

# "Stars & Scopes"

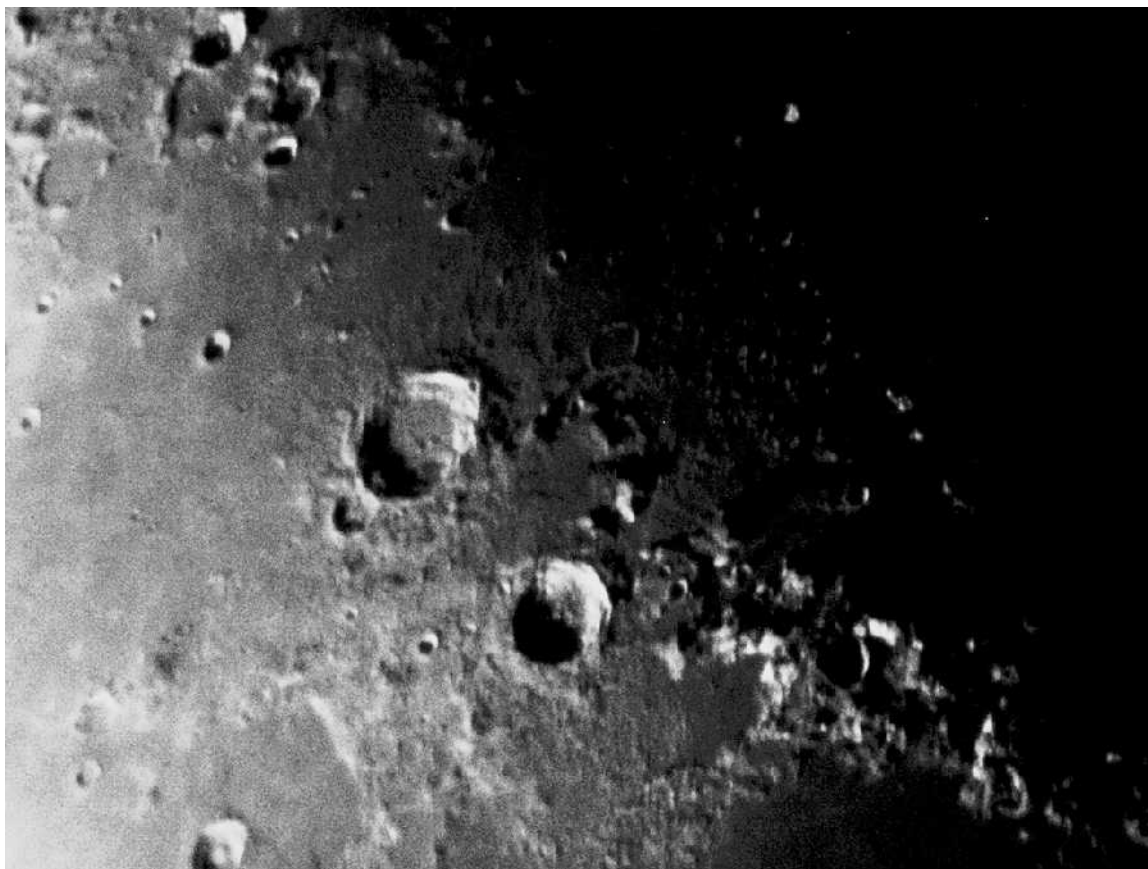
Sept. 2008

## Messing with Lunar Photography

Here's something that illustrates my gross inexperience with astrophotography, but also shows what you can do with some of the digital photography processing software that's available. This blunder occurred July 9, 2008 when I tried to photograph the crater pair Aristoteles and Eudoxus for submission to The Lunar Observer, an online publication of the Association of Lunar & Planetary Observers.

I used my Celestron 11" SCT with a Klee 2.8x Barlow and I attached my Olympus C 5050 digital camera to the scope using a Scopetronix MaxView 40mm eyepiece. When I set my camera in shutter priority mode, it showed an exposure of 1/1000 of a second. This seemed very fast to me, but I thought if the camera suggested it, it must be right. I took a total of 10 frames in TIFF format with exposures ranging from 1/1000 to 1/100 of a second. When I uploaded the frames to my computer and looked at them in Photoshop Elements 4.0, ALL of the frames were solid black! That's when I realized that the 1/1000 shutter speed the camera initially showed must have been a default rather than a suggested setting. I played around with Photoshop's "enhance" and "highlights & shadows" tools and found that only the 1/100 second exposure had some detail. As I enhanced the brightness and contrast, the image turned almost lime green. I was able to change the image to black and white and what you see is the result, compressed from an original 14MB TIFF file. I thought some of you might be interested in this because it shows how you can get something (even if it's not great) from a totally blown exposure.

