



COAL SACK

EDUCATING SOUTH FLORIDA SINCE 1922

APRIL 2007

READY FOR ASTRONOMY?

April Public Program

Come to the FIU Astronomy Center, CP-145, Physics Building, University Park by 8 pm, FRIDAY, APRIL 20th, to meet our dear friend of many years, DR. MIKE PALERMITTI from Jupiter, FL, renowned astronomer, instructor, telescope and software designer, and "repairman" of major telescopes and equipment in professional observatories, consultant for government and space agencies. He teaches students from neighboring colleges at his impressive home observatory-workshop. A "forest of telescopes" sprouts from his property. MIKE will guide you to the best deals and what to avoid in equipment, show you the economical path to enhance your telescope, and what to look for BEFORE you purchase! He will discuss reliable filters, quality economical eye-pieces, cameras, software and the latest items to share with you. Binoculars are perfect to capture phases of the Moon, comets and entire star clusters. Whether a novice or advanced astronomer, take this great opportunity to learn from a "pro" and bring your questions to our friendly, energetic speaker DR. MIKE PALERMITTI who will guide you to GET READY FOR ASTRONOMY!

System,---not to mention mysterious Omega Centauri (famous globular cluster) shimmering in the south. Vega in the Summer Triangle, Antares in Scorpius and a myriad of deep-sky objects beckon you to sky-scan across the delightful Spring skies. The purpose is to absorb and enjoy as much of the beautiful 'celestial feast' before we suddenly get hit with storms, high humidity, heavy rains... soon followed by bloodthirsty mosquitoes.

Our free SCAS astronomy programs include a food buffet, prizes, lively discussions and a rare opportunity to meet our distinguished speakers who cover many aspects of astronomy. Park in the campus lot, SW 109th Avenue/SW 8th Street directly opposite the FIU Physics Building. SCAS plans summer workshops in June and August at Bill Sadowski Park, SW 176th St./SW 79th Avenue, and assist FIU at their Annual July Key West Fest, CP-145. The fall SCAS lectures may include: Voice of Jupiter, NASA program & Visit from Mars. Check our programs and events: SCAS STARGAZER in the Sunday Miami Herald, Tropical Life, SCAS Hotline: 305-661-1375 or www.scas.org

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Can you focus on THREE evening planets visible during May and June? Bright Venus, silver-ringed Saturn and Jupiter, surrounded by its Moon



View of Saturn from Astronomy Picture of the Day.

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

CLASSIFIED

SHOW YOUR SCAS PRIDE!

Stunning royal blue polo shirts, with pocket, white printing front and back, are available in sizes S- 2XL for only \$10. Show your SCAS pride at our special events, programs, school, civic meetings and in public! Promoting SCAS is easy, effortless, economical and effective!
Leave your name, phone and sizes on the SCAS Hotline: 305-661-1375.

SPECTACULAR SALE !

10" Meade LX200GPS -- 8 Eye-piece Set and More! Rarely used and in fine condition. Modifications include Bob's Knobs (for easy collimation), Meade Variable Polarizing Eyepiece (lunar views) and Ultra-High Transmission Coatings. Includes 8 Meade Series 4000 Super Plossl eyepieces: 6.4, 9.7, 12.4, 15.0, 20.0, 26.0, 32.0 & 40.0 mm with metallic carrying case. Optical tube is 11.75" x 22" and weighs 90 lbs. Tripod - 26 lbs. Asking \$2,000. OBO. For information, photos, inspect the telescope, email: luis.lebolo@fiu.edu/call: 305-807-4163, Cutler Ridge, FL.

THE ART OF COLLECTING METEORITES

Meteor Shower Season is on the horizon! Here's 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 meteorites, and fraud prevention with dealers/advertisers—crucial advice to a meteorite hunter/collector. The 200-pg. book, with color photos, will help you, or a friend, begin a new hobby. Great gift suggestion!! Order now at only \$10. Leave your request SCAS Hotline: 305-661-1375.

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

SCAS - FIU APRIL EVENTS

-Dr. J. R. Webb, FIU

FIU-

Friday 13th - Celebrate the end of the FIU semester with a SPRING STAR PARTY with FIU astronomers. Come to the FIU telescope deck, 8-11 pm, near the Physics Building, University Park. Check out stars and planets in hi-tech equipment, enjoy FREE food, music and fun under the Spring skies. Park in the campus lot, S W 109th Ave./SW 8th St. opposite the FIU Chemistry-Physics Bldg. and telescope deck. Call FIU: 305-348-3964.

