



The Observer

A Publication of The Cuyahoga Astronomical Association
PO Box 868, North Olmsted, OH 44070

CAA Homepage: <http://www.cuyastro.org>

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Vice President:

Treasurer:

Secretary:

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Member At Large:

Member At Large:

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2007 CAA Calendar - Summary

| | |
|--------------------------|---|
| 1/8/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 1/22/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 2/12/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 2/24/07 Sat 8:00 p.m. | CAA Presentation “Favorite Winter Celestial Objects” and Star Party – Wolf Creek Environmental Center |
| 2/26/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 3/12/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 3/26/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 4/9/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 4/23/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 5/14/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 5/19/07 Sat 8:00 p.m. | CAA Presentation “Spring Cleaning Sky Guide” and Star Party – Letha House |
| 5/19/07 Sat 6:00 p.m. | MVAS 2 nd OTAA Scenic Vista Stargaze – Scenic Vista Park, Lisbon, OH |
| 5/21/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 6/11/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 6/18/07 Mon 8:00 p.m. | Special CAA Presentation “Colorful Double Stars” and Star Party for the Briarwood Beach Garden Club – Letha House |
| 6/25/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |

| | |
|---------------------------|--|
| 7/9/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 7/14/07 Sat | CAA OTAA Convention – Letha House |
| 7/21/07 Sat Dusk | MVAS Public Night – Scenic Vista |
| 7/23/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 8/11/07 Sat 5 p.m. | MVAS OTAA Convention – MVCO, Braceville, OH |
| 8/13/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 8/18/07 Sat 8:00 p.m. | CAA Presentation “Observing Hot Astronomical Objects” and Star Party – Letha House |
| 8/27/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 9/10/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 9/15/07 Sat Dusk | MVAS Public Night – Scenic Vista |
| 9/24/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 10/8/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 10/22/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 11/12/07 Mon 7:30 p.m. | CAA General Membership Meeting – RRNC |
| 11/17/07 Sat 8:00 p.m. | CAA Presentation “The First Quarter Moon” and Star Party – Letha House |
| 11/26/07 Mon 7:30 p.m. | CAA Board Meeting – Starbucks |
| 12/10/07 Mon | CAA Christmas Party |
| | No Board Meeting in December |

2007 CAA Calendar - Detail

Monday, January 8

CAA General Membership Meeting at 7:30 p.m. in the Cleveland Metroparks Rocky River Nature Center. Program to be announced.

Monday, January 22

CAA Board Meeting at 7:30 p.m. at Starbucks Coffee Co. Starbucks is located at 24950 Lorain Road, just west of Columbia Road in North Olmsted.

Monday, February 12

CAA General Membership Meeting at 7:30 p.m. in the Cleveland Metroparks Rocky River Nature Center. Program to be announced.

Saturday, February 24

CAA presentation and star party at 8:00 p.m. at the Wolf Creek Environmental Center. The topic for this program is “Favorite Winter Celestial Objects.” The presentation will be put on rain or shine. Weather permitting, please bring your telescopes for the public star party that will follow the presentation. We need a speaker for this event. Please contact Vice President Ron Devine, Observatory Director Erik Hall or one of our board members if you are interested.

CAA members that are planning on attending this event please call the Medina County Park District office at 330-722-9364 by February 22nd to register.

Monday, February 26

CAA Board Meeting at 7:30 p.m. at Starbucks Coffee Co. Starbucks is located at 24950 Lorain Road, just west of Columbia Road in North Olmsted.

Monday, March 12

CAA General Membership Meeting at 7:30 p.m. in the Cleveland Metroparks Rocky River Nature Center. Program to be announced.

Monday, March 26

CAA Board Meeting at 7:30 p.m. at Starbucks Coffee Co. Starbucks is located at 24950 Lorain Road, just west of Columbia Road in North Olmsted.

Saturday, May 19

CAA presentation and star party at 8:00 p.m. at the Letha House Warm Up Room and CAA Observatory. The topic for this program is "Spring Cleaning Sky Guide." The presentation will be put on rain or shine. Weather permitting, please bring your telescopes for the public star party that will follow the presentation. We need a speaker for this event. Please contact Vice President Ron Devine, Observatory Director Erik Hall or one of our board members if you are interested.

CAA members that are planning on attending this event please call the Medina County Park District office at 330-722-9364 by May 17th to register.

