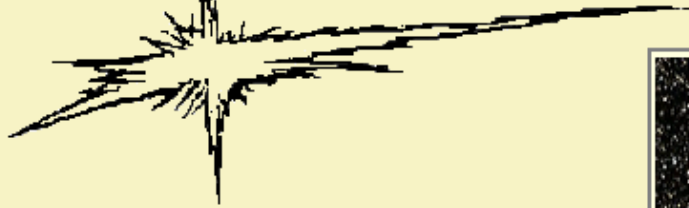
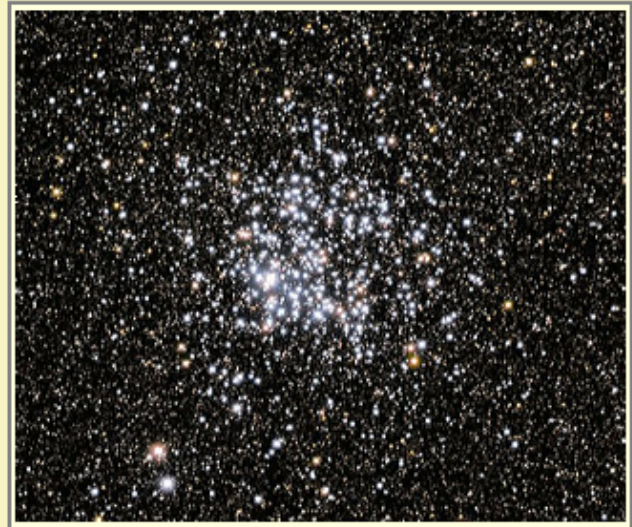


# *THE METEORITE*



*M- 11*  
*NGC 6705*

*The Wild Duck Cluster*  
*(in Scutum)*



Hubble Telescope image: NASA

Newsletter of the Mahoning Valley Astronomical Society, Inc.

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Meteorite Editor: Phil Plante  
1982 Mathews Rd. #2  
Youngstown OH 44514



**MAY 2012**

**NEWS NOTES**

Newsletter of the Mahoning Valley Astronomical Society, Inc.

**MVAS CALENDAR**

- MAY 19** **OTAA Scenic Vista Stargaze.** Also a Public Night at Scenic Vista. 6:00 PM till dawn.
- MAY 20** Partial solar eclipse at sunset.
- MAY 26** Business meeting at the MVCO. ~ 8:00 PM  
Memorial Day BBQ before & after this meeting.
- JUN 5** **Venus Transit.** Public viewing 6:00pm till 9:00PM  
At Mill Creek Experimental Farm in Canfield,  
OH

**NATIONAL & REGIONAL EVENTS**

- MAY 23-28** **RTMC Astronomy Expo,** at Camp Oaks, Big Bear City, CA. The original "Riverside" telescope making conference now features astro-imaging workshops. [www.rtmcastronomyexpo.org](http://www.rtmcastronomyexpo.org)
- JUN 1 - 3** **Mid-States Regional Astronomical League Conference.** On the UMKC campus, Kansas City, MO. Talks and workshops for amateurs. Admission \$30 individual. <http://MSRAL.org>
- JUN 16** **Observatory Park Grand Opening.** 10610 Clay St., Montville, OH (near CVAS). 7pm to midnight. Concert, star party. No registration. Free. <http://www.geaugaparkdistrict.org/special-events.shtml>
- JUN 21-24** **Sky Tour.** At Bismark Rd. and Heyman Rd. Bellevue, OH 44811. The Huron Valley Astronomer Group's annual star party, this will be the 12th year of this event. <http://nwo-astronomy.org>

**Ring Strings.** Discovered by Pioneer 11 in 1979, Saturn's F ring lies just outside the A Ring's edge. Not visible from Earth, spacecraft imaging shows the F Ring to be a twisted strand of particles. These contortions are controlled by embedded bodies such as the moon Prometheus which is about 92 miles wide. Smaller objects down to a half mile wide add to the mix. They can create channels, ripples and snowballs in the F ring. Scientists didn't know what happened to the snowballs. Some were surely broken up by collisions or tidal forces.

But now scientists have evidence that some of the smaller bodies survive, and go on to crash through the F ring on their own. These small objects appear to collide with the F ring at gentle speeds - something on the order of about 4 mph. The collisions drag glittering ice particle out of the F ring with them. They typically leave a string of icy particles 20 to 110 miles long. Carl Murray and his Cassini imaging team (at Queen Mary University, London, England) happened to see a tiny trail in an image from Jan. 30, 2009. They tracked it for over eight hours. The long trail confirmed the small object had originated in the F ring, so they went back through the Cassini image catalog to see if the phenomenon was frequent.

Looking through 20,000 images they found 500 examples of these objects during just the seven years Cassini has been at Saturn. In some cases, the objects traveled in packs, creating "mini-jets" that looked quite exotic, like the barb of a harpoon. Other new images show grand views of the entire F ring, showing the swirls and eddies that ripple around the ring from all the different kinds of objects moving through and around it. Cassini's studies of this ring will help us understand the activity that occurs when solar systems evolve out of dusty disks that are similar to the disk we see around Saturn.