SCAS-

Friday 13th - Southern Cross Astros will have hi-tech equipment arranged at the public REDLANDS STAR PARTY, 8-10 pm, hosted by non-profit MIAMI YOUTH FOR CHRIST at 23600 SW 162nd Ave. \$15./adult. Kids are free, if accompanied by their 2 parents. 786-243-1600.

NATIONAL ASTRONOMY DAY

SCAS-Saturday 21st- Southern Cross members will celebrate National Astronomy Day at the Miami Museum of Science, 3280 S.Miami Ave. 11 a.m.-4 p.m. See the powerful action exploding off the Sun LIVE and safely in professional equipment, outdoors, in front of the Museum. 3 tables stacked with educational material from NASA, JPL, IDA, and SCAS in the Museum Lobby and SCAS presentation in the auditorium. Check our exhibit of serious equipment and awesome astro photos taken by our talented SCAS Astros. Weather permitting, SCAS Saturday Nite Live Astros will arrange hi-tech equipment at

Bill Sadowski Park, 8-10 p.m. SW 176 St./SW 79 Ave. under darkest skies nearest to downtown. Bring family and friends to National Astronomy Day & Night! FREE. Call: 305-661-1375.

~PRIDE KICKOFF~

SCAS-Saturday 21st- 10 a.m. - 3 p.m. Southern Cross Astros have been invited to join several conservation and environmental organizations for a Family Fun Fest at the Pride Kickoff, hosted by all Team Metro Offices, at Larry & Penny Thompson Park, SW 184th Street. Exhibits will be set up in Shelter # 2 of the main driveway entrance. Call: 305-661-1375.

Moon Set/Rise Table for APR / MAY

Date (m/d)	Moon Rise	Moon Set
15/4/2007	5:32	18:00
16/4/2007	6:08	19:07
17/4/2007	6:47	20:17
18/4/2007	7:30	21:28
19/4/2007	8:19	22:39
20/4/2007	9:13	23:47
21/4/2007	10:13	—
22/4/2007	11:16	0:48
23/4/2007	12:19	1:41
24/4/2007	13:20	2:26
25/4/2007	14:17	3:04
26/4/2007	15:11	3:37
27/4/2007	16:03	4:07
28/4/2007	16:53	4:35
29/4/2007	17:44	5:02
30/4/2007	18:35	5:30
1/5/2007	19:28	5:59
2/5/2007	20:23	6:32
3/5/2007	21:19	7:09
4/5/2007	22:16	7:51
5/5/2007	23:12	8:39
6/5/2007	—	9:33
7/5/2007	0:05	10:31
8/5/2007	0:53	11:32
9/5/2007	1:37	12:34
10/5/2007	2:16	13:36
11/5/2007	2:52	14:38
12/5/2007	3:27	15:41
13/5/2007	4:02	16:45
14/5/2007	4:38	17:52

MEMBERSHIP UPDATE

At the end of the first quarter of 2007, SCAS membership has reached a total of 220. Our members who have converted to PDF faster, computerized monthly Coal Sack newsletter now totals 36! Thanks to Editor Lisa Merritt, the newsletter is now much easier to read! SCAS is pleased to report a monthly savings of almost \$25. in postage. A .63 stamp is required for each Coal Sack, and postage will soon rise again! GO PDF!!

APRIL ALMANAC AT A GLANCE

FULL "EGG" MOON Monday 2nd 1:15 p.m.
 LAST QTR. MOON Tuesday, 10th 2:04 p.m.
 NEW MOON Tuesday, 17th 7:36 a.m.
 FIRST QTR. MOON Tuesday, 24th 2:26 a.m.

MORNING SKIES: 4 planets visible in predawn (not simultaneously)

1st- Before 6 a.m., Mercury floats 1 degree below Uranus in Aquarius, and descends onto the ESE horizon by mid-week. Visible in binoculars.

Neptune lies in Capricornus in SSE. Visible in telescopes.

Ruddy Mars brightens and rises 165 million miles away in SE, in Aquarius.

28th- By 5 a.m., Mars lies 1/2 degree below Uranus. Visible in binoculars.

Bright golden Jupiter & its Moon System glow brightly in Ophiuchus 423 million miles away in S. Saturn sets in the west by 5 a.m.

