

SCAS COAL SACK

EDUCATING SOUTH FLORIDA SINCE 1922

FEBRUARY 2007

A CAREER IN ASTRONOMY

February Public Program

FRIDAY, FEBRUARY 23rd, 8 pm, by popular request, our close friend DR. JAMES WEBB, FIU research astronomer and SCAS Honorary member, will present his superb in-depth lecture: A CAREER IN ASTRONOMY. This is a great opportunity for all level of science students!

He will guide you through the "hoops" of requirements that could lead you to a successful career in astronomy, or its related categories, and the necessary basics that begin with earning top grades in specific high school subjects, selection of college and grad school courses, how to qualify for science projects and advanced high school science programs offered by local universities and how to apply for employment with proper credentials.

In the 21st century, very hi-tech telescopes and computers have opened doors to a greater variety of astronomy-related careers such as: tracking asteroid impacts, comet-chasing,

planetary geology/meteorology, radio astronomy, solar research, science writer/imager, astro-physicist, space engineering, etc. Several agencies, corporations, industries, and media-publications rely on staff with an education in astronomy. An engineering degree could lead you to a wide variety of exciting departments with JPL (Jet Propulsion Lab) in Pasadena, CA—the major source of space exploration. NASA has facilities at Kennedy Space Center, Florida—California and Huntsville, Alabama. Research astronomers working at professional observatories (more are under construction worldwide) are on time and budget limitations. Years ago, SCAS

amateur astronomers Dr. Don Parker and Jeff Beish were invited to send their planetary images and data regularly to the late Carl Sagan at Cornell University, Ithaca, NY.

DR. WEBB, popular FIU professor, was the 'generator' to establish the S.A.R.A. 0.9 telescope/CCD camera at the Kitt Peak National Observatory, Tucson, AZ remotely controlled from the FIU Physics Dept. for research, along with Dr. Terry Oswalt, founder of the S.A.R.A. Consortium, that now includes 10 universities in eastern U.S. Currently, DR. WEBB is also pushing for a student observatory constructed at University Park.

Meet our Science Fair winner Carlos Espina, junior division, 6th grader from Belen!

Follow your dreams! Come to the FREE SCAS astronomy program, Friday 23rd, in the FIU Astronomy Center, Physics Bldg., CP-145, NE area of University Park. Enjoy a food buffet, lively Q & A with the "pros", prizes and a SkyWatch if weather permits! Use the campus parking lot opposite the Chem-Physics Bldg., SW 109th Ave./SW 8th Street. Call SCAS Hotline: 305-661-1375 or www.scas.org



Guest speaker Dr. Terry Oswalt, Chair of Physics/Space Science, Florida Institute of Technology (left) congratulates FIU Physics senior Diane Alvarez, SCAS Astronomy Scholarship recipient with Prof. James R. Webb, FIU astronomer and SCAS President, Lester Shalloway, M.D. (right) at the SCAS public program at FIU, January 19th.

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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

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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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Check the larger SCAS STARGAZER now in the Thursday Miami Herald's Tropical Life section, by Barb Yager, now in its 23rd year!

CLASSIFIED

NEW SUPER SALE!

20" f/5 custom-built Dob with lots of bells and whistles, including Go-To and its own enclosed utility trailer. \$10,000. doo. It will be on display and can be picked up at the Winter Star Party. Contact Charles Perillo for details, photos or to check it out. cperillo@bellsouth.net 954-816-3654.

SUPER SALE!

8" Meade LX200 telescope. Excellent condition. For details call Jose: 305-951-2912.

10 ft/ DOME FOR SALE

A 10 ft. Technical Innovations fiberglass dome in excellent condition, with 2 motors, control system, computer with Sky6 and Dome control software included. Base ring to mount onto any flat surface. (about \$10,000. new) ONLY \$2500. mikepalemiti@bellsouth.net

THE ART OF COLLECTING METEORITES

A fantastic chronology based on true adventures by author Kevin Kuchinka, Ft. Myers, FL. His travels, friendships and search for specific rare meteorites in South America, advice for collecting and preserving the precious items and fraud prevention with dealers is crucial information to a meteorite hunter/collector. For only \$10. the 200 pg. journal contains ___ color photos to help you, or a friend, begin a new hobby. Great gift suggestion! Order now: SCAS HotLine: 305-661-1375.

