

Coal Sack

NEWSLETTER OF THE SOUTHERN CROSS ASTRONOMICAL SOCIETY, INC., MIAMI, FLORIDA

BRINGING ASTRONOMY TO YOU SINCE 1922

MAY/JUNE 2008

BUILDING YOUR OBSERVATORY

SCAS Public Program

-Barb Yager

FRIDAY, MAY 16th, 8 pm, SOUTHERN CROSS ASTRONOMERS proudly welcome a return engagement with renowned astro-imager/SCAS member DR. BILL WILLIAMS, Boca Raton, who will present his premier topic: BUILDING YOUR OBSERVATORY. He will show and discuss the elements required for a sturdy "storm-proof" facility in S. Florida to withstand a Cat.2 `cane, thermal stability, safety, local building codes, dark sites and `seeing' characteristics, building designs and costs PLUS a powerpoint `tour' of amateur observatories of the world's best imaging gurus: Hallas, Gendler, Croman, Lula & Sherick.



Bill's awesome astro images have been published in national magazines and the latest of his images taken early May, of 22nd magn. Asteroid Iris near M-104 Sombrero Galaxy featured in <http://www.spaceweather.com/archive.php?view=1&day=06&month=05&year=2008>.

Caption: Dr. Bill Williams at his new observatory, Astronomy Village, Chiefland, Florida. Lovely wife Sandy, sons Brett (left), Chad (right) near the 14.5" diam. f/9 Ritchey-Cretien optimized for CCD imaging.

Come to the FIU Astronomy Center, CP-145, Physics Building, University Park and TAKE NOTES! SCAS astronomy programs include prizes, food buffet, lively discussions with distinguished speakers. Park on campus SW 109th Ave./SW 8th St. opposite the FIU Chemistry-Physics Building. FREE.

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SCAS SUMMER WORKSHOPS

SCAS experts will launch a series of Summer Workshops, FIU Astronomy Center, CP-145. Friday, June 20th, 8 pm, bring your EQUIPMENT : for repairs, alignment, consultations, assembly and more! The FREE workshops will continue on the 3rd Friday evening during July, August and maybe September depending on response. 305-661-1375 www.scas.org

THE COAL SACK

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Please use e-mail when possible.

Change of Address: Please notify Managing Editor Barb Yager
with change of address or other membership information.

SOUTHERN CROSS STARGAZER

Check the larger SOUTHERN CROSS STARGAZER
in the Sunday Tropical Life section M.
24th year in the Miami Herald by Barb Yager.

IN APPRECIATION

My very sincerest appreciation to Co-Editor TONI DEVESON who produced a very artistic and professional design layout of our Coal Sack for the past year, while she taught a large group of students Home Schooling in her lovely home. TONI & Family will spend the summer traveling, visiting relatives in Canada and enjoying their hobby of camping. We worked together on re-designing the Coal Sack mast at the top of the front page. I will miss her wonderful talent and her treasure trove of magnificent and appropriate photos. She really raised the level to perfection in design reflecting the energy and spirit of astronomy that shines brightly and constantly from our renowned Southern Cross Astronomical Society.

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- photo by Nick Stingone

SCAS V. P. Nick Stingone found this charming, small SOUTHERN CROSS HOTEL in Key West on a port of call on the family's Caribbean cruise during school Spring Break.

BI-MONTHLY COAL SACK

Your Editor is experimenting with a bi-monthly Coal Sack to save time and money. You will see the May/June--July/August--Sept./Oct.--Nov./ Dec. issues. The Sky Map will feature the later of the two months: June, August, October, December but the Almanac will combine highlights of both months. For latest SCAS news, check the SCAS Hotline: 305-661-1375 updated to relay important news, changes, cancellations immediately.

APRIL EVENTS

Tuesday 8th- SCAS President Dr. Lester Shalloway captivated 500 students in their Library at Tropical Elementary School--where Russ Harcha's wife Paula is a teacher.

Friday 11th- V. P. Nick Stingone directed his SCAS volunteer team: Manny Castro and Larry Considine at the Cancer Society's Walk For Life at the Baptist-Homestead Hospital.

Monday 14th- Barb Yager was scheduled to speak at the public Zoning Meeting where 800 residents converged to hear the outcome of Palmer Trinity School's campus expansion with 16 lighted sports facilities, theater, stadium, chapel, etc. vs Village of Palmetto Bay. The school is located across the street from Bill Sadowski Park where SCAS has their outdoor astronomy deck for public Star Parties for 22 years. Several did not speak as time ran out. Mayor Eugene Flinn, Jr. and his Palmetto Bay Council totally vetoed the project.

Sunday 20th- Earth Day-at MetroZoo. SCAS had a table of astronomy exhibits at the main entrance while Mike Smith offered safe solar viewing to visitors.

Friday 25th- SCAS member Mike MGAuley, M-D College instructor at Kendall campus, brought about 85 students from his astronomy class to Sadowski Park for a Star Party under crystal clear skies. Steve & Vickie Van Ryn, Manny Castro, Andre Fernandes, Nick Stingone, Larry Considine, Ashley Stevens and Barb Yager assisted the excited students.

Saturday, 26th- SCAS V.P. Tim Khan and the Van Ryn's guided 20 Boy Scouts toward their astronomy badge at their Jamboree, Homestead Park. Vickie made booklets filled with astronomical information for each Boy Scout. Tim provided the scientific information.

Tuesday 29th- Weather conditions cancelled our SCAS Star Party at W. Dade Regional Library.

Wednesday 30th- Astronomy Night at Gulliver Acadmey was also cancelled.

MEMBERS IN THE NEWS

SCAS V.P. TIM KHAN, STEVE, V.P. VICKIE & daughter MELISSA VAN RYN enjoyed a week's sightseeing trek across New Mexico last month. Night skies were awesome revealing faint visible celestial objects that cannot be seen in telescopes here, night temps. were frosty, and the locals very friendly.... JOSE CARDOZO keeps fit by skydiving Sunday afternoons. He has done about 1000 `dives' from 15,000 ft.(and lives to tell about it)! BARB YAGER had great fun with 120 4th & 5th graders at Wesley Matthew Elementary Thursday May 8th "expanding their horizons" discussing various depts. of astronomy and space exploration at the school's Career Day. She will be Astro guest speaker at another school's Career Day May 22nd..MANNY CASTRO is scheduled to give basic astronomy information to handicapped students at Amelia Earhart Elementary School in mid-May... JIM ROSE, Ohio snowbird, attends the Fly-In Events featuring radio-controlled large scale model airplanes guided



by `pilots' in strict competitions. He met his flying pals at the Top Gun Fly-In at Lakeland-Linder Airfield late April. He will attend the Mint Julep Fly-In, KY in mid-May en route back to his summer home, Columbus, Ohio. During the summer he observes with the Columbus Astronomical Society. He often joins TIM KHAN and HERM PEREZ at winter fly-ins at their W. Dade airfield, hosted by AeroModelers of Perrine.....RUSS HARCHA recently posted his photo of the young Moon and Mercury on SCASMAIL. PAUL BUSCHER, computer specialist at Bowman, Foster, Ashe Elementary School, assistant principal and two teachers took thirty 5th grade students to the Sea Camp, Big Pine Key for a 3-day Nature Safari including snorkling, hiking, camping and evening astronomy sessions in PAUL's telescope. PAUL & FIANCEE MARQUI are planning a wedding Sunday, June 22nd....Past Pres. R. SCOTT IRELAND's 4-pg. Photoshop article LAYER MAGIC for YOUR ASTRO-PHOTOS published in July issue of Sky & Telescope magazine. SCOTT presented a Workshop to the Raleigh Astronomy Society, NC



Jim Rose (left) with Mike Barbee preparing Mike's \$10,000. Waco-Classic aircraft with a 10 ft. wing span for the competition in Lakeland.

last month and he will lecture & do a Workshop at the Apollo Rendezvous in Ohio mid-June. SCOTT and lovely wife Lou will attend the East Cork Early Music Festival in Ireland late September.

MAY/JUNE ALMANAC AT A GLANCE

MAY-

NEW MOON Monday, 5th 8:18 a.m.
 FIRST QTR. Sunday, 11th 11:42 p.m.
 FULL MOON Monday, 19th 10:11 p.m.
 LAST QTR. Tuesday, 27th 10:57p.m.

MORNING SKIES:

1st- Golden JUPITER rises in the east soon after midnight.
 4th- In the predawn, Eta Aquarid Meteors radiate from the southeast.
 NEPTUNE, in Capricornus, drifts across the southeast.
 URANUS, in Aquarius, follows NEPTUNE 1 hour later.
 SATURN sets in the west.
 Huge Scorpius crawls into SW.
 Sagittarian Teapot shimmers in the south.
 Great Square of Pegasus rises in the east.
 Vega leads the Summer Triangle overhead.
 The Summer Milky Way (River of Stars) arches from the Teapot to the Triangle.

EVENING SKIES:

1st- MERCURY rises in NW below the Pleiades cluster.
 5th- MARS aligned with the Gemini Twins in the west, and sets before Midnight.
 6th- SATURN glows 2.5 degrees from Regulus in Leo overhead.
 Young crescent MOON floats 2 degrees from MERCURY in NW.
 10th- MOON lies near Beehive cluster in Cancer.
 13th- MERCURY reaches highest altitude in NW.
 19th- The most distant full MOON rises by nightfall, leading huge Scorpius higher in SE.
 22-23-MARS cruises across the Beehive cluster in the west.
 30th- JUPITER rises in the east around 11:30 pm.
 Famous cluster Omega Centauri shimmers in the south below Spica, in Virgo.
 Summer Triangle rises higher in the northeast.

JUNE:

NEW MOON Tuesday, 3rd 3:23 p.m.
 FIRST QTR. Tuesday, 10th 11:04 a.m.
 FULL MOON Wed. 18th 1:30 p.m.
 LAST QTR. Thursday 26th 8:10 a.m.

MORNING SKIES:

JUPITER glows in the south, above the Sagittarian Teapot.
 SATURN sets in the west.
 NEPTUNE in Capricornus and URANUS in Aquarius drift toward the south.
 2nd- At dawn, the Seven Sisters (Pleiades cluster) dance on the NE horizon.
 The old crescent MOON rises on the right of the cluster.
 The Great Square of Pegasus rises higher in the east, followed by Aries the Ram.
 The Sagittarian Teapot follows Scorpius into SW.
 Vega leads the Summer Triangle westward.
 26th- MERCURY rises in NE, left of Aldebaran in the Hyades cluster.
 30th- Old MOON floats below the Pleiades in the east.

EVENING SKIES-

7th- Young MOON drifts 1 degree near MARS in the west.
 8th- MOON glides near Regulus and SATURN low in the west.
 15th- Bright MOON leads Scorpius higher in SE.
 19th- Mid-evening, MOON rises near JUPITER in SE.
 20th- SUMMER SOLSTICE occurs 7:59 p.m. SUN arrives at Tropic of Cancer.
 26th- MARS approaches Regulus and SATURN in the west.
 Bootid Meteor Shower peaks late evening radiating from Arcturus overhead.
 30th- MARS meets Regulus 1 degree apart.

HISTORIC SPACE EVENTS

MAY-

1st- Nereid, moon of Neptune, discovered 1949 by Alan Kuiper.
 5th Alan Shepard first American astronaut in space 1961.
 14th- Skylab launched 1973

JUNE-

3rd- Astronaut Ed White first American space walk 1965.

13th - Pioneer-10 spacecraft left Solar System 1983.
 16th- First Russian female in space 1963.
 18th-Sally Ride, first American female in space 1983.
 22nd- Royal Greenwich Observatory founded 1675.
 30th- Tunguska, Siberia impact 1908.
 Cassini Spacecraft arrives at Saturn 2004.

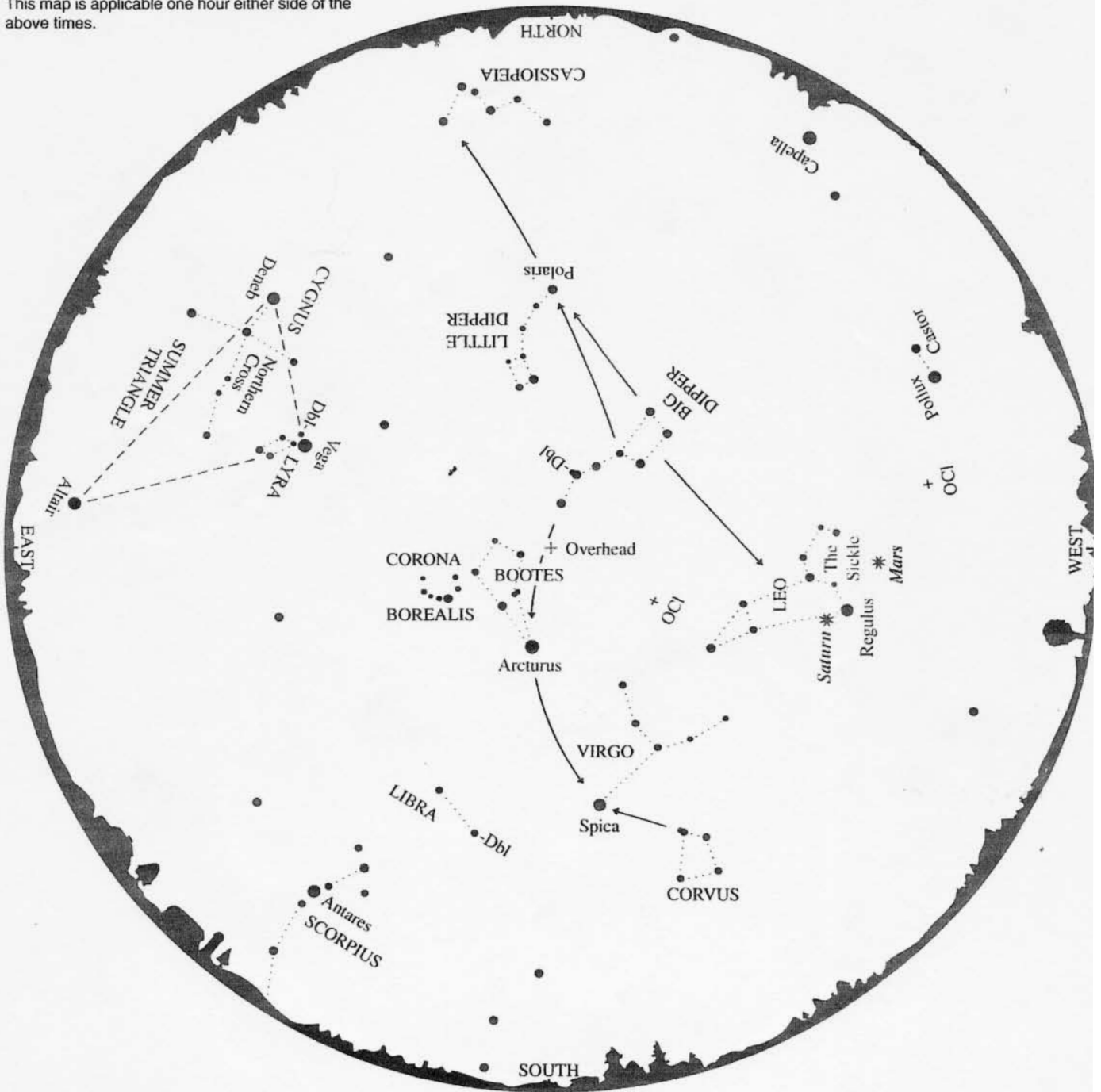
June Evening Skies

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 times:

Late May	11 p.m.
Early June	10 p.m.
Late June	9 p.m.

This map is applicable one hour either side of the above times.

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The planets Mars and Saturn are plotted for mid-June 2008. Ten objects of first magnitude or brighter are visible. In order of brightness they are: Arcturus, Vega, Capella, Saturn, Altair, Antares, Spica, 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 double in Libra is more

challenging. Much more difficult is the double star near Vega in Lyra. The open or galactic star cluster (OC1) known as the "Beehive," can be located between the Gemini twins (Pollux, Castor) and Leo. Coma Berenices, "The hair of Berenice," is another open cluster (OC2), between Leo and Bootes. Try to observe these objects with unaided eye and binoculars.

—D. David Batch

OBSERVATIONS

-Charlie Perillo

Wednesday, April 30th, Mike Smith and I met for a late April session about 7:30 pm, called Area 27 N.--a few miles north of I-75 on US #27. It's only a boat ramp, picnic tables and a paved parking lot. From sundown to Midnight we shared views of about 20 objects: clusters globulars, Saturn and a few doubles. The sky was not perfect but good enough for our session. Light pollution was bad to the east looking over Broward County, but north and west views were dark enough. No 15th magn. objects to be seen, as I can only imagine they `moved' to a to a much darker site!

SURPRISE at SADOWSKI

-Barb Yager

Saturday, May 5th, a dozen impressive telescopes were arranged by my SCAS Astro Team on our expanded deck at Sadowski Park, with new members hauling equipment and the grand SCAS 18" Dob taking center court. By nightfall, under a starry sky, a wonderful sight to behold---Dr. Scott Crawford steering his motorized chair (former member dodging tornadoes now living in Missouri) followed by Jack Loewenstein (in braces), Scott's host for a few day's visit. We carefully guided them each up the 6 ft. ladder to view magnificent Saturn in the 18" Dob. They were speechless. We also caught a glimpse of Mercury!

Later, out of the shadows, came former member Jack Stamates, scientist at NOAA, and his wife. It was a very busy evening educating the public, folks from a Park party, and a wonderful surprise reunion with members I had not seen in years!

OBSERVATIONS

SATURDAY, MAY 5th, SCAS Astros made one of their last pre-summer night safaris to Mahogany Hammock, 22 miles inside Everglades National Park. Mosquitoes have hatched. Telescopes 8"-14" diam. were set up by student Lucas Vigil and his Dad Frank, Jorge Rodriguez, Manny Castro, Steve Van Ryn, Tim Khan, Gus Codina and Nick Stingone. High level clouds slowly covered the sky by 11 pm to end the Members Star Party early.

NEW SCAS MEMBERS

SCAS extends a warm welcome to new members: RAFAEL GUISSARRI, architect, wife MARIANA, and daughter CAMILA, Miami; RAY DIAZ, commercial realtor, Miami; and DAVID DYE, export specialist, the Hammocks. We hope to meet you all at our events, programs and summer workshops in the near future.

STARDUST

Saturn's wide icy rings have narrowed as the planet orbits the Sun. The planet tilts toward our Earthly view every 14-15 years, its rings narrow until they become a thin, horizontal edge-on "line" across the planet by September 4, 2009. This will allow further study of its blue storm bands, lightening and cyclones at its poles. The previous views of the edge-on rings were imaged by the Hubble Space Telescope in 1995.

Phoenix has landed! After a 442 million mile trip, Sunday May 25th, the next NASA space probe will arrive on Mars. Its 8-ft. robotic arm will scoop up samples of ice 2 ft. into the Martian terrain searching for organic compounds in the permafrost. Equipped with a drill to break up the ice, the robotic "geologist" will bring samples aboard the Phoenix lab, baked, and its vapors analyzed. Say Tuned!

GATOR MEAT

-Manny Castro

Sunday, May 4th, I decided to take another trip out to Mahogany Hammock, since we had a great time the night before. I spent a few hours observing. As I began to attach my camera to the `scope I ran into problems. In order to read the instructions comfortably (alleviate pressure on my spine) I layed down on the parking lot and aimed my `scope straight up. Several minutes passed and as I stood up to aim my `scope and check the camera, I saw a pair of orange eyes in the distance. My flashlight revealed a healthy alligator, at least 10 ft. long, about 30 ft. away. Not wanting to become his "midnight snack" I waved my flashlight back & forth to distract him, but he didn't budge. The

flashlight beam caught 3 MORE pairs of orange eyes further back in the tree line. Wow--that was enough to convince me it was time to leave...fast. Instead of my usual 20 min. to pack up, I tossed everything (laptop, table, chairs, tripod, etc. etc.) into the SUV in 3 minutes flat and roared out onto the main road.

My lesson learned: NEVER go out into the Everglades alone. Phones do not work at that distance. Park rangers do not check. No staff at the main gate when I left the Park. If an injury, accident or attack had occurred.....you're done. You could be `gator meat!

Navigational Guide Stars-

Two constellations, highest above our S. Florida horizons in April-May, are major navigational stars. The BIG DIPPER lies across the north, its `bowl' points down toward Polaris, North Star. The two stars on the outer side of the bowl, Dubhe and Merak, align with Polaris below. From New York (41 degrees latitude) the BIG DIPPER is circumpolar--visible as it pivots around Polaris. From Miami, the curvature of the Earth prevents us from viewing the BIG DIPPER as it pivots into the north, around Polaris. In Ireland, this constellation was known as King David's Chariot; in France, it was called the Great Chariot and in the British Isles, it was the Plough. Two "doublestars" in contrasting colors are visible through telescopes and binoculars in the bend of the handle (but million of miles apart). Galaxy M-51 lies near the tip of the BIG DIPPER's handle.

The SOUTHERN CROSS (Crux) is visible, for about an hour, rising above the southern horizon. Of the 4 stars that form the Cross, Acrux and Becrux are the brightest 1st magnitude. The longer `line' top to bottom, points almost directly down to the South Pole. 5,000 years ago the SOUTHERN CROSS was visible from ancient Greece, Babylonia and across our current U.S. Americus Vespucci, an ancient voyager, reported the `four stars' on his third voyage in 1501. Over the centuries, the Earth's rotation of its axis (precession) the Cross became shifted into the Southern Hemisphere--out of view below our southern horizon--except during April-May evenings, or winter nights between Midnight and dawn, from the Florida Keys, Everglades National Park and the Caribbean. To the southeast of the Cross, is a pear-shaped black empty space---a huge cloud of gas and dust that absorbs starlight beyond the cloud. It was named the Coal Sack (no pun intended) since few stars can be seen in that area.



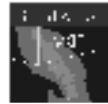
>From Australia, the Big Dipper is barely visible along the northern horizon. The SOUTHERN CROSS sparkles high in their southern sky. The national flags of Australia, New Guinea, Samoa, New Zealand and Brazil feature the SOUTHERN CROSS motif.

-Joe Rao, Space.com 5/11/08

Photo credit: Omega Centauri by Ashley Stevens from Sadowki Park 5/10th.

SAVE SCAS MONEY! GO PDF

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The Astronomical League and
The International Dark Sky Association

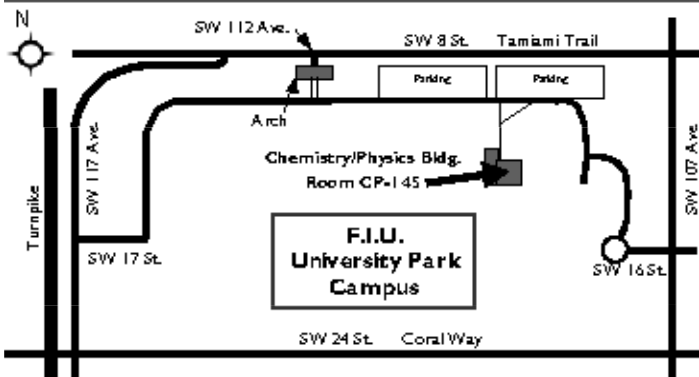


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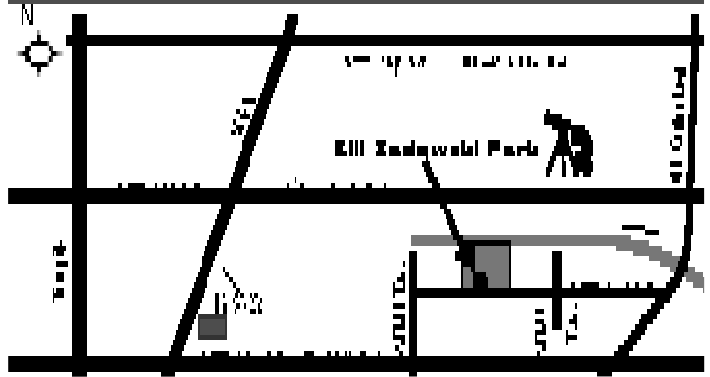
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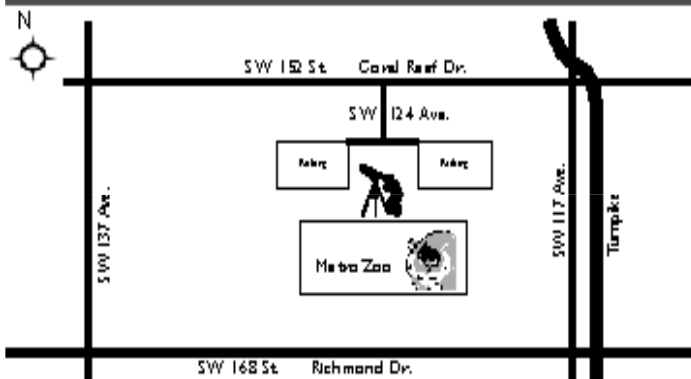
SCAS General Meetings - Third Friday of every Month



SCAS Star Clinics - 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