Monday, June 18

Special CAA presentation and star party at 8:00 p.m. at the Letha House Warm Up Room and CAA Observatory for the Briarwood Beach Garden Club. The topic for this program is "Colorful Double Stars." The presentation will be put on rain or shine. Weather permitting, please bring your telescopes for the public star party that will follow the presentation. We need a speaker for this event. Please contact Vice President Ron Devine, Ob-

servatory Director Erik Hall or one of our board members if you are interested.

CAA members that are planning on attending this event please call the Medina County Park District office at 330-722-9364 by June 16th to register.

Saturday, August 18

CAA presentation and star party at 8:00 p.m. at the Letha House Warm Up Room and CAA Observatory. The topic for this program is "Observing Hot Astronomical Objects." The presentation will be put on rain or shine. Weather permitting, please bring your telescopes for the public star party that will follow the presentation. We need a speaker for this event. Please contact Vice President Ron Devine, Observatory Director Erik Hall or one of our board members if you are interested.

CAA members that are planning on attending this event please call the Medina County Park District office at 330-722-9364 by August 16th to register.

Saturday, November 17

CAA presentation and star party at 8:00 p.m. at the Letha House Warm Up Room and CAA Observatory. The topic for this program is "The First Quarter Moon." The presentation will be put on rain or shine. Weather permitting, please bring your telescopes for the public star party that will follow the presentation. We need a speaker for this event. Please contact Vice President Ron Devine, Observatory Director Erik Hall or one of our board members if you are interested.

CAA members that are planning on attending this event please call the Medina County Park District office at 330-722-9364 by November 15th to register.

Sky Events for January 2007

Thursday, January 11

The Moon passes 0.9° south of Spica, 3 p.m. EST.

Monday, January 15

The Moon passes 0.5° south of Antares, 8 a.m. EST.

Moon Phase Calendar for January, 2007

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|-----|-----|-----|-----|------|-----|-----|
| | 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 | | | |

The Moon passes 6° south of Jupiter, noon EST.

Tuesday, January 16

The Moon passes 5° south of Mars, 9 p.m. EST.

Thursday, January 18

Venus passes 1.4° south of Neptune, 1 p.m. EST.

Saturday, January 20

The Moon passes 2° south of Neptune, 8 a.m. EST.

The Moon passes 0.8° south of Venus, noon EST.

Monday, January 22

The Moon passes 0.4° north of Uranus, 1 a.m. EST.

Sky Events for February 2007

Moon Phase Calendar for February, 2007

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|-----|-----|-----|-----|------|-----|-----|
| | | | | 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 | | | |

Thursday, February 1

Asteroid Pallas is in conjunction with the Sun, 5 p.m. EST.

Friday, February 2

The Moon passes 0.9° north of Saturn, 6 p.m. EST.

Saturday, February 3

The Moon passes 1.1° north of Regulus, 9 a.m. EST.

Wednesday, February 7

Venus passes 0.7° south of Uranus, 8 a.m. EST.

Mercury is at greatest eastern elongation (18°), noon EST.

The Moon passes 1.3° south of Spica, 11 p.m. EST.

Thursday, February 8

Neptune is in conjunction with the Sun, 11 a.m. EST.

Saturday, February 10

Saturn is at opposition, 2 p.m. EST.

Sunday, February 11

The Moon passes 0.7° south of Antares, 5 p.m. EST.

Monday, February 12

The Moon passes 6° south of Jupiter, 5 a.m. EST.

Club News / Stories

Treasurer's Report December 2006

| | |
|--------------------------------|-------------------|
| Beginning Petty Cash | \$77.09 |
| Beginning Bank Balance | \$5,518.76 |
| Starting Assets | \$238.75 |
| Total Beginning Assets | \$5,834.60 |
| Income | |
| Dues Membership | \$170.00 |
| Sales (Handbook, Shirts, gift) | \$2.05 |
| Xmas Dinners + Misc. | \$224.00 |
| Bank Interest | \$2.44 |
| Total Income | \$398.49 |
| Expenses | |
| CAA Web Site | \$20.95 |
| Christmas Party | \$568.33 |
| Total Expenses | \$589.28 |
| Total Income - Expenses | -\$190.79 |
| Ending | |
| Ending Petty Cash | \$77.09 |
| Ending Bank Balance | \$5,343.92 |
| Ending Assets | \$222.80 |
| Total Ending Assets | \$5,643.81 |

