

# Observatory News

November 2009  
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www.cincinnatiobservatory.org Bill Cartwright, editor

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## Coming Up At The Observatory....

Nov. 3 6 am-7 pm COC will be a voting location  
Nov. 4 12 pm COC Board Meeting  
Nov. 4 7 pm UC Communiversity-Stargazing 101  
Nov. 5 7:30 pm FOTO Meeting  
Nov. 6 7:30 pm FOTOKids  
Nov. 8 1-4 pm Sunday History Tours  
Nov. 12 7:30 pm Astro Thursday  
Nov. 13 7:30 pm Astro Friday  
Nov. 14 7 pm Shooting Stars Meteor Night  
Nov. 18 7 pm Third Wednesday Lecture  
Nov. 19 7:30 pm Astro Thursday  
Nov. 20 7:30 pm Astro Friday  
Nov. 22 1-4 pm Sunday History Tours  
Nov. 27 7:30 pm Astro Friday  
Dec. 3 7:30 pm FOTO Meeting  
Dec. 4 7 pm FOTOKids  
Dec. 13 1-4 pm Sunday History Tours  
Dec. 13 6 pm Luminaria Night  
Dec. 16 7 pm Third Wednesday Lecture  
Call 513-321-5186 or visit [www.cincinnatiobservatory.org](http://www.cincinnatiobservatory.org) for more information

## The Word from FOTO's President Zoller

I recently read the book *Civilized Life in the Universe (Scientists on Intelligent Extraterrestrials)* by George Basalla (Professor Emeritus of History, University of Delaware). The book traces the history of speculation concerning alien life from the early Greek "atomists" to the present day SETI project. I was drawn to the book because, when working events at the Observatory, I am frequently asked whether I think life exists elsewhere in the Universe. My standard answer is that I hope so, or else it would be a tremendous waste of space.

If we assume *intelligent* extraterrestrial life exists in the universe, what form might it take? Basalla states that from the beginning, we have fallen into the trap of anthropomorphism when trying to imagine alien civilizations. Since we really have no direct evidence of what these civilizations would be like (or that they even exist), we

tend to fill in the blanks based on the thing we know best – life on Earth. When Giovanni Schiaparelli observed Mars in 1877, he drew maps that depicted a vast network of canals on the Martian surface. Later, with an assist from Percival Lowell, a whole cult of speculation about life on Mars developed. The Martians were an ancient race who used their superior intelligence and technology to divert melt water from the poles to irrigate their farms to grow food. Novels by H. G. Wells, Edgar Rice Burroughs and Ray Bradbury characterized Martian civilization. These views held sway until the 1960's when the Mariner probes returned photos that finally revealed the true nature of Mars.

We tend to make the same anthropomorphic projections today with the current search for extraterrestrial intelligence (SETI) program. Carl Sagan popularized the idea that extraterrestrial beings far superior to us are transmitting information that could show us how to overcome earthly problems such as war, pollution, overpopulation, energy crises, etc. First, this implies that life on other worlds would parallel the evolution of life on Earth. It assumes that alien civilizations build electronic equipment to communicate with

others across the universe, and that we could even translate a message if we received one. As Basalla points out, “We are surrounded by organisms that share our chemistry and genes, yet we find it almost impossible to exchange information with them...how can we hope to decode complex messages sent by superior extraterrestrial ones?”

I think – given the age and expanse of the Universe, the seemingly infinite number of stars, and the ever increasing number of extra-solar planets that have been discovered within our own galaxy – that intelligent life in some form would almost have to happen more than once. But we have to be careful in our assumptions about what form that life takes. We can’t assume that they will have had the same evolutionary path as ourselves. I highly recommend this book and hope you will consider reading it. When someone asks you whether you think intelligent life exists elsewhere in the universe, you will have new perspectives to share.

## FOTO’s Meeting

By Dale Zoller

The November FOTO meeting will be held **November 5th at 7:30 pm** in the west wing of the Herget Building at the Observatory. This month’s presentation will be “De-Hoaxing the Moon Hoax” by FOTO member **Terry Endres**.

Don’t forget, we also have an informal dinner before the meeting around 6 pm at Panera Bread in Hyde Park Plaza.

### October FOTO Meeting Highlights

COC Representative: **Scott Gainey** reported the COC Calendars are selling well. Clerisy Press is selling on line, and they are also being sold at Borders, Joseph Beth, the Xavier

bookstore, and at Anacort. Price is \$15.00 (\$13.50 for members). The COC Research Program is obtaining an ST 1603 CCD camera from SBIG. **Alan Holmes**, the owner of SBIG, has personally analyzed the 16” Alvin Clark telescope and recommended a customized setup for the camera.

