



COAL SACK

EDUCATING SOUTH FLORIDA SINCE 1922

SEPTEMBER 2006

SOLAR POWER September Public Program

-Barb Yager

FRIDAY, SEPTEMBER 15th, 8 pm, SCAS President Lester Shalloway, M.D. will unleash the latest powerful solar news that could affect our planet and everyone on it! Although the Sun is in its 'quiet cycle' eruptions and large sunspots continue to explode thousands of miles away from the solar surface. Dr. Shalloway, his solar team and the public witness this activity at our free SCAS safe solarviewing programs Saturday mornings 10 - Noon, at the Miami-Dade Metrozoo ticket entrance or during countywide daytime outreach events. Wear your sunscreen and shades! The fun begins at 8 pm, FIU Astronomy Center, CP-145, Physics Bldg., University Park, FRIDAY, SEPTEMBER 15th.

Dr. Shalloway continues to direct the SCAS safe Solarviewing programs in a variety of outreach events

the public of our versatile and spectacular accomplishments by our SCAS amateur astronomers and regular programs A Solar System (including Pluto) will be arranged, to a specific scale model, to lead the visitor through the Zoo while learning about our fascinating Solar System—an adventure for the young and mature!

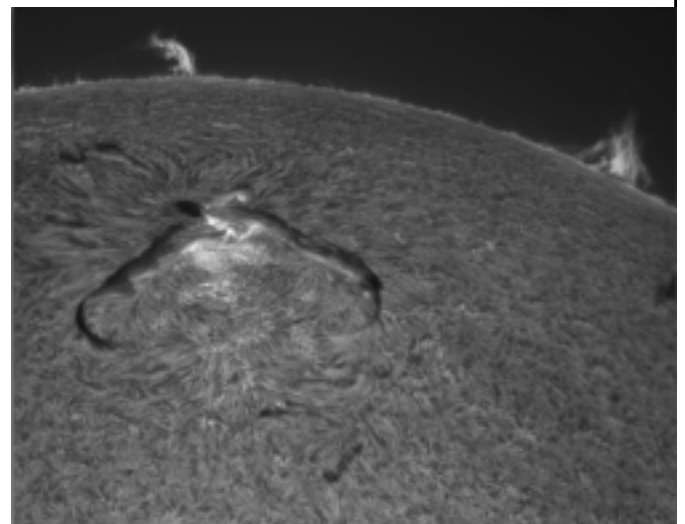
Bring friends to learn about our "nearest star"—the solar winds and how it produces the spectacular and colorful Northern Lights (Aurora Borealis), how the solar poles reverse, the backward sunspots and more. The FREE astronomy program, hosted by SCAS Astros, includes prizes, food buffet, helpful advice by SCAS Astros and a SkyWatch if weather permits. Park in the large campus lot, SW 109th Ave./SW 8th St. opposite the FIU Chem.-Physics Building, NE area of University Park. Call SCAS: 305-661-1375 or www.scas.org

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throughout southeastern Florida, assisted by Mike Smith and members. Depending upon the magnitude of the special event, in addition to the Orion solarscope with Coronado solar filters, the SCAS C-14 and Mike's C-11 may be used with a Daystar filter. Spectacular solar eclipses recorded over the years by Dr. Shalloway have become a showcase at our SCAS exhibits

In the near future, SCAS will renovate the Zoological Society membership booth, near the ticket entrance, with an educational A-V exhibit of photos, DVD and astronomy posters to inform



After two weeks transiting the far side of the sun, photogenic sunspot 904 is back and it is still photogenic. That's not all. Two more sunspots are rapidly emerging just ahead of sunspot 904. The new sunspots are growing rapidly, so stay tuned. Photo by Gary Palmer, www.spaceweather.com.

FOR SCAS/NASA NEWS
CALL THE 24-HOUR
HOTLINE:
305 661-1375
OR VISIT THE
NEW SCAS WEB SITE:
[HTTP://WWW.SCAS.ORG](http://WWW.SCAS.ORG)

The Coal Sack

The Coal Sack is a monthly publication of the Southern Cross Astronomical Society, Inc., Miami, Florida

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Material for the Coal Sack must be submitted to the Editor by the 25th of the month prior to publication. Please use e-mail when possible.
 Change of Address: Please notify Managing Editor Barb Yager with change of address or other membership information.