**Double Galaxy?** Recent photos from NASA's Spitzer Space Telescope suggest that the Sombrero Galaxy (M-104) straddles the line between two known types of galaxies: elliptical and spiral. While most galaxies fall into just one of these classifications, the Sombrero Galaxy appears to be both. This galaxy, also designated as NGC 4594, lies 28 million light-years away in the constellation Virgo and is visible in small telescopes. The Sombrero appears to be more complex than previously thought. To understand this galaxy we have to think of it as two galaxies, one inside the other.

This revelation was made visible through Spitzer's infrared detectors, imaging it in infrared light. Infrared cuts through galactic dust which appears as haze a visible-light image. These new pictures of M-104 revealed the true size of its halo. In visible light, the halo looks light and small, but in infrared it appears to be the right size and mass to be a large elliptical galaxy. This raises a few questions. How did such a large disk form and survive inside a massive elliptical? How unusual is this process? The scenario that a giant elliptical galaxy swallowed a smaller spiral is unlikely. Astronomers say the spiral's disk would not survive such a violent process. Another possibility is that a cloud of gas descended on an elliptical galaxy and fell into orbit around its center, forming a spinning disk. By solving the mysteries of M-104, astronomers hope to better understand how galaxies form in general, as well as unravel the histories of other oddball galaxies such as Centaurus A. This also appears to be an elliptical galaxy with a disk inside it.

**MVAS BOARD OF TRUSTEES**

President	Sam DiRocco
Vice President	Harry Harker
Treasurer	Steve Bartos
Secretary	Phil Plante
Appointed Trustee (2012 & 2013)	Rosemary Chomos
Appointed Trustee (2011 & 2012)	Bob Danko
Elected Trustee (2012)	Dan Schneider

**OBSERVATORY STAFF**

Observatory Director	Larry Plante
Assistant Observatory Director	Dave Ruck
Librarian	Rosemary Chomos

**PUBLICATIONS STAFF**

Meteorite Editor	Phil Plante
Assistant Editor	Steve Bartos
MVAS Webmaster	Harry Harker
MVAS Webmaster	Bill Pearce

**MVAS REPRESENTATIVES**

OTAA Representative	Harry Harker
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MVAS, P.O. BOX 564 NEWTON FALLS, OH 44444-9998  
 MVAS Homepage- <http://mvobservatory.com>

## MINUTES OF THE APRIL MEETING

APRIL 28, 2012 at the MVCO

The meeting came to order at 8:05 PM. President Sam DiRocco presided, with all officers present. Roll Call was taken and the password was answered by twenty-two members. Four guests were in attendance. They included Virginia Bartos, Lisa and Isaac Boyer and Mike Heim. Mike has attended previous MVAS meetings and noted he was to give a talk on astrophotography to the Mahoning Valley radio club.

There was a call for the reading of the Minutes. Pandian asked about an item in the Treasurer's Report, curious about the listed subscription income and subscription expense. The Treasurer explained that cash received for subscription renewals was recorded as income. Likewise when subscriptions are renewed through the MVAS (to get the club discounted subscription rates) this is recorded as an expense. With no further questions, Bob Danko moved to suspend the reading. With a second to this motion from Larry Plante, the reading was suspended and the Minutes were accepted as published, by a unanimous voice vote.

**TREASURER'S REPORT:** The Report was read by Steve Bartos. There was no further discussion. Bob Danko moved to accept the report as read. Larry Plante seconded the motion. All were in favor by voice vote. The Report was accepted.

### General Fund 3/1 thru 3/31 2012

OPENING BALANCE:	\$	8,197.47
CLOSING BALANCE:	\$	8,227.83
<b>AVAILABLE FUNDS (NON-RESERVED):</b>	<b>\$</b>	<b>4,063.71</b>
ACCOUNT NET GAIN/LOSS FOR THIS PERIOD:	\$	+80.36

#### INCOME:

DUES (PAID: RUCK, SCHNEIDER)	\$	80.00
INTEREST		0.36
<b>TOTAL INCOME</b>	<b>\$</b>	<b>80.36</b>

#### EXPENSES:

CK# xxxx NO EXPENSES RECORDED THIS MONTH	\$	0.00
<b>TOTAL EXPENSES</b>	<b>\$</b>	<b>0.00</b>

### Reserved Funds

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

**CORRESPONDENCE:** Phil Plante reported that we received the annual Scenic Vista Summer Schedule mailing and that it had our public dates listed and the information was correct. He then reported on a package sent by the Geauga Park District in regards to Telescope Park and its grand opening on June 16th. Phil speculated that this may be why Chagrin hasn't yet posted an OTAA date. They do a lot of work at Telescope Park and will likely be involved with the special event. Harry read the included letter from Holly Sauder, Volunteer Coordinator of Geauga Park District. She invited the MVAS to arrange a special tour of the Park and was searching for volunteers to run telescopes, serve as planetarium hosts, sky guides, etc. Several MVAS members visited the Telescope Park at last year's Chagrin OTAA. It is a spectacular place. No discussion ensued regarding volunteer work or making a group visit.

**COMMITTEE/OFFICER REPORTS: COMMITTEE/OFFICER REPORTS: IMAGING COMMITTEE:** No report. **VISUAL COMMITTEE:** Phil has copies of the 2012 Visual Committee

forms, if you want one. They can also be downloaded from the MVAS website (PDF). **LIBRARIAN:** No Report.

