NIGHTFALL

A PUBLICATION OF THE HUACHUCA ASTRONOMY CLUB

MAY 2019

PRESIDENT'S NOTES

It's May, everybody. Leo is up and well placed for observing a few bright, easily found galaxies. Just to the east of Leo floats the fuzzies in Virgo and Coma Berenices. If ever you had thoughts of running the Messier marathon you will do well to practice there. Practice with your telescope finder and two eyepieces to get very low-, medium low-, and mid-power fields of view. Use your finder to establish the star field around the area of the expected object. Learn to use the telescope's low power field to get to your target and see it in context. Is it a comet or a galaxy? Is there just one fuzzy in the field or am I counting six? If it is a galaxy, can I tell if it is edge-on or face-on? Is the galaxy spiral, barred, irregular or elliptical? Play around finding the best low power eyepiece to give wide fields of view and enough contrast and definition to allow you to answer those questions.

Once you have the lay of the land with the low power eyepiece try using a mid-power eyepiece to get a closer look at the object. High power will also darken the background and improve contrast of the object's structure and overall texture. An ultra-wide field of view isn't necessary, as you will be focusing on a central object not the void between objects. Of course, if you want a reason to buy one or more of the premium wide-angle eyepieces out there on the market it is very cool to have all that darkness around galaxies and to include more of the large objects in one field of view.

Once you get your finder and the two telescopic eyepiece fields established, start measuring the sky by those fields. How many finder fields due east from Denebola is M98? Sure, you can calculate the field of view for any telescope/eyepiece combination, but in practice, everything is a little different. The 8" f/10 telescope you have is not quite f/10, and that 20mm 50-degree eyepiece is probably neither. So, get used to your scope and eyepiece combos and begin the art of "Star Hopping."

A last bit of help comes from every old-time astronomer's friend: the amazing Telrad. The Telrad is a one power (1x) finder that has a red LED illuminated bull's eye. "Google it!" It is a wonderful finder for star hopping. Every telescope should have one attached to it. There are finder cards and star atlases that use the bull's eye rings of the Telrad to get you to where you want to go. I bring the Telrad up because my favorite Messier guidebook is Harvard Pennington's The Year Round Messier Marathon. In the book, he uses finder charts for the "Zero Power" Telrad for locating all the Messier objects. Once you get good with your finder and eyepiece combinations you can feel pretty confident on your first Messier marathon ,and I'll have an easier way of directing you to that "new comet." or Ted can guide you to that faint planetary he just showed you in the Patterson's 20" scope. Yep, there's a Telrad on the Patterson scope. There's even one on the Large Binocular Telescope atop Mt. Graham, just so they can be sure where it is pointing.

Well the skies are clearing, so get out and stare.

PLEASE WELCOME OUR NEW MEMBERS

JD and Karen Maddy of Tucson joined HAC in April. We know JD and Karen from the Kartchner Star Parties – they travel the state supporting astronomy events at state parks. They are long-time (and current) members of the Astronomers of Verde Valley and have recently moved to the Tucson area. They own a gaggle of telescopes and are both experienced astronomers and outreach enthusiasts. Relocating from Dallas Texas is Harold Satterler of Sierra Vista who joined at the April meeting. Harold observes with an 8" reflector and an Astroscan. Ken Winters of Hereford joined via the website in April. Ken comes to us from Memphis where he was a member of the Memphis Astronomy Club. Welcome to the club, we are glad you joined!

AT THE MAY 10 MEETING

The May meeting of the Huachuca Astronomy Club will be held in the community room in the Student Union Building at Cochise College, Sierra Vista campus on Friday, May 10, 2019. Our speaker this month will be our own Tom Kaye.

Saturday is Astronomy Day

Saturday, May 11 is International Astronomy Day. We will set up in front of the Sierra Vista library starting about 10 a.m. Bring a solar telescope, or just come out to help engage the public. We will do a display in the foyer in the event of bad weather (but the long range shows mostly sunny).

School Field Trips to Patterson

The field trip/ grant program is becoming very popular. Next week we have three visits to the observatory, Second graders from Huachuca Mountain on Monday May 13, Middle Schoolers from First Baptist Academy on Tuesday and elementary school kids from Double Adobe on Friday. All HAC members are invited and encouraged to participate in these fun events. They run 9:30 to 12:30. Come on out (with or without a scope) we could use your help!

We are also scheduled to visit the Carmichael Head Start program family day on Wednesday May 15 (we are going to them for that one).

