

THE METEORITE



The Lagoon Nebula

M-8 in Sagittarius



Newsletter of the Mahoning Valley Astronomical Society, Inc.

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JULY 2012

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JULY 2012

NEWS NOTES

Newsletter of the Mahoning Valley Astronomical Society, Inc.

MVAS CALENDAR

- AUG 11** OTAA work day, prep the MVCO. Noon start.
- AUG 18** MVAS-OTAA meeting at the MVCO, Braceville
- AUG 25** Business meeting at the MVCO. 8:00 PM.
- SEP 8** Astro-Ham, Public event at Scenic Vista. 12 PM
- SEP 15** Black River OTAA Meeting. ~6:00 PM?

NATIONAL & REGIONAL EVENTS

- AUG 17-21** **ALMOST HEAVEN STAR PARTY**, The Mountain Institute, Spruce Knob, W V near Cherry Grove, W V. Check website for registration and other information. <http://www.ahsp.org/>
- SEP 12 -16** **Central Nevada Star Party VIII**. Held at Monte Cristo Mountains of Central Nevada- 37 miles west of Tonopah, Nevada. The eighth annual Central Nevada Star Party will return the the dark, clear skies of Nevada in the Monte Cristo Mountains. Visual observers and imagers have been returning for years for this event and we hope you will join us this year. Admission \$10. <http://tas.astronomynv.org/cnspviii.htm>
- SEP 13-16** **Great Lakes Star Gaze**. River Valley RV Park, 2165 South Bailey Lake Ave. Gladwin, MI. Limiting magnitudes estimated to be 6.5 at zenith. Admission is \$35 to \$55, see website. <http://greatlakesstargaze.com>

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Assistant Editor	Steve Bartos
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MVAS REPRESENTATIVES

OTAA Representative	Harry Harker
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MVAS Homepage- <http://mvobservatory.com>

Memoriam: Former MVAS member Roy A. Mimna, Ph.D., 68, passed away on June 7, 2012, at home after an extended illness. Roy was born Jan. 27, 1944, in Meyersdale, Pa., a son of Paul O. Sr. and Iona G. Beals Mimna. He was a 1962 graduate of Hubbard High School, where he was the class valedictorian. He received both Bachelor's and Master's degrees in Romance Languages from Ohio State University. He earned a law degree from the Dickinson School of Law in Carlisle, Pa. He also received a Masters' degree in Mathematics from Youngstown State University. He later received his Ph.D. through a joint program with Youngstown State University and Rhodes University of South Africa.

He was an attorney with his own practice in Warren and then Hubbard for 26 years from 1975 to 2000. From 2002 to 2009 he was a professor of Mathematics at Youngstown State University. A member of the First Presbyterian Church of Hubbard, he also belonged to the Trumbull County Bar Association. Roy was past president of the Mahoning Valley Astronomical Society ('80-'82), member of the Hubbard Kiwanis Club and Rotary Club. While in the MVAS he was active in the Visual Committee of the late 1970's and in variable star work for the AAVSO. By 1985 he had made 699 variable star estimates. Roy was into comet hunting with his 6" Newtonian. He also used 80mm binoculars. He worked on the MVO Lease, then with land owner Carl Steinman. He was a veteran of the U.S. Army, serving as a captain from 1969 to 1972. He is survived by his wife, the former Selah Pries, whom he married April 13, 1968. A memorial service was held at 11 a.m., June 13, 2012, at the First Presbyterian Church of Hubbard

Congratulations: It seems like just yesterday that Joanne Bartos attended the 1994 annular eclipse at the MVO- just a baby then. Daughter of Steve and Virginia Bartos (Steve is our long standing Treasurer); Joanne was part of that MVAS gang that went to the Flying W Ranch in PA a few years later (in 1997). The purpose of the trip was to photograph Comet Hale-Bopp. Looking to keep the astrophotographers up during the day, she looked for people to play hide and seek, fly kites and play various other games with her. The imagers obliged happily. Her nick-name was first used then- "Comet-Baby". Our "Comet Baby" has been known to draw tickets at MVAS Raffles and she has helped more than once in putting stamps on all of those Meteorites that have gone out to all of you! This year, Joanne has graduated from Cardinal Mooney High School having earned a place in the National Honor Society. We are proud of you Joanne! She will attend Akron University with a goal of getting into nursing. She just returned from a trip to Spain and is now a world traveler too! May you succeed in your dreams!

Tony Mehle Jr has also graduated from Canfield High School this year. Son of Dr. Tony Mehle, one of the MVAS's most generous and loyal members, Tony Jr. is well know for his All-Star pitching and baseball play for the Cardinals. He plans to attend Mt. Union and hopes to continue on in his baseball career, pitching in the college ranks. Best of luck Tony. You will always have a fan base here in the MVAS.

MINUTES OF THE JUNE MEETING

JUNE 30, 2012 at the MVCO

With the warm temperature and limited space in the meeting room, the proceedings were moved outside. President Sam DiRocco called for order at 8:05 PM. Roll call was taken. Twenty-five members gave the password. Five guests were on hand including: Virginia and Steven Bartos, Don Cherry, Carl Baker and wife (?). Don lives in Warren and works in Streetsborough, OH. He became interested in astronomy during the 1980s and had a C5 back then. He now owns an Orion 8" Dob and is interested in membership, joining at a future meeting. Carl is from Farrell, PA and was directed to the MVAS by Ted Pedas (a former YSU professor). Carl used to belong to the Northern Virginia Astronomy Club which had 1,000 members at the time. Carl was also considering membership.

A Call for the Reading of Minutes was made. Bob Danko moved to suspend the reading. Larry Plante seconded the motion. With no further discussion, the Minutes as published were accepted by voice vote.

TREASURER'S REPORT: The Report was read by Steve Bartos. Bob Danko presented the new Telrad for the 8" refractor (replacing the malfunctioning unit). It costs \$54 and he offered to cover the expense. Sam said that the MVAS would reimburse him and thanked him for the offer. Harry Harker asked how much was in the OAD Fund: answer is \$3,914.12 of the General Fund is reserved as the OAD Fund. With no further questions or remarks Alan Avnet moved to accept the Report as read. Greg Higgins seconded the motion. By a voice vote, the Report was accepted as read.

