

Coal Sack

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

BRINGING ASTRONOMY TO YOU SINCE 1922

SEPTEMBER/OCTOBER 2008



Horse head nebula. in the constalation Orion. Taken with A cellestron C11 on a homemade wedge and a Cannon digital rebel from mohaganey hammock. Image by Steve Van Ryn

INTRO TO ASTRO-IMAGING

SCAS Public Event

-Barb Yager

Have you wondered how those spectacular celestial and solar photos are taken? FRIDAY, SEPTEMBER 19th, 8 pm, check out our free INTRO TO ASTRO-IMAGING when our friendly SCAS Astros will guide you from the early stages of astro-imaging processes through intermediate levels of this fascinating and very fulfilling new hobby. Bring questions and take notes about the best methods to capture celestial objects, start up equipment, simple techniques, consumer advice and best sites. You will be surprised at the superb quality of images taken by our SCAS novices. Some of their images were taken through telescopes smaller than an 11" diameter type using regular commercial

cameras. The entire family will learn and share in this exciting hobby and see awesome SCAS images. Bring friends to our free SCAS astronomy program INTRO TO ASTRO-IMAGING (final Summer Workshop), FIU Astronomy Center, CP-145, Physics Building, University Park. Enjoy refreshments, friendly advice, demos and you could win a prize!! Park on campus, SW 109th Avenue/SW 8th Street directly opposite the FIU Chemistry-Physics Building, accessible to the disabled. Reservations are not required. 305-661-1375 www.scas.org

SCAS members and general public may bring malfunctioning or unassembled telescopes to the enlarged SCAS observing deck in Bill Sadowski Park Saturday evenings, 7-8 pm, SW 176 Street/SW 79 Avenue, 1/2 mile west of Old Cutler Road assisted by our friendly SCAS Saturday Nite Live Astros. Weather permitting, you could see high-altitude satellites, stray meteors, weather balloon, Hubble Space Telescope, space junk or the International Space Station! 305-661-1375.

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Meet us Saturdays 10-Noon at MetroZoo! SCAS Astros offer free safe solarviewing near the waterfall ticket entrance to MetroZoo, 12400 SW 152nd Street, weather permitting.

See the powerful explosions bursting off the solar surface 93 million miles away!

Friday, October 17th- Facts of Global Warming Throughout the Solar System, FIU 8 pm, with SCAS world-renowned planetary imager and meteorologist, **Dr. Don Parker.**

THE COAL SACK

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

Editor: Barb Yager

Telephone: 305-273-7291 • Barbyager@aol.com

Layout and Design by:

Amazon Printers • www.amazonprinters.com

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.

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.

SCAS PERSONNEL

President	Lester Shalloway, M.D.	439-6711
1 st Vice President	Nick Stingone	247-3054
2 nd Vice President	Tim Khan	301-9946
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Club Star Party		
Directors:	Tim Khan	301-9946
	Herm Perez	261-8817
Observatory	Bob Torres	232-3990
Webmaster	Art Mullis	amullis@tampabay.rr.com

WINTER STAR PARTY

Founder	Tippy D'Auria	mdauria-r@retiree.mdc.edu
Director	Tim Khan	301-9946
Registrars	Fred & Lucille Heinrich	386-362-5995

HISTORIC SPACE EVENTS

OCTOBER

1st- 1957 Russian Sputnik launched.

7th- 1959 Luna-3 photographs far side of the Moon.

10th- 1846 Triton, moon of Neptune, was
discovered.

22nd- 2136 B.C. First recorded solar eclipse (by
China).

24th- 1851 Ariel and Umbriel, moons of Uranus,
discovered.

25th- 1671 Iapetus, moon of Saturn, discovered by
Cassini.

SEPTEMBER

1st- 1804 Asteroid Jun discovered.
1979 Pioneer-11 first Saturn flyby.

3rd- 1976 Viking-2 landed on Mars.