**John Ventre** announced that the Cook Lens, which was historically used on the Merz and Mahler Telescope, has come back to the observatory. It was used to track the “lost asteroids” that were lost to tracking during WWII.

Director’s Comments: **Craig Niemi** thanked everyone who contributed to the “40 Galileos” telescope program, which was a great success. The participants are very enthusiastic and making good use of their new telescopes with numerous sidewalk astronomy events and star parties. **Cincinnati Magazine** ran an article about the Observatory in the October 2009 issue. New software has been selected for the Observatory, for use in tracking memberships and other financial information.

Officer Elections were held. Here are your newly elected officials:

**President: Dale Zoller**  
**Vice President: Rebecca Shundich**  
**Secretary: Michelle Lierl**  
**Treasurer: JoAnne Pedersen**  
**Trustees: (2 year terms) Jim Groen, Dave Bosse; (1 year terms) Bill Bachelder and Frank Huss.**

This month’s presentation was by **Dr. Allan Schanzle**. Dr. Schanzle was a Ph.D. graduate student under Drs. Herget and Rabe at the Cincinnati Observatory. His talk titled “*Memories of the Cincinnati Observatory: A Student’s View*” covered memories of working with the former directors, plus celestial mechanics.

## FOTOkids Meeting

By Dean Regas

The next FOTOkids meeting will be held at the Observatory on Friday November 6, at 7:30 pm (note the new time). Outreach Astronomer Dean Regas will be leading the group in finishing your Galileo Pages Project for the year so please bring your observations (and if you need more info on this project please email Dean at [deanobservatory@zoomtown.com](mailto:deanobservatory@zoomtown.com)).

Also we must prepare for the next FOTOkids Astronomy Trivia Night (probably to be held at the December meeting). Dean requests that you create 10 astronomy questions (and answers) to bring to the November meeting. If possible rank them in order of difficulty. For example a “1” would be the easiest questions and a “10” would be the hardest. We will compile these questions into the Astronomy Trivia Night. Hope to see you on the 6<sup>th</sup>.

## The Observatory Online

By Craig Niemi

You can now quickly, easily and securely renew your membership via the Observatory’s website. [www.cincinnatiobservatory.org/becomeamember.html](http://www.cincinnatiobservatory.org/becomeamember.html)

Be sure to bookmark the Calendar and What’s Coming Up pages to stay current with Observatory events.

[www.cincinnatiobservatory.org](http://www.cincinnatiobservatory.org)

## Historic Observatory Cornerstone

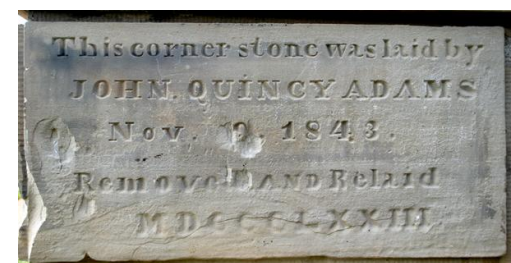


Photo by Craig Niemi

## Craig's Corner

By Craig Niemi, Observatory  
Executive Director

The elections are fast approaching and again the Observatory is offering its facilities to the citizens of Cincinnati as a polling location. Across the region a number of important races and levies are on the ballot. Did you know at one time the Observatory was supported with its own levy?

In a way it very much still is. When you joined, and every year when you renew your membership, you're in effect voting "yes" to the Observatory. Think of it as your own "personal levy" in support of the Observatory, its mission, and volunteers. You and your fellow members make possible the continued restoration and preservation of this National Historic Landmark, and equally importantly, the innovative educational programs that now serve over 20,000 adults and children every year. And unlike those other levies you get to decide whether to continue your support and what financial commitment you feel is appropriate and affordable.

Your support is an important indicator of how well we're doing our job. If your renewal amount goes up, if it goes down, or even if it stays the same year after year, that gives us valuable feedback. When you consistently renew your membership you tell future funders a valuable story. If you are both a member and a donor, that speaks volumes. If you're a member, a contributor and a volunteer, that tells the community that you are fully vested in the Observatory.