The Big Dipper hangs in NW; its 'bowl' faces Polaris, North Star. The Little Dipper's 'handle' is 'attached' to Polaris.

Bright Arcturus, Herdsman, sparkles in the west.

Spica, in Virgo, follows Corvus the Crow lower in SW.

Scorpius crawls toward the SW. Bright Antares (red heart) glows in the Scorpion's torso.

The Sagittarian Teapot drifts across the south.

Vega leads the Summer Triangle overhead.

Cygnus the Swan soars within the Triangle.

Deneb, the northern point star, and Altair is the southern point star in the Triangle.

Mars rises well below Altair.

The Summer Milky Way (River of Stars) arches from the Teapot (S) to the Triangle (N).

EVENING SKIES:

2nd- After sunset, the bright Moon (past full) rises in ESE near Spica, in Virgo the Spring Maiden. The smallest full Moon of 2007.

Silver-ringed Saturn leads Leo the Lion overhead.

4-15th- Dim Comet Encke (6th magn.) cruises between the Pleiades & W N W horizon. Brilliant Venus, Evening Star, climbs higher in W N W directly below the Pleiades cluster.

14th- Venus rises between the Pleiades (right) and the V-shaped Hyades cluster (left)—

SPECTACULAR VIEW IN BINOCULARS!

30th-Venus lies 94.8 million miles away and sets after

10 pm. Saturn lies 837 million miles away.

Jupiter rises in the east about 11 p.m.

Taurus the Bull butts headfirst onto the western horizon.

Orion, Hunter, in the SW pursues the Bull.

Blazing blue Sirius sparkles from Orion's Big Dog in S W.

Canopus radiates rainbow colors low in SW.

Corvus the Crow leads Spica, in Virgo the Spring Maiden higher in SE.

The stars of Libra appear in the SE.

Bright Arcturus, Herdsman, sparkles in NE.

The Big Dipper hangs in the north.

Capella guides Auriga, Charioteer into NW.

The dim Beehive cluster in Cancer follows the Gemini Twins west of Zenith.

Procyon, Little Dog, lies between Sirius and Saturn.

Hercules climbs higher in the NE.

Vega sparkles on the NE horizon.

16-25th LYRID METEOR SHOWER- glittering debris from Comet Thatcher, will reach max on 22nd in the predawn when they radiate from Lyra, near Vega, overhead. Fast, bright Lyrids may reach 20/hr. Moonset occurs before midnight.



Photo by Nick Stingone of Venus and the Moon with a Nikon d70 and 300 mm lens, hand held no guiding or tripod.

