

# “Stars & Scopes”

Nov. 2008

## Observing Report from Route 27

I headed out to one of our dark sites on Route 27 (aka Area-27 North ) on October 21st to take advantage of a late rising Moon and the prospects for clear skies. I arrived around 6:30pm to find other already in the process of setting up. The temperature was very pleasant with only a slight breeze, the skies were clear, and a little bug juice along with another astronomer's citronella candle kept most of the mosquitoes at bay. Conditions held until 11pm, at which time a layer of clouds began moving in from the south. I thought I'd have enough time to shoot one last series of images of the Andromeda Galaxy to the north, but after the first 6-minute exposure, the sky was overtaken with light haze and clouds. We packed it in and were on our way back home at midnight, thankful for the few good hours of imaging that we got in.

*Jay Messeroff*



M27



NGC 457



NGC 7635



# "Stars & Scopes"

## Meeting Minutes Wednesday, October 1<sup>st</sup> 2008



The meeting was brought to order by President Jay Albert at 7:30PM. Approximately 30 were in attendance. The Minutes of previous meeting, as printed in the Newsletter, were accepted unanimously. Treasurer Jim McClean, although not present, e-mailed in financial statement: \$6831 in checking account, \$5613 in CD, and \$1952 in the Scholarship Fund.

### **Committee Reports:**

Planetary: Jerry stated that Venus was bright in west at sunset, Jupiter was prominent southern sky evening, and Uranus and Neptune, near opposition, up in southeast. Opportunity rover is now on a 2-year trip to huge Endurance crater.

Occultations: Charlie reported a graze in the area on the night of Oct. 7<sup>th</sup> (our Board meeting!). Terry Redding presented information about 4 asteroidal occultations that would be observable in our area this month.

Comets: Jay Messeroff stated that there were no comets brighter than approx. 8<sup>th</sup> magnitude.

Scholarship Committee, Night Sky Network: Tom S.; no reports.

Science Museum: Nothing new. The planetarium show is expected in November.

Website update: Maris; nothing new.

**Observing session reports:** JD State Park: Sat., Sep. 20<sup>th</sup>: a good session! Clear skies and a good number of scopes. Area 51: Fri., Sept 26<sup>th</sup>: planned trek was washed out. Gumbo Limbo: Fri., Sept. 26<sup>th</sup>: clouds; Riverbend Park, Sat., Sept. 27<sup>th</sup>; rained out.

### **Upcoming observing sessions:**

Corbett: Girl Scout program, Sat., Oct. 4<sup>th</sup>; 200 girl scouts expected.

JDSP: Saturday, Oct. 18<sup>th</sup>; Riverbend: Sat., Oct. 25<sup>th</sup>; Area 51: Fri., Oct. 3<sup>rd</sup> and Oct. 31<sup>st</sup>.

"Night Explorers" at Gumbo Limbo Nature Center will be Friday, Oct. 24<sup>th</sup>. Come in costume!

**Upcoming presentations:** Planetarium show in Nov., Members' show & tell in December. Jay Albert on ALPO in January 09, Caroline Simpson Feb. '09. We need help getting additional presentations for '09. Terry R. stated that he had three "ready to go"!

**Announcements:** 1) ASPB Board meeting on Tuesday, October 7<sup>th</sup> at 7pm at Atlantis Grill (Lantana & Congress). Non-Board members invited to attend on non-voting basis.

2) ASPB's Mid-Florida Stargaze 2009 will be held at the Kissimmee Prairie Preserve from Feb 19<sup>th</sup> thru the 21<sup>st</sup>. Watch "Stars & Scopes" for details and registration forms.

**Old Business:** 1) Astronomy calendars: 18 signed up last meeting. Tonight is final time to sign up at \$10 per calendar. Order to be placed mid-October.

2) E-mail to the website was received, requesting a live interview on radio, FM 100.3. Charlie will do this when time permits.

**New Business:** 1) Board of Directors positions for 2009. Anyone interested please contact President Jay Albert ASAP.

2) 2009 "Year of Astronomy"; US website: <http://astronomy2009.us/> Please send ideas to Jay for discussion at Board meeting.

3) Library sessions (and Green Cay) to begin in November when DST ends on November 2<sup>nd</sup>. Suggest doing Jupiter & Green Cay (Tues. & Thurs.) in first week; hold off on Summit Library (Wed.) until second week.