2007 WINTER STAR PARTY TICKET NEEDED

I need a Winter Star Party ticket! Please contact SCAS member Jose M. Cardozo, Miami, FL 786-301-7461 ASAP!

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

MEMBERS IN THE NEWS

DR. DON PARKER, world-renowned planetary astro-imager, has his stunning image of the Mercury Transit the Sun, November 8th, 2006 featured on P. 105 of February 2007 Sky & Telescope magazine. DON'S image was featured in your November 2006 Coal Sack!....LEE BALTIM, former nationally-known underwater photographer in his younger years, was recently voted as a Director Emeritus of the Board of Trustees for the N.Y. Amateur Astronomy Assoc. LEE had been instrumental organizing the NY group when it began about 40 years ago with only a few members. Now the NYA A A membership totals about 300 with Star Parties in a park on the East River and in Queens, and meetings in a Park Ave. church. The Baltin's divided the seasons between their condos in Manhattan and Key Biscayne. LEE was active with NYA A A until 2005 when they sold their NY cond. He enjoys courses in Anthropology, Medieval History and Filming at the University of Miami, while his wife Sylvia continues her volunteer work at Fairchild Garden...former SCAS Historian RIC BABCOCK and wife GAIL, now residing in Salinas, CA, were in Miami when RIC raced in the Miami Marathon Sunday 1/28th. The race began at 6 a.m. followed by a 2-hr. heavy rain and temps into low 70s. RIC reported, "my wife Gail did the 'half' and everyone's pace was slowed by their heavy wet running shoes. But I did finish my 31st Marathon!"....JIM ROSE recently spent a brief time in Homestead Hospital after being diagnosed with 'early pneumonia'.... NICK STINGONE & Family drove to Sanford, FL to check on his brother's property damage after fierce tornados ravaged central Florida last week.

UPCOMING EVENTS

Weather permitting!!

WEDNESDAY, 14th- VALENTINE'S NIGHT JAZZ CONCERT at DEERING- SCAS Astros will arrange hi-tech equipment by the edge of the lagoon, Deering Estate at Cutler, east end of SW 168th St. focused on winter constellations and silver-ringed Saturn hanging above Biscayne Bay. Bright Venus shines in the west early evening. Bring picnic, chairs, blanket and bug cream to enjoy piano jazz artist 7- 10 pm. Call: 305-235-1668.

THURSDAY, MARCH 1st- 6-9 pm (re-scheduled) MOONLIGHT TOUR, Fairchild Garden, 10901 Old Cutler Road. SCAS Astros will have telescopes near the Garden House up on the ridge to enjoy a bright full Moon and dazzling winter constellations. See the lighted, spectacular, colorful, Chihuly glass sculptures sprouting throughout the botanical garden and floating on the pools. Call: 305-667-1651.

SATURDAY, MARCH 3rd- TOTAL LUNAR ECLIPSE, 6 pm, rising above the eastern horizon. SCAS Astros and members of the AeroModelers of Perrine will convene by 6 pm at the AMPS field, S W 168th St. 1/2 mile west of Krone Ave. FREE

admission. Snacks will be sold at a moderate price, ample parking away from the restricted observing site. A great Family Af fair if weather cooperates! SADOWSKI PARK will close its normal evening celestial program Saturday, March 3rd ONLY! Call: 305-661-1375.

FRIDAY, 9th- ACOUSTICAL ASTRONOMY, FIU Astronomy Center, 8 pm when Drs. James W. Webb, FIU research astronomer and Fiorella Firenzi, astrophysicist and college instructor in Brevard County illustrate the harmonious combination of music & astronomy. Call FIU Dept. of Physics: 305-348-3964.