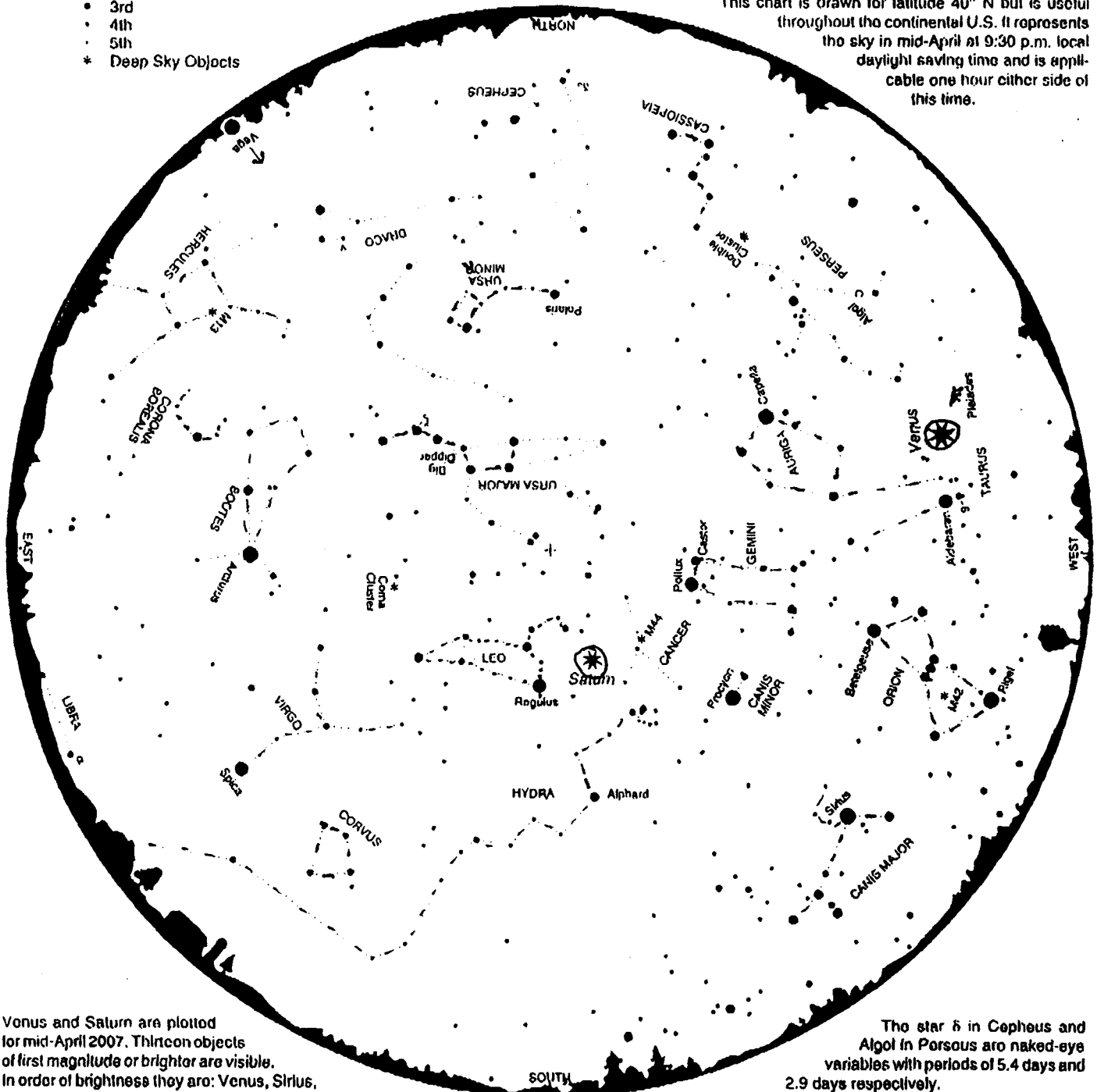
April Evening Skies

LEGEND
Star Magnitudes

- Zero or brighter
- 1st
- 2nd
- 3rd
- 4th
- 5th
- * Deep Sky Objects

© 2007 Abrams Planetarium
Subscription: \$11.00 per year, from *Sky Calendar*,
Abrams Planetarium, Michigan State University,
East Lansing, MI 48824-1324.

This chart is drawn for latitude 40° N but is useful throughout the continental U.S. It represents the sky in mid-April at 9:30 p.m. local daylight saving time and is applicable one hour either side of this time.



Venus and Saturn are plotted for mid-April 2007. Thirteen objects of first magnitude or brighter are visible. In order of brightness they are: Venus, Sirius, Arcturus, Vega, Capella, Rigel, Saturn, Procyon, Betelgeuse, Aldebaran, Spica, Pollux, and Regulus.

Our usual monthly maps are designed for stargazers just beginning to find their way around the sky. This month's map is useful for serious stargazing from dark locations. It contains many more stars, inclusive to magnitude 4.5, and some fainter stars as needed to complete patterns or assist in locating special objects.

A selection of double stars (labeled with Greek letters) and "deep sky objects" is also plotted. All are visible with modest equipment; most are within the range of the unaided eye or binoculars.

The double stars, in order of decreasing angular separation, are ζ in Ursa Major, θ in Taurus, α in Libra (just rising), and ν in Draco.

The star δ in Cepheus and Algol in Perseus are naked-eye variables with periods of 5.4 days and 2.9 days respectively.

Three open or galactic clusters are noted: the Coma Cluster between Leo and Bootes; the Beehive or Praesop (M44) in Cancer; the Double Cluster between Perseus and Cassiopeia.

The Hercules Cluster (M13) is a fine example of a globular cluster, and M42, the Orion Nebula, is a gas cloud out of which stars are forming.

MARCH EVENTS

- Barb Yager

FAIRCHILD GARDEN MOONLIGHT TOUR-

Thursday, 1st, SCAS members were invited to Fairchild Garden. Manny Castro, Sergio Figuera, Ashley Stevens, Nick Stingone, Mohan Sundaram, Andres & Bette Valencia, Steve & Vickie Van Ryn and Barb Yager set up hi-tech equipment near the Garden House to show a bright Moon, Great Orion Nebula, Saturn and Pleiades cluster to dozens of visitors.