**Presentation:** ASPB members were treated to a demonstration on astro-imaging by our former President, Fred Lehman. Despite the light pollution, Fred was able to successfully image the Lagoon Nebula and M27 (the Dumbbell Nebula). Fred showed how he adapted his telescope for wide field imaging only (it can no longer take eyepieces). He also added an 8" Celestron SCT equipped with a \$3,000 camera, which he uses primarily for auto guiding while he images with his main scope. Fred also demonstrated the imaging software which he wrote. The capabilities of this software are truly amazing. Fred was able to program a sequence of exposures which his program automatically stacked and saved to disk. He also showed how he could effectively darken and neutralize most of the spurious background color from the sky glow caused by light pollution. He could also zoom in on a star and get numerical values for the intensity of red, green and blue light. (Notes from Jay Albert)

**Adjournment:** approximately 9:32PM. *Thanks to Bill Chazotte for the treats at intermission!*

*Respectfully submitted, Charlie Fredrickson Secretary*

# "Stars & Scopes"



## ASPB Events for November 2008

### Monthly Business Meeting (November 5, 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: Planetarium Show

### Sidewalk Astronomy at Jupiter Library (November 6, 2008)

From sunset until 8 PM, we will be showing off the wonders of the night sky to the general public. We will be setting up our scopes along the sidewalk next to the library. All members (with or without their telescope) are encouraged to attend.

### Girl Scout Astronomy Merit Badge Program at the Corbet (November 7, 2008)

The girls need to do 6 of the 10 requirements. We've been asked specifically to help with items 2, 3, 4, 6, and 7, although we can probably help with more. (Constellations, North Star Navigation, Planets, Parts of Telescopes, & the Moon) We will be at the clearing in the Youth Camp Area. We should enter the gate off Seminole Pratt Whitney Road just north of Northlake Blvd. Make a left into the management area and then follow the road to the youth camp which is on the right fork. The girls will be gathering around 8 pm. We might want to get there 15 to 30 minutes earlier to set up.

### Sidewalk Astronomy at Summit Library (November 12, 2008)

Dusk until library closing at 9:00 pm. Come on out with or without a telescope.

### Friday Night Explorers at Gumbo Limbo (November 14, 2008)

The Night Explorers look for owls, stars, bugs, & animals while they hike the boardwalk and view sea life in the tanks. The ASPB setup telescopes in the front parking lot and the explorers come for an astronomy program after their hike.

### Saturday Night Viewing at Jonathan Dickinson State Park (November 22, 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 (November 29, 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.

## Highlights from NASA Space Calendar – November 2008

- Nov 02 - Daylight Saving - Set Clock Back 1 Hour (United States)
- Nov 03 - Taurids Meteor Shower Peak
- Nov 15 - Chandrayaan 1, Sub-Satellite Impacts Moons
- Nov 17 - Leonids Meteor Shower Peak
- Nov 17 - Asteroid 2008 UT5 Near-Earth Flyby (0.031 AU)
- Nov 25 - Asteroid 2006 US216 Near-Earth Flyby (0.046 AU)



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

## Newsletter Editor Position Open

I would like to step down as the newsletter editor. I have served as the newsletter editor for 3 years and I feel it is time for a change. Change is good for this position because it keeps the Stars & Scopes Newsletter fresh and exciting. I know this is a hard job to fill since the newsletter editor also keeps up with the membership list and sends out expiration notices. If no one is willing to volunteer for this position, then I will remain the Newsletter editor for one more year only if we stop sending out the Mailed version and stop professionally printing the newsletter. That part alone adds hours to the job. This topic will be discussed at the next regular meeting.

*Laura Woods, Newsletter Editor*

## **"Stars & Scopes"**

### **Minutes, ASPB Board Meeting, Oct. 7, 2008**

The meeting was held at the Atlantis Grill, beginning at 7PM. Present were President Jay Albert, Vice Pres. Jim Kimball, Secretary Charlie Fredrickson, Treasurer Jim McClean, Stephen Schiff, Newsletter editor Laura Woods and her guest Kyle Morse.

**Treasurer's report;** J. McClean: No change from last regular meeting, \$6831 in checking, \$5613 in CD and \$1952 in Scholarship account.

**Scholarship Committee** report: No report; Tom not present.

**Discussion of Tom Sarko proposal to have "student memberships", affiliate memberships with school astronomy clubs, etc.** It was decided to defer any discussion on this item until Tom Sarko could present his views on the levels of membership he proposed. The consensus of those present was to go for one rate for student membership. Note: this will require amending the bylaws, since it is a new classification of membership.

**Review of upcoming presentations:** November (Planetarium show), December (Member's Show & Tell), January (Jay Albert, ALPO), February (Dr. Caroline Simpson, Colliding Gallaxies), April (Prof Chris Beetle, topic TBA). At the October regular meeting, Terry Redding stated that he had three presentations "ready to go", so we will ask him to give one in March '09. Jay had asked Prof. Eric Vandernoot, but he was unable to commit at this time.

**Update on Stargaze 2009.** Jay passed out the Stargaze '09 application. We will publish in the newsletter and on the website, along with the list of rules and the release form. We need to start working on 2010 dates ASAP!

**Possibilities for "Int'l. Year of Astronomy 2009":** Doing something in collaboration with the Science Museum, having a Picnic dedicated to this topic, and having a trip to the Kennedy Space Center were items discussed.

**Reschedule of Corbett Girl Scout event:** Try Thursday, Nov. 6<sup>th</sup> or Friday, Nov. 7<sup>th</sup>; original date of Friday, Oct. 4<sup>th</sup> was rained out.

**Re-schedule Pinecrest school session:** Jay will call and re-schedule this event, also rained out earlier this year.

**Status of Green Cay as alternate Thursday site:** Not going to work, as they require extensive information, including background check, SS number and more. Steve Schiff will look into getting the Library on Hagen Ranch Road as another south county site; go for Tuesday since the library is open late that night.

**Candidates for Board for 2009.** Jay will remain as President and Jim M. as Treasurer. Charlie expressed a desire to step down from the Board after 14 years of nearly continuous involvement. Jim K. said he would remain the vice president, and Charlie will also check with Bob Barr for the secretary position. Laura expressed a desire to step down as Newsletter editor. She said she could stay on if mailed version of newsletter is eliminated. We talked about the possibility of giving the printed version at the regular meetings to members not having e-mail access. This will be discussed at a future regular meeting, and Laura agreed to write an article on the topic. We'll finish the slate of candidates via e-mail, in time for presentation at November meeting.

Adjournment was at about 8:45PM.

**Respectfully submitted, [Charlie Fredrickson](#), ASPB Secretary**

# **"Stars & Scopes"**

## **2009 Mid Florida Stargaze**

Since before the dawn of the current millennium, the Mid Florida Stargaze has been the premier annual observing event of the Astronomical Society of the Palm Beaches. Each Stargaze has been held at a dark sky site offering spectacular views of deep sky objects. The 2009 Stargaze will once again be held at Kissimmee Prairie Preserve State Park. The sky is exceptionally dark at Kissimmee Prairie and provides wonderful views of a bright, easily visible Milky Way. The 2009 Stargaze will take place over the new moon weekend of Thursday, February 19<sup>th</sup> to Sunday morning, February 22<sup>nd</sup>. The ASPB has rented most of the available campsites in the main and best developed camping area. This area has large, indoor men's and ladies bathrooms with hot and cold running water and showers. In addition, each campsite has electricity and running water and will accommodate two vehicles and two tents (so two parties can share one site to reduce costs) or one trailer or RV. The observing field is at the edge of this campground and will also have electricity available.

Kissimmee Prairie is also a great place for birding and has around 100 miles of hiking and biking trails. Ranger led tours of some of the more remote parts of the park are available. The park is located about 25 miles north of the town of Okeechobee (the nearest town to the park) off county road 724. Detailed directions will be provided to all attendees.

A registration form is included in this issue of *Stars & Scopes* and can also be printed from the ASPB website. Simply complete and sign the form and send it along with your check to our post office box or turn it in to our treasurer, Jim McClean, at one of our meetings. Reservations will be taken on a first come, first served basis. Remember, we must have your form and payment before January 16, 2009. Please join us for what may well be one of your most memorable astronomical observing experiences ever.

*Jay Albert*

# "Stars & Scopes"

## 2009 STARGAZE APPLICATION

When: **February 19 to 22, 2009**  
Where: **Kissimmee Prairie State Park**  
Cost: Registration:  
\$45 per three-night sites (12 sites available). Two adults may share one site for \$25 per person (no charge for children under age 18).  
This offer is extended only to ASPB members. Children under 18 are free. No pets allowed.