FRIDAY, 16th- Free SCAS Public Program at FIU, 8 pm, FIU Astronomy Center, CP-145, Physics Bldg., University Park. SCAS Past President Scott Ireland, renowned astro-imager/author/lecturer will present: HOW TO ORCHESTRATE A PERFECT ASTROPHOTOGRAPH!

FRIDAY 30th- FIU LECTURE SERIES features Dr. James W. Webb presenting an evening of spectacular ASTRONOMY IMAGES of the UNIVERSE! FIU Astronomy Center, CP-145.

FEBRUARY ALMANAC AT A GLANCE

Full 'Wolf' Moon Friday 2nd 12:45a.m.
 Last Quarter Moon Saturday 10th 4:51a.m.
 New Moon Saturday 17th 11:14a.m.
 First Quarter Moon Saturday 24th 2:56a.m.

EVENING SKIES-

At sunset, brilliant Venus shines at -4.0 magnitude in the west in Aquarius, and sets about 8 p.m. Silver-ringed Saturn glows in Leo the Lion rising in the east.

4th- Outer planet, dim blue-green Uranus, at 5.9 magnitude, lies about 1 degree above Venus. Mercury shimmers to the lower right of Venus.

7th- Mercury reaches highest elevation, below Venus in the west. Uranus lies closest to right side of Venus by 1/2 degree.

9-17th- Asteroid 7 Iris cruises near the southern edge of the Pleiades star cluster overhead

(Check this out for imaging during the WSP)

10th- Saturn rises in the east at sunset, shines brightest opposite the Sun. Visible all night, surrounded by 5 of its Moons about 762 million miles from Earth. Titan and Iapetus lie further west from the planet. Saturn sets in the west at dawn.

12th- Mercury descends to 10 degrees above the western horizon, and out of sight by 20th.

The Seven Sisters (Pleiades star cluster) lead brilliant winter constellations overhead: Taurus the Bull, Aldebaran in the Hyades cluster, Gemini Twins: Castor & Pollux, NE and Orion, Hunter, in the east followed by his Big Dog in SE with blazing blue Sirius. Bright Capella guides Auriga, Charioteer, across the north. Cassiopeia and Andromeda swing into the NW. The Great Square of Pegasus sets on the western horizon. By mid-evening, the Big Dipper rises in NE, its bowl faces Polaris, North Star.

The Little Dipper's handle is attached to Polaris.

19th- Young Moon floats above Venus in the west.

23rd- Moon nudges the Pleiades.

27th- Moon floats below the Gemini Twins, left of the dim Beehive star cluster in Cancer.

Zodiacal Light may be visible. A translucent pyramid of dim reflected sunlight rising above the western horizon an hour after nightfall.

MORNING SKIES

Golden Jupiter at -1.9 magnitude in Ophiucus, rises about 3:30 a.m. to the left of bright Antares (red heart) in huge Scorpius in SE.

Dim Mars rises before 6 a.m. to the left of the Sagittarian Teapot that follows Scorpius.

In the NE, Vega leads the Summer Triangle toward the Zenith. The Big Dipper swings into the NW. Bright Arcturus, Herdsman, sparkles overhead. Spica, in Virgo, lies in the SW. The stars of Libra drift across the south. Saturn sets in the west at dawn

10th- Waning Moon leads Scorpius into the south.

11th- Moon lines up with Antares (middle) and Jupiter (left).

13th- Moon perches on the 'spout' of the Sagittarian Teapot in SE. Dim Pluto lies above Jupiter.

18th- In 1930 Pluto was discovered.

23rd- In 1987 Supernova 1987A exploded.

March 3rd- At sunset, the full Moon rises in total eclipse in the east.