Since the Observatory is a small, grass-root community organization it is easy for you to give us even more feedback and you are always welcome to stop by, call or email us and share your thoughts. What are

we doing well? What could we be doing better? What haven't we thought of? Give us your suggestions on how we can improve your Observatory. Just like 165 years ago *you* are the stakeholders of the Observatory. So while you're casting your vote on November 3<sup>rd</sup> we hope you'll think of your Observatory and be assured that we know how vital your memberships and contributions are to the Observatory's continued success.

Hope to see you at your Observatory soon.

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## Shooting Stars

By Dean Regas

At the Observatory  
Saturday, November 14,  
7-9 pm

In honor of the Leonid Meteor Shower, the Cincinnati Observatory is hosting two events that are out of this world.

First, see some of the finest meteorite samples in the tri-state at the Observatory. The program, called *Shooting Stars*, includes meteorite displays, meteorites for sale, classes, tours of the buildings, and viewing through our historic telescopes (weather permitting). No reservations required.

\$5 for adults, \$3 for kids

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## The Planning Meeting

By Dale Zoller

The next FOTO Planning meeting is scheduled for **Thursday, November 19, 2009 at 6 pm at the Observatory – not Panera.** The meeting generally lasts a couple hours. The Planning meetings are open to all FOTO members. We encourage your participation in planning future FOTO activities.

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## Stonelick State Park Stargazes

By Craig Niemi

While the fall color lasts, spend an afternoon taking in all the gorgeous scenery in our nearby Ohio State Parks. Dine nearby or bring a picnic dinner and then spend the evening stargazing. Stonelick State park is a great chance for members, teachers, scouts, and the general public to learn the night sky, learn how to use their telescopes while enjoying the company of their fellow members. [www.cincinnatiobservatory.org/stonlickblog.html](http://www.cincinnatiobservatory.org/stonlickblog.html).

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## Leonid Meteor Shower

At Stonelick State Park  
November 14, from dusk till dawn

By Dean Regas

Amateur astronomers will be conducting a public star gaze and meteor watch at Stonelick State Park from dusk-till-dawn November 14. These nights at Stonelick are free and open to the public. Show up any time. For further information or directions to Stonelick visit <http://www.cincinnatiobservatory.org/darkskysite.html> or call Scott Naylor at: 513-575-5556.

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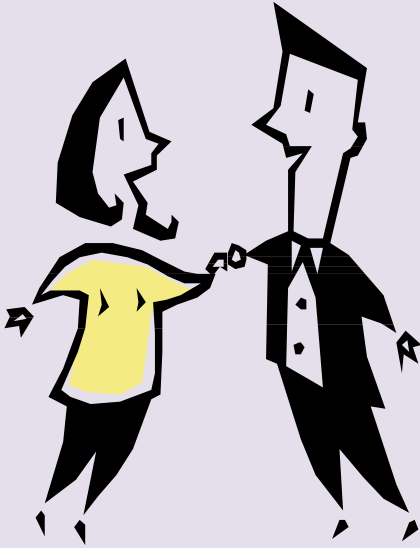
## Fall at the Observatory



Photo by Craig Niemi

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Welcome  
Renewing & New FOTO  
and COC Members!



Eric Africa  
Jeffrey Ayers  
William Bachelder  
Charles & Cynthia Baylis  
Caroline & Douw Bergsma  
Eric Brock  
Ken Butler  
Fred & Ann Calvert  
Janet Canter  
Charles & Debra Clark  
Rocco & Mary DeCioccio  
Tom East  
Frank W. Huss  
Dale Lombardo  
Sean Malley  
Vicky Mary  
Robert Migliara  
Alfred Morgan  
Laura Murrer  
Jim & Marty Neumeister  
Christopher Parrett & Mary  
Fitzpatrick  
Zelma Schulman  
Dorothy Schulz  
Paul Sittenfeld  
Michael Smith  
John Stein  
Bob Stothfang  
Margaret Warminski  
Richard J. Wessling

## FOTO Committees

*By Michelle Lierl*

The recently approved revision of the FOTO Bylaws, section 10, includes the formation of several committees. These committees will be responsible for organizing and/or conducting various FOTO activities. Members of FOTO are encouraged to sign up for one or more of these committees. Once the committees have formed, the members will meet to define the responsibilities of their committee. On the following list, you will notice that some of the committees have one or more people listed who have been functioning in the role of that committee, or have already volunteered for it. Other committees have no volunteers as yet. Please consider participating! FOTO needs your ideas and talents.