Name: \_\_\_\_\_ Dates Attending: \_\_\_\_\_  
Address: \_\_\_\_\_ # in Party: \_\_\_\_\_  
City, St, Zip: \_\_\_\_\_ Camper or RV: \_\_\_\_\_  
Phone: \_\_\_\_\_ RV Size: \_\_\_\_\_  
Email: \_\_\_\_\_

Please submit cash or check for full amount of registration fee made out to ASPB and mail with Application form on or before January 16, 2009 to:

**ASPB**  
**P.O. Box 19652**  
**West Palm Beach, Florida 33416**

***By signing this registration form, I understand and agree that the Astronomical Society of the Palm Beaches assumes absolutely no responsibility or liability for loss, damage or injury to me, those accompanying me and/or my equipment.***

Signed \_\_\_\_\_ Date \_\_\_\_\_

Only those who are paid in full may attend.

Payments must be received or postmarked by January 16, 2009.

The park gate closes at sunset, so please be sure to arrive before then. White and/or yellow lights of any kind are strictly prohibited after dark.

### Stargaze Rules

This year's Stargaze will be held at Kissimmee Prairie State Park. The policies below supplement the policies of the park. Since the park is open to the public, we will not be the only group in the campground. Plan to arrive on the observing field at least one hour prior to sunset. The entrance to the park closes at sunset.

- Dark-out rules apply at all times. No bright lights should be displayed anywhere between dusk and dawn, including bright red lights.
- No pets will be permitted in the observing area.
- No Smoking on the observing field or around the camping areas. If you need to smoke, please stay at least 100 yards away from these areas.
- Quiet Time is every morning until noon. Please be considerate of those who stay up observing till dawn! If you want to leave immediately after dawn, and need to pack up during "Quiet Time", please do so without disturbing those that may still be sleeping.
- Please drive only in the designated areas. You will not be able to leave the park while the gate is locked. If you expect to move your vehicle after dark, keep your lights OFF until you are well away from the observing area.
- If you intend to use a laser pointer, please do not use it one hour after sunset. There may be other observers imaging, and a blast from a laser pointer may ruin a two-hour exposure.
- No playing music or listening to radios without headphones.
- Please be responsible with your trash. Dumpster facilities are on site.
- The Astronomical Society of the Palm Beaches, Inc., reserves the right to eject any person not willing to comply with these rules from the observing area.
- The setting of campfires by Stargaze attendees is discouraged. The light and smoke ruins the experience for everyone!

# "Stars & Scopes"

---

## ASPB Officers and Board Members for 2008

President	Jay Albert
Vice President	Jim Kimball
Treasurer	Jim McLean
Secretary	Charlie Fredrickson
Board Member	Curtis MacDonald
Board Member	Laura Woods
Board Member	Tom Sarko
Board Member	Steve Schiff
Board Member	Bob Barr

---

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

and ASPB is a Member of NASA Night Sky Network  
<http://nightsky.jpl.nasa.gov/>

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

Link to ASPB Yahoo Group Below

<http://tech.groups.yahoo.com/group/palmbeachastro/?v=1&t=search&ch=web&pub=groups&sec=group&slk=1>



### ASPB Membership and Subscription Application

Name: _____	Individual Membership	(\$20) ____
Address: _____	Family Membership	(\$25) ____
City, ST, Zip: _____	**Sky & Telescope - 1 Yr.	(\$33) ____
Phone # (optional): _____	Astronomy Magazine - 1 Yr.	(\$34) ____
	Astronomy Magazine - 2 Yr.	(\$60) ____
	Scholarship Fund Contribution	_____
E-mail (optional): _____	Total Enclosed:	_____
This is a: Renewal ____ New Membership ____	Subscription Order Only	____
I'll receive my Newsletter via: E-Mail ("PDF" Version)____ Regular Mail____		

**\*\*Sky & Telescope Subscriptions can be RENEWED by mail or phone 1.800.253.0245**

Mailing Address: A.S.P.B., P.O. Box 19652, West Palm Beach, FL 33416

# "Stars & Scopes"

## October Presentation

Here is a snapshot of M27 captured during my presentation earlier this month. I really enjoyed having the opportunity to demonstrate some of the techniques of astroimaging to the group. We were all fortunate that the sky was clear and the wind was light. Just after sunset I turned on my newly acquired wide-area mosquito dispersant and it appears to have worked quite well. I had no problem with bugs at all in spite of having set up my scope in the middle of a large field of dense green grass.