TOTAL LUNAR ECLIPSE-

Saturday 3rd, SCAS Astros and members of AeroModelers of Perrine co-hosted a very successful public Lunar Eclipse-Star Party for more than 100 visitors at their spacious flying field west of Krone Avenue. A cover photo and article were published in Miami Herald Neighbors, March 8th. (See March Coal Sack) AMPS & SCAS members will plan future events at their field.

BOY SCOUT JAMBOREE-

Saturday 10th, several Boy Scout Troops held their weekend Annual Jamboree at Camp Everglades. SCAS Astros: Tim & Munnezzah Khan, Steve & Vickie Van Ryn, Nick Stingone, and Dave Schaffter brought their hi-tech telescopes to guide more than 200 scouts across the brilliant winter sky until low ground fog crept across the fields. Thanks to ScoutMaster Jim Happell, U. of M., SCAS has been invited to return again next year!

NATIVE PLANT SOCIETY-

Saturday 17th, the Native Plant Society's day-long event attracted at least 300 folks to Bill Sadowski Park & Nature Center for workshops, lectures and sales. Mike Smith and Mike Mooney offered SCAS safe solarviewing all day as intrigued visitors gazed at the Sun through Mike's solar filtered C-11 telescope.

ANNUAL CATNAP CAMPOUT-

Saturday evening 17th, SCAS Astros: Larry Considine, Andre Fernandez, M-Dade Prof. Mike McGauley and wife Sylvia set up telescopes at MetroZoo (backyard) under frosty, clear skies for about 100 scouts and families who were thrilled with their first views of Saturn and Orion's Nebula while Andre cruised from Sirius, Capella, Pleiades, M-41 and more...until after 11 p.m!

SCAS MEMBERS STAR PARTY-

Saturday night 17th, a big group of members arrived at Mahogany Hammock, deep in Everglades Nat'l Park to take advantage of a clear evening under a dark moonless sky. SCAS President Lester Shalloway, WSP Director Tim Khan & wife Munnezzah Chad Cantrell, Scott Ireland, Charlie Perillo, Ed Puntervold, Nick Stingone, Mohan Sundaram, Bob Torres, Steve & Vickie Van Ryn and several others set up their "serious scopes" aimed at celestial objects until well after Midnight in chilly 50 degrees!

Photos below and left taken at Mahogany Hammock using Scott Ireland's modified Canon 350D digital SLR with Tim Khan's TEC 180mm f/7 refractor. Omega Centauri (below left), M51 (below top) and M106 (below bottom).



MARCH EVENTS cont'd

SCAS SATURDAY NIGHT LIVE-

Saturday evening 17th, waves of 100+ visitors descended upon our popular SCAS telescope deck, Bill Sadowski Park, to enjoy spectacular views of silver-ringed Saturn, brilliant Venus, Orion Nebula, Beehive, Pleiades and Hyades star clusters, etc. in the great SCAS 18" Dob (largest in Miami-Dade for public use) and a C-8" operated by physics instructor Russ Harcha; Armon Ahmadi, Manny Castro, Larry Considine, Andre Fernandez, Sergio Figueroa, John MidMillen, Jim Rose, Mike Smith and Barb Yager.



Photo at Big Cypress Preserve by Sabrina Diaz, Community Outreach Specialist, South Florida's National Parks

Ashley Stevens & Barb Yager arranged hi-tech equipment for 30 excited Girl Scouts who had their first views of a bright Moon, Orion, Sirius, Saturn and Venus between large clouds racing overhead.

WALK FOR THE PARKS-

Saturday 31st, Everglades Nat'l Park hosted the 2007 Walk For The Parks and this year the ENP event was held at Burns Lake Campground, Big Cypress Preserve, Tamiami Trail half way to Naples. 4 buses brought about 100 kids from downtown. They stopped for a hike on the boardwalk near the Visitors Center, then rode to the field to enjoy music and a

Shorty's Bar-B-Que. SCAS members Mike Smith and Mike Mooney had safe solarviewing for several hours. Mike reported there was more interest looking through a spotting scope at an alligator in the lake, than staring at a blank Sun!