Thank You to HAC

We received a thank you from the University South Foundation that read in part:

"On behalf of the entire University South Foundation, Inc. family, thank you very much for your Hole Sponsorship of $100.00. The Cyber Operations program at the University of Arizona offers community members a future in one of the highest demanding occupations of our time. Your support of the 3rd Annual Golfing Fore Scholarships Tournament will contribute to scholarships to these U of A students"

For our sponsorship we were able to display our club logo at the event, and were recognized during the opening remarks that started the tournament. We have also received a "Hole Sponsor Certificate" that thanks us for our support. The community exposure and good will is an added benefit.

NASA Night Sky Notes May 2019

This article is distributed by NASA Night Sky Network

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.org to find local clubs, events, and more!

Watching the Late Spring Skies

By David Prosper

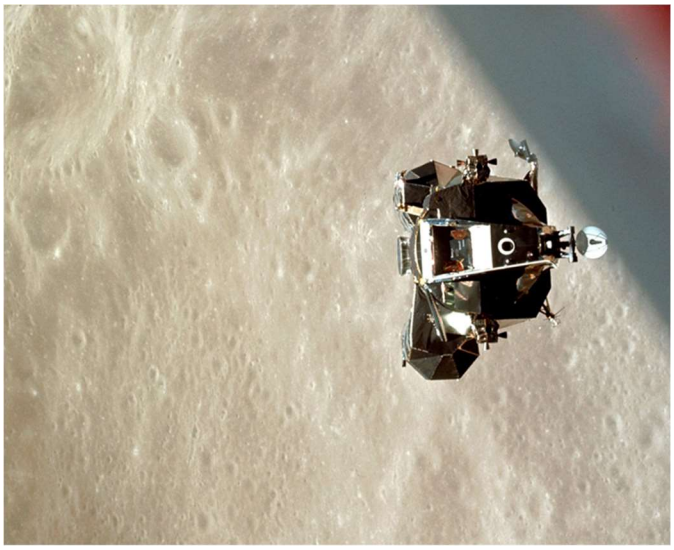
Late spring brings warmer nights, making it more comfortable to observe a good showing of the **Eta Aquarids** meteor shower. Skywatchers can also look for the delicate **Coma Star Cluster**, and spot the **Moon** on the anniversary of **Apollo 10**'s "test run" prior to the Moon landing in 1969.

The **Eta Aquarids** meteor shower should make a good showing this year, peaking the morning of May 6. This meteor shower has an unusual "soft peak," meaning that many meteors can be spotted several days before and after the 6th; many may find it convenient to schedule meteor watching for the weekend, a night or two before the peak. You may be able to spot a couple dozen meteors an hour from areas with clear dark skies. Meteors can appear in any part of the sky and you don't need any special equipment to view them; just find an area away from lights, lie down on a comfy lawn chair or blanket, relax, and patiently look up. These brief bright streaks are caused by Earth moving through the stream of fine dust particles left by the passage of Comet Halley. While we have to wait another 43 years for the famous comet grace our skies once more, we are treated to this beautiful cosmic postcard every year.

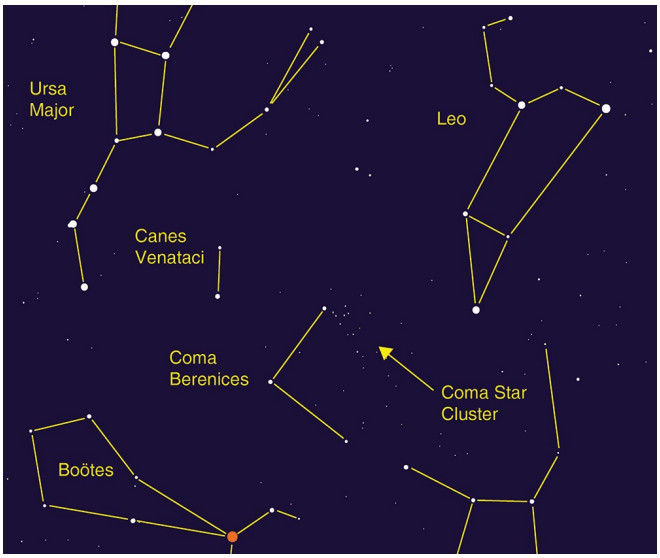
While you're up meteor watching, try to find a delightful naked eye star cluster: the **Coma Star Cluster** (aka Melotte 111) in the small constellation of Coma Berenices. It can be spotted after sunset in the east and for almost the entire night during the month of May. Look for it inside the area of the sky roughly framed between the constellations of Leo, Boötes, and Ursa Major. The cluster's sparkly members are also known as "Berenice's Hair" in honor of Egyptian Queen Berenices II's sacrifice of her lovely tresses. Binoculars will bring out even more stars in this large young cluster.

May marks the 50th anniversary of the Lunar Module's test run by the A**pollo 10** mission! On May 22, 1969, NASA astronauts Thomas Safford and Eugene Cernan piloted the Lunar Module - nicknamed "Snoopy" - on a test descent towards the lunar surface. Undocking from "Charlie Brown" - the Command Module, piloted by John Young – they descended to 47,400 feet above the surface of the Moon before returning safely to the orbiting Command Module. Their success paved the way for the first humans to land on the Moon later that year with Apollo 11. Look for the Moon on the morning of May 22, before or after dawn, and contemplate what it must have felt like to hover mere miles above the lunar surface. You'll also see the bright giant planets Saturn and Jupiter on either side of the Moon before sunrise. When will humans travel to those distant worlds?

You can catch up on all of NASA's current and future missions at nasa.gov



A view of Apollo 10's Lunar Module from the Command Module as it returned from maneuvers above the lunar surface. Photo Credit: NASA Source: http://bit.ly/apollo10view



Try to spot the Coma Star Cluster! Image created with assistance from Stellarium

Pictures from HAC Members

NGC 3501 and NGC 3507 by David Roemer

NGC 3596 By David Roemer

Hickson 44 Galaxy Group by David Roemer

Want Ads

FOR SALE: Celestron CGEM Equitorial Mount. Less than 3 years old, like new. Will hold an 11-inch SCT plus camera. Rated at 40 lbs. Tripod included. $1000.00. Permanent pier also available.

Phone Bob Kepple at 520-366-0490 or see him at meeting.

FOR SALE: A nearly unused ZWO 1600 with CFW and filters, and an ASA 12" Astrograph

Contact Mike Mirot

FOR SALE: Nikon camera gear and lenses

Nikon D750 w/24-120 lens, five batteries, stock charger, Nikon mc-dc-2 remote cable release, box, manual, lens and body caps $1500
Nikon 80-400 zoom, lens caps, soft case $1275

Nikon 70-200 f/4, lens caps $900
Nikon 50mm f/1.8 G, 85mm f/1.8 G, lens caps $385 set
Tamron 15-30, lens caps, $775
Nikon D7200, Nikon 18-140 lens, Nikon 18-300 lens,
Nikon mc-dc-2 cable release, two batteries, stock charger,
manual, $1100 as a set

Contact Mike J. Shade at mshade@q.com

Club Officers and Contacts

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For more information on products and contact information, their websites are:

Farpoint Astronomy http://www.farpointastro.com/

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HAC May/June Calendar of Events

SU	MO	TU	WE	TH	FR	SA
5 May Eta Aquariid meteors	**6** Eta Aquariid meteors	**7** School Field Trip at Patterson 9:30am Eta Aquariid meteors	**8**	**9** Patterson Public Night 7:30PM	**10** HAC Meeting Student Union	**11** **6:12 PM** Astronomy Day SV Library 10A-2P
12 	**13** Huachuca Mtn Elem at Patterson 9:30 AM	**14** First Baptist Chris Acdy at Patterson (:30 AM	**15** Carmichael Head Start Fam Day 9-11 AM	**16**	**17** Double Adobe School at Patterson 9:30AM	**18** **2:11PM** Venus and Uranus 1.2°
19 Ceres and Moon 1.2°	**20** Jupiter and Moon 1.7°	**21**	**22** Saturn and Moon 0.5°	**23**	**24**	**25**
26 **9:34AM**	**27** 	**28** Ceres at Opposition	**29**	**30** Vesta 0.6° S or Moon	**31** Uranus 5° N of Moon	**1 Jun**
2	**3** **3:03 AM**	**4**	**5**	**6** Patterson Public Night 7:30PM	**7**	**8** Girl Scout Open House at Patterson 7PM
9 **10:59PM**	**10** Jupiter at Opposition	**11**	**12**	**13**	**14** HAC Meeting Student Union Flag Day	**15** Ceres near Moon
16 	**17** **1:31AM**	**18** Saturn near Moon	**19**	**20**	**21** Summer Solstice 8:54 AM	**22**
23	**24**	**25** **2:46 AM**	**26**	**27**	**28** Kids world at Patterson	**29**
30	**1 Jul** Kids world at Patterson	**2** **0:16 AM**	**3**	**4**	**5**	

All event times MST. Join **HacAstro** to keep up to date with all of the Huachuca Astronomy Club events

Send an email to: HACAstro+subscribe@groups.io