**OBSERVATORY DIRECTOR'S REPORT:** Larry Plante reported that he was going to install the receptacle in the women's side of the restroom before the chili-fest but decided against electrical work in rainy conditions. This will get done once the weather improves. Also on the list is installation of an outside receptacle on the north wall of the 16" building. He has found metal or fiberglass doors at Star Supply for around \$40 each. The bottom of the door on the 12" building looks to be wet and maybe water damaged. These doors could be suitable replacements but they need to be cut down to fit, and the door jamb will need to be re-framed to match the holes for dead bolt and door knob action. The door was to be inspected after this meeting to assess the action needed. There will also be a search for a new cable (vinyl covered?) to replace the chain that controls the dome shutters. The John Augustine chain has broken, thus a new cable replacement is needed. As of now, the shutters can't be opened. Larry is working on the wooden case for the 16" Cass eyepieces. It had mildewed so he is sanding and coating it. Rosemary suggested getting a new one. The well pump will be turned on shortly. It was still too cold at nights, earlier this April. More on the roof leak in Old Business.

**OLD BUSINESS:** Greg Higgins and Harry Harker met with the roofers that installed the rubber membrane on the 16" building in 2006. They brought along their sheet metal expert. Harry explained the result of this inspection and repair estimate. After about 20 minutes of close inspection, the metal worker found that two rings of flashing installed around the perimeter of the dome was the source of the problem. One was on top and the other below and they were riveted together. Over the years, expansion and contraction made them loosen and separate. A small gap formed around the base of the dome. Consequently, whenever mist or rain collected in the dome, it would run down into the gap. This served as a channel which directed the collected water towards a seam in the flashing. Water dripped from this seam onto the spot where the wood is now damaged.

The roofers applied a sealant called Karnack which runs about \$129 per gallon. They did this for free. They also were willing to do repair work but suggested that it wasn't needed. The wood panels had no weight bearing considerations to worry about and the wet joists would dry-out and be fine. There seemed to be no leakage after the last few rain storms so the problem seems to be fixed. The roofers suggested a few spots on the roof be touched up with roofing tar, but other than that things looked in fair shape. Harry suggested we obtain some of the Karnack sealer to have on hand. We also thank Greg Higgins for getting the roofers at the MVCO and making this an easy fix.

Bill Pearce had paid dues past the deadline and needed to be re-instated. Harry nominated him. All in favor, Bill is re-instated. Next the discussion turned to the Venus Transit. Currently, it looks like YSU will be hosting a public event at the Mill Creek Experimental Farm in Canfield- near Rt. 46/Leffingwell (Fairground area). The MVAS is slated to be along as co-host much as we do for Festival of Arts. YSU will handle security costs, liability coverage and publicity. Looks like an easy set-up for MVAS and we do need to support the event. It may be a chance to recruit new members. Some thought this event was getting to be bigger than what was anticipated. Regardless, we thank Sharon Shanks for doing the paper work done to make this happen. A few will be out of town for the

transit. Bob Danko will be at the Grand River preserve, near the pond in the hunting area. He invites members to join him to enjoy the clear views of the horizon (360). One last note: the search for a new grill is still on. Dave Ruck located a \$99 grill at Sears, but no action was taken. Keep looking.

**NEW BUSINESS:** Rich Mattuissi had requested members' help in getting a Boy Scout troop their astronomy badge with a visit to the MVCO. Recent experience indicates this is not a good idea. If this is the case, the next best thing would be to get them to the Scenic Vista OTAA Stargaze on May 19th. Sam would check with Rich. Bill Pearce got an email request from a group of home-schoolers (80 kids plus parents) to take a tour of the MVCO. Red flags went up. Bob told about the parking disaster and crowd control for Halley's Comet and Mars '88 public events. This is more people than an OTAA event. We could only fit a half dozen people in a building at once. Phil noted we are limited to 20 visitors at a time according to our lease- without prior consent. The best option for this would be to split the home schoolers into smaller groups spread over several visitations. More work on this need to be done. There was a brief discussion on the 50" as some wanted to see if the party from Canada was still interested. Harry said his conditions were unacceptable in that we'd have to build a crate and pay for shipping. The mailing of the PDF Meteorite seemed to be acceptable to all present. It will still be posted on the website and mass mailings will be used only if necessary. This was a test run. Other methods of PDF mailings will be investigated.

**GOOD OF THE SOCIETY:** Steve had a supply of MVAS merchandise available. We still have some RASC Handbooks.

**VISUAL REPORTS:** Sam DiRocco got 4 variable star estimates while Phil Plante had 26 in April. Phil had six months of homework to turn in. We need to get more folks doing this.

**ADJOURNMENT:** Adjournment came at 8:53 PM. We thank our hosts Keith Janeco and Larry Plante for the pizza, chips and sodas. The next meeting will be at the MVCO on May 26, 2012. Meeting begins ~ 8:00 PM. There is no scheduled host so we will have a standard MVAS BBQ. Bring what you want to grill for yourself or to share. Check emails to see who is bringing what. **PASSWORD:** Name a double star. *-minutes by Phil Plante*

### MVAS ACTIVITIES

On April 21, about 25 folks made it to the Chili-fest at the MVCO. We had 8 crock pots going, with a variety of flavors. The favorite seemed to be Dennis Marko's "Mr. Food" recipe. Pandian had a tasty chicken/curry style chili. Jodi and Roy had a chili that seemed more like a bean and ham delight. Phil had the hot batch that many chose to avoid. All were very good. We had corn bread, corn chips and melted cheese dip to go along with the chilies. Rich Mattuissi won the Herschel Atlas for the Chili-Chef raffle. A 50/50 raffle was held for all participants-taking in \$46.00. Larry Plante was the winner. We send a **special thanks to Greg and Jill Klocek** for supplying a nice assortment of soothing custards, compliments of Rita's Italian Ice. The strawberry was yummy!