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	Tim Khan	305-301-9946

Check the larger SCAS STARGAZER now in the Thursday Miami Herald's Tropical Life section, by Barb Yager, now in its 22th year!

COMMITTEE CHAIRMEN

Observatory	Bob Torres	305 232-3990
WSP Registrars	Fred & Lucille Heinrich	386 362-5995
WSP Director	Tim Khan	305-301-9946

MEMBERS IN THE NEWS

-Barb Yager

DR. BOB ENNIS, orthopedic surgeon in Weston and his wife vacationed in Israel this summer, and headed home just before combat erupted. BOB presented a series of five 2-hr. lectures on Introduction to Astronomy at NOVA in Broward last Spring. It was so well received, they insisted he present an 'encore' lecture October 19th- Genesis & the Big BangJIM ROSE, also member of CAS-Columbus (OH) Astronomical Society, attended their Annual CAS Picnic at the Perkins Observatory Saturday 12th, and saw lots of Perseid Meteors, several satellites, doubles and fuzzies. He claimed it was the best 'seeing' since he arrived for his annual summer residency last May!RUSS HARCHA & Family spent most of July visiting friends and relatives along their round trip drive to Ohio. . . .famed author and imager R. SCOTT IRELAND recently led an Imaging Workshop in Toronto, Canada. He expects to check out the re-activated volcano in the Andes of Ecuador soon. . . .STEVE and VICKI VAN RYN spent two weeks driving through the 'wild west' and thoroughly enjoyed the famous Lowell Observatory. . . .MARK GOLDSMITH & Family recently moved to St Augustine. . . .TIPPY & PATTY D'AURIA are moving to Ocala. Long-time residents of North Miami, founders of the world-renowned SCAS Winter Star Party, they have been SCAS members for 24 years. . . .JUDY ELKINS & FAMILY relaxed on their July scenic camping trip into the Smokey Mts. of the Blue Ridge in NC, marveled at breath-taking scenery and set up 'scopes to share the dark skies with all who passed by. They spent a week visiting friends in Delaware before sight seeing in Washington, D.C. JUDY said it was very moving to visit the awesome Vietnam, WWII and Lincoln Memorials. . . .Marine Scientist LEW GRAMER dived into a new round of classes at the U. M. Rosentiel School across the causeway from his NOAA officeCongratulations to NOAH RASHKIND, U.F. research astronomer, now an Atty. at Law in the Bryant Space Science Center, Gainesville, FL..

CLASSIFIED

COLOR LASER PRINTER

REDUCED - HP Color Laserjet 4650, approx 1 year old, used by home-based business. Asking \$750 obo (price new is \$1,700 - see review at <http://www.pcmag.com/article2/0,1759,1652162,00.asp>). Must pick up. Contact Lisa Merritt, 305-412-3855.

Send in your classified ads to PegasusLM@earthlink.net or BarbYager@aol.com

NEW MEMBERS

-Barb Yager

SCAS sincerely welcomes new members: DR. MIGUEL FIGUEROA, physician, & wife ALEXANDRA of Miami; DR. GUOQING HE, marine biologist, U. of Miami- RSMAS; BILL JANDA, lab tech and wife VICKI, med. tech of Pompano Beach; and retirees FRANK & JOYCE REALE, Leicester, MA. We thank you and look forward to our visits together.

ERNESTO CLOSE CALL

Atmospheric Effects from Ernesto
-SCAS member Jack Denur, Dallas, TX
Due to a forecasted probability of a possible 40% chance that 88-degree water in the Florida Straits would allow Ernesto to recover to hurricane strength after it left the Cuban mountains and slowly make landfall onto the Florida shores, I flew to Miami for a few days. Weather forecasting is not an exact science! Computer models missed. The short distance between Cuba and the FL Keys was not enough for hurricane development despite the 88-degree water temperature and remained a minimal Tropical Storm. However, August 30th, in temporary breaks between a spectacular cloudscape forming in the east, Ernesto had produced beautiful deep-blue skies from Zenith to about 10 degrees above the horizon by 11 a.m. which I witnessed from the 73rd St. public beach on Miami Beach.

