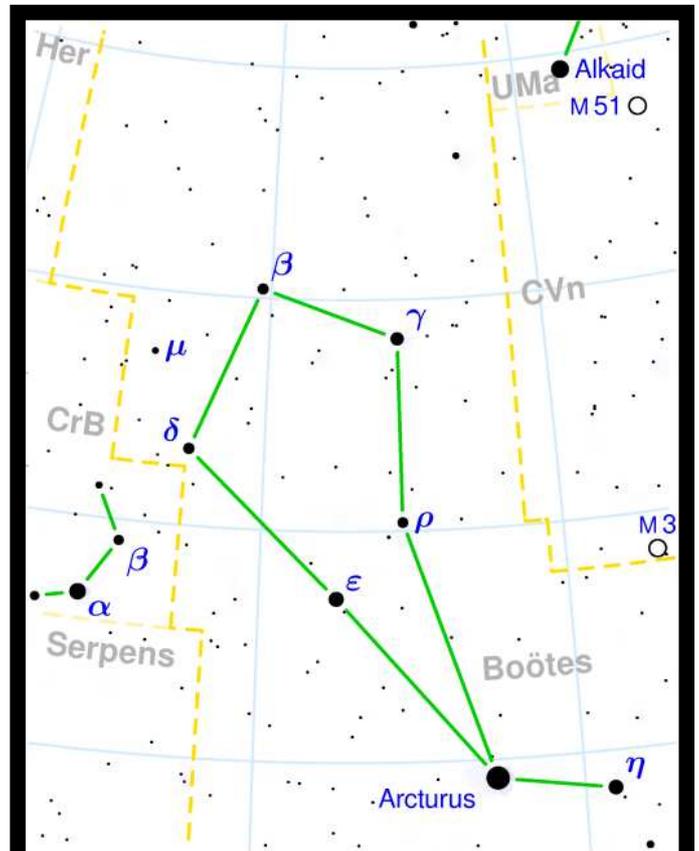
Boötes was one of the 48 constellations described by the 2nd century astronomer Ptolemy and is now one of the 88 modern constellations. It contains the fourth brightest star in the night sky, Arcturus. Boötes is home to many other bright stars, including eight above the fourth magnitude and an additional 21 above the fifth magnitude, making a total of 29 stars easily visible to the naked eye. Many interesting double stars can be observed with the aid of a small telescope. A partial list of these would include the stars Pi, Delta, Iota, kappa, Xi, and Epsilon. The last double is particularly beautiful: one of its components is a bright yellow; the other is a faint green. Xi-Bootis is also a double star; the two components are yellow and purple-red, respectively. The yellow companion is the brighter, its apparent magnitude is 4.7; the red star has an apparent magnitude of 6.6.

VIRGO, is one of the constellations of the zodiac. Its name is Latin for virgin, and its symbol is ♍. Lying between Leo to the west and Libra to the east, it is the second largest constellation in the sky (after Hydra). It can be easily found through its brightest star, Spica. The star 70 Virginis has one of the first known extrasolar planetary systems with one confirmed planet 7.5 times the mass of Jupiter.

Mythology identifies Virgo as Erigone, the daughter of Icarius of Athens. Icarius, who had been favoured by Dionysus, was killed by his shepherds while they were intoxicated and Erigone hanged herself in grief; Dionysus placed the father and daughter in the stars as Boötes and Virgo respectively. In the Middle Ages, Virgo was sometimes associated with the Blessed Virgin Mary.

The third brightest star in the constellation, Gamma-Virginis is a famous double star. In 1756, the angular distance between the two components was 6 seconds of angle. In 1836, the two stars

were so close together that they could not be distinguished by the largest telescopes. In 1936, the separation between the stars was again 6 seconds of angle. A complete revolution of these stars, lasting 180 years, had been under observation.



This constellation is so rich in nebulae, this region of the sky has often been called “the Field of the Nebulae.” Several hundred of these clouds have been discovered in Virgo.

Starry Eyed Challenge



Halley's Comet was perhaps one of astronomy's greatest success stories. While the comet is not itself currently visible to the naked eye, TWO annual meteors shower associated with Halley are !

- A. Geminids
- B. Orionids
- C. Eta Aquarids
- D. Perseids

Mt. Cuba Astronomy Group *Membership Form*

The Mt. Cuba Astronomy Group is a tax-exempt organization dedicated to astronomy education and public outreach. Benefits of membership include:

- Monthly newsletter that includes details about the Group's activities and much astronomical information
- Monthly programs on subjects and topics of astronomical interest
- Free or discounted subscriptions to astronomy-related publications
- Free registration for MCAG workshops and classes
- Mention Mt. Cuba Astronomy Group and receive a 5% discount at Manor Books in New Castle (<http://www.yelp.com/biz/manor-used-books-New Castle>)



Mail to:

Ms. Carolyn Stankiewicz
1001 Woodstream Dr.
Wilmington, DE 19810

Name _____

Name(s) (children, if any, and age): _____

E-mail address: _____

Home address: _____

Phone (optional): _____

Starry-eyed challenge answer - B and C, although C has been challenged by some astronomers.

Like the image from the May STAR, Chris Myers took this image during a full moon, a technique most of us have likely never tried. Hopefully we'll have Chris in for a program on how he gets these unusual star fields. As Chris has shown us with his numerous contributions, it only takes patience and basic equipment to get good results from basic astrophotography.
Thanks Chris !



Have an astronomy related image you would like to share? It doesn't matter when it was taken as long as it was taken by you or a friend. Please send the photographer's name and the specifics of the image.