**Rita's Italian Ice, 9025 Market St, N. Lima, OH 44452**

.... for your summertime ice and custard treats. Also stop by Rita's booth which will be set-up at many festivals and events. For more information, call: 330-629-7499

**Transit Talk:** After the April meeting, Jodi McCullough gave a talk on imaging and safely observing the Venus Transit of June 5, 2012. Husband Roy and Bill Pearce gave supporting advice to her main talk. She covered descriptions of solar filters and the possibility of a bulk order of materials to make filters for a few members. The three covered various aspects of imaging the Transit with cell phones, point and shot cameras, webcams, dslr's (the new hot Canon model!) and dedicated CCD / video cameras. Solar viewing safety was stressed. Some of the data and transit prediction websites now have links on the MVAS Transit page, found at the MVAS website. Check it out. The next installment of these classes will have Bill Pearce speak about frame stacking techniques and how this improves images.

### MVAS REMINDERS

#### The 7th OTAA SCENIC VISTA STARGAZE

May 19, 2012

The OTAA Scenic Vista Stargaze is held at Scenic Vista Park, just west of Lisbon, OH. Use below for Google Maps, etc:

11000 Wayne Bridge Rd. Lisbon, Ohio 44432  
GPS Coordinates: 40° 44.152, 80° 48.988

This event is held in conjunction with an MVAS public star party. All OTAA members are invited. This is an excellent opportunity for OTAA clubs to have a first meeting in 2012. Please bring snacks and drinks to get you through the night. If you arrive after dark please use parking lights when possible.

**Cancellations:** If predictions call for totally cloudy skies in the Lisbon area that night, no event will take place. But with nighttime partial clouds or clearing skies soon after sunset, the local public event will still be on. Distant OTAA members are welcome to give it a try under these conditions. Monitor your weather sources to help you decide on a trip. The Clear Sky Chart website link for Scenic Vista Park given below.

<http://cleardarksky.com/c/ScnVstPkOHkey.html>

### SCHEDULE OF ACTIVITIES

**3:00 PM** Solar observing this afternoon. You may set-up scopes and/or tents at this time. (no camp fires). No RV connections. A Port-a-John is on site. Remember...this event has no fees, raffles, or pot-luck picnic. Just observing.

**6:00 PM** Informal welcome for OTAA folk at the pavilion. Pass along club news and contact info.

**9:00 PM** Sunset is at 8:40 PM. Star party begins as darkness sets in. You may use the pavilion for breaks. A coffee pot should be on, so help yourself. For a safe drive home, consider a nap.

**6:00 AM** *May 20.....Sunrise, Official End of Stargaze*

### MVAS BBQ Meeting - MAY 26, 2012

We start the Memorial Day Weekend with a business meeting and an MVAS BBQ. Arrive at the MVCO by 7:00 PM to start cooking. We'll start the meeting around 8:00pm- as food dictates! Bring your picnic. We plan to have another imaging class and more BBQ after the meeting. (it's a 1st qtr moon too)



### Made In The Shade

One day last summer, I was walking to my car to run some errands. It hit me all at once. The summer-time settings that define the season were a perfect match to an earlier time. The warm summer breeze, rustling the trees. The soft din of nearby traffic. Puffy cumulus clouds playing tag with the Sun. Maybe it was the carport sparrows exchanging their songs. All these together served to evoke a 40+ year old memory. A memory presumably lost in time. I stopped, and for a moment I was reliving one day of summer vacation, during late grade school years. Everything came back to me about that day...It was the same warm, breezy afternoon. The birds chirped away. The tall cherry tree in the back yard offered-up an inviting and cool shadow, cast by the early afternoon Sun. Setting the lounge chair in the shade of that tree, I laid back and began reading the book I just borrowed from the library. It was a thick, hard cover edition with a title that had "Saturn" in it. You see, I had been inspired many times by the view of Saturn through the trusty 60mm Tasco refractor my brother and I shared. I thought Saturn was the most compelling object any telescope could reveal. This book seemed to be thick enough to have all that was known about Saturn in it. It seemed that if I read it, I could become an expert on Saturn. With that, my Saturn quest had begun.