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Former SCAS Board Member BORIS ORTIZ, (from his new home in Oakland, FL) had a mild visit, and no damage, from Tropical Storm Ernesto. But worst of all he reports, the FL Marlins baseball games are not televised up there-that's TREASON! BOB MEYER, in Arnold, MD reported winds around 40 knots, some brief flooding and trees were uprooted in

his neighborhood. RICHARD DeLUCA, Binghamton, NY stated Ernesto was mild compared to the severe flooding from rivers that overflowed last Spring when many of their neighbors' homes were under several feet of water. From SCAS members I heard from-we all were very lucky this time-but the season ain't over yet!

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Ernesto Extends Soggy Sadowski Streak
Perhaps the soggiest summer in twenty years, SCAS public SkyWatch Saturday nights at Sadowski Park has been reduced to only 4 public sessions: June 3rd, July 15, August 12, and 26th-out of 14 Saturday nights including Sept. 2nd! The new Everglades Wetlands Restoration project at Sadowski Park has already become a "swamp" (between the SCAS telescope deck and the canal) its progress delayed by constant summer storms. The Wetlands Project was featured on WFOR Channel 4-CBS August 17th in the 6 pm news segment. for those who missed it, access: www.cbs4.com/video and type in "Palmetto Bay Park" in the search tab. Future Palmetto Bay newsletter updates and developments may be found: yourpalmettobay@aol.com.

The Palmetto Bay/Sadowski Park Steering Committee is comprised of four neighbors living near the park who keep close watch of developments and stay in close contact with Palmetto Bay Mayor Eugene Flinn.

ASTRONOMY CALENDAR SALE

Astronomy Magazine Calendars 2007 feature incredible images of deep-sky wonders and important astronomy information on each page. A great gift idea for the new astronomer and a reference to the amateur. ONLY \$8.00-leave your order (s) on the SCAS Hotline: 305-661-1375.

SEPTEMBER ALMANAC AT A GLANCE

FULL MOON Thursday, 7th 2:42 p.m.
 LAST QTR. Thursday, 14th 7:15 a.m.
 NEW MOON Friday, 22nd 7:45 a.m.
 FIRST QTR. Saturday, 30th 7:04 a.m.

SUNRISE: 7:05 a.m. (mid-month) SUNSET: 7:30 p.m.

AUTUMNAL EQUINOX occurs Saturday, 23rd 12:03 a.m. when the southbound Sun crosses the Equator. Daytime & night hours are about equal for a few days: = "equinox". Drive cautiously on east-west roads during early morning or late afternoon rush hours in bright glare of Sun, rising due east and setting due west.

MORNING SKIES:

Brilliant VENUS descends onto the NE horizon against the rising star of Leo the Lion.
 Silver-ringed Saturn, also in Leo, glows to upper right of the Morning Star.
 The dim Beehive Star cluster in Cancer shimmers high in the east.
 5-7th The star Regulus in Leo rises to meet Venus.
 The Big Dipper appears low in NE.
 5th- URANUS glows brightest and lies in SW opposite the rising Sun at 7 a.m.
 The blue-green outer planet rises in Aquarius, SE at sunset.
 The brilliant westbound winter constellations arch overhead, led by the Seven Sisters star cluster (Pleiades) followed by Taurus the Bull, the V-shaped Hyades cluster, Gemini Twins, bright Procyon in east; Capella, Auriga the Charioteer, NE, Cassiopeia & Andromeda NW, Pegasus drifts lower in west, Orion the Hunter in south, his Big Dog and brilliant blue Sirius sparkling in SE.
 As dawn breaks, the waning Moon:
 12th- floats near the Seven Sisters
 16th- drifts by the Gemini Twins
 19th- hangs below Saturn
 21st- nudges Venus on the E. horizon.
 ZODIACAL LIGHT- before dawn, a pyramid of sheer sunlight rising above the E. horizon, reflecting millions of dust particles suspended in space near the date of the Equinox.

EVENING SKIES:

Golden JUPITER and its Moons hang low in SW-in Libra-and sets by night fall.
 24th- tiny MERCURY appears briefly on the SW horizon near Sica in Virgo.
 Huge Scorpius crawls low in SW.
 Tilted Sagittarian Teapot 'pours' onto the Scorpion's 'stinger tail'.
 Dim blue NEPTUNE sails into the south in Capricornus.
 Blue-green URANUS cruises across SE in Aquarius.
 Aries the Ram follows the Great Square of Pegasus (winged Horse) higher in East.
 Hercules leads Vega and Summer Triangle across the

Zenith.

Cygnus, Flying Swan, becomes the Northern Cross within the Triangle in NW.

Queen Cassiopeia and daughter Andromeda reign in the north.