*Jay Albert*



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## Meeting Minutes Wednesday, August 6<sup>th</sup> 2008



The meeting in the Motorola Auditorium of the Science Museum was called to order at 7:30 by President Jay Albert. Approximately 33 were in attendance.

The Minutes of the previous meeting were approved as written in the newsletter. Jay gave the Treasurer's report, sent via e-mail from Treasurer Jim McClean. The checking account balance was \$6945, the CD had \$5608 and there was \$1952 in the Scholarship Fund.

### Committee Reports:

Planetary: Jerry reported that Venus would be close to Saturn on the 12<sup>th</sup> and 13<sup>th</sup> of the month. Mercury and Jupiter also visible in evening sky.

Occultations: Charlie reported no grazes upcoming locally.

Comets: Jay Messeroff agreed to take on comet reporting at the meetings. Nothing brighter than 8<sup>th</sup> mag now.

Scholarship: No report.

Night Sky Network: No report.

Science Museum: Jay reported that Woodrow G. had resigned from his position at the Science Museum. However, other staff personnel offered to do a planetarium show for ASPB in November, after the refurbishment.

Daggerwing Observatory update: No report.

Website update: No report; please send images and reports to Maris at the website, as well as to newsletter editor Laura Woods.

### Observing session reports:

JD State Park: Jul. 26<sup>th</sup>: A good session with clear skies until 10PM or so! See Jay's report in the newsletter.

Area 51: Images from Jay Messeroff and Fred Lehman in Newsletter from Fri., Aug. 2<sup>nd</sup>. Clouds on the 3<sup>rd</sup>.

Riverbend Park: Attended by Larry S. and Maris on Aug. 3<sup>rd</sup>; clouds prevailed.

### Upcoming observing sessions

JDSP: Saturday, Aug. 23<sup>rd</sup>. Meet at Wendy's on US1 in Tequesta at 7:30 PM.

Riverbend: Sat., Aug. 30<sup>th</sup>. Watch the YAHOO group for updates on further Riverbend sessions. Keep in mind that Riverbend is ASPB members and guests only; public not invited.

Area 51: Fri., Aug. 29<sup>th</sup>.

### Upcoming presentations:

Charlie F. on "Astronomy as Art" in September, Planetarium show after re-opening in November, Members' show & tell in December. Fred Lehman agreed to do an update on his imaging presentation in October.

Announcements: Bob Zanger offered his C11 for sale. (Note: it was sold to Steve Schiff after the meeting!)

### Old Business:

Riverbend Park situation; we have the user agreement! Jay was thanked for his hard work on this issue.

A YAHOO group moderator for ASPB is needed since Jeff W has left the area. Jim K. mentioned that several others, including he and Maris W., had moderators privileges.

New Business: 1) Volunteers for refreshment break: Bill Chazotte, Jan Messeroff and Bob Guzauskas are alternately providing treats each month. Many thanks for your help!

2) The Museum folks asked that we support a special session at the Sailfish Club on Palm Beach on the evening of Wed., Aug. 27<sup>th</sup>. Details forthcoming.

3) Green Cay Nature Center, off Hagen Ranch Road, will take the place of the West Boynton Library for our Thursday evening sessions in season. The most important aspect is that they want us there. Please see Steven Schiff, who has a volunteer questionnaire, if you will be there on a regular basis.

Presentation: Steven Schiff gave a talk entitled "Dr. Schiff Goes to Space Camp". Space Camp takes place annually at the NASA facility in Huntsville, AL. Steve was one of a small number of world-wide educators chosen for this. He did it mainly to get more lessons for his classes at Poinciana Elementary School, where he is a Planetarium Resource Educator in the math/Science Department. He concluded the presentation with an informative 6-minute DVD on the ARES mission, which will eventually replace the Space Shuttle. An excellent talk; thanks Steve!

Adjournment at 9:30 PM.

*Respectfully submitted, Charlie Fredrickson Secretary*

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## ASPB Events for September 2008

### Monthly Business Meeting (September 3, 2008)

The meeting will be held in the Motorola Science Theater at the South Florida Science Museum. All are welcome to attend. As always, sandwiches, coffee, cookies, and donuts will be served at a short intermission prior to the presentation.