My thoughts returned to the errands at hand. But during the day, more Saturn memories came to me. I'd always remember a past event or two when Saturn was up. But I had never connected them. I now recognize the importance of that summer day long ago....I remember skipping through the first few chapters of the book; youthful impatience I suppose. I started reading the chapters on visual observations. Things like measuring the size of Titan, or watching its shadow cross the globe. Descriptions of the Ring system amazed me; you could see all those details and gaps? Seemed like I just needed a super big telescope. (Aperture fever isn't just for deep sky people) I hoped that someday, I would have a super big scope so I could see these things for myself. Admittedly, some of the words were too big for an 8th grader, but I tried to infer what they meant. The nomenclature was equally challenging. What the heck is an "Enceledus"? After a few days, the enthusiasm faded and other "kid friendly" activities stole my attention. It was summer vacation after all! The book was returned to the library, never to be retrieved again. So much for becoming an expert. Little did I know then, that in about 10 years, NASA would have two spacecraft fly-by Saturn. The book seemed outdated after that. But Saturn still intrigued me. I was now viewing Saturn through my new Celestron Pacific C-8. (a 1975 orange tube).

Fast forward to 1988. Now a member of MVAS, I was on my first field trip to the Allegheny Observatory in Pittsburgh, with several other members. "Doc"- one of our members, gave the tour as I recall. In one room hung a beautiful sketch of Saturn made by the astronomer James Keeler. Later we went to observe with the 13" Fitz-Clark refractor. Keeler had used this telescope to take spectrograms of Saturn's rings in 1898. These proved once and for all that the rings were made of particles, not a solid or liquid system. But Saturn was up that night. Doc put Saturn in the eyepiece for us. Eventually it was my turn and at first, Saturn didn't look much better than in my C-8. But then I relaxed, and let the planet come to my eye. The moments of steady seeing grew longer the more I observed. The swirls in Saturn's cloud tops were like nothing I'd ever seen before. The rings looked grooved like a phonograph record. There were

colors beyond the familiar butter-scotch yellow of Saturn. Blues, grays, greens and browns. My Saturn quest was renewed.

A few books on solar system observing and membership in the Association of Lunar and Planetary Observers (ALPO) were in hand by 1992. This all came out of an MVAS observing program I had developed. It didn't take long to learn the proper observing techniques and data recording for the ALPO Saturn Section. I started sending in Saturn sketches. I attended the 1993 ALPO meeting in Las Cruces, NM. I had a great time. There I meet Walter Haas (ALPO founder and New Waterford, OH native), Clyde Thombaugh (Pluto), David Levy (comets) and many of the "famous" guys in the ALPO. This meeting inspired me to consider travel. Something I had never wanted to do. It was the start of nearly 20 years of various travels within the US and overseas (eclipse chasing). In time, my sketches of Saturn and then of Jupiter and Mars began to appear in the ALPO's Journal (JALPO) - aka - "*The Strolling Astronomer*". Sometimes it felt like I was becoming an expert. But I knew better.

Every year it's a privilege to meet with the ALPO "gang". Things worked out that the ALPO had their 2003 meeting here in Boardman, OH. It was a homecoming of sorts for Walter Haas. We even made a field trip to Allegheny Observatory and the 13" but it was cloudy that night. I was the local coordinator but vital support and help from MVAS members and the YSU Planetarium made this meeting a success.... ALPO meets in a different city each year. At one of those meetings I picked up a used, thick paperback book called "*The Planet Saturn*" by Alexander (1962). I am pretty sure this is the same book I had from the library that summer long ago. A quick read showed it to be very familiar. A year or two later I picked up a new book called "*Saturn*" - edited by Gerhls and Mathews (1984). It replaced that older tome. This one was based on Pioneer and Voyager data, reading more like a technical paper you'd find in *Scientific American*. It was a little harder to read than my 8th grade episode. Again- so much for being an expert.

In 2005 the "Fab Four" of MVAS completed Titan (even its name ties in) and I began to use it to observe Saturn. Finally -- my super big scope had arrived; a 25 inch or less. I have since had my sketches of Jupiter, Saturn and Uranus published in the JALPO- all made with the 25". That same year of 2005, a book titled "*Saturn and How to Observe It*" was published. Written by ALPO Saturn Section coordinator Julius Benton, he used two of my earlier sketches in it. One was made with the MVAS 8". This was a proud moment for me but also a bit weird. I can now learn about Saturn- while having contributed to the lessons! What's that thing about "coming full circle"? Looking back, the genesis of my travels, time in the MVAS, observing for ALPO and being published, can be traced back to that "Saturn" afternoon 40 years ago. It was all made in that cherry tree shade. Alas, the family lounge chair is long gone. So is that cherry tree and its splendid shade. But their legacy remains; as a launching pad for a lifetime. But after all these years, I'm still not a Saturn expert. The quest continues. *-by Phil Plante*

### MVAS Homework: A Wild Duck(M-11)

The Wild Duck Cluster is about 5,000 light-years away. At 6th magnitude, M11 is a rich and compact open cluster. It packs nearly 3,000 stars in a space only twenty light-years across. Most of the stars are blue giants or highly evolved yellow and red giants. An observer in the center of the cluster would see several hundred first magnitude stars scattered around the sky. The age of the cluster is estimated at 250 million years, or only about 5% the age of our solar system.