Bright Capella rises in NE as Seven Sisters appear in ENE.

7th- Closest full Moon in 2006 rises in SE.

22nd- Farthest New Moon of 2006-invisible.

23rd- Young Moon rises briefly below Mercury in west.

26th- Moon floats near JUPITER in SW.

30th- Moon perches on spout of the Teapot in south.

Check www.spaceweather.com and www.scas.org and 305-661-1375 for latest solar activity and Miami track of the Int'l Space Station

Moon Set/Rise Table for SEP/OCT

Date (m/d)	Moon Rise	Moon Set
15/9/2006	0:48	15:22
16/9/2006	1:46	16:10
17/9/2006	2:45	16:52
18/9/2006	3:42	17:29
19/9/2006	4:37	18:01
20/9/2006	5:30	18:30
21/9/2006	6:21	18:58
22/9/2006	7:12	19:25
23/9/2006	8:02	19:53
24/9/2006	8:54	20:22
25/9/2006	9:47	20:54
26/9/2006	10:43	21:31
27/9/2006	11:41	22:13
28/9/2006	12:40	23:02
29/9/2006	13:39	23:58
30/9/2006	14:35	—
1/10/2006	15:26	1:00
2/10/2006	16:12	2:06
3/10/2006	16:54	3:13
4/10/2006	17:33	4:20
5/10/2006	18:09	5:26
6/10/2006	18:46	6:33
7/10/2006	19:24	7:40
8/10/2006	20:05	8:48
9/10/2006	20:51	9:58
10/10/2006	21:42	11:07
11/10/2006	22:38	12:13
12/10/2006	23:37	13:13
13/10/2006	—	14:06
14/10/2006	0:37	14:51