Moon Set/Rise Table for FEB/MAR

Date (m/d)	Moon Rise	Moon Set
15/2/2007	5:30	16:14
16/2/2007	6:16	17:22
17/2/2007	6:58	18:29
18/2/2007	7:36	19:35
19/2/2007	8:12	20:40
20/2/2007	8:47	21:46
21/2/2007	9:24	22:51
22/2/2007	10:04	23:58
23/2/2007	10:49	—
24/2/2007	11:38	1:05
25/2/2007	12:33	2:09
26/2/2007	13:33	3:08
27/2/2007	14:34	4:01
28/2/2007	15:34	4:47
1/3/2007	16:32	5:26
2/3/2007	17:27	6:01
3/3/2007	18:20	6:32
4/3/2007	19:11	7:00
5/3/2007	20:02	7:28
6/3/2007	20:52	7:55
7/3/2007	21:45	8:24
8/3/2007	22:38	8:55
9/3/2007	23:34	9:30
10/3/2007	—	10:10
11/3/2007	0:32	10:56
12/3/2007	1:29	11:49
13/3/2007	2:25	12:49
14/3/2007	3:17	13:52

February Evening Skies

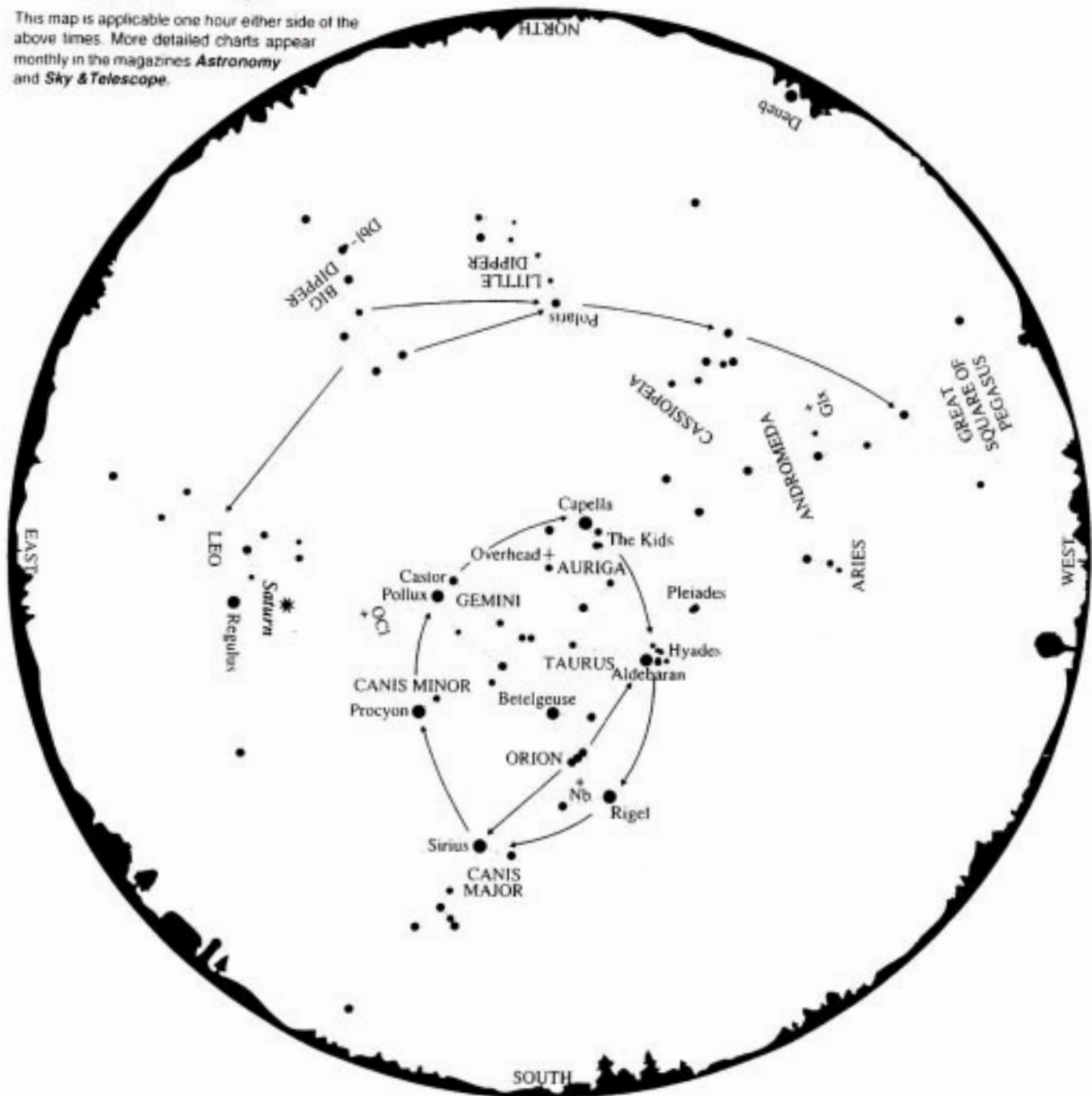
This chart is drawn for latitude 40° north, but should be useful to stargazers throughout the continental United States. It represents the sky at the following local standard times:

Late January	10 p.m.
Early February	9 p.m.
Late February	8 p.m.
Early March	7 p.m.

© 2007 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*.



The planet Saturn is plotted for mid-February 2007. At chart time 10 objects of first magnitude or brighter are visible. In order of brightness they are: Sirius, Saturn, Capella, Rigel, Procyon, Betelgeuse, Aldebaran, Pollux, Deneb and Regulus. 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. The famous Orion Nebula, a cloud

of gas and dust out of which stars are forming, is marked (Nb) in that constellation. The open or galactic star cluster (OCI) known as the "Beehive" can be located between the Gemini twins and Leo. 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

FUTURE OF SADOWSKI PARK

-Barb Yager

Miami-Dade County Parks Dept. held a public meeting at the Deering Visitors Center, SW 168th Street, Wednesday evening January 31st. About eighty residents of the Old Cutler neighborhood filled the auditorium to hear an update of the Wetlands Restoration project...a 1-acre shallow pond between the C-100 canal and our SCAS telescope deck in Sadowski Park. Katy Sorenson, Commissioner of District 8, opened the program as each rep from the Parks Dept. presented a dvd segment of the project. Civil Engineer Ed Swakon, Joe McGuire Director of Natural Areas Management, Vivian Donnell-Rodriguez Director of Parks Dept. followed by Andy Newman and Sue Bonner, whose properties border the park, serve on the Watchdog Committee, and Palmetto Bay Mayor Ed Flim who is not sold on this idea. Topics covered mosquito control, salinity %, weed control, 19" water table, dredging out muck and carving out some of the limestone ledge, to legal contracts for maintenance.

Finally I was allowed to speak. First— I asked how many folks had visited us on a Saturday evening? (several hands went up) I invited everyone to come to Sadowski Park on a clear Saturday evening (a rarity

this winter) to enjoy the brilliant winter stars and planets through hi-tech equipment and our largest telescope in the County for public use! Second—I stated that SCAS is beginning its 21st year educating thousands of visitors yearly at our popular observation site to teach them about the seasonal skies. Third— I reported that since the Parks Dept. had plowed the "jungle" between our observation deck and the canal, we are battling strong light trespass streaming from the houses beyond the canal. Fourth—I asked the Park reps how they could help us block the light interference; would they provide fill so our deck may be extended 10 ft. north; SCAS and the Parks Dept. could work together to make these improvements, as we both have done so successfully in the past.

I was quite surprised that Vivian suggested a future meeting with SCAS to discuss installing another wooden fence along the north side of the deck, and more improvements. Joe McGuire and Jack Kardys, Parks Asst. Director of Operations, assured me they will assist SCAS at various stages throughout the Wetlands project. The positive reactions from everyone felt like a "shot of B-12"! Staytuned.....