General Fund May 1 thru May 31, 2012

OPENING BALANCE:	\$ 8,574.79
CLOSING BALANCE:	\$ 8,395.15
AVAILABLE FUNDS (NON-RESERVED):	\$ 4,481.03
ACCOUNT NET GAIN/LOSS FOR THIS PERIOD:	\$ -179.64

INCOME:

DUES	\$ 50.00
MVAS CLOTHING SALES	10.00
DONATION (MIKE HEIM)	10.00
INTEREST	0.36
TOTAL INCOME	\$ 70.36

EXPENSES:

CK# 2775 INSURANCE (HOLLOWAY)	\$ 250.00
TOTAL EXPENSES	\$ 275.00

Reserved Funds

KEY DEPOSITS (MVCO)	\$ 250.00
CASH FROM ORIGINAL OAD FUND (FOR LAND)	3,914.12
TOTAL RESERVED FUNDS	\$ 4,164.12

2012 DUES PAID: A. AVNET, J. AVNET, K. DINARDO, and M. HEIM. Thanks are given to all that have paid their 2012 dues.

CORRESPONDENCE: None reported.

COMMITTEES, OFFICER REPORTS: *IMAGING COMMITTEE:* No Report. *VISUAL COMMITTEE:* Phil had one Committee Report to turn in (his). *LIBRARIAN:* No Report.

OBSERVATORY DIRECTOR'S REPORT: Larry Plante has not been to the MVCO lately. He did notice the hose was missing but it has since returned. Apparently Mike Sprague had borrowed it for construction work at the pool house. He hopes to get his extension ladder under the dome to measure the length

of cable or chain that will be needed to replace the broken shutter control. There was a brief discussion on using chain (original) or vinyl coated cable. Allen Heasley previously sent an e-mail stating that they originally used chain because there is less chance of slippage. Harry noted that we should get this fixed pretty soon. A bright light will be needed for this and to photograph the dome drive pulley. This photo would be used to select a proper right angled gear box that is needed to motorize the dome. A former work associate of Larry's own an electrical shop and this owner should have the proper right angled gear box that is needed- and at a good price. Bob Danko noted that he saw a few of the roller bearings are rusted; at least the last time he was up top in the dome some years ago (?). Lastly, Larry will inspect and fix all the outlet boxes on our OTAA electric line. This caused a few problems last year.

OLD BUSINESS: The door to the 12" building was examined after the May meeting and it appears to be solid. Some surface repair work and finishing is all that is needed. A new door is not needed. Dennis Markos suggested epoxy coatings for the bottom of the door which has (and gets) the most water damage. A metal cap for the bottom was also mentioned. Jodi McCullough asked about the "Home Schooled" group visit. Harry had contacted the group. He explained the group's size of 80 kids presented problems and the solution of splitting them up. There has been no call-back from the group. Lack of rain makes it hard to see if the "fix" Larry had implemented on the west-facing spouting had worked. Rosemary said we should address this before winter. Larry has not contacted any contractor yet. So far we have four to five volunteers to help with public solar viewing at the Festival of Arts July 7 & 9, 2012. Please stop by the YSU Planetarium those days, noon till 5PM. Note: MVAS members get half-off on Rita's Italian Ice (they'll have a booth set up in the vendor section).

NEW BUSINESS: Steve Bartos has already received the order form for the Astronomy Magazine 2013 Calendar. After a brief discussion on quantity and a show of hands of who would buy one, it was decided to order 20 calendars for now. Discussion of our August 18th OTAA meeting followed. Sam said that we need to pull out the canopies from under the 16" stage to see what is left that could be used. We had three canopies, but two were destroyed after a wind storm. It is believed we have one viable canopy that was pieced together from the damaged ones. Sam then suggested we purchase an aluminum awning- such as the gun club has. This would be a permanent structure, stacked down in the ground. It would go between the buildings and used for OTAA meetings rather than rent the big tent. A 12ft x 16ft unit goes for around \$1,100.00. Greg Higgins recommended we just get the tent, table and chairs as usual- no one has to set this up. It was agreed to hold-off on getting the aluminum awning for this year.

It's time to start thinking of OTAA prizes. Dennis Marko is donating 3 eyepieces and an eyepiece box. Phil suggested that the Orion alt-azimuth mount that was just introduced in the last catalog would be a good prize for the main raffle. Bob Danko was thinking along the same lines. It costs around \$330. Greg Higgins moved that the MVAS buy this mount for the prize. Alan Avnet seconded the motion. A voice vote adopted the motion. Phil will order it along with a dove tail plate (extra expense). Next on the agenda was filling the OTAA Committee spots. Bob Danko will serve as our emcee; Rosemary will handle traffic control as well as coffee. Steve will handle registration. Larry will deploy electric lines and cover night watch duty. Bob will attend

the 8"; Phil will possibly attend the 25" and cover night watch duty. We need someone to attend the 12". We need volunteers to set-up tables and chairs on OTAA day. More overnight folks are welcome (Sunday morning clean-up crew?)

As for a speaker, Harry has tried to contact Jay from NASA. He was supposed to talk last year but canceled. Harry has not received any return call. He'll try again. Bob suggested we really don't need a speaker as many attendees just like to talk shop while it gets dark. Rosemary wanted to know what chores need done before the meeting. A work list should be posted. Regarding the need to pump it out, the water level in the out house did not strike anyone as being excessively- high while using it. This could be due to the lack of rain.

GOOD OF THE SOCIETY: Allen Heasley has sent two books for use as door prizes. A reminder we all need to start gathering these prizes. Phil will be at the ALCON convention in earl July, which is supposed to have vendors: he will snoop around for such items to be used as door prizes.

VISUAL REPORTS: During their Australian transit expedition, Jodi McCullough saw Scorpius overhead, Roy saw the Large Magellanic Cloud. Bob Danko has been following Mercury from The Grand River Reserve. Phil Plante got 25 vsos in June. Plus the Southern Cross and Omega Centauri on his transit expedition. A dozen MVASers had a great night at Scenic Vista the weekend before; many Messier's and an ISS pass.