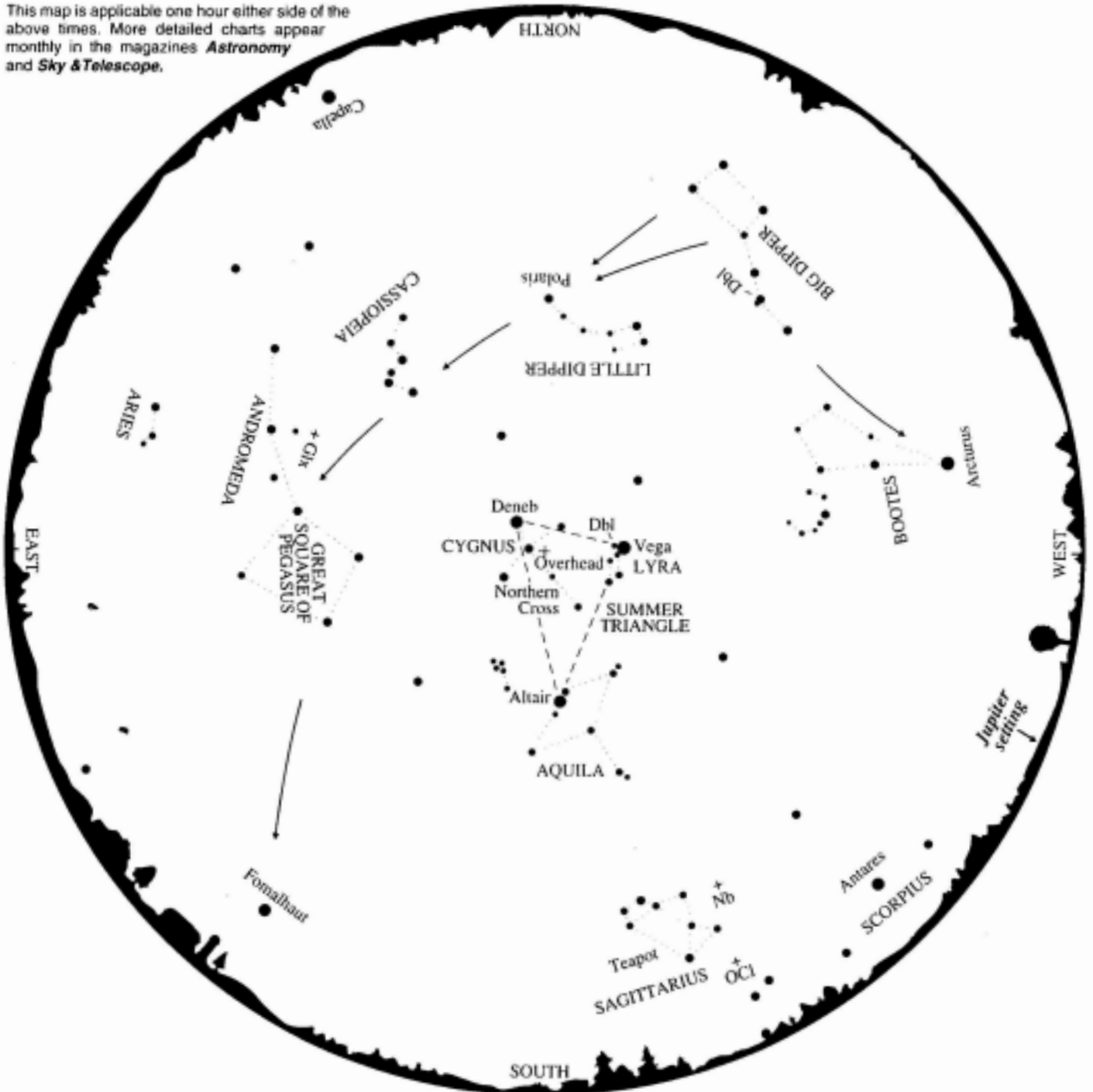
September Evening Skies

This chart is drawn for latitude 40° north, but should be useful to stargazers throughout the continental United States. It represents the sky at the following local daylight saving times:

Late August	11 p.m.
Early September	10 p.m.
Late September	9 p.m.

© 2006 Abrams Planetarium
Subscription: \$11.00 per year, from *Sky Calendar*, Abrams Planetarium, Michigan State University, East Lansing, MI 48824-1324.

This map is applicable one hour either side of the above times. More detailed charts appear monthly in the magazines *Astronomy* and *Sky & Telescope*.



No planets are above the horizon at map time. Seven objects of first magnitude or brighter are visible. In order of brightness they are: Arcturus, Vega, Capella, Altair, Antares, Fomalhaut, and Deneb. In addition to stars, other objects that should be visible to the unaided eye are labeled on the map. The double star (Dbl) at the bend of the handle of the Big Dipper is easily detected. Much more difficult is the double star near Vega in Lyra. An open

or galactic cluster (OCl) located below Sagittarius, low in the south-southwest, will challenge the unaided eye. Nearby, marked (Nb) above the "spout" of the "Teapot," is the Lagoon Nebula, a cloud of gas and dust out of which stars are forming. The position of an external star system, called the Andromeda Galaxy after the constellation in which it appears, is also indicated (Glx). Try to observe these objects with unaided eye and binoculars.

—D. David Batch

ANNUAL PERSEID METEOR WATCH

-Barb Yager

Saturday, August 12th, minimal haze and few puffy clouds sparked with lightening near the horizons never interfered with our ANNUAL SCAS PERSEID METEOR WATCH at Bill Sadowski Park. Hi-tech equipment, arranged by our loyal SCAS Saturday Nite Live Team: impressive 'scopes operated by Steve & Vicki Van Ryn, Sergio Figuera, Ximena Maureira, Nick Stingone & his 10" Meade, Ashley Stevens & his 5" Meade refractor and laptop that 'tracks everything in the sky', a new C-8" with student Armon Ahmadi, his sister, and his Dad-a Hialeah police officer, our SCAS 18" Dob with Russ Harcha, Mike Smith and his C-11 ensemble on the lawn, and my reliable 11 x 80s on the deck to show southern star clusters and a spectacular late-rising Moon. The SCAS telescope deck soon overflowed with more than 100 excited visitors, a group of delightful teenagers from His Home facility that cares for abused and abandoned youngsters, and a Palmetto Bay police officer who routinely checks the park security! A few bright Perseids were seen by those sprawled on blankets across the lawn and concrete deck prior to Moonrise. We locked the park gate by 12:30 a.m.

SPACE NEWS

PROJECT ORION-

Thirty-seven years ago, Project Apollo delivered the first humans onto the surface of the Moon. The next time NASA launches its astronauts to Earth's natural satellite, they will be part of PROJECT ORION.

NASA would launch a crew of four astronauts aboard ORION capsules-first into Earth orbit-onto the International Space Station- and later arrive on the Moon! Two teams: one led by Lockheed-Martin, and the other would be a joint effort by Northrop-Grumman & Boeing Co. They are currently competing to build the CEV (Crew Exploration Vehicle). NASA plans to announce the winner in September.

Last summer, NASA announced that its crew launch vehicle which would lift the CEV into space would be named Ares-1. Later a larger booster to haul cargo or a future Moon Lander, would be named Ares-5.

The name of the CEV will be announced at a later date after the completion of a legal process related to federal trademarks.

R.Z. Pearlman, SPACE.com

PERPLEXITY OF PLUTO

The International Astronomical Union (IAU) was established in 1919-a collection of noted astronomers from around the world who would discuss, decide, vote, on matters of astronomy. Every three years the IAU holds a General Assembly to pass resolutions re: naming of newly discovered

heavenly objects and a myriad of astronomy-related topics. The 26th GA was held in Prague, Czech Republic, August 14-25th which attracted 2500 professional astronomers-including our Honorary SCAS member and Chairman of the FIU Dept. of Physics-Dr. Walter van Hamme.

The "hot issue" of last month's assembly was the final decision of Pluto's status. TV News cameras from around the world were attracted to the GA like moths to a very bright light. The end result: Pluto has been renamed as a 'dwarf' planet! Both the 'classical' planet and dwarf planet: 1./ orbit the Sun, maintain its nearly round shape-BUT the 'classical' planet clears its neighborhood around its orbit and the 'dwarf' (now in the new 'trans-Neptunian' category) does not clear its neighborhood.

ED NOTE: It seems that the "brains" in the GA could have designated two sub-categories: classical and dwarf-therefore Pluto would have retained its same planet status, but it was finally voted down. A demotion? I believe so. Not only will books have to be changed, but it's a blow to Clyde Tombaugh who discovered Pluto in 1930, using incredibly advanced equipment, glass photo plates, etc., of his era. Now hi-tech equipment is constantly finding new extrasolar systems, asteroids, etc., that could easily fall into the "dwarf" category. Vote on the Pluto Petition! The next IAU GA will meet in Rio de Janeiro, Brazil in 2009.

PLUTO PETITION - Do you want to voice your opinion on whether Pluto should remain a planet? Send your opinion and sign the petition.

<http://plutopetition.com>

FIU PUBLIC PROGRAMS

Fall Semester

-Dr. Jim Webb

All events take place in the FIU Physics Building, SW 109 Ave/SW 8 St., University Park

SEPTEMBER 8th- * ANNUAL FIU STAR PARTY*
FIU astronomers welcome all students, faculty and public to their telescope deck near the Physics Building where hi-tech equipment will be focused on the Autumn constellations, the closest full Moon of 2006 and on the International Space Station cruising NW to SE at 8:15 pm almost overhead for 3 minutes. Refreshments and guitar folk music will be on the agenda. If weather disrupts our Star Party, the event will move into CP-145. Southern Cross Astros will also assist at our popular special event.

SEPTEMBER 29th- NOTABLE PRIESTS CONTRIBUTION TO ASTRONOMY
Lecture by Francisco Mueller, FIU Dept. of Physics, describing the historic line of priests who made great contributions to astronomy.

OCTOBER 13th- FAMOUS WOMEN IN ASTRONOMY

Dr. Caroline Simpson, FIU astronomer, illustrates her popular lecture that features several fascinating women throughout history who made a definite impact in astronomy.

NOVEMBER 3rd- MAYAN ASTRONOMY

Dr. James R. Webb, FIU research astronomer, will reveal their intricate Venus Calendar, circular observatories and temples in the midst of dense jungles, superstitions and their planting timetable governed by the Pleiades.

DECEMBER 1st- FIU WINTER STAR PARTY

Celebrate the end of the semester with FIU & SCAS astronomers at the telescope deck near the Physics Building, University Park. Music, refreshments and fun under the stars and bright Moon with hi-tech equipment aimed at the brilliant winter skies.