Ted Sauppé, Treasurer

Secretary's Report December 2006

General Membership Meeting Minutes

1. There was no General Membership meeting in December.

Board Meeting Minutes

1. There was no Board Meeting in December.

Sam Mortaro, Secretary

CAA Loaner Telescopes

| Club-Owned Telescope Availability | | |
|---|-----------|----------|
| Telescope Description, including mount, eye pieces, etc. | | |
| Member Loaned To | Loan Date | Due Date |
| 6" f/8 German equatorial reflector with eye-pieces | | |
| Mike Madigan | May 2004 | |
| 6" blue tube Dobsonian reflector with 30mm and 20mm Series 500 Plossl eyepieces | | |
| Not Available - Erik Hall is making updates to this scope. | | |

November Election Results

Here are the election results from our November election.

- 1) President: Jim Cofer
- 2) Vice President: Ron Devine
- 3) Treasurer: Ted Sauppé
- 4) Secretary: Steve Spears
- 5) Members At Large:
 - a) Sam Mortaro
 - b) Bruce Lane
 - c) Art Nenadal

Thanks to all for volunteering and running in this year's election, and congratulations to the election winners.

Newly elected officers' terms will begin January 1, 2007, and end December 31, 2008.

Astronomer of the Year by Jim Cofer

This year we split the "Astronomer of the Year" between two outstanding individuals, Lynn Laux and John Nichols (who came in a very close second due to his large number of observations turned in). Congratulations to both astronomers for their accomplishments which won them this honor!

2007 Membership Renewal Reminder

This is just a reminder to anyone who has forgotten to pay their dues for 2007. If you haven't already done so,

please pay your 2007 CAA membership dues to keep your membership active. Thank you.

2007 CAA Membership List

Since *The Observer* is now posted in PDF format on our website, we will no longer be including the CAA Membership list with the newsletter. This will ensure that CAA membership data will only be accessible to CAA members. There are 3 ways to receive the membership list:

1. Please send me an email (bruise@adelphia.net) requesting the 2007 CAA Membership list. I will then send the membership list in PDF format in my reply to you.
2. Please come to any membership meeting and request a paper copy from me.
3. Please send me a letter requesting a copy and I will mail it to you. You can find my address at the end of the newsletter.

If you have not yet paid your dues for 2007, your name will not appear on the list. Please look it over and contact our Treasurer Ted Sauppé with any corrections, omissions, or questions.

Jeff Lewis
Editor, *The Observer*

Programs for 2007

The new year is here and we are looking for volunteers who are interested in giving presentations at the Monthly General Membership Meetings, the CAA Annual Convention or our Letha House Public Programs and Star Parties. This is your opportunity to share your enthusiasm, knowledge and experience in astronomy.

Do you have ideas for topics you would be interested in learning more about? Do you know of speakers or topics that you've heard at other events that you think might be good guest speakers or topics for our meetings? Do you have any suggestions for round table discussions?

Please contact Vice President Ron Devine or one of the board members if

you would like to volunteer or have any ideas or suggestions.

Looking Up by Charles H. Grace

Precession of the Earth

In the last 5000 years, the position of the Sun at the vernal equinox (first day of spring) has moved out of the constellation Taurus through Aries and into Pisces. The position of the North celestial pole has also changed since 3000 BCE; it has moved from the unfamiliar star Thuban (in Draco) to a place very close to Polaris.

The Earth spins on its axis like a gyroscope, with its equator inclined 23.5 degrees from the plane (ecliptic) of the Earth's orbit. When torque is applied to deflect the axis of a gyroscope the gyroscope precesses.

Precession is a slow periodic change in the direction of the axis of rotation, caused by an external torque. According to Newton's laws, a body in motion remains in motion unless acted upon by an external force. Similarly a body that is rotating continues to rotate unless acted upon by an external torque.

In the case of a gyroscope, when a torque is applied that tends to tip the axis of rotation, the body reacts by precessing, thereby conserving angular momentum. If a torque on the axis of a gyroscope is constant, the axis twists around in a circle, and that is what happens with the Earth. Its axis traces out cones near the north and south poles.

The torques that cause the precession come from the Moon, the Sun and the planets, all of which tug on the Earth by gravitational attraction. The Moon and planets are approximately in the ecliptic plane, so the Moon, Sun and planets are almost always above or below the equatorial plane of the Earth.