ADJOURNMENT: Adjournment came at 8:46 PM. We thank our hosts Dennis and Rose Marko for the great sandwiches. Thanks are given to Chuck and Carol Oiesen for the great fruit salad that they brought (nice touch on a warm night). The next meeting will be at the MVCO on July 28, 2012. Meeting begins at 8:00 PM. Scheduled hosts are Greg Higgins and Rosemary Chomos. **PASSWORD:** Name a globular cluster- a common name or catalog number, or both! *-minutes by Phil Plante*

After the meeting and social break, Roy McCullough gave the third installment of the imaging seminar. His topic was for those that never imaged before. He gave a short power point show on why you would want to make images. Then outside, using the MVAS webcam and the 8" scope, he and Jodi demonstrated the imaging process. A gibbous Moon was the target.

MVAS REMINDERS

It was not discussed at the June meeting, but a tentative OTAA work date is scheduled for August 11th. That evening, into the morning of the 12th, is the peak of the Perseid meteor shower. We'll need to discuss at the July meeting on how to have the work session and stay after midnight for the Perseids.

CAA- OTAA MEETING

The Cuyahoga Astronomical Association is slated to hold their annual OTAA meeting on **Saturday, July 21, 2012**. The usual location is at the CAA observatory, located at Medina County's Letha House Park, due east of Spencer, Ohio. It houses several club-owned, member-built telescopes including a 10-inch Cassegrain, 12-inch Newtonian (Dobson-type portable), and two 16-inch Newtonians. No program information was available at press time. For information, please Visit their website as the date nears. <http://cuyastro.org/>

Oops! It's time to start rounding up MVAS-OTAA door prizes!

MVAS ACTIVITIES

On June 5, 2012 most members made an attempt to observe the Transit of Venus. The Hometown heroes had no luck, while our mobile members had better results. See the *Observer's Notes* section below for a recap of this event, from an MVAS perspective. Check the Gallery Section for photos.

A few weeks later on June 23rd. a half dozen members of the MVAS "HAM section" participated in Field Day of the Western Reserve Amateur Radio Club. This took place at Elser Air Field on Sharrot, Rd. in N. Lima. No word on the radio action, but it's reported they had solid clouds.

Later that day, the other half of MVAS went to Scenic Vista for a splendid night of observing. Passing clouds didn't seem to hinder this public night. About 10 telescopes were set-up with a dozen members around. About 25 people; some were Boy Scouts from Austintown, enjoyed the celestial treats. Double stars, globulars, galaxies, planetaries. The transparency was terrific. A couple of members even imaged that night. Adding to the charm, the SV folks watched an ISS pass, right after sunset. It was a cool, dry night with very few mosquitoes. We were due for no dew! Check the Gallery Section for a few photos. Next Scenic Vista Public Night is set for September 8th. It will be an Astro-HAM event. Noon to Noon is the battle cry.

Observer's Notes

Into The Sun

By now everyone should have had their fill of the great Venus Transit of June 5, 2012. Thus, it's time to wrap things up with a report on MVAS observing efforts. Some of our MVAS faithful went to the Mill Creek Experimental Farm in Canfield, OH to help the YSU staff with a public event. The chance of good weather was always a toss-up, and unfortunately, our chance went the wrong way here. A cloudy afternoon greeted the astronomers and the people hoping to get a peek. We send a special thanks to Bill Pearce who first suggested the location. Sharon Shanks took hold of the idea and handled the logistics; from getting permission to use the Farm, to having YSU cover insurance and security costs. Things the MVAS would've had to deal with. And thus, the public was invited to the big show. Lost was the cozy, "MVAS only" get together Bill had in mind. But in the end, it seems a small price to pay if our mission is to enlighten the public with astronomy. Besides, we get "cozy" anytime the grill fires-up. One sticky situation which seems to happen all too often- occurred again. That is, the MVAS got snubbed by the local media (TV, Vindicator) in favor of YSU. Some will complain about it- but if it's any consolation, we should realize the MVAS has survived without the Vindicator for over 70 years. 'nuff said.

Several other members had the travel bug. A few made spur of the moment Transit Day moves while a few others, had more comprehensive plans involving flights to distant lands. Reports have it that the skies were clear north of the MVCO. Bob Danko went to the Grand River Preserve to observe. He was able to watch the event until sunset. Like-wise Tony Mehle and Larry Plante (not the real Blues Brothers!) went to Mentor Headlands State Park on Lake Erie where they observed until sunset. Tony imaged with his 12" Meade. Tony got some nice shots of the black-drop effect as well as the numerous sunspot groups. Meanwhile Larry made visual observations with his Maksutov. Officials were expecting 30,000 people at the park but only a few thousand were reported to be on site.

Meanwhile, east coast MVAS member Jim Haklar traveled to Lumberton, North Carolina to see the transit (about 560 miles from his home in NJ). He began checking weather forecasts 10 days before the transit, for cities up and down the east coast. It was accepted as fact that the Northeast would be socked in. Jim then looked at cities as far west as Youngstown, OH and as far south as Savannah, GA (all within a 1-day drive). As the big day neared, his choices narrowed to Youngstown and Lumberton. Predictions were giving them the lowest percentage of cloud cover. The day before the transit he decided on Lumberton. Leaving NJ at 4:15 AM on transit day he arrived around 1:00 pm in Lumberton. Jim set-up in the back of the hotel which overlooked a field. About 1-hour before the transit began the clouds broke and there were mostly clear skies. He was able to image from 6:00 pm - 8:00 pm, getting some nice images and a time lapse sequence. A close-up showed the black drop effect. A few people stopped by to watch the transit on his DSLR's live view. Jim's equipment consisted of a tripod-mounted Stellarvue SV70 ED with Baader solar film, and a Canon T3i with remote shutter release. He stayed overnight. He did the 9 hour drive back home the next day.

Sometime in November 2011, when the Albuquerque annular eclipse team planned for that event, they simultaneously decided to observe the transit from the Big Island of Hawaii. Phil did the preliminary Google map searches to find a hotel with all the options. They would need a clear western ocean horizon to see the end. It boiled down to The Hilton or Marriott in Waikoloa, HI. The Marriott had rooms with balconies that faced the setting sun's azimuth, a terrace around the room tower and a beach looking west over the Pacific. It seemed ideal. During a conference call between Phil, Heidi and Isaac (both in CA), they examined Google maps and hotel websites on their computers. They decided on the Marriott. Juan previously said he liked the Hilton for it's amenities. A team player, he signed-on for the Marriott. By coincidence, S&T also picked this hotel for their stay. But their group was headed to the summit of Mauna Kea. - at almost 14,000 ft altitude.