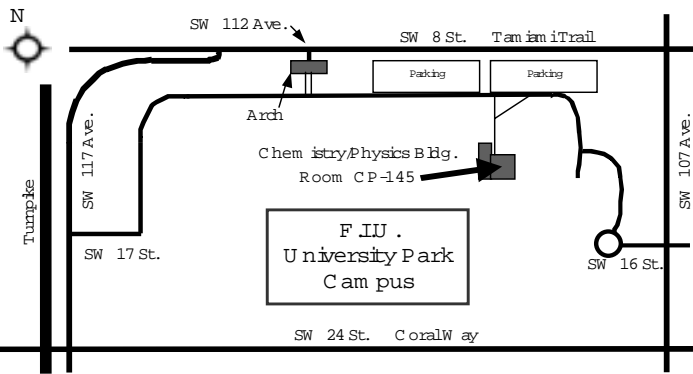
FIU events are FREE. Ample parking in the campus lot SW 109th Ave./SW 8th St
Call FIU: 305-348-3964 or webbj@fiu.edu

FKAC HOMESCHOOLERS

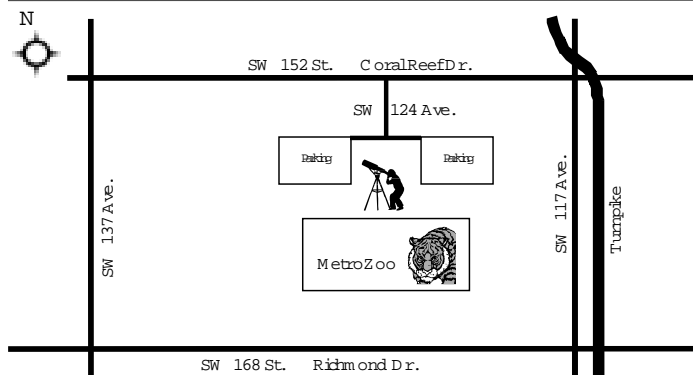
-George Tegzes, President
Florida Keys Astro. Club

We had a wonderful club meeting last Friday, August 25th. Our usual observing session at Bahia Honda State Park was for the early evening with an astronomy class for eight Home School kids and their parents. Our FKAC members volunteered to aid the Home School scholars as part of a larger program started there at the park for educational outreach. They were ages between 6 and 11 yrs. old, and mighty curious and bright. We gave them a laser tour of the sky while concentrating on giving them the fundamentals needed to understand what they were observing. There were three telescopes showing the planets: Jupiter, Neptune and a view of where Pluto is to give them a perspective on the Solar system. They stayed for about two hours and were able to see and learn at their pace, asking lots of good questions and patiently listening to answers. These students like to learn so it is fun to teach them. One of the youngest fell asleep in my lounge chair for the second half of the night, but it was way past her bedtime. I like to emphasize to young people that every generation is faced with the same wonder-and the same problem of understanding the heavens. One of the most interesting parts of astronomy is seeing how they choose to deal with this universal puzzle. We can do a daytime program on the Sun at the park for them sometime soon. FKAC Astros John Cunningham, Ron Poller, Tony Casserley and I were there with John's 10" SCT, the FKAC 4" refractor and Tony's 4.5" reflector. After the kids left, we had clear skies 'til midnight. All in all-a great night!

SCAS General Meetings - Third Friday of every Month



Saturday Solar Viewing - 10am - 12noon

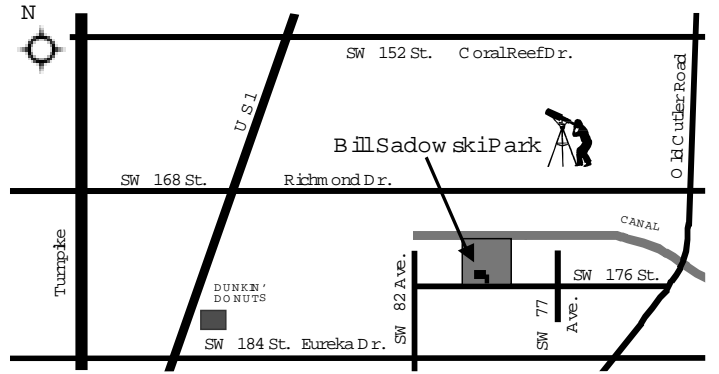


Southern Cross Astronomical Society, Inc.
 c/o 10221 SW 116 Avenue
 Miami, FL 33176
 A 501(c)(3) Non-Profit Organization
 Address corrections requested



SCAS is a member of
 The Astronomical League and
 The International Dark Sky Association

SCAS Star Gazing - Every Saturday Night 8-10pm



For SCAS/NASA News Call
 the 24-Hour HOTLINE:

305-661-1375

Or Visit the NEW SCAS website:

<http://www.scas.org>

SCAS annual dues: \$25 adults/\$10 full-time students