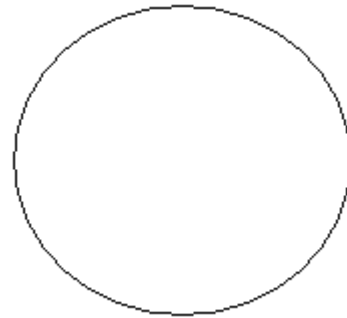
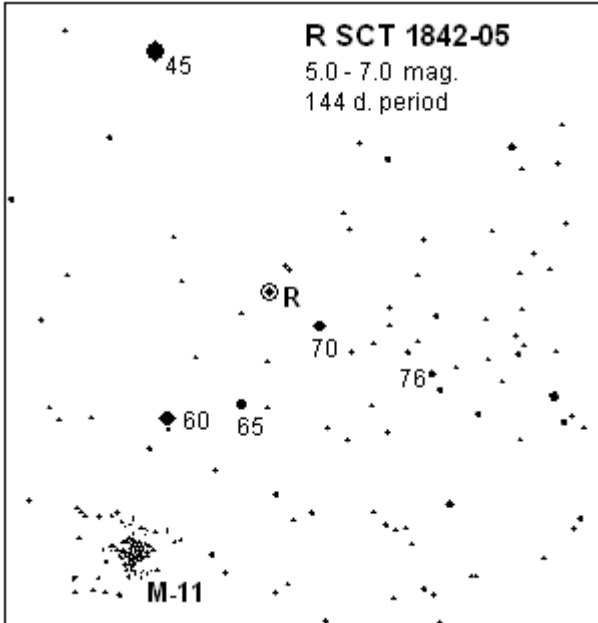
**MVAS OBSERVER CHARTS**

**MVAS OBSERVATIONS - DUE JUNE 2012**

Variable star of the month: **R Scuti** (*abbrev:* R Sct). Located in Scutum next to M11, it is an easy find with binoculars. You probably look at M-11 anyway, right? Just look over to the trapezoid of stars to watch R Sct. It normally seems to be about the same brightness with minor changes over the months. On occasion it really drops; down to around 9th magnitude.

OBSERVER \_\_\_\_\_

**Featured object: M-11.** Discovered in 1618 by Gottfried Kirch, Messier eventually added it to his list in 1764. But you can add it to your homework accomplishments by trying a sketch. Place the brightest stars first, in proper field relation to each other. Then pencil point as many of the fainter stars as you can. Use a pencil smudge to fill-in any faint glow in the cluster core. Can you capture the "flying duck formation" its name is derived from?



**M-11 Observation:**

Date: \_\_\_\_\_ Time(EDT) \_\_\_\_\_ Scope \_\_\_\_\_

**R Sct magnitude estimates:**

Date: \_\_\_\_\_ Time: \_\_\_\_\_ estimate: \_\_\_\_\_ Instrument: \_\_\_\_\_

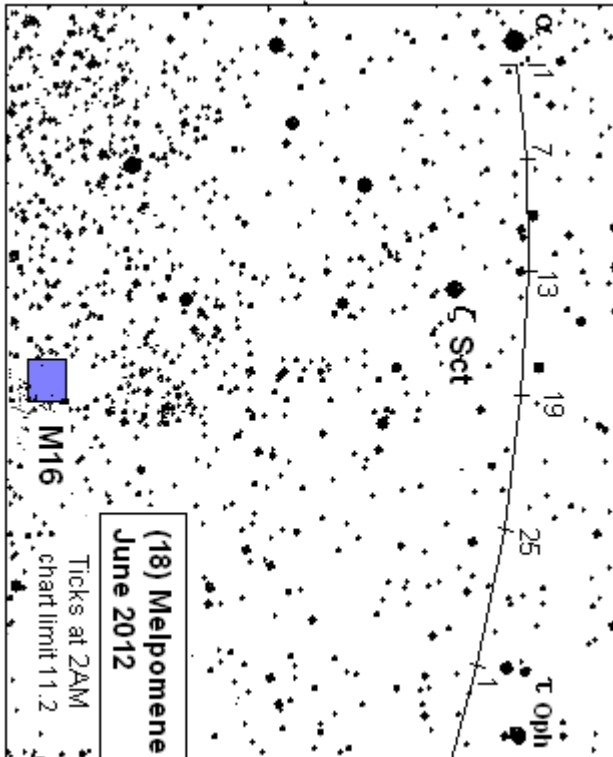
_____	_____	_____	_____
_____	_____	_____	_____

**(18) Melpomene Observations:**

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Instrument: \_\_\_\_\_ magnification: \_\_\_\_\_

_____	_____	_____	_____
_____	_____	_____	_____

Asteroid of the month: **(18) Melpomene**. It starts out just west of  $\alpha$  Sct on June 1st, moving westward into Ohiuchus. It's at 9.9mag and is 9.4 by month's end. There are many faint stars in the field north of M-16, so be careful star-hopping. Turn the chart to get north (the right side) facing the top.