They day before the transit, Heidi (excellent driver), Juan and Phil went to the summit of Mauna Kea. There were 50 mph winds, 40°F temps and occasional sand blown in the eye. No tripod would have been left standing- out in the open. No word (yet) as to how well the S&T group fared. Transit day dawned with clear skies, but clouds began moving in from the SE. However, a strong NW wind pushed them back as soon as they reached the meridian. Phil began watching this pattern develop from 3:30 AM until 10:00 AM. Around 10:00 AM clouds began to spill over the summit of Mauna Kea (7 mi. to the east) headed towards the hotel. First contact was at 12:10 PM - and nearly overhead. Some of those eastern clouds clipped the sun right at that moment. But the prevailing NW wind current kept the SE and Eastern clouds pretty much at bay all day long.

Heidi and Isaac arranged to have a corner of the terrace reserved for the group. It was a great spot with chairs, tables and shade. The team set up around 11:00 AM. Picture taking began with a few guests around for 1st contact. For the most part, only hotel staffers came by for a look during the transit. Heidi let folks look through her filtered binoculars. Juan used his binoculars and looked at LCD images when he could get a chance. Isaac shot in H-alpha and Phil shot in green light (Baader Continuum Filter). By 3:00 PM, the Sun had cleared the balcony overhangs. It was hot and time to go back to the rooms with AC; and set-up on the balcony to catch the end. Time for and ice cream break. Juan went for a swim. From 4:00 PM until 6:44 PM, the transit was observed until the end. Sunset came

15 minutes later. It was a spectacular Hawaiian sunset. Then it was dinner at 8:00 PM, meeting-up with Dick and Sue, fellow eclipse chasers that make their home on The Big Island. A fantastic day indeed!

Roy and Jodi McCullough decided to travel to Australia to watch the Transit. Upon their arrival in Sydney, they where met by fellow MVAS'er J. R. Pandian. He took them to The Sydney Observatory. The picture at right shows the three MVAS members at the 11.75 inch refractor that was constructed for the 1874 transit. It has observed 4 transits.



Jodi and Roy observed the transit from the Mt. Isa Astronomical Society Observatory in NW Queensland Australia. They assisted a PhD student from Paris who was part of a world-wide effort to photograph the atmosphere of Venus. There were 8 specially made coronagraphs, each with an off-centered blocking disk and either a R, V, B, or IR filter. They helped align the blocking disk prior to the transit. Only 4 sites were able to capture the event, with Mt. Isa successfully grabbing the IR image of Venus during egress. The ingress was clouded out, but they managed to capture their own images of the later stages of the Transit. In the end, the MVAS had spanned the globe in search of a good view...on the day Venus and astronomers world-wide both got "into the Sun". -P. Plante

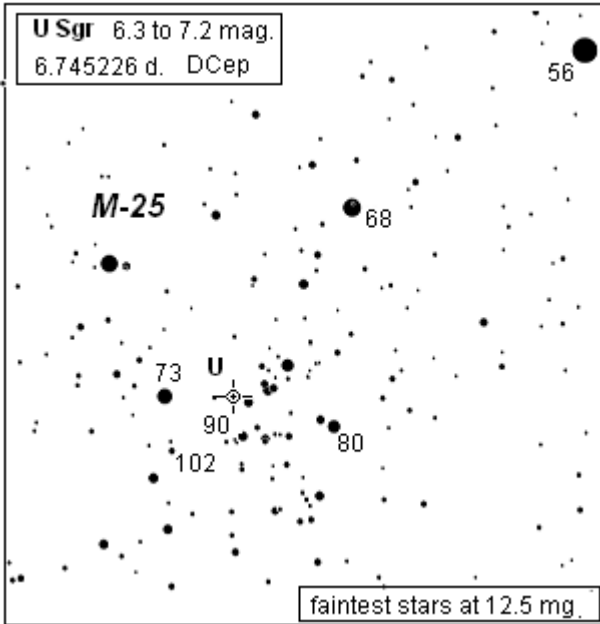
MVAS Homework: The Lagoon (M-8)

The Lagoon Nebula is estimated to be between 4,000-6,000 light years from the Earth. It spans 90' by 40' in our skies. This translates to actual dimensions of 110 by 50 light years. Despite the bright pink seen in color images, it looks the normal gray-white when viewed in binoculars or telescopes. This nebula contains a number of Bok globules which are dark clouds of protostellar material. The most prominent have been catalogued by E. E. Barnard. They are B88, B89 and B296. The Lagoon Nebula also contains a central structure known as the Hourglass. In 2006 the first four Herbig-Haro Objects were detected within the Hourglass, providing the first direct evidence of active star formation, by accretion within M-8.

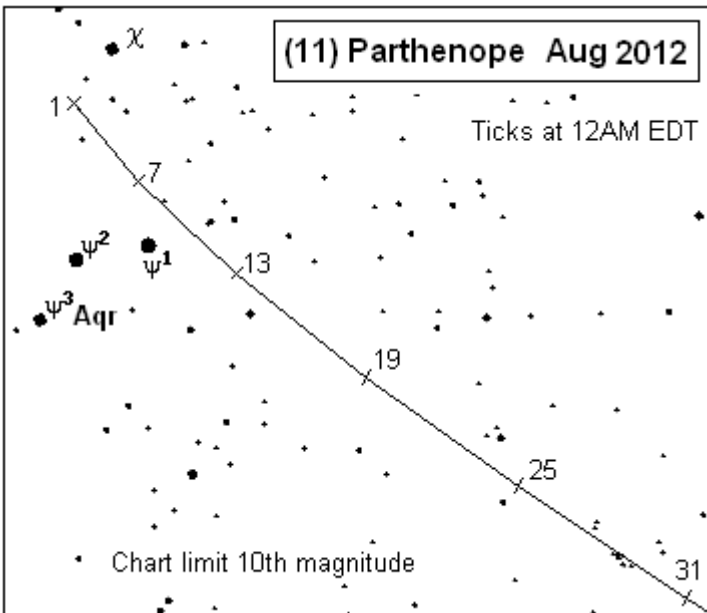
The Lagoon was discovered by Giovanni Battista Hodierna sometime before 1654. Several others reported the cluster and nebula as separate until Guillaume Le Gentil saw both nebula and cluster as one object in 1747. Messier cataloged it on May 23, 1764. The Lagoon Nebula derives its name from the lagoon-shaped dark lane dividing the nebula into two glowing lobes. The eastern lobe contains the embedded open cluster now listed as NGC 6530. The July 2012 S&T, pg. 61 has a guide to the objects in M-8. Try a sketch!