SPACE NEWS

SATURN'S POLAR DESIGNS-

Recent reports have shown photos of geometric cloud designs on the north and south poles of Saturn. The Cassini spacecraft revealed a hurricane-shaped "whirlpool" on the south pole, and now we are looking at a hexagonal shaped cloud formation, about 15,000 miles diameter on the north pole of Saturn. Amazingly, each of the six sides is about equal and extends about 60 miles down into the clouds. Since Voyager 1 and 2 imaged it more than 20 years ago, the formation is long-lasting, recently imaged by the Cassini. -News@aol 3/28/07

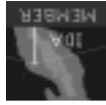
SOLAR MAX-

Reports are in that Solar Cycle 24 will peak 2010 or 2011—as one of the most intense solar cycles with about 160 sun spots since record-keeping began 400 years ago, according to solar scientists at NASA Marshall Space Flight Center, Huntsville, Alabama. Four of the five biggest cycles on record have occurred in the past 50 years. Research at the National Center for Atmospheric Research (NCAR), Boulder, Colorado use observations of the Sun's "great conveyor belt" with a sophisticated computer model of the Sun's inner generator to predict the next solar cycle. (Ed. note: who says global warming is caused by SUVs?) -Science@NASA 12/2006

The Japanese Space Telescope Hinode (Jap.= Sunrise) was launched in September 2006 to study the solar magnetic fields. On board is an X-ray telescope (XRT) and a UV spectrometer. Already it has sent back amazing images that contradict previous theories. The chromosphere was thought to be a calm area, now shows a seething mass of swaying 'spikes' thousands of kilometers long. Also the gigantic magnetic loops of fire do not continue out into space but come crashing back down onto the solar surface. -Space.newscientist.com 3/22/07

SAVE SCAS MONEY! GO PDF

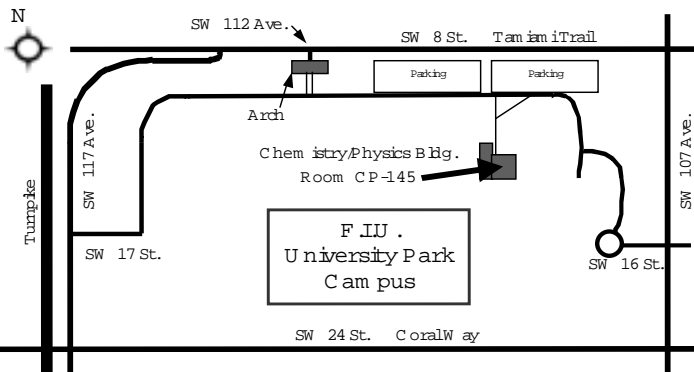
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The Astronomical League and
The International Dark Sky Association



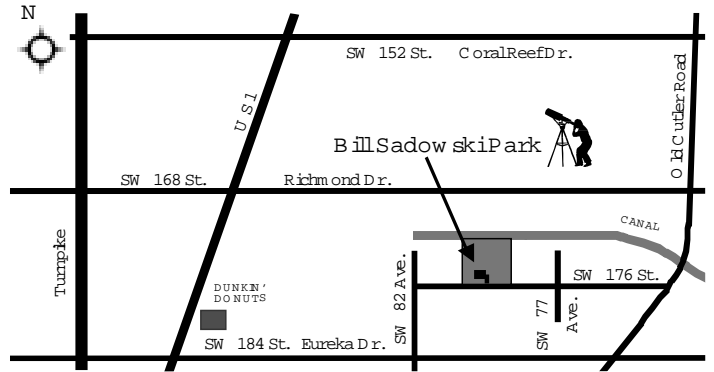
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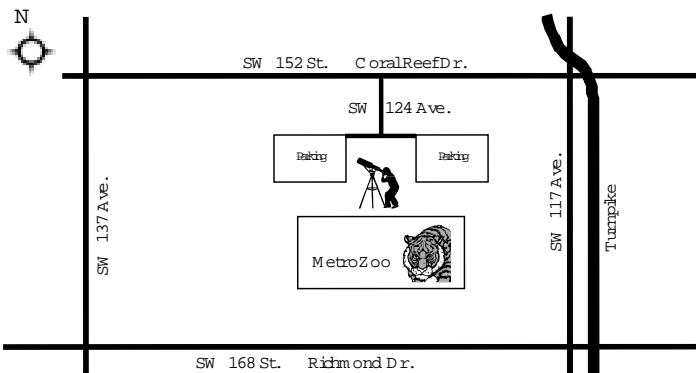
SCAS General Meetings - Third Friday of every Month



SCAS Star Gazing - Every Saturday Night 8-10pm



Saturday Solar Viewing - 10am - 12noon



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