SADOWSKI PARK UPDATE:

February 7th- The Palmetto Bay Village Council passed a resolution 4-1 Monday evening 2/05th, requesting Miami-Dade develop a maintenance plan for a proposed wetland project at Bill Sadowski Park & Nature Center, SW 176th St/SW 79th Ave. This resolution also asks the county to restore the 1-acre plowed tract back to its original state (minus invasive species) if the Wetlands project is not completed, fails, or becomes too expensive. This resolution evolved out of the January 31st public meeting at Deering where Katy Sorenson, Commissioner of District 8, suggested the Village Council be the authority to help decide if the proposed Wetlands project should continue or not. Ed Note: The popular SCAS outdoor Observatory is located less than 8 ft. from the southern edge of the proposed "swamp".

Palmetto Bay e-News 2/07/07

FLORIDA KEYS ASTRONOMY CLUB

George Tegzes, President

Public celestial observing is scheduled at Bahia Honda State Park, February 9th, March 9 & 10, 16 & 17th, hosted by FKAC members. The 12.5 Dob telescope, donated by Selwyn Malin who moved to NYC recently, is a regular feature at the club's star parties. SCAS/FKAC member Dr. David Hoeschen, retired radio astronomer, schedules safe solar viewing to show sun spots and solar prominences using professional solar filters. These exciting live programs are held Wednesdays at Crane Point Hammock, Marathon, 10:30 a.m.-12:30 p.m. and some evening programs. For schedules, directions call George: 305-872-9848; Ron &

JANUARY EVENTS

January weather had been unpredictable, as several reliable weather sources were caught off guard and forecasts were pretty inaccurate on radio, TV and computer. Most of our Saturday evenings at Sadowski Park have been cloudy or cancelled this winter.

FAIRCHILD GARDEN MOONLIGHT TOUR-
Wednesday, January 3rd several SCAS Astros were ready and set to arrive at the Garden gate when heavy clouds threatened by mid-afternoon and forced our cancelled appearance. By 8 pm, the clouds cleared to show a beautiful, bright full Moon the rest of the evening!

FIU WELCOME BACK STAR PARTY-
Friday 12th, dozens of visitors attended the FIU event, hosted by our good friend and SCAS Honorary member, Dr. James Webb, FIU astronomer. Due to cloudy skies and a light mist, the event was brought into the FIU Astronomy Center, CP-145, for refreshments, a great astronomy program and guitar music by popular Prof. Webb.

SCIENCE FAIR/STAR PARTY-
Tuesday 23rd, SCAS Astros were ready to arrive at the St. Louis Covenant Church-School in Pinecrest for a Star Party following their day-long science fair. Again, dark clouds arrived to make SCAS move the event to their alternate date 30th, as once again, the sky cleared by 8 pm and a bright Moon was shining overhead the 23rd! We returned on the 30th to find the sky mostly cloud-covered with a full Moon playing hide & seek! About 75 kids were thrilled with their first views of the full Moon. Several parents and teachers were quite impressed with our hi-tech equipment. We were invited to return in the Spring.

ANNUAL TROPICAL STAR PARTY-
Friday, 26th- 14 SCAS Astros lined up hi-tech equipment at Bayside of Bill Baggs State Park near the Key Biscayne Lighthouse. A lovely evening with a gentle sea breeze kept any bugs away. A beautiful fiery sunset revealed a small green spot on the top limb. Above the Coconut Grove skyline, brilliant Venus glowed with Mercury and Uranus nearby. Saturn climbed higher in the east by mid-evening. Winter constellations sparkled overhead. Despite lots of advertising, a small group of visitors thoroughly enjoyed our Star Party.