MVAS OBSERVER CHARTS

Variable star of the month: **U Sagittarii** (*abbrev.*: U Sgr). As you hunt down the object-rich constellation of Sagittarius, stop at open cluster M-25. Near its center is the yellow-giant Cepheid variable star U Sgr. It ranges from 6.3 to 7.2 magnitude. It takes about 4 days to drop to minimum, then two days to rise back to maximum light. Binoculars will work for this.



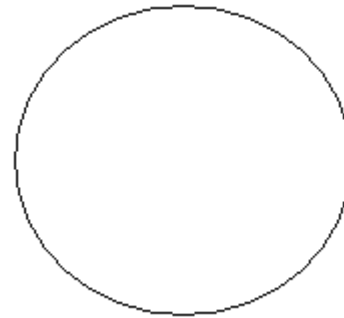
Asteroid of the month: **(11) Parthenope**. This August, late in the night around 1 AM, swing over to eastern Aquarius. Find the trio of stars labeled psi (ψ) Aqr. They are about 30° high in the SE at the beginning of August. Parthenope is just north of these three, but a gibbous moon is nearby. By August 10th, the moon leaves the scene and Parthenope will be rising from 9.8 mag. to its brightest at 9.0 magnitude at the end of the month. This is a good "off the beaten track" object to try. A telescope is recommended. Next month is Pallas, also in Aquarius!



MVAS OBSERVATIONS - DUE August 2012

OBSERVER _____

Featured object: M-8. Please try a sketch. Always start by placing the stars of the cluster in proper positions relative to each other. Next do any field stars you see. Then draw a faint outline of any nebulosity you see. Fill in with the magic of smudging pencil graphite to match the nebulosity you see. Keep M-8 centered if you don't have a driven mount. This is important for accuracy when you are placing stars in the field circle below.



M-8 (Lagoon) Observation:

Date: _____ Time(EDT) _____ Scope _____

U Sgr magnitude estimates:

Date: _____ Time: _____ estimate: _____ Instrument: _____

_____	_____	_____	_____
_____	_____	_____	_____

(11) Melpomene Observations:

Date: _____ Time: _____ Instrument: _____ magnification: _____

_____	_____	_____	_____
_____	_____	_____	_____

Other Objects in Sagittarius to observe

D. Sky Date Scope Dbl. Date Scope

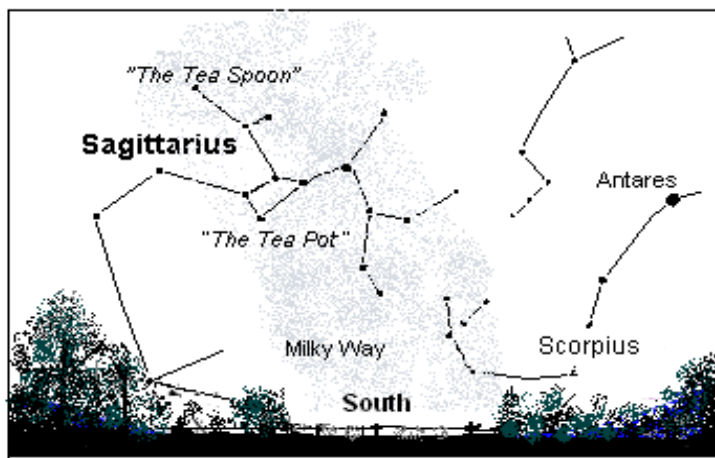
	Date	Scope	Dbl.	Date	Scope	SEP	MAG	SPLIT?
M- 16	_____	_____	η Sgr	_____	_____	3.6"	3.1 - 7.8	Y / N
M- 17	_____	_____	β Sgr	_____	_____	28.6"	4.0 - 7.2	Y / N
M- 24	_____	_____	21 Sgr	_____	_____	1.5"	5.0 - 7.4	Y / N

Lunar Occultations (see Sky Almanac):

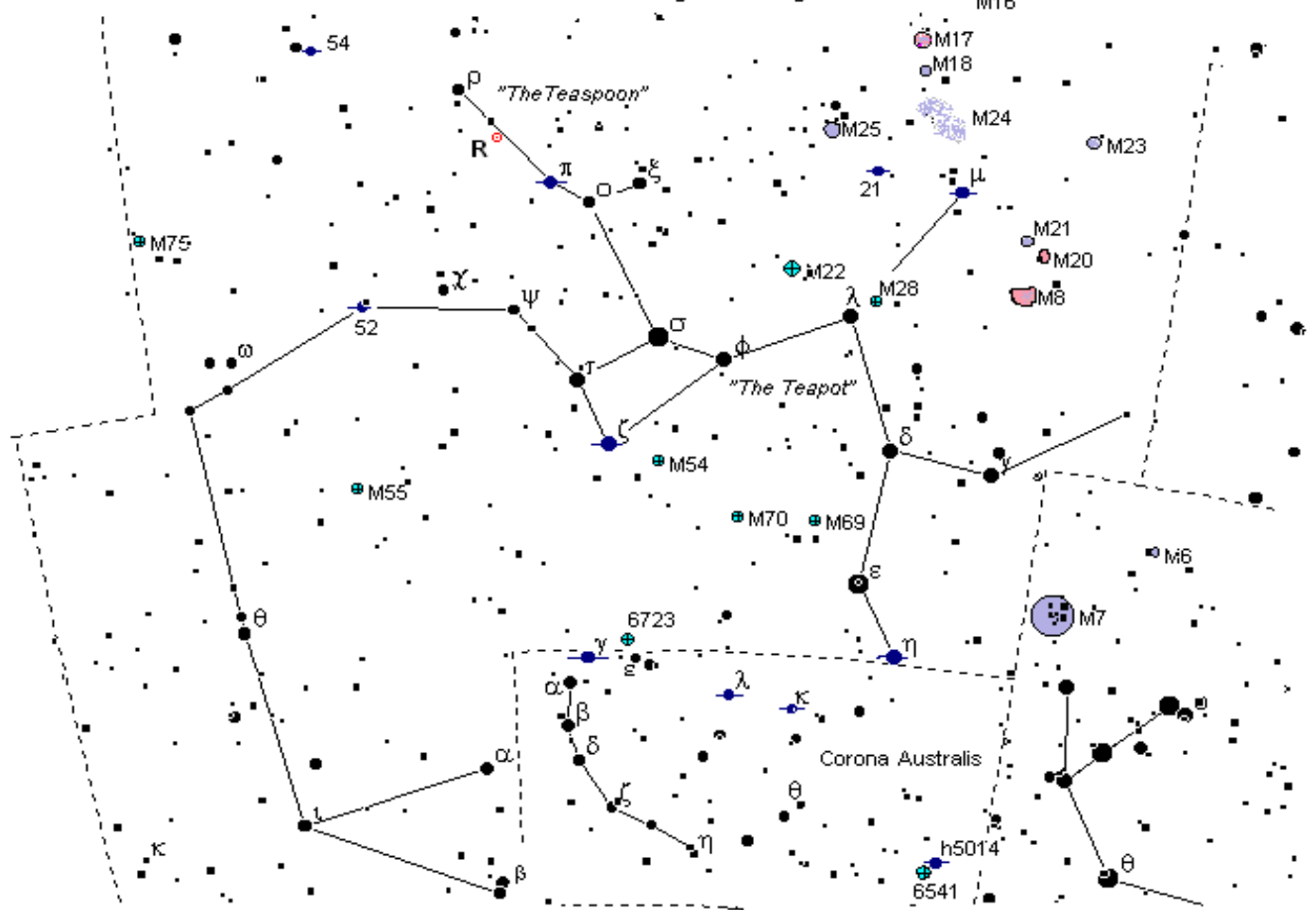
Star (UT) Date Time Scope magx. Event(circle)