**Other Objects in Scutum to observe**

**D. Sky** Date Scope **Dbl.** Date Scope

	Date	Scope	Dbl.	Date	Scope	SEP	MAG	SPLIT?
M- 26	_____	_____	$\Sigma$ 2391	_____	_____	37"	6.5 - 9.6	Y / N
N- 6649	_____	_____	$\Sigma$ 2325	_____	_____	12.0"	5.8 - 9.3	Y / N
N- 6712	_____	_____	$\Sigma$ 2306	_____	_____	9.9"	7.2 - 7.9	Y / N

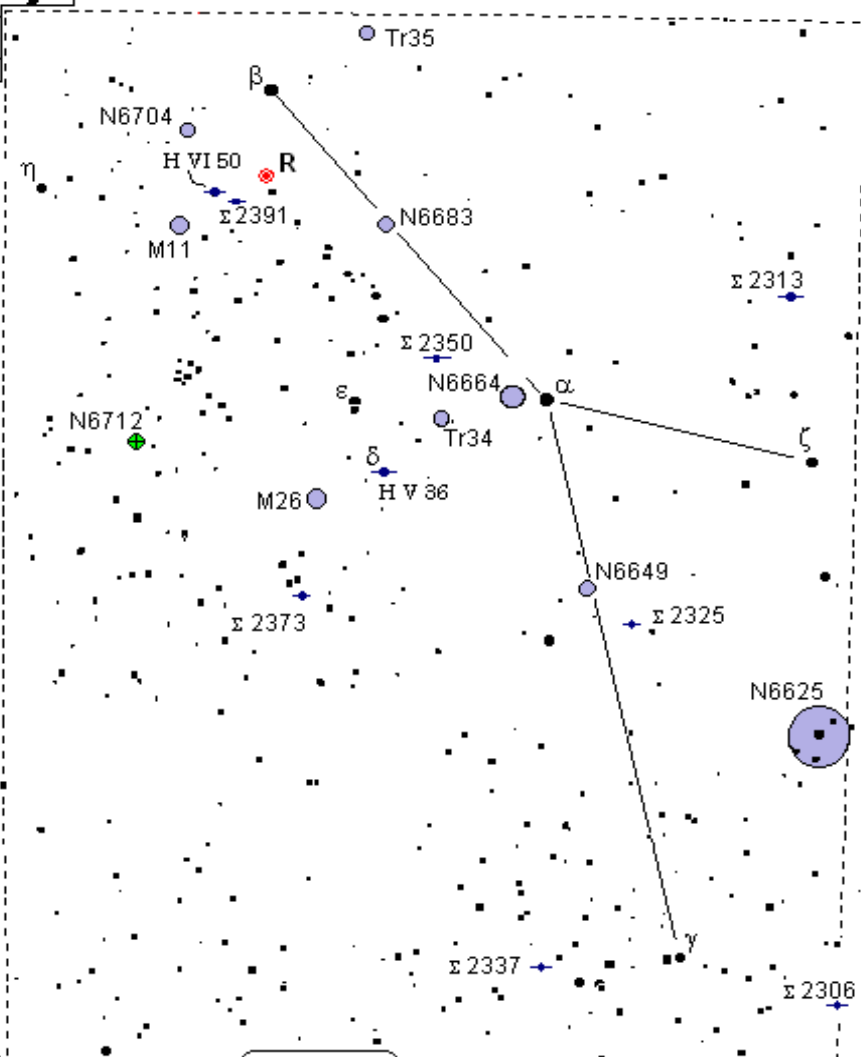
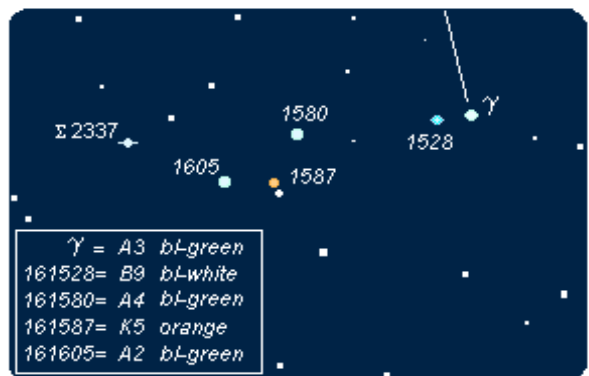
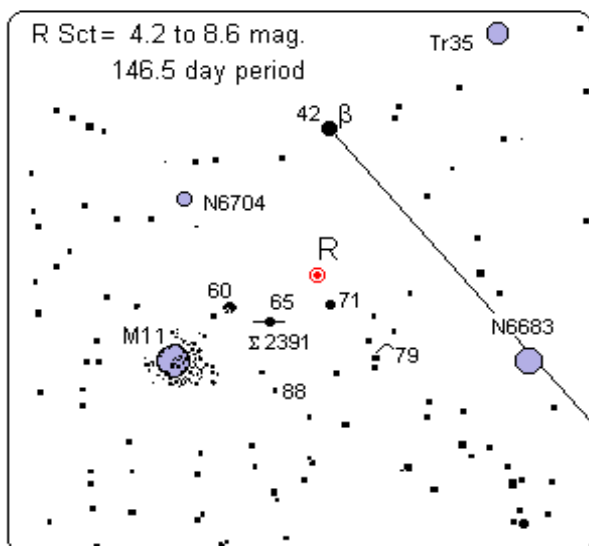
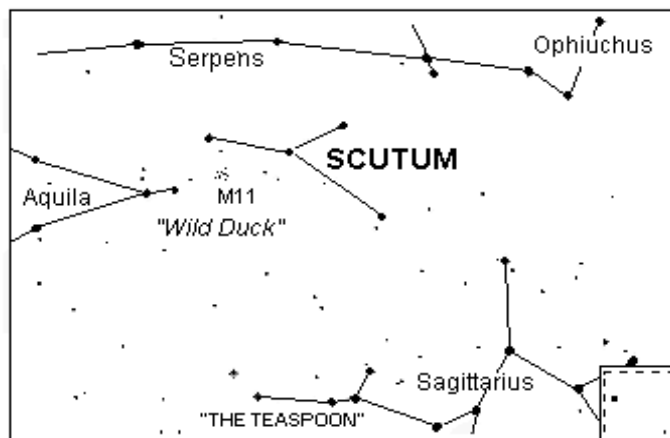
**Lunar Occultations (see Sky Almanac):**