9th- 1892 Amalthea, moon of Jupiter, was
discovered.

13th-1959 Luna-2 first craft to impact the Moon.

23rd- 1846 Neptune was discovered.

CLASSIFIED

(Spotting `scope & items sold)
SPECIAL SALE!!

8" Baytronix reflector (203mm) f/5 (1000mm) OTA
like new! (same as Orion). Includes: 1 1/4" R & P
focuser. Tube \$150. (has small ding; collimating
screws on the secondary may have been glued in
from factory).

3 Plossl 1 1/4" eye-pieces like new: 10mm., 20mm,
30mm all in plastic bolt type cases. Bargain at \$25.
each!! Contact Charlie- cmperillo@bellsouth.net
Cel: 954-816-3654.

MEMBERS IN THE NEWS

-Barb Yager

STORK REPORT...Congratulations to proud new parents MUNNEZZAH & V.P. TIM KHAN. Their 8 lb. 6 oz. "bundle of joy" bounced into the world August 22nd. Born on the cusp of Leo the Lion and Virgo, his name: Humzah = Lion! Parents are fine, very weary and very busy...MANNY CASTRO is a proud Grandpa again. His daughter's twins: Gabriella and Gabriel were born this summer. Congratulations to ISABEL & CHAD CANTRELL who are expecting their second daughter in January.

STORM STORIES...late August Tropical Storm Fay zig-zagged its way across Florida leaving a trail of minimal debris and streets so flooded in central Florida that `gators and other critters swam along residential streets! >From Key West, Everglades City, Port St. Lucie, Melbourne and on to Tallahassee which reported a 4" deluge in 10 minutes 8/22. TIPPY D'AURIA reported his neighborhood had 8" of rain in Ocala..BORIS ORTIZ, Oakland, had to repair his flooded septic tank.

SCHOOL BELLS...JUDY ELKIN'S talented daughter Danielle began art classes at Miami-Dade Kendall campus. Her Mom is art instructor at Miami Sunset High School. ANDRE FERNANDEZ began physics courses at Miami-Dade Kendall. JONATHAN ARGUETA, son of JOSE & NANCY, graduates next June from DASH (Design & Architecture High School) in Miami. JONATHAN received a pre-college scholarship from the prestigious Rhode Island School of Design where he attended a 6-week summer orientation. He will major in graphic art when he decides which school to attend: R.I.School of Design or Cornell University, NY.

SUMMERTIME...SCAS President LESTER SHALLOWAY & Family recently returned from an exciting vacation in the Pacific Northwest...TIPPY D'AURIA presented lectures to Florida Trail Assoc., Lake City--Florida Community College, Jacksonville--Brevard Community College, Cocoa--and August 18th, at the Ocala Rotary Club.

WSP Anniversary Edition

SCAS plans to have a special 25th Anniversary Edition with our January/February 2009 Coal Sack. Your cooperation (by all attendees) would make it a successful momento, as an insert or a separate section, depending upon your feedback. Your sharp photos, great memories, typed 100 words or less, will be sorted, possibly reduced for space restrictions. Include your memories of Past Pres. Bill Douglass, Dave Regan, Bob Grant and others who were great contributors to earlier WSP and

are no longer with us. Other topics: favorite acquaintances, speakers, new friendships, winning a special prize, worst experience in storms, most awesome image viewed, learning new observing/photo techniques or new equipment. Who has attended ALL 25 consecutive Winter Star Parties (except 11/99 when Hurricane Georges forced our cancellation)? Please email your material to your Editor: Barbyager@aol.com PRIOR TO DEADLINE NOVEMBER 1st.

SEPTEMBER/OCTOBER 2008 ALMANAC HILITES

SEPTEMBER -

FIRST QTR.	Sunday 7th	10:04 a.m.
FULL MOON	Monday 15th	5:13 a.m.
LAST QTR.	Monday 22nd	1:04 a.m.
NEW MOON	Monday 29th	4:12 a.m.

