

The Night Sky

The Newsletter of The Astronomy Club of Akron www.acaoh.org

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July, 2015

SUMMER BREAK! NO MEETING AT KIWANIS THIS MONTH!

Observatory Report

By Ron Kalinoski

Despite the cloudy weather we had this year, our observing season so far has been pretty spectacular with Jupiter continuing to put on an impressive show at every star party. The timing of Jovian events couldn't have been better as they coincided with star party observing times. For example, at our April 18th star party, stargazers observed Jupiter's moon Europa occult Ganymede. The occultation was actually part of an eclipse event that later occurred with casting shadow Europa its on Ganymede. The occultation was soon followed by a transit of Io across Jupiter. Star party after star party, stargazers observed eclipses, Great Red different. This was a particularly



Spot transits, festoons, occultations, and Jupiter and Venus were at planetary conjunction on June 30th with only 1/3 moon shadow transits. Our weekday degree separation. Photo was taken on July 1st when angular displacement June 23rd impromptu star party was no between planets was 2/3 degree. Image taken by Ron Kalinoski.

interesting star party as it was scheduled only eight hours before star party start time. We had an amazing turnout of members and non-members who came out to view the Heavens. After we slewed the observatory telescope to Jupiter, stargazers observed the Great Red Spot at center of Southern Equatorial Belt and a shadow cast by a Galilean moon eclipsing the sun on western edge of Northern Equatorial Belt. Seeing & transparency were exceptional and kept stargazers out observing until we finally closed down the observatory at 11:30pm.

Jupiter and Venus have been taking part in a dramatic play that started at the end of December 2014. At that time Venus was setting with the sun in the western sky while Jupiter was rising in the eastern sky. Each day, month after month, Jupiter rose earlier in the east and Venus set later in the west as the planets moved closer and closer. The final scene played out the last week of June when the planets made a final approach toward planetary conjunction which took place on June 30th when the planets appeared in the sky with only 1/3 degree separation. Although the night of planetary conjunction was cloudy, patient observers got a glimpse of Jupiter & Venus with less than a Moon's diameter separating them. The skies were more favorable the following two nights with the two planets still less than a degree separation and able to fit in the field of view of a low powered telescope. Now, Saturn enters the next scene and will be well-placed for viewing at star party time for the rest of the summer.

Article By Ron Kalinoski, ACA Observatory Director

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May Treasurer's Report

By Glenn Cameron 6/1/2015 Through 6/30/2015

Checking Beginning Balance	\$2,601.73
Income	
Magazine Subscriptions Dues	34.00 463.95
Total Income	\$497.95
Expenses	
Total Expenses	0.00
Income Less Expenses	-\$497.95
Checking Ending Balance	\$3,099.68
Savings Beginning Balance	\$2,580.33
Earned Interest	0.06
Savings Ending Balance	\$2,580.39
Petty Cash Beginning Balance	\$50.00
	0.00
Petty Cash Ending Balance	\$50.00
Petty Cash	50.00
Savings	2,580.39
Checking	3,099.68
Grand Total	\$5,730.07

Article by Glenn Cameron ACA Treasurer.

SWAP & SHOP



FOR SALE:

22mm Orion Epic ED-2 ED Eyepiece 25mm Orion Epic ED-2 ED Eyepiece

Asking: \$25 each Contact: Glenn Cameron Phone: 330-737-1472 Email: glenn@cameronclan.org



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All 8 months old, brand new condition.

Asking: \$2200 Contact: Jim Hall Phone: 330-268-8695

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Celestron NexStar 8i computerized to go 8" F/10 Schmidt-Cassegrain Focal length 2032 mm with 406x highest useful power. Includes:

- GPS module.
- Five multicoated Plössl eyepieces.
- 2X Barlow lense.
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• Celestron star pointer.

All rarely used and in new condition. Cost \$1,689 new.

Asking: Best Offer Contact: Nick Bade Email: nb@tribco.com Phone: 216-486-2000 weekdays and 440-585-8687 evenings and weekends.

FOR SALE:



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Excellent

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Send a picture of your ASTRONOMY RELATED item and relevant information to the newsletter editor: jgshinn2014@gmail.com

We're On Pluto's Doorstep!!!

By Marissa Fanady



Pluto from New Horizons, July 8, 2015. This image of Pluto from New Horizons' Long Range Reconnaissance Imager (LORRI) was received on July 8, and has been combined instrument. Image credited mission pages/newhorizons/images/index.html?id=366170.



Image of Pluto from New Horizons. The color version of the July 3 LORRI image was created by adding color data from system has always given us unexpected surprises the Ralph instrument gathered earlier in the mission. Image everywhere we turn so who knows what Pluto and all of the http://www.nasa.gov/mission_pages/newhorizons/ other objects out there has in store for us to discover. credited images/index.html?id=366183.

Well folks after nine long years since its launch back on January 19, 2006 the New Horizons spacecraft will finally reach the intended destination of Pluto for a historic flyby this Tuesday!!! Since the discovery of Pluto back in February 18, 1930 by Clyde Tombaugh at the famous Lowell Observatory in Flagstaff, Arizona we have not sent any spacecraft directly to this tiny world to study it or even take photos of this very distant world. Only the Hubble Space Telescope has attempted to photograph Pluto but there was not much detail so this world has remained shrouded in mystery. Scientists were also able to use times of eclipses by the largest moon Charon to create a rough map that shows bright and dark regions with Pluto being a brownish pinkish orange color thought to be frozen methane. Back in August of 2006 the International Astronomical Union made the decision to reclassify Pluto as a dwarf planet instead of a planet due to a number of different factors. Most of the general public and even some

scientists disagree with this decision. This is a very exciting time in science and it's only going to get better and better, with lower-resolution color information from the Ralph we live in amazing times! Now a little bit about New http://www.nasa.gov/ Horizons and its mission.

> A spacecrafts instruments are chosen based off of what the craft is going to study and gather information on. The main mission of the craft is to study Pluto; scientists wanted to know what the atmosphere of this world is made up of and how it behaves, what the surface looks like, if there are any large geological features and how do particles from the solar wind interact with Pluto's atmosphere. New Horizons is equipped with a visible and imager/spectrometer, infrared ultraviolet imaging spectrometer, a radio science experiment, long range reconnaissance imager, solar wind and plasma spectrometer, energetic particle spectrometer and a dust counter operated by students. All of these instruments will help us understand Pluto, it's moons and the Kuiper Belt. The craft will, for the first time, tell us how these bodies have evolved over time as well as the origins of this far out place. Studying these far off objects has become a top priority in astronomy as there is much to learn, discover and explore. As we all know the exploration of our solar

Be sure to keep up on the latest updates and images from New Horizons through NASA and it's many Facebook and Twitter pages, trust me you're not gonna want to miss this historic moment. NASA TV will be showing all of the activities and updates as they receive them and share up to date photos as well as information as the spacecraft makes it's closest approach to Pluto at about 7,800 miles from the surface on July 14. After more than nine years of travel and over three billion miles logged we will finally get our first look and insights on these distant worlds, I will certainly be watching ... will you?

Article By ACA Member, Marissa Fanady

Upcoming ACA Events

By Marissa Fanady

Public Observing Event at the ACA Observatory-Double Stars. Tonight we'll be observing double stars: optical doubles, visual doubles, and multiple star systems. Saturday July 18, 2015 at 9:00 PM.

Public Observing Event at the ACA Observatory-Sagittarius Messiers. View Messier objects of the constellation Sagittarius: Swan Nebula, Globular Cluster M22, Butterfly Cluster, and more. Saturday August 8, 2015 at 9:00 PM.

Mark you calendars for a BBQ BASH! We're having a BBQ Bash on Saturday, August 29th. Enjoy plenty of finger-licking good eats and Russ Ferrell's universe famous potato salad! Bring a dish to share. Location: Big Oaks Pavilion at Portage Lakes Park, near the Observatory Time: 5 p.m.

Our star parties are free and open to the public. Please join us for stargazing and educational activities. Star parties will begin promptly. Areas in and around the observatory are dimly lit, please use caution. A restroom is available. Events may be cancelled if skies are cloudy, be sure to check the status of the event on our website at www.acaoh.org. This is an outdoor activity in an unheated environment. Nighttime temperatures drop rapidly, even in the summer. A general rule of thumb is to dress for 15° colder than predicted nighttime low temperature.

Article By ACA Member, Marissa Fanady

July Astronomical Events

7/1/15 14 Venus 0°.4 S. of Jupiter 7/2/15 02 FULL MOON 7/5/15 19 Moon at perigee 7/6/15 08 Neptune 3° S. of Moon 7/6/15 16 Pluto at opposition 7/6/15 20 Earth at aphelion 7/8/15 20 LAST QUARTER 7/9/15 03 Uranus 0°.8 N. of Moon Occn. 7/10/15 04 Venus greatest illuminated extent 7/12/15 18 Aldebaran 0°.9 S. of Moon Occn. 7/16/15 01 NEW MOON 7/18/15 18 Jupiter 4° N. of Moon 7/19/15 01 Venus 0°.4 N. of Moon Occn. 7/21/15 11 Moon at apogee 7/23/15 06 Venus stationary 7/23/15 19 Mercury in superior conjunction 7/24/15 04 FIRST QUARTER 7/25/15 08 Ceres at opposition 7/26/15 08 Saturn 2° S. of Moon 7/26/15 16 Uranus stationary 7/31/15 11 FULL MOON 7/31/15 20 Venus 6° S. of Jupiter

Information Credited, Her Majesty's Nautical Almanac Office, United Kingdom Hydrographic Office

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