_____	_____	_____	_____	_____	x	R	D
_____	_____	_____	_____	_____	x	R	D
_____	_____	_____	_____	_____	x	R	D
VENUS	Aug 13	4:39 PM	_____	_____	x	in daylight	

Constellation of the Month — Sagittarius



By the end of July, Sagittarius is south by 11PM. It is highest in the sky now. And this is the best time of night to observe this constellation. As July/August progress, the day's heat and haze linger and often spoil the earlier evening views of the deep sky stuff. These night-mornings can still be cool and haze free. And there is a treasure trove of M-objects to be found in Sagittarius. Just sweep along the Milky Way if you are lucky to be in a dark sky site. Even with binoculars or a finder scope, they will stand out, calling for closer inspection with a telescope. Sagittarius is an archer, but many see it as a Teapot. It's easy to make out the spout, handle, and teaspoon. The Milky Way serves as the steam coming out of the spout. In the steam, you'll find favorites like The Lagoon (M8), Trifid (M20), The Horseshoe (M17), and M16 in Serpens. The Great Star Cloud (M24) and one of the finest globulars- M22. Indulge yourself with the tea steam- and perhaps a glass of iced tea, to keep you going on a warm night with Sagittarius.



DEEP SKY				mag.	size	type	Check list		Instruments used: _____ on _____ _____ on _____ _____ on _____ _____ on _____
mag.	size	type	"name"						
M8	--	50' x 40'	Neb. "Lagoon"	M23	5.5	27'	Open Cluster	_____ M23	
M16	6.0	6'	Open Cl. "Eagle"	M24	--	95' x 35'	star cloud	_____ M24	
M17	--	11' x 6'	Neb. "Omega Neb"	M25	4.6	32'	Open Cluster	_____ M25	
M18	6.9	9'	Open Cluster	M28	6.9	10'	Globular Cluster	_____ M28	
M20	--	17' x 12'	Neb. "Trifid Neb."	M54	7.7	12'	Globular Cluster	_____ M54	
M21	5.9	13'	Open Cluster	M55	6.3	19'	Globular Cluster	_____ M55	
M22	5.2	33'	Globular	M69	7.7	10'	Globular Cluster	_____ M69	
				M70	7.8	8'	Globular Cluster	_____ M70	
				M75	8.6	7'	Globular Cluster	_____ M75	

2012 AUGUST SKY ALMANAC

Solar and Lunar (EDT).

Date	Sunset	Moonrise	Moonset
1	8 : 40	8 : 08p	5 : 48a
5	8 : 35	10 : 10	10 : 15
9	8 : 30	— : —	2 : 13p
13	8 : 25	2 : 33a	5 : 37
17	8 : 19	6 : 38	8 : 01
21	8 : 13	11 : 12	10 : 08
25	8 : 07	3 : 41p	12 : 24a
29	8 : 01	6 : 41	4 : 42

PLANET WATCH

Jupiter	Neptune	Venus
<i>Rises</i>	<i>Transits</i>	<i>Rises</i>
1:55a	3:01a	3:06a
1:42a	2:45a	3:03a
1:28a	2:29a	3:01a
1:15a	2:13a	3:00a
1:01a	1:57a	3:00a
12:48a	1:40a	3:02a
12:34a	1:24a	3:04a
12:20a	1:08a	3:06a

August 2012

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Asteroid for August 2012 (11) Parthenope

Date	<i>Rises</i>	RA		<i>Alt.</i>	<i>Azm</i>	<i>Magnitude</i>
		hr.	min			
1	10 : 24 pm	23 : 17	-08.0	16°	116°	9.8
7	10 : 01 pm	23 : 16	-08.7	20	122	9.6
13	9 : 37 pm	23 : 13	-09.3	23	127	9.5
19	9 : 12 pm	23 : 09	-10.0	27	134	9.3
25	8 : 47 pm	23 : 05	-10.7	30	141	9.2
31	8 : 21 pm	23 : 00	-11.5	32	xxx	9.0

(at midnight)

Date UT hr *Celestial Highlights*

2	03	FULL MOON
9	19	LAST QUARTER MOON
11	19.5	Jupiter 0.1° N. of Moon
12	04	Perseid Meteor show er
13	20	Venus lunar occultation
15	08	Venus greatest W 46°
16	12	Mercury greatest W 19°
17	15	NEW MOON
24	12.3	Neptune at opposition
24	14	FIRST QUARTER MOON
28	00	R Ser maximum 6.9m
31	13	FULL MOON

Variable Star of the Month: **U SGR** 6.3 - 7.2mag 6.745226 days

LUNAR OCCULTATIONS FOR: AUGUST 2012

Civil (24hr)			UT			Moon			Moon			Star			Star		
date	hr	min	sec	date	hr	min	sec	Ph	% illum.	alt	azimuth	name	Mag.	PA	event	dbl./ sep.	
3	3	14	42	3	07	14	42	R	98-	38°	197°	46 CAP	5.1	210°		NA	
3	3	18	51	3	07	18	51	R	98-	38	198	ZC 3184	7.0	222°		0.06"	
5	2	03	31	5	06	03	31	R	89-	42	142	ZC 3444	6.3	202°		42.0"	
5	5	06	59	5	09	06	59	R	88-	47	207	kappa PSC	5.0	297°		163"	
5	5	24	32	5	09	24	32	R	88-	45	213	ZC 3455	6.3	253°		0.05"	
10	4	03	02	10	08	03	02	R	44-	40	100	ZC 497	6.5	204°		0.08"	
11	3	19	57	11	07	19	57	d	35-	24	083	omeg TAU	4.9	037°		253"	
13	16	39	28	13	20	39	28	d	15-	9	289	Venus	-4.3	069°		NA	
23	21	55	18	24	01	55	18	d	44+	14	227	ZC 2207	7.0	050°		NA	
27	1	05	02	27	05	05	02	d	78+	12	229	ZC 2697	6.5	100°		NA	
29	1	56	00	29	05	56	00	D*	93+	24	221	ZC 2995	6.1	144°		0.10"	

D*= graze path 36km at azimuth 146°. Graze at 06:03:07 UT

at MVCO

D= disappearance. Good occultation event.

d= disappearance, the star's magnitude approaches the observing limits of 200mm objective

R= reappearance. Good occultation event

r= reappearance, the star's magnitude approaches the observing limits of 200mm objective

All disappearances (D) occur on the eastern limb (left side in the sky). Reappearances (R) always occur on the western limb.

Position Angle (PA): tells where along the west limb to watch for a reappearance.

PA is referenced to celestial north: North=0° East=90° South=180° West=270°

Occultations computed using Occult v3.6 (I.O.T.A.)

Variable star data from AAVSO. All other data computed with MICA 1800-2050 (Willman-Bell)

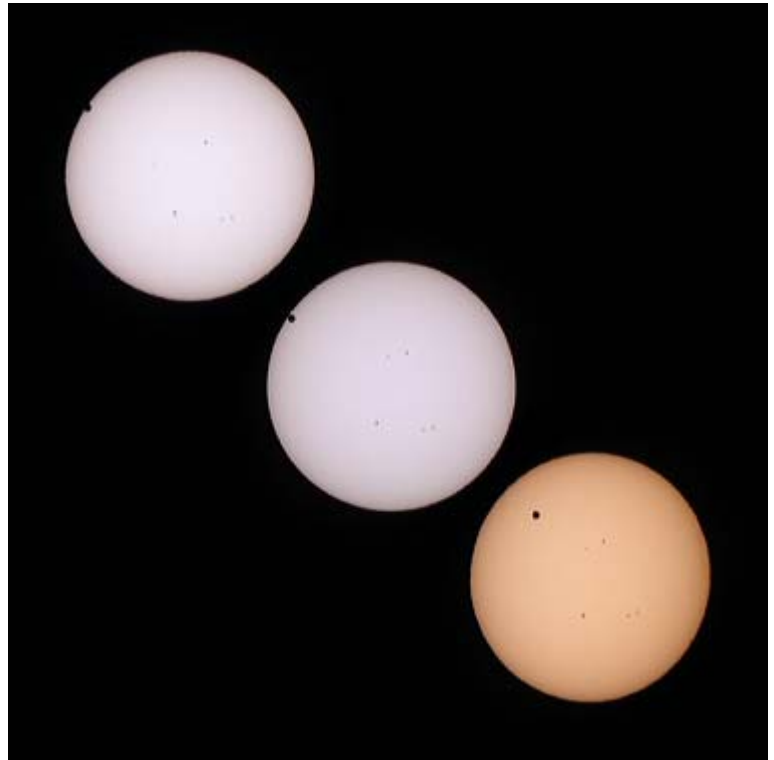
GALLERY.....

THE TRANSIT OF VENUS- 2012

Below, are a few shots of the Great Venus Transit that occurred on June 5, 2012. MVAS members tried their best in capturing the transit from locations faraway and nearby. The home town observers had to deal with overcast skies and thus no images from them. But lands north of the MVCO seemed to supply clear skies. There were some clear areas along the East Coast as well.