Presentation: Charlie Fredrickson on "Astronomy as Art"

### Friday Night "Eyes to the Sky" Program at Sugar Sand Park (September 12, 2008)

Event by the Children's Science Explorium at Sugar Sand Park in Boca Raton starting at 8:30 pm. Join us for an evening with the stars... literally! Explore the skies with our professional-grade Meade LX Schmidt-Cassegrain telescope. These free informal events will be in the parking lot behind the Explorium (weather permitting). No registration required just show up! The telescope will be out for at least one hour after the listed start time. Sugar Sand Park is located at 300 S. Military Trail, Boca Raton, FL, 33486.

### Saturday Night Viewing at Jonathan Dickinson State Park (September 20, 2008)

All are invited to attend. Meeting time is 7:30 PM at the Wendy's restaurant in Tequesta. After dinner, everyone present will depart for the park at 8:30 PM. Be sure to bring an adequate supply of mosquito repellent. Contact Gerry Niksch for additional information.

### Saturday Night Viewing at River Bend Park (September 27, 2008)

River Bend park is located on the south side of Indiantown Road about 1 mile west of the Jupiter exit of the Florida Turnpike. Signs for the park entrance are posted on Indiantown Road. This session is not open to the public. Our club is responsible for the security of the gate. Please contact Jay Albert ([bocajay@bellsouth.net](mailto:bocajay@bellsouth.net)) or Larry Schlaefer ([ls4503@bellsouth.net](mailto:ls4503@bellsouth.net)) for more details.

## September 2008 Presentation "Astronomy as Art" by Charlie Fredrickson

On Wednesday, Sept. 3rd, Charlie will present "Astronomy as Art" to the ASPB regular meeting. It will be a compendium of many expressions of astronomical art, from paintings, sculptures, astro photos including foreground objects, and high resolution digital images of distant galaxies, nebulae, and more. "Space artists" were our first space explorers, taking us, in their mind's eye, to places humans have never set foot. Astronomy, among all the sciences, has a tremendous power to inspire not only artists, but poets, songwriters, and so on. The internet is alive with websites on this subject!

He will bring a few framed pieces of my own "Astronomy Art", and encourages any ASPB members and friends to do the same. Eventually he would like to see us sell or auction our astronomical art as a fundraiser for our Scholarship Fund.

## Highlights from NASA Space Calendar – September 2008

- Sep 07 - Asteroid 2003 WT153 Near-Earth Flyby (0.015 AU)
- Sep 07 - Asteroid 2000 RK12 Near-Earth Flyby (0.059 AU)
- Sep 11 - Mercury At Its Greatest Eastern Elongation (27 Degrees)
- Sep 13 - Uranus At Opposition
- Sep 19 - Asteroid 2003 SW130 Near-Earth Flyby (0.022 AU)
- Sep 22 - Autumnal Equinox, 15:44 UT



Please see <http://www2.jpl.nasa.gov/calendar> for more information

# "Stars & Scopes"

## Lightning & Thunder

Between the lightning, thunder and rain, there hasn't been a lot of opportunity to image this month. On August 16th, I did wait out a phenomenal lightning show at Markham Park to capture Jupiter (along with the Great Red Spot) and the moon Io.

*Jay Messeroff*



I set up in my driveway at 3:30AM on August 22nd with the hope of catching images of the morning Comet C/2007 W1 Boattini, located between the Pleiades and the Constellation Aries. Unfortunately, I had operating problems with the telescope and spent all of the early morning trying to get it fixed. As daylight set in, I gave up on the comet and chose instead to capture a few images of the Waning Gibbous Moon, so as not to be a total loss.



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## Area 51

Attached is an unusual looking object called the Iris Nebula (NGC7023). This is the first time I have ever looked at it and I don't know much about it. It's kind of pretty though.

The second picture is a rather nondescript image of the unremarkable globular cluster NGC6712, except that there is a 15th magnitude p-neb (IC1295) just barely visible 24 arcminutes east-southeast of the cluster. North is up and east is to the left.

Last (but not least), there is tonight's rendition of the Swan Nebula (M17).

*Fred Lehman*



NGC 7023



NGC 6712



M17

# "Stars & Scopes"

## A Google for Satellites: Sensor Web 2.0

If you could see every satellite passing overhead each day, it would look like a chaotic meteor shower in slow motion.

Hundreds of satellites now swarm over the Earth in a spherical shell of high technology. Many of these satellites gaze at the planet's surface, gathering torrents of scientific data using a dizzying array of advanced sensors — an extraordinary record of our dynamic planet.

To help people tap into this resource, NASA researchers such as Daniel Mandl are developing a "Google for satellites," a web portal that would make requesting data from Earth-observing satellites almost as easy as typing a search into Google.

"You just click on it and it takes care of all the details for you across many sensors," Mandl explains.