Our Earth is not spherical; it bulges at the equator and is slightly flatter at the poles, so it experiences a torque from the Moon and the Sun due to their greater pull on the equatorial bulge. Torque on the bulge on the side of the Earth near the Moon is in an opposite direction from torque on

the bulge on the far side, but because the near side is 8000 miles closer to the Moon, the near-side torque is more powerful and the torques don't cancel.

The Sun is only 37% as effective as the Moon in causing our precession because the Moon is only 240,000 miles away, while the Sun is 93 million miles away. The torques that the Moon and Sun apply are in a direction that tends to tip the equator toward the ecliptic plane; that is they tend to press the axis of rotation of the Earth toward becoming perpendicular to the ecliptic. But instead of tipping, the Earth reacts by precessing. The North pole and South pole creep around in circles of 23.5 degree radius, taking 28,500 years to go full circle.

Precession causes the equinoxes (where the equator intersects the ecliptic) to migrate in a slow westward motion around the ecliptic, moving earlier by about 50.28 arc seconds per year. The stars also give the appearance of drifting by that amount. To define star positions unambiguously, astronomers have had to adopt a "standard epoch," which by international agreement is the start of the year 2000.

In order to prevent the seasons from slowly marching around the calendar, our calendars use a "tropical year" instead of a "sidereal year," so we'll never have winter in July.

References:

1. *Astronomy*. Zeilik. Wiley. 1994.
2. *Astronomy Today*. Chaisson and McMillan. Prentice Hall. 1999
3. *Astronomy*. Illingworth, Editor. 1994. Facts on File Dictionary.

Space Stuff by Matt Franduto

New Years Resolutions

It's that time of year again. It seems like every day is booked with gatherings of friends and family. The decorations are all up and look great (don't they always look great?). All of the presents have been unwrapped. Everyone seems to be asking each other what they're doing for New Years Eve. Our fantasy football season has finished (congrats to the Royal

Knights who won the 2006 FMFFFL Super Bowl).

There seems to be only two things left. Turn the page on and welcome a new year and.....New Years Resolutions.

You know, those great ideas that sound wonderful and strive for the highest but usually flame out within a month. I'm going to lose weight. I'm going to eat better. I'm going to spend less and save more. I'm going to swear less. I'm going to be nicer to people. I'm going to make a lot of resolutions and not keep any of them.

Come to think of it, I really like that last one.

Perhaps, this year, I could make a bunch of astronomy based resolutions. After all, working out, eating better, losing weight, etc. are on every list ever made.

So, here goes. I would like to.....
... get out and observe more.

Does this count ? I would like to be able to be free to observe on more clear sky nights and be busy on more cloudy nights rather than what seems to be the opposite.

... finally get that color imager, Scope Buggy, Coronado PST, upgrade the eyepieces, etc. that I've been talking about but haven't got around to saving up for and buying.

... have more neighborhood star parties.

... take an image good enough to get published in Sky and Telescope or Astronomy or in their respective weekly newsletters or in Meade's catalog.

... to observe the Sun and Moon more. I've been chasing planets and faint fuzzies a lot lately, but earth's nearest star and natural satellite are awesome sites as well.

... finally get around to writing a Space Stuff column about why we built a house with a second story deck.

... get to more CAA outings.

... not be so critical of some of my observations/images and to realize how lucky I am to be able to do it.

... come up with 12 quality Space Stuff columns

... to continue to laugh when someone mentions a particular mispronounced planet and, because of my

friend, Tom, think “wow, I see Uranus”!

... thank my wife, June, more often for a) re-awakening the hobby, b) putting up with the hobby, and c) actually absorbing and learning some of this astronomy stuff.

... to wish everyone clear skies and a happy, healthy, and prosperous New Year.

Clear skies and best wishes for the New Year. I hope it's happy, healthy, and prosperous.

One down and many to go.