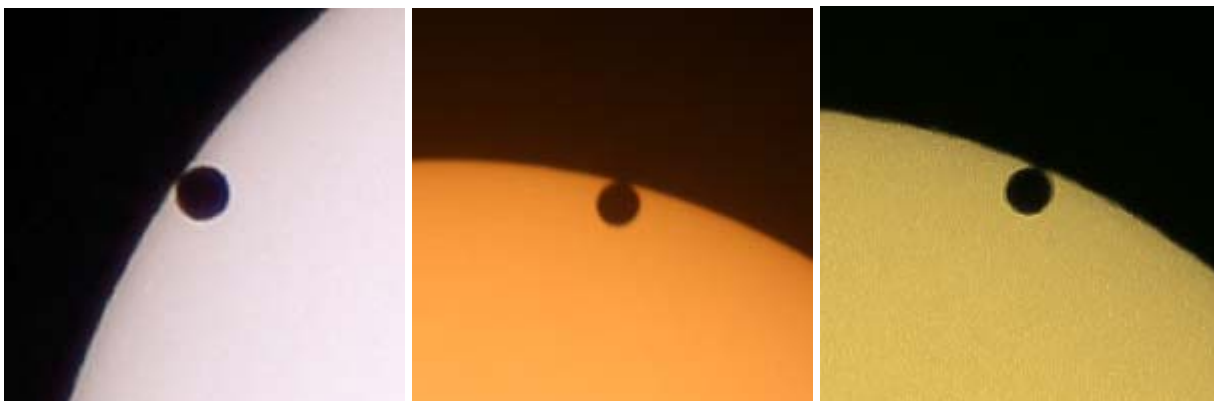
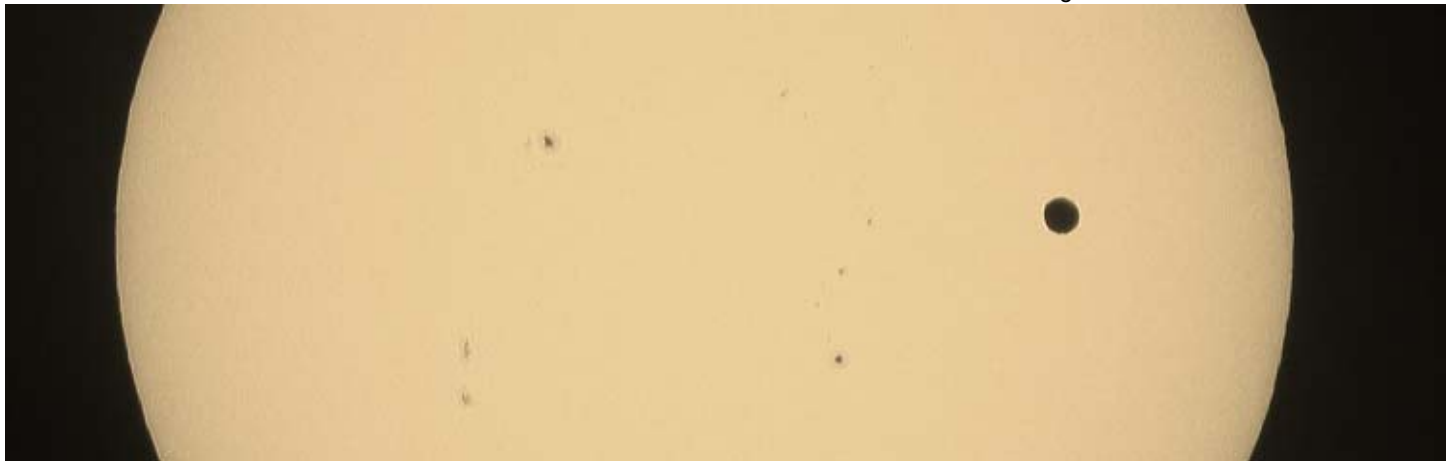


Above: Tony Mehle took this with a 12" Meade SCT and white light filter. He was on the shores of Lake Erie.



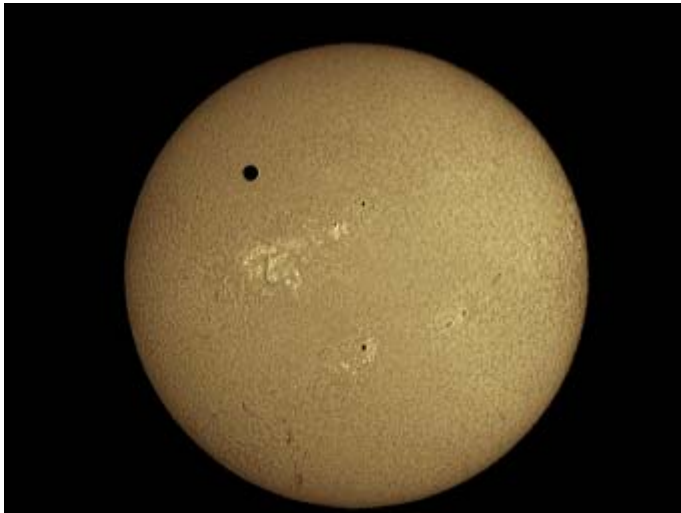
Above: Jim Haklar took this sequence from North Carolina using a Stellarvue SV70 ED and a Baader white light filter.

Below: Phil Plante took this about 2/3rds of the way into the Transit. In Hawaii, he used a vintage University Optics 75mm refractor with Baader's white light and Solar Continuum filters.



Left: Black Drop effect- close-up images from larger photos. All were taken at 2nd contact.

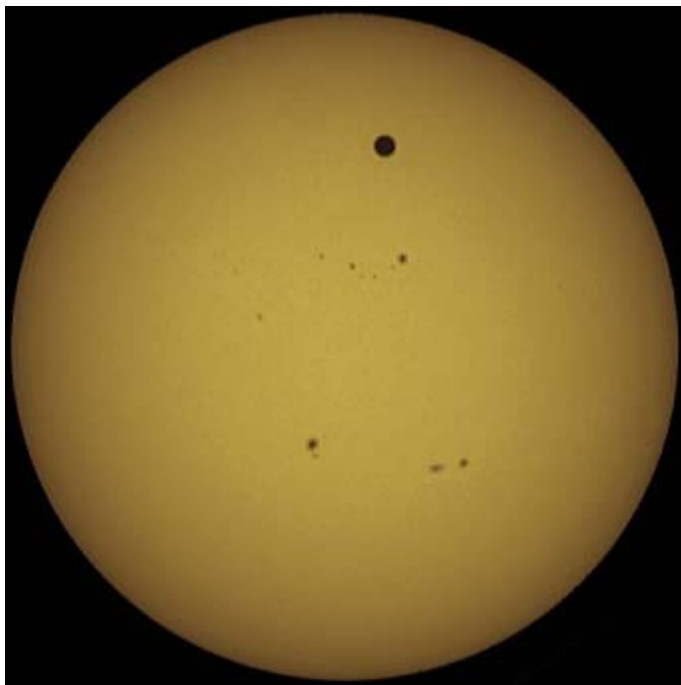
L-R: Images by Haklar, Mehle, Plante.



Jodi and Roy McCullough image. From Australia. H-alpha light.



Jodi and Roy McCullough image. From Australia. H-alpha light.



Jodi and Roy McCullough image. From Australia. White light.



Jodi and Roy McCullough image. From Australia. H-alpha light. The white light photo at left was taken slightly beyond midtransit using a 60 mm refractor, Baader film and a Luminera 2.0 M webcam. The top two and directly above were taken through a 4 inch refractor and hydrogen alpha filter using a Point Grey Grasshopper webcam.



The image above was taken from the airplane approaching Sydney, Australia. At center-left near the shoreline, is a white tower that marks the spot of Captain Cook's landing site which he discovered during his 1768 Venus transit voyage.

Miscellaneous Transit:



Larry....



Who Dat?

Sunset Lake Erie.....



Isaac and Phil



Sunset
Waikoloa,
Hawaii...



Phil....



Tony....

SCENIC VISTA JUNE 23, 2012

Great night, good skies. Good turn-out.
Need more nights like this one.



Bino-man ruled the night.