- Finance Committee:
- FOTO Kids: Dean Regas
- Hospitality Committee: Becky Shundich, Linda Magee, Jim Groen
- Library Committee: Frank Huss
- Membership Committee: (note: this is NOT for tracking/recruiting members, but has the purpose of enhancing the experience of FOTO members)
- Newsletter: Bill Cartwright
- Program Committee: TBD
- ScopeOut Committee: Dale Zoller
- Stonelick Dark Sky Site Committee: Scott Naylor
- Telescope Lending Program Committee: Dave Bosse, Scott Gainey

## 16-Inch Clark Telescope Receives Annual Maintenance

*By John Ventre*



*Basil Rowe (left) & Kirk Schrotel  
lubricate the 16-inch  
Clark telescope*

The 1904, 16-inch Alvan Clark Telescope remains an awesome astronomical instrument to use, but it does require a lot of tender loving care. Recently Basil Rowe and Kirk Schrotel performed the annual maintenance on the telescope. They had to climb 20 feet to the top of the telescope mount in order to lubricate the critical bearings and gears. If you have not yet had an opportunity to view through this telescope let us know and we will set up a viewing date for you.

A very special thank you to Basil and Kirk for their tender loving care for the Clark!

### Did You Know....

Ever see a green comet? Well, a green comet named Lulin will be passing by Earth in November. The comet circles the sun clockwise, unlike most planets and objects.

## 10-inch Cooke Lens is Returned to COC

By John Ventre

The Observatory recently received the 10-inch Cooke Astrophotographic lens that previously was on loan to the Goethe Link Observatory of the Indiana University. The lens was purchased about 1909 and mounted "piggy-back" as a lens of a camera on the Observatory's 11" Merz und Mahler refractor. In 1949, following WWII, the lens was loaned to the Goethe Link Observatory to conduct the "Lost Asteroid" program. This research program continued until about 2008 when the last asteroid that was found 40 years ago was finally named.

The asteroids were lost during WWII when the observatories were not staffed because all available astronomers were serving the country in the war effort. Since the "Lost Asteroid" program is now complete Indiana University returned the 10-inch camera lens to the Cincinnati Observatory. The lens is being refurbished and it will be put on display in the Herget Building.

## Lunar Impact Plume

NASA has just released pictures of infrared flashes and a visible plume of debris produced by a Centaur booster rocket hitting the Moon on Oct. 9th. The images confirm that the LCROSS experiment was a success despite the fact that the impacts were visually unimpressive from Earth. Visit <http://spaceweather.com> for images of the plume and commentary from mission scientists.

## FOTO Volunteer Appreciation Dinner

The FOTO Volunteer Appreciation Dinner will be held Thursday, December 3, 2009 at the Observatory. Members plus one guest are covered at no cost. Additional guests are \$7 each. We will have a sign-up sheet at the November 5th FOTO meeting. If you cannot make it to the meeting, you can make reservations by contacting Rebecca Shundich at 513.533. 3449 or [rebecca.shundich@cchmc.org](mailto:rebecca.shundich@cchmc.org). The building opens at 6 pm with *dinner starting at 6:30 pm* (note difference from normal meeting time).

### Attn: Class-Goers

By Dean Regas

We've been planning something new for 2010 for members and the general public who are looking to learn more astronomy content. We would like to run an on-going program, similar to a college-level course in astronomy that would be free to members and include discussions on headier topics. So I am conducting a survey to see:

- 1) If you would be interested in such a thing.
- 2) What night of the week is best
- 3) How often you'd want to meet (monthly or every two weeks)

Please let me know ASAP because we'd like to get this together for early 2010.

### Did You Know....

The coldest spot in the solar system is on our moon! Temperatures in craters on the moon's South Pole were measured at 397 degrees below zero. Pluto was at least a degree warmer, even though it's about 40 times farther away from the sun.

## Wednesday Lecture Series

By Craig Niemi

We hope you'll join us for this ongoing series which features discussions of a wide range of topics for all astronomy experience levels.

### Wednesday November 18<sup>th</sup>

Dr. Brenda Hanke, Cincinnati Museum Center

"*The Cincinnati Region: 450 Million Years of Landscape Evolution*"

### Wednesday, December 16<sup>th</sup>

Dr. Scott Nutter, Northern Kentucky University

"*CREAM; The Art of Scientific Ballooning*"

Lectures begin at 7pm.

**Free to members** and open to the general public for just \$5.

Reservations are suggested. Call 513-321-5186 to RSVP.

## Word of the Month

By Greg Huber

"Scatter ellipse"

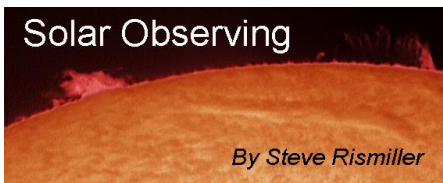
October's Word: "Helium Flash"  
A *Helium Flash* is when a star begins to "burn" the helium at the core. This is signified by the core of the star rapidly expanding in a very short time.

## Star Parties

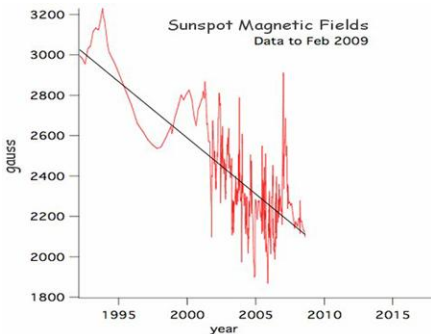
By Scott Naylor

The next scheduled Stonelick Star Parties will be **Saturday, November 14<sup>th</sup> and November 21<sup>st</sup>**.

For directions or for more information phone Scott Naylor at 513-575-5556.



I was reading a Science@NASA article this week entitled “**Are Sunspots Disappearing?**” by Dr. Tony Phillips. The Sun has been and continues to be in one of the deepest solar minimums in almost a century. If you have been observing the sun, you know that sunspots are almost nonexistent. Some are wondering if sunspots are disappearing.



Believe it or not, there is some evidence that they may not come back like in previous solar cycles says researcher Matt Penn. Penn and his colleague Bill Livingston have been measuring the magnetic fields of sunspots for the past 17 years and have found that sunspot magnetism is on the decline. "Sunspot magnetic fields are dropping by about 50 gauss per year," says Penn. "If we extrapolate this trend into the future, sunspots could completely vanish around the year 2015." The disappearing act is possible because sunspots are made of magnetism. If a sunspot loses its magnetism it ceases to exist.

Whatever happens notes NASA Sunspot expert David Hathaway, "the sun is behaving in an interesting way and I believe we're about to learn something new."

You can read the entire article at [http://science.nasa.gov/headlines/y2009/03sep\\_sunspots.htm](http://science.nasa.gov/headlines/y2009/03sep_sunspots.htm)

## Caves on Mars Might Protect Astronauts

A series of newly discovered depressions on the Martian surface could be the entrances to a cave system on the red planet.

Hints of subsurface tunnels have been found in images of Mars before, but the new evidence is more suggestive.

Such a subsurface system could provide shelter to [future Mars-visiting astronauts](#), as well as a protective habitat to any potential past or present Martian microbes.

Signs of a series of "collapse depressions" in extinct lava flows were found in the Martian volcano Arsia Mons in high-resolution images taken by spacecraft orbiting the red planet.

<http://www.space.com/scienceastronomy/091026-mm-mars-caves.html>

## Space Weather News

**BIG SUNSPOT:** The sun is showing signs of life. Sunspot 1029 emerged over the weekend, and it is crackling with B- and C-class solar flares. The active region's magnetic polarity identifies it as a member of new Solar Cycle 24. If its growth continues pace, Sunspot 1029 could soon become the biggest sunspot of 2009.

Check <http://spaceweather.com> for animations and updates.

**CONNECT YOUR PHONE TO THE SKY:** Would you like a call when Earth-orbiting satellites detect strong solar flares and solar wind gusts? Sign up for Spaceweather PHONE to turn your telephone into a bona fide solar activity alert system:

<http://spaceweatherphone.com>

## NASA Mission to Study the Moon's Fragile Atmosphere



Right now, the Moon is a ghost town. Nothing stirs. Here and there, an abandoned Apollo rover — or the dusty base of a lunar lander — linger as silent testimony to past human activity. But these days, only occasional asteroid impacts disrupt the decades-long spell of profound stillness. And this stillness presents scientists with an important opportunity.

Currently, the Moon's tenuous atmosphere is relatively undisturbed. But that won't be true for long. NASA is planning to return people to the Moon, and human activity will kick up dust, expel rocket exhaust, and release other gaseous emissions into the lunar atmosphere. Because the atmosphere is so thin, these disturbances could quickly swamp its natural composition. <http://antwarp.gsfc.nasa.gov/apod/ap980705.html>

## Did You Know....

There are bullies out there in the Universe. A so-called "death star galaxy" will blast a nearby galaxy with a jet of energy. Scientists said that if this happened in the Milky Way, it would likely destroy all life on Earth.

## 2010 Observing Handbooks and Almanac

By Craig Niemi

The Observatory is taking orders for the **2010 Royal Astronomical Society of Canada's Observer's Handbook** & the **2010 Guy Ottewell Astronomical Calendar**. Because we are buying in bulk we can pass along a savings. If you would like copies just let Craig know at [observatory@fuse.net](mailto:observatory@fuse.net)

I always end up getting both for myself. The Ottewell Calendar is a great planning guide and is worth it just for the terrific illustrations. The RASC Handbook goes into greater detail and is a great astronomy and observing resource even when the year is over. **We'll be ordering right after the November 5th FOTO meeting so they'll be here for the holidays.** Cash, Checks (payable to "COC") or Credit Card.

Published continuously since 1907, the **RASC Observer's Handbook** is a unique annual compendium of astronomical information and highlights for the coming year. Rigorously researched and developed for advanced amateurs and professionals, the Handbook is a must-have resource. \$25.95 Retail; **FOTO & CAS Member's Price \$22.00**

For more information go to:

[https://secure.rasc.ca/source/Orders/index.cfm?section=Members\\_Area&activesection=Orders](https://secure.rasc.ca/source/Orders/index.cfm?section=Members_Area&activesection=Orders)

### Guy Ottewell's Astronomical Calendar

This famous atlas-sized annual book is the most widely used and most attractive guide to what will happen in the night sky throughout the year. Each page is the size of three or four of an ordinary book, allowing large spreads of mixed diagrams and text.

The Astronomical Calendar has been published continuously since 1974, and is used by about 20,000 (amateurs, telescope-owners, clubs, teachers, planetariums, libraries, enjoyers of the sky) in over 100 countries. \$26.95 Retail; **FOTO & CAS Member's Price \$20.00** More info at <http://www.universalworkshop.com/AC10.htm>

## Trivia Question

By Greg Huber

Who were the first astronauts to carry out a space walk from the space shuttle?

October's Trivia Question: Shuttle missions are now designated as STS-XXX. What does STS stand for?

The answer: The designation of STS in the Space Shuttle Flights stands for Space Transport System.

## Did You Know....

Lumps of debris cast shadows that are visible in the middle of Saturn's "A" ring in a very recent photo. The shadows suggest that the clumps are about 2,000 feet tall. Scientists have believed for years that the rings were about 30 feet thick, but based on the new images, scientists now think that they're more than 2 miles deep in some spots.

## Rest Easy, Earthlings

A nearly 900-foot-wide asteroid that initially triggered fear it would hit Earth now has almost no chance of impacting the planet during three close encounters this century, NASA announced last week.

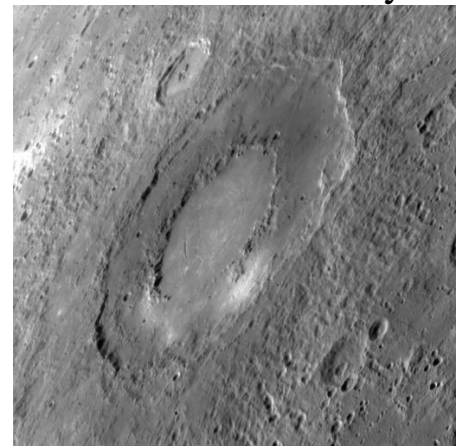
<http://spaceflightnow.com/news/n0910/11apophis/>

## Opportunity Rover Finds Yet Another Mars Meteorite

In a remarkable discovery 126 million miles from Earth, the Mars rover Opportunity has found a second large iron meteorite sitting just a half mile from its twin sibling where they both landed on the Red Planet within seconds of each other three billion years ago.

<http://spaceflightnow.com/news/n0910/11meteorite/>

## A View of Mercury



The MESSENGER spacecraft sailed past Mercury at an altitude of just 142 miles and a relative speed of 12,000 m.p.h. The close encounter provided MESSENGER with the "gravity assist" needed to slow the spacecraft enough that the next time it encounters Mercury, on March 8, 2011, it will be able to enter orbit. MESSENGER also gathered high-resolution images of half of the remaining 10 percent of the planet that had not before been photographed from spacecraft. "We are on course to Mercury orbit insertion less than 18 months from now, so we know that we will be returning to Mercury and will be able to observe the innermost planet in exquisite detail.

[http://www.planetary.org/news/2009/0930\\_MESSENGERs\\_Third\\_Gravity\\_Assist.html](http://www.planetary.org/news/2009/0930_MESSENGERs_Third_Gravity_Assist.html)