Here is the M8 shot from my October presentation. Since this target was quite low in the sky and there is a really a lot of sky glow from the city to the southwest, the picture is rather coarse and grainy. Still, any picture of the sky is better than no picture at all.

*Fred Lehman*



M27



M8

---

A.S.P.B.  
P.O. Box 19652  
West Palm Beach, FL 33416

# "Stars & Scopes"

## October Presentation

At the regular meeting in October, ASPB members were treated to a demonstration on astro-imaging by our former President, Fred Lehman. Despite the light pollution, Fred was able to successfully image the Lagoon Nebula and M27 (the Dumbell Nebula). Fred showed how he adopted his telescope for wide field imaging only (it can no longer take eyepieces). He also added an 8" Celestron SCT equipped with a \$3,000 camera, which he uses primarily for auto guiding while he images with his main scope. Fred also demonstrated the imaging software which he wrote. The capabilities of this software are truly amazing. Fred was able to program a sequence of exposures which his program automatically stacked and saved to disk. He also showed how he could effectively darken and neutralize most of the spurious background color from the sky glow caused by light pollution. He could also zoom in on a star and get numerical values for the intensity of red, green and blue light.

*Notes from Jay Albert  
Photos by Charlie Fredrickson*



# "Stars & Scopes"

## The Chemical Weather Report

"Sunny tomorrow with highs in the mid-70s. There's going to be some carbon monoxide blowing in from forest fires, and all that sunshine is predicted to bring a surge in ground-level ozone by afternoon. Old and young people and anyone with lung conditions are advised to stay indoors between 3 and 5 p.m."

Whoever heard of a weather report like that?

Get used to it. Weather reports of the future are going to tell you a lot more about the atmosphere than just how warm and rainy it is. In the same way that satellite observations of Earth revolutionized basic weather forecasting in the 1970s and 80s, satellite tracking of air pollution is about to revolutionize the forecasting of air quality. Such forecasts could help people plan around high levels of ground-level ozone—a dangerous lung irritant—just as they now plan around bad storms.

"The phrase that people have used is chemical weather forecasting," says Kevin Bowman of NASA's Jet Propulsion Laboratory. Bowman is a senior member of the technical staff for the Tropospheric Emission Spectrometer, one of four scientific sensors on NASA's Aura satellite.

Aura and other NASA satellites track pollution in the same way that astronomers know the chemical composition of stars and distant planetary atmospheres: using spectrometry. By breaking the light from a planet or star into its spectrum of colors, scientists can read off the atmosphere's gases by looking at the "fingerprint" of wavelengths absorbed or emitted by those chemicals. From Earth orbit, pollution-watching satellites use this trick to measure trace gases such as carbon monoxide, nitrogen oxide, and ozone.

However, as Bowman explains, "Polar sun-synchronous satellites such as Aura are limited at best to two overpasses per day." A recent report by the National Research Council recommends putting a pollution-watching satellite into geosynchronous orbit—a special very high-altitude orbit above the equator in which satellites make only one orbit per day, thus seeming to hover over the same spot on the equator below. There, this new satellite, called GEOCAPE (Geostationary Coastal and Air Pollution Events), would give scientists a continuous eye in the sky, allowing them to predict daily pollution levels just as meteorologists predict storms.

"NASA is beginning to investigate what it would take to build an instrument like this," Bowman says. Such a chemical weather satellite could be in orbit as soon as 2013, according to the NRC report. Weather forecasts might never be the same.

Learn more about the Tropospheric Emission Spectrometer at [tes.jpl.nasa.gov](http://tes.jpl.nasa.gov).

Kids can learn some elementary smog chemistry while making "Gummy Greenhouse Gases" out of gumdrops at [spaceplace.nasa.gov/en/kids/tes/gumdrops](http://spaceplace.nasa.gov/en/kids/tes/gumdrops).

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

*Example of visualization of data from the Tropospheric Emission Spectrometer. These frames are from an animation that steps through transects of the atmosphere profiling vertical ozone and carbon monoxide concentrations, combining all tracks of the Aura satellite during a given two week period.*