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

_____	_____	_____	_____	_____	x	R	D
_____	_____	_____	_____	_____	x	R	D
_____	_____	_____	_____	_____	x	R	D

# Constellation of the Month — Scutum

As June begins, you can find Scutum up in the south east at 10pm. In mid August you'll find Scutum due south around 10pm. It is to the lower right of Aquila. It's not an easy constellation to spot. If you follow the Milky Way up from Sagittarius you'll likely find M11 with your binoculars. There is a distinctive "trapazoid" star pattern to the west. Binoculars are all you need to follow the variable star R Sct. Comparison star magnitudes are on the close-up chart below. Telescopes should bring in the faint clusters and resolve the doubles. Check out  $\gamma$  as a binocular double. To it's east is a binocular "triple". In the close-up chart there is a list of the SAO number for the stars, the spectral type (A3..etc) and the color suggested by the spectral type. What do you see? This may be an interesting binocular project for a lazy summer night. Have fun!



DEEP SKY					DOUBLE STARS				Check list		Instruments used: _____ on _____ _____ on _____ _____ on _____ _____ on _____
Object	Type	Magn.	Size	Notes	Star 1	Star 2	Mag. 1	Mag. 2	Notes	Star	
M11	OC	5.8mg.	13'	---	$\gamma$ Sct	4.7, 6.6	11.3"	---	binoc. double	M11	_____
M26	OC	8.0	14'	30 stars	$\delta$ Sct	4.7, 9.2	52.0"	---	---	M26	_____
Tr34	OC	9.4	8'	30 stars	$\Sigma$ 2306	7.2, 7.9	9.9"	---	yellow & blue	Tr34	_____
Tr35	OC	9.2	9'	35 stars	$\Sigma$ 2313	7.5, 8.8	6.0"	---	yellow & ash	Tr35	_____
N6625	OC	9.0	40'	30 stars	$\Sigma$ 2325	5.8, 9.3	12.0"	---	yellow & blue	N6625	_____
N6649	OC	8.9	5'	50 stars	$\Sigma$ 2337	8.5, 9.9	16.0"	---	white & blue	N6649	_____
N6664	OC	7.8	16'	50 stars	$\Sigma$ 2373	7.2, 8.2	4.1"	---	white & ash	N6664	_____
N6683	OC	9.4	11'	20 stars	$\Sigma$ 2391	6.5, 9.6	37.0"	---	---	N6683	_____
N6704	OC	9.2	5'	30 stars	$\Sigma$ 2350	5.8, 11.1	19.0"	---	---	N6704	_____
N6712	GC	8.1	7'	---						N6712	_____
										$\gamma$ Sct	_____



# GALLERY.....

## CHILI - FEST 2012

On April 21, 2012 twenty-five people gathered around the 8 crock pots of chili that were brought to the MVCO. Corn bread and other fixing's delighted all. No contest this year. We had a raffle for those who made the chili. The prize was a Mullaney-Tirion *Atlas of Herschel Objects*. It's also very useful as a general purpose atlas. Rich Mattuissi was the winner. Congrats to Rich. There was a wide range of chili styles to indulge in. From Indian (curry) to bean and ham (country style). We send special thanks to former MVAS President Greg Klocek and his wife Jill for bringing a supply of custard from their **Rita's Italian Ice** store in North Lima, OH. It was a very tasty way to end your chili adventures.

It looked like all had a great time and we look forward to next year's installment. Unfortunately, it was a cold and wet night and any chance of a Galaxy Quest was blocked by clouds. For those that didn't make it and want to know what it was like, here are some images of the event.



*The gloomy weather belied the festive atmosphere inside.*



*The O.D. begins an MVCO tour for new members Chuck and Carol.*



*The Chow Line formed quickly. Imagine that!*



*Everyone enjoying round one, round two, round three.....*

*Dave R. (happy camper)*

*Debbie I. (happy camper)*



*Good chow, good talks, good cheer. Good folks!*



*Pandian gives each batch of chili his thoughtful consideration. But like the rest of us, me thinks he liked them all!*

*But it just might be a good enough excuse to go get seconds ...or thirds?*

*I lost track of my rounds.*





A big box of Rita's custard (above) hit the spot once the chili fest wound down. All were tasty.



Pandian deserved a custard break - with all the toppings he could get on the custard. Seems no one had cake...?



Jill sets things up for the dessert session. Sprinkles and other toppings were there for your pleasure. It seems the younger crowd was more into the custard treats than in the chili.



Back to "rippin' on Rich", when asked how many pots of super atomic chili he had eaten that night, he could only physically reply by hand signals. All jokes aside, Rich gave the right sign to close out Chili-Fest 2012. Peace.



Rich won the Atlas of Herschel Objects in the Chili-chef raffle. Congratulations! We expect a full report on your observing efforts. Especially with your new 80mm binoculars!

- All photos by P. Plante, Whatsamatta U. Press.