Nebraska Star Party Expedition by Lon Dittrick

Anyone up for an expedition to the **Nebraska Star Party** this July? I am trying to plan a trip to Valentine, Nebraska this July to observe in one of the darkest areas of the United States. This area, in the sandhills of Nebraska, lays claim to magnitudes up to 7.5 naked eye! Yes, it is a long trip (about 18 hours). It can cook during the day and be cold at night, but when its good... it is GOOD! I am trying to tie it into a vacation out West, hoping to work out a cooperative venture with a few other club members so we can get our equipment out there but avoid a two-way road trip. My idea... a few folks drive out and some fly out, then reverse this on the return trip (flying in/out of Omaha, Nebraska). Example, I am taking the second and third week of July off, hoping to fly out to Tacoma, WA to tour Glacier and Yellowstone National Parks during my first week, ending up in Valentine for my second week, then driving back home. I would need someone else to drive out with my custom van, pop-up, and equipment and meet me at the star party in Valentine (the third week of July), observe together during that week, and that someone else would be free to either fly back out of Omaha or continue touring the west and fly back out of some other airport. If you think you might be interested, let me know. If you wish to check out the NSP their website is:

<http://www.nebraskastarparty.org/>

Clear Skies, Lon Dittrick

Time Traveler – A Book Review by Stephen L. Gallant, M.S.L.S.

Time Traveler: A Scientist's Personal Mission to Make Time Travel a Reality, by Ronald L. Mallett with Bruce Henderson, New York: Thunder's Mouth Press, 216 pages, \$24.95

The possibility of time travel to the future is not disputed, at least for objects traveling near the speed of light. On the other hand, travel to the past, while not disallowed by Einstein's theory of relativity, is more problematic. Dr. Ronald Mallett has nonetheless made it his life's goal to create a time machine that that would accomplish this feat. *Time Traveler* is the story of his remarkable life and accomplishments in working to achieve a lifelong dream.

Ronald Mallett was born in Roaring Springs, Pennsylvania in 1945, the product of a loving and supportive family. He idolized his dad, an electronics wizard, and was devastated when the man died of a heart attack in 1955. Soon afterward, Mallett read H.G. Wells's novel *The Time Machine*, a book which was to change his life. He decided then that he would learn and do whatever it took to build a time machine of his own with which he could go back in time to save his father.

The boy subsequently read everything he could find about his hero Albert Einstein, took courses in algebra and electronics in high school, and, on graduation, entered the United States Air Force where he continued his studies in electronics and computer science. As an African-American stationed in the South during the early years of the civil rights movement, he was all too aware of the bigotry that existed in this country. For the most part he stayed within the confines his base and studied.

Mallett entered the physics program at Pennsylvania State University after leaving the air force in 1966. In 1973 he received his doctorate in physics, one of only 250 African-American physicists in the U.S. out of

a total of 25,000. After spending time as an industrial scientist, Mallett joined the faculty of the University of Connecticut in 1975, where he remains to this day.

Throughout his career Mallett pursued his dream of time travel, while keeping quiet about it to avoid being labeled a crackpot. His research focused on the space-time disturbances which may be caused by the gravitational fields of controlled laser beams. Mallett's contributions to relativity theory and astronomy include the papers *Weak Gravitational Field of the Electromagnetic Radiation of a Ring Laser* published in *Physics Letters A* 269, 214 (2000); *Cosmic Degenerate Matter: A Possible Solution to the Problem of Missing Mass*, published with M.P. Silverman, in *Classical and Quantum Gravity* 18, L37 (2001); and *The Gravitational Field of a Circulating Light Beam* in *Foundations of Physics* 33, 1307 (2003). In the midst of his work he personally encountered such luminaries as John A. Wheeler and Stephen Hawking.

After receiving a full professorship and tenure from his university, Mallett finally decided to go public with his plans of building a time machine. In February, 2001, at a physics colloquium at the University of Michigan, he presented the talk *The Gravity of Circulating Light: A Possible Route to Time Travel*. The response of his peers was polite but skeptical. Still, no one found fault with his theory or his calculations. The media's response, however, was huge. Mallett became a celebrity, the subject of numerous popular articles as well as a documentary film.

Regardless of whether or not Dr. Mallett's current experiments succeed, *Time Traveler: A Scientist's Personal Mission to Make Time Travel a Reality* is nevertheless an intriguing and inspiring book.

What's Up for 2007: 365 Days of Skywatching by Jim Guilford

Now available for free download, reading online, or hard copy purchase is Tammy Plotner's "What's Up for

2007: 365 Days of Skywatching." Plotner is president of the Richland Astronomical Society, Mansfield, Ohio and the book was published by Universe Today.

For more details and to download "365 Days..." visit this Web page: <http://www.astrowhatsup.com/download-the-book/>

Swap Corner

For Sale: Celestron C-8 8" telescope, wedge, and tripod from the 1980's in mint condition. New it was over \$800. It has been brought out of the house about 12-15 times since it was purchased. You could probably get it for around \$600-\$700. Please contact Dr. Edward Cordasco at 1-216-371-3935 if you are interested.

For Sale:

1. Meade 10" LX50 Schmidt/Cassegrain telescope 2650mm f/10. Includes Giant Field Tripod, 2" diagonal, custom steel Dec gears, 20mm eyepiece, original box and cut foam. \$775.00
2. Meade EXT90ec 3.5 inch Maksutov/Cassegrain computerized GOTO telescope 1250mm f/13.8. Complete with tripod, tripod bag and JMI telescope case. Also includes full aperture Sun filter, extra hand controller, 26mm Plossl eyepiece, and SCT adapter. \$700.00

For items # 1 – 2 above, please contact George Gajdos 330-867-7980 yuensing@aol.com.

Upcoming Astronomical Events

Other OTAA Events

MVAS Public nights at Scenic Vista: OTAA members are welcome to come and observe with us. The public event portions begin at sundown. Astronomers can stay to observe as long as they want (dawn?).

- Saturday, May 19, 2007: MVAS will conduct the 2nd OTAA Scenic Vista Stargaze at Scenic Vista Park, near Lisbon, OH. This is the MVAS dark sky site. All OTAA clubs are invited to observe with us that night. This is a

public night as well. Camping is OK.

- Saturday July 21, 2007: 1st quarter moon. Public should be gone as the moon sets leaving the place to astronomers.
- Saturday September 15, 2007: A 4 day old moon. Public viewing at sundown, observing until dawn if you like.

Saturday, August 11, 2007: Mahoning Valley Astronomical Society OTAA convention at MVCO in Braceville, OH. Registration opens at 5 pm.

Schuele Planetarium Star Parties

On the 1st and 3rd Saturdays of every month (year round) there are Schuele Planetarium star parties starting at 8:15 p.m. following the 7 p.m. Planetarium shows (weather permitting). CAA members are welcome to bring their scopes to help out at the star parties in the field across the street from the Schuele Planetarium. Any CAA members who could help out would be greatly appreciated by Jay Reynolds and the Lake Erie Nature and Science Center. All programs include the most recent news from our explorations of Mars, Saturn & Hubble Space Telescope.

Shafraan Planetarium Programs at the Cleveland Museum of Natural History



January – February 2007 Strike One...Your Out!

Occasionally, the Earth has a very bad day. One of those happened 65 million years ago, when dinosaurs like the famous T. Rex ruled the Earth. When a comet or asteroid the size of

Mount Everest blasted a giant hole in Mexico, it was "Good night, Sue."

- Monday through Friday, 2:30 pm
- Wednesday, 8 pm
- Saturday, 10:30 am, 12:30, 2 and 4 pm
- Sunday, 12:30, 2 and 4 pm

Children's Program Solar System Small Stuff

Discover the wee objects in our solar system: dust particles, meteors, comets, asteroids and moons. But remember: some things astronomers think of as small can still be over a hundred miles wide. And look out if anything more than a mile wide is heading for Earth!

- Saturday, 11:30 am and 3 pm
- Sunday, 1:15 and 3 pm

Tickets are \$4 per person with Museum admission; members are free. Please reserve tickets in advance. To guarantee seating, please arrive 20 minutes before show time to claim your tickets with your confirmation number. Unclaimed tickets will be released for purchase on a first-come, first-served basis 10 minutes before show time.

Mueller Observatory Programs at the Cleveland Museum of Natural History



January – February 2007

The prominent constellation Gemini, "The Twins," is highest in midwinter. We'll view the various "pairs" within its boundaries -- two bright

stars, two open clusters, and two binary stars.

The observatory is open to the public on clear Wednesday evenings from September through the end of May from 8:30 to 11 pm. Please arrive before 10 pm and dress for the weather. Free with Museum admission.

Other News / Stories

Note From The Desk of The Editor

I am always looking for articles for *The Observer*. If there are any aspiring authors out there who want to contribute an article, share a story or observation, etc. please do so, and I will include it in the next issue. Also, if you have any items for sale, or if you are looking for any items, send these in and I will include them in the *Swap Corner*. Remember, this is your newsletter, and participation from the general membership can only make the newsletter better. Thanks to all who have taken the time to send in articles. Please send articles, items for sale, items wanted, suggestions, and/or comments to:

Jeff Lewis

6147 Sandpiper Lane

North Olmsted, OH 44070

Or you can send them via e-mail to bruise@adelphia.net.