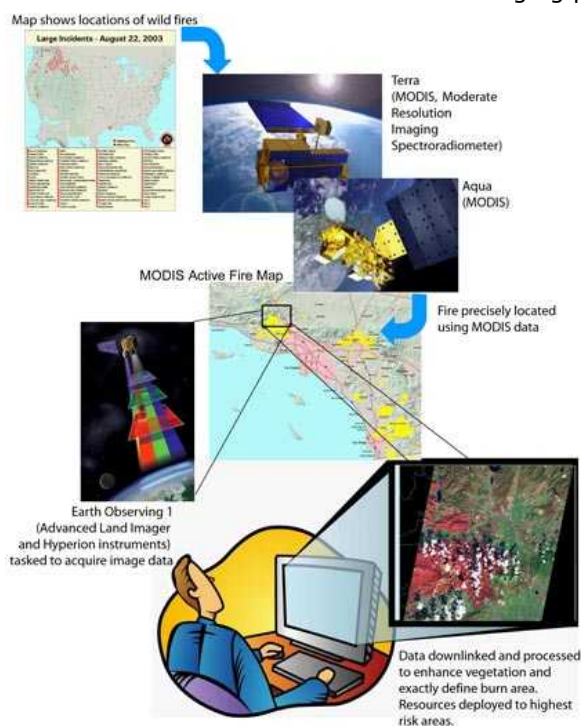
Currently, most satellites are each controlled separately from the others, each one dauntingly complex to use. But starting with NASA's Earth Observing-1 (EO-1) satellite, part of the agency's New Millennium Program, Mandl and his team are building a prototype that stitches these satellites together into a seamless, easy-to-use network called "Sensor Web 2.0."

The vision is to simply enter a location anywhere on Earth into the website's search field along with the desired information types — wildfire maps, vegetation types, floodwater salinity, oil spill extent — and software written by the team goes to work.

"Not only will it find the best sensor, but with proper access rights, you could actually trigger a satellite to take an image in the area of interest," Mandl says. Within hours, the software will send messages to satellites instructing them to gather the needed data, and then download and crunch that raw data to produce easy-to-read maps.

For example, during the recent crisis in Myanmar (Burma) caused by Cyclone Nargis, an experimental gathering of data was triggered through Sensor Web 2.0 using a variety of NASA satellites including EO-1. "One thing we might wish to map is the salinity of flood waters in order to help rescue workers plan their relief efforts," Mandl says. If the floodwater in an area was salty, aid workers would need to bring in bottled water, but if flood water was fresh, water purifiers would suffice. An early and correct decision could save lives.

Thus far, Mandl and his team have expanded Sensor Web 2.0 beyond EO-1 to include three other satellites and an unmanned aircraft. He hopes to double the number of satellites in the network every 18 months, eventually weaving the jumble of satellites circling overhead into a web of sensors with unprecedented power to observe and understand our ever-changing planet.



To learn more about the EO-1 sensor web initiatives, go to <http://eo1.gsfc.nasa.gov/new/extended/sensorWeb/sensorWeb.html> Kids (and grown-ups) can get an idea of the resolution of EO-1's Hyperion Imager and how it can distinguish among species of trees —from space at [http://spaceplace.nasa.gov/en/kids/eo1\\_1.shtml](http://spaceplace.nasa.gov/en/kids/eo1_1.shtml) .

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

*A "Google for satellites" type of web portal will allow users to request real-time data from Earth observing satellites.*

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## ASPB Officers and Board Members for 2008

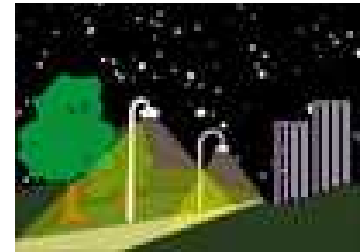
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ASPB is a Member of the International Dark-Sky Association (IDA)  
<http://www.darksky.org/>

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ASPB's Website: <http://www.palmbeachastro.org/>



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Name: _____	Individual Membership	(\$20) ____
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## Stars Above, Earth Below

### Astronomy and Space Exploration in America's National Parks

#### The Milky Way over Bryce Canyon National Park

My flashlight illuminates my path as I hike down the Navajo Loop into Bryce Canyon at night. Jupiter shines brightly just beneath the center of the Milky Way in Sagittarius. Credit: Tyler Nordgren

Read the entire article at: [http://planetary.org/explore/topics/planetary\\_analogs/parks\\_20080622.html](http://planetary.org/explore/topics/planetary_analogs/parks_20080622.html)  
by *Tyler Nordgren*  
June 22, 2008



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