SPACE NEWS

POLAR TALES-

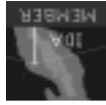
Congratulations on the 50th Anniversary of the International Geophysical Year (IGY) as global scientists declare 2007 to be the International Heliophysical Year (IHY) dedicated to study the Sun, its interactions with Earth and receive reports from the Ulysses spacecraft on its flyby 2 AU above the solar south pole at 80 degrees South—February 7th. Ulysses makes its South Polar pass November 2006–April 2007, reaches perihelion August 2007, and makes its North Polar pass November 2007–March 2008. Since most of the solar space crafts are above the solar equator, not permitting a complete view of the polar areas, NASA and ESA combined to send Ulysses to explore the solar north and south poles. The spacecraft is now getting slapped by a hot, million mph stream of protons and electrons from the solar south pole. Arik Posner, NASA physicist and lead scientist for the Ulysses Program explains "The Sun reverses its poles about every 11 years, in synch with the sun spot cycle. The same event occurs every 300,000 years on Earth, in synch with....what?? By studying solar magnetic poles this project may give us some clues about our Earth's magnetic field, and the reason for temperature differences on Sun's North & South poles. Scienc@NASA 2/07/07



M45 (The Pleiades) Photo by Steve Van Ryn with Celestron C11 and Canon Rebel. From Camp Wesumpke.

SAVE SCAS MONEY! GO PDF

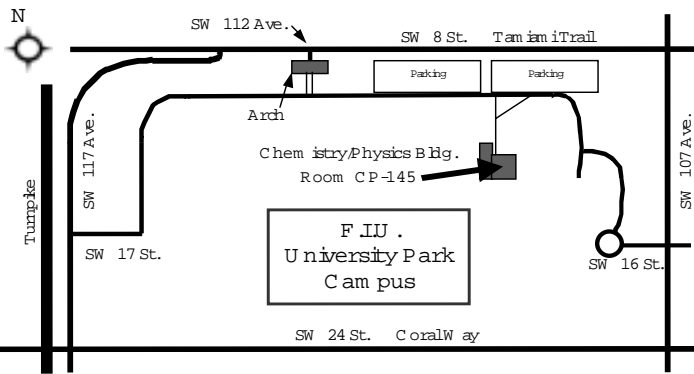
SCAS is a member of
The Astronomical League and
The International Dark Sky Association



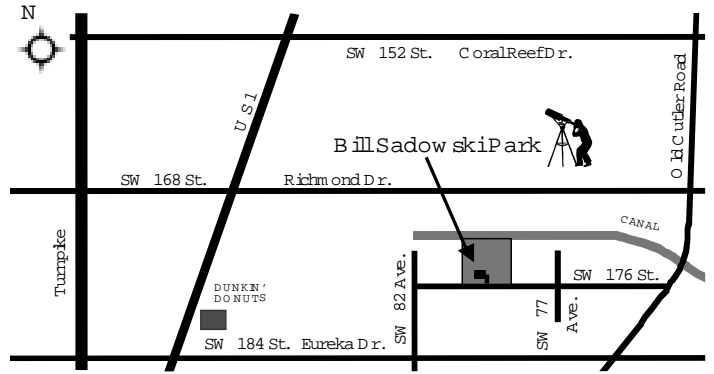
Address connections requested
A 501c(3) Non-Profit Organization
Miami, FL 33176
c/o 10221 SW 116 Avenue
Southern Cross Astronomical Society, Inc.



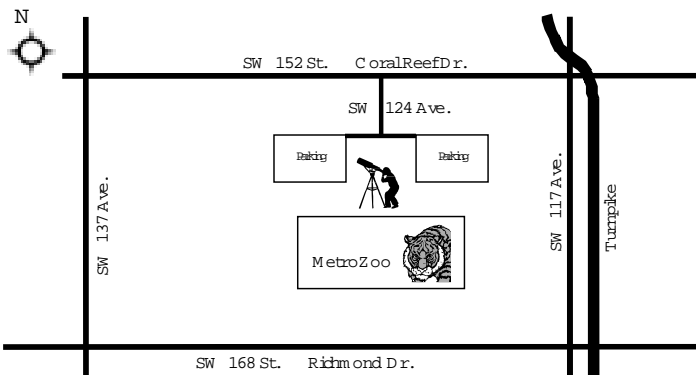
SCAS General Meetings - Third Friday of every Month



SCAS Star Gazing - Every Saturday Night 8-10pm



Saturday Solar Viewing - 10am - 12noon



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Or Visit the NEW SCAS website:

<http://www.scas.org>

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