EVENING SKIES-

1- Planetary 'trio' low in west at dusk: dim MARS above twinkling MERCURY and brilliant VENUS rising in Virgo. Spica sparkles to their upper left. Binoculars are best as they set by nightfall. Young crescent MOON floats nearby 7 pm. Bright JUPITER, surrounded by its 4 closest Moons, glows near the lid of the Sagittarian Teapot in the south---center of our Milky Way Galaxy. Blue NEPTUNE, Capricornus, followed by blue-green URANUS in Aquarius, SE.

3rd- Invisible SATURN in conjunction with the SUN.

6th- MOON glides near red supergiant Antares in Scorpius, SW.

9th- MOON floats below golden JUPITER in Sagittarius.

10th- After sunset, MERCURY reaches highest altitude in west. VENUS & MARS 'dance' together near the western horizon.

12th- URANUS opposite the SUN 10 pm., brightest and closest to EARTH. The MOON drifts 1/2 degree above NEPTUNE.

15th-Full HARVEST MOON passes 4 degrees above URANUS. Fomalhaut sparkles below outer planets. 19th- About Midnight, bright MOON rises in east near the Pleiades cluster. 20th- At dusk, VENUS shines above Spica and MERCURY. MARS lies to their right. 22nd- AUTUMNAL EQUINOX occurs 11:44 a.m. when the southbound SUN crosses the EQUATOR making day and night hours about equal for a week. Drive cautiously on east-west roads when the SUN is near the horizons. Aries the Ram chases the Great Square of Pegasus higher in the east. Hercules leads Vega and the Summer Triangle overhead. Cygnus the Swan flies inside the Triangle. Virgo slides lower in SW followed by Libra and huge Scorpius. Arcturus, Herdsman, sparkles in the west beyond the Big Dipper in NW. Mid-evening, Cassiopeia and Andromeda appear in the northeast.

MORNING SKIES-

Winter constellations fill the eastern skies: Pleiades shimmer overhead followed by Taurus the Bull, Aldebaran in the Hyades cluster and Procyon, Little Dog low in the east. The Gemini Twins: Castor & Pollux rise NE, followed by the Beehive cluster in Cancer. Bright Capella leads Auriga, Charioteer, higher in NE. Orion, Hunter, climbs higher in east, later followed by blazing blue Sirius in Orion's Big Dog in SE. JUPITER sets in SW after midnight. The Royal Family reigns in north: King Cepheus, Queen Cassiopeia, daughter Andromeda and Perseus the Hero. Vega leads Summer Triangle low in NW. Cygnus becomes the Northern Cross. Pegasus lies on the western horizon. In the predawn, NEPTUNE & URANUS set in SW.

20th- By 6:30 a.m., SATURN appears on eastern horizon.

24th- At dawn, the waning MOON glides near Beehive cluster.

25th- Leo the Lion climbs higher in the east, with old MOON beside Regulus. 27th- The thin crescent MOON rises beside SATURN.

OCTOBER-

FIRST QTR.	Tuesday 7th	5:04 a.m.
FULL MOON	Tuesday 14th	4:02 p.m.
LAST QTR.	Tuesday 21st	7:55 a.m.
NEW MOON	Tuesday 28th	7:14 p.m.

EVENING SKIES-

1st- The young MOON with Earthshine rises below bright VENUS in Libra low in the west. Dim MARS lies to their right. They set by nightfall. Bright JUPITER glows near the Sagittarian Teapot in the SSW. 3rd- The MOON leads huge Scorpius low in SW. URANUS in Aquarius follows NEPTUNE in Capricornus across the south. Fomalhaut sparkles below the outer planets.

6th- MERCURY passes near the SUN--inferior conjunction. MOON floats below JUPITER in the south.

15th- Bright MOON rises in east below Aries the Ram.

16th- Late evening, MOON rises in NE near the Pleiades cluster.

18th- VENUS leads Scorpius across the SW horizon.

26th- VENUS floats above Antares in Scorpius low in SW.

29th- Asteroid Vesta lies opposite the SUN 10 pm. in SE.

30th- Young MOON rises briefly in SW in Scorpius--below Antares and VENUS. 31st- Crescent MOON climbs beside Antares, below VENUS. Huge Scorpius crawls along the SW horizon. The tilted Sagittarian Teapot 'pours' onto the stinger tail of the Scorpion. Arcturus, Herdsman, sets in NW. Hercules leads Vega and the Summer Triangle west of Zenith. Cygnus the Swan soars within the Triangle. The Summer Milky Way (River of Stars) arches from the Teapot SW-Triangle NW. The Great Square of Pegasus rises in the east, toward the Zenith. King Cepheus, Queen Cassiopeia, daughter Andromeda (holding our nearest galaxy) and Perseus reign in the north. Late evening-bright Capella bring Auriga, Charioteer, higher in NE. Star clusters: Pleiades and Hyades rise in the east in Taurus the Bull.

MORNING SKIES-

1st- At dawn SATURN rises in east, in Leo the Lion.

15th- Tiny MERCURY appears on the eastern horizon as dawn breaks. 20th- Waning MOON glides near Gemini Twins.

21st- ORIONID METEOR SHOWER, glittering debris from Comet Halley, radiates from Orion in the east, but competes with MOON, producing about 15 meteors per/hr. Arcturus, Herdsman, sparkles on the NE horizon. JUPITER sets after midnight in SW.

25th- Waning MOON rises below SATURN in the east.

27th- Old MOON rises below MERCURY in east.

31st- At dawn, Spica, in Virgo, rises below MERCURY in SE. Winter constellations arch overhead: Taurus the Bull, Orion, Hunter, Gemini Twins, Procyon, Little Dog, led by two star clusters in the west: Pleiades and Hyades. Blazing blue Sirius, in Orion's Big Dog, drift into the south. Capella guides Auriga, the Charioteer, across the north. Leo the Lion climbs higher in the east. The 'bowl' of the Big Dipper appears in NE. Virgo, Spring Maiden, rises in SE. ZODIACAL LIGHT may be visible before dawn in the east late Sept./early October.

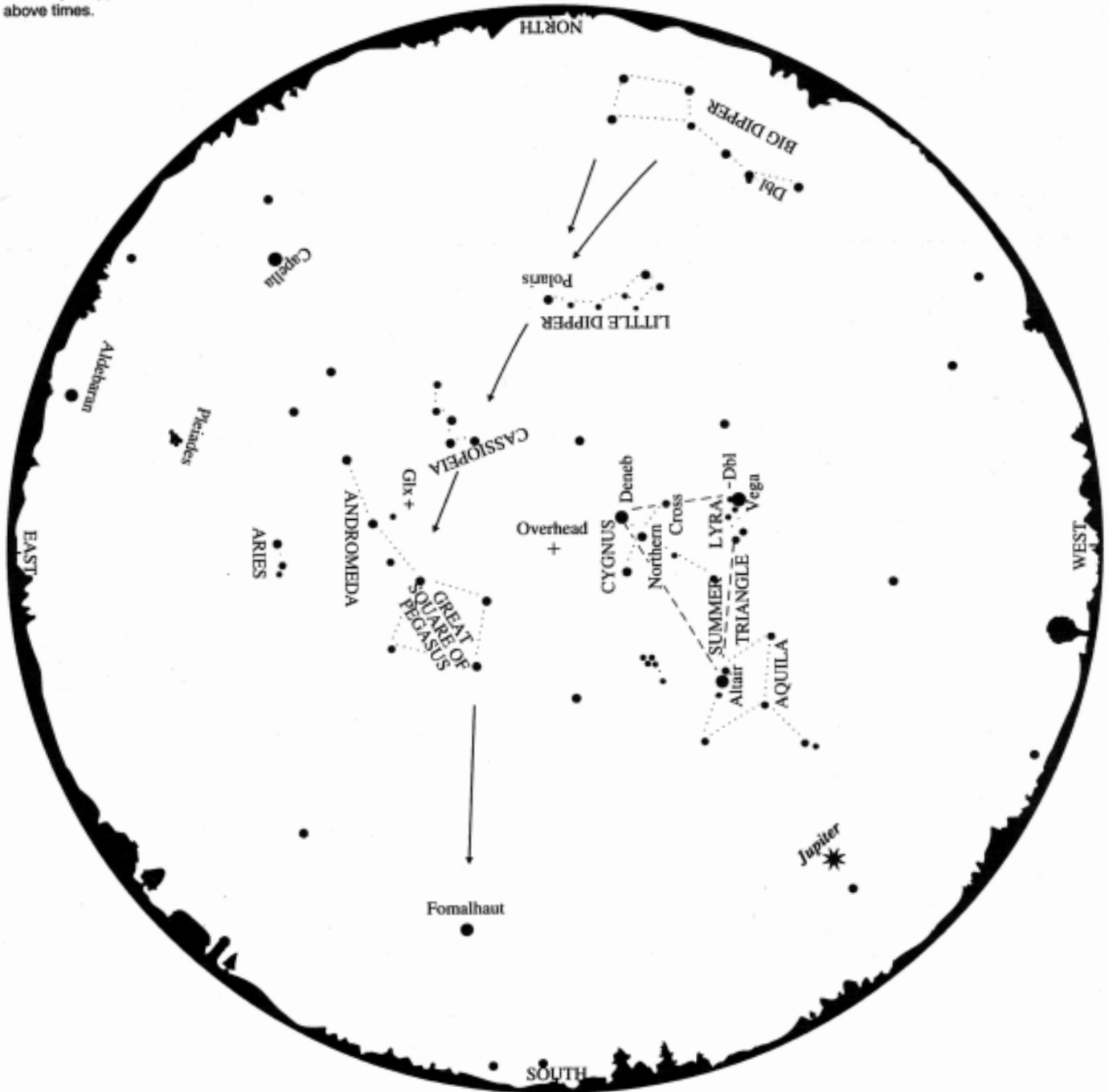
October Evening Skies

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 September 11 p.m.
- Early October 10 p.m.
- Late October 9 p.m.

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

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



The planet Jupiter is plotted at map time, mid-October 2008. Seven objects of first magnitude or brighter are visible. In order of brightness they are: Jupiter, Vega, Capella, Altair, Aldebaran, 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. Low in the east-northeast, the Pleiades is a very attractive open or galactic star cluster. 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

STARDUST

PERSEIDS- a bright, nearly full Moon obliterated most of the Perseid Meteor Shower, August 11-14th, but a 2 a.m. Moonset the 12th favored observing of the shower max, based on local weather conditions. Earth crosses the glittering tail of Comet Swift-Tuttle (now beyond Uranus) when glowing specks zip through our summer skies at 132,000 mph, radiating from Perseus in the northeast from midnight to dawn. - Science@NASA 8/2008

ANDRES VALENCIA, Key Biscayne--(looking east from his seaside condo)"I observed 8 Perseids 2:30-3:30 a.m. 8/12th, fast, white, but no trails estimated 1-4 magnitude, heading into SW and south. Mosquitoes were ferocious, hatched in very heavy rains hours earlier and high thin clouds became dense." CHARLIE PERILLO, Broward- "decided to

skip the Perseids en route home from work Monday as sky was hazy". ART MULLIS, Tampa, met members of the Local Group, Bradenton, at their dark site in eastern Manatee County, midnight to 2 a.m. "I used my Nikon D300 and shot 250+ frames 15 sec. images at 30 sec intervals. Clouds rolled in 2 a.m. and sent us packing. Next day I found one faint meteor on a frame.! Maybe next time?" BARB, "4:30-6 a.m. Tuesday 12th, I saw 5 Perseids from my Kendall backyard. Three were faint. Two were about 3-2nd magn. with short white trails heading into NW and SW from Perseus.(dogs enjoyed sniffing around in the dark, they were warned not to bark) Saw 2 very bright ?--5 a.m. a southbound object briefly crossed top of Cass in NE; at 6 a.m. a bright satellite? cruised NW-SE for 3 minutes. The ISS was not scheduled. No mosquitoes--a pleasant east breeze-- clear predawn skies. ORIONID METEORS, 10/20-21 will have a Last Qtr. Moon.

REGIONAL STAR PARTIES

PEACH STATE STAR GAZE - September 28-October 5th at Grier Field, Deerlick Astronomy Village celebrating their 15th Star Gaze Anniversary in central Georgia. Micki's Kitchen will serve hot coffee, snacks and meals onsite.

www.atlantaastronomy.org/PSSG



NGC 225 (Sculptor Galaxy) Taken with A Celestron C11 on a Losmandy mount with A canon digital rebel at Burns lake on Highway 41--
Image by Steve Van Ryn

CHIEFLAND FALL STAR PARTY -October 24-November 2nd, Chiefland Astronomy Village, west of Gainesville, about 20 mi. from the Gulf with guest speakers and Micki's Kitchen. The Chiefland Astronomy Village Club now incorporated, has new managers Tom Crowley & John Novak. The new larger field, behind Tom Clark's property, has new clubhouse, showers, RV connections with water, power on the field, obscured from car headlights. www.chiefland.org

LIVING GREEN

ARE YOU LIVING GREEN? Use cheap solar powered pocket calculators, flashlites, and landscape lights, solar chargers for batteries in digital cameras, cellphones and music players. Solar panels remain expensive. More and more communities, companies and homes (as on Key Largo, Ocean Reef) are converting to fuel-saving procedures that will make a huge safety improvement on our life styles and our longevity. Here's intriguing developments in 2008...

My recent impromptu conversation with Carrie Montano, vivacious principal of the new "green" high school under construction in Kendall, echoed my concern for their future outdoor lighting system. She was interested in my emphasis on correct lighting direction, use of solar cell and LED systems, with large shade trees near the building. She invited me to future discussions with her committees. This magnet school in the Miami-Dade public school system will be the first public school built and equipped to meet U.S.Green Building Council standards for certification with LEEDS (Leadership in Energy & Environmental Design). Three new subjects will be offered to 9th and 10th grade students: Environmental Research & Field Studies, Robotics & Engineering Technology, Biomedical Research. The school will incorporate energy-saving plumbing, water-recycling, heat & glare reflection, automatic lighting, etc. when 1,864 students, grades 9-12, enter this new "green" high school September 2009.

Two S. Florida companies in Broward have harnessed a new "green" technology to replace the century old combustion engine. Cyclone Power Technologies, founded in 2004, has developed an engine that runs on almost any liquid while water replaces motor oil. Needless to say, their phones are ringing 24/7. They have 12 patents, 48 pending, and Raytheon (major defense technology company) recently

awarded them a healthy contract.

An 18-hp Cyclone engine can drive a 10 kw. generator. Advent Power Systems opened in 2006 .U.S. and British military show great interest and U.S Postal Service may retrofit their 190,000 mail trucks with this new system.

FIU and the U.S. Military developed a solar-powered makeshift hospital. Functioning in 24 hrs. in remote regions, it can produce 400 gallons of purified or desal water daily and electricity to power medical equipment. This important project was successfully tested recently in a Honduran jungle.

Outside Beijing's Olympic Village, FIU Dept. of Engineering is constructing a house with mirror windows, non-toxic building materials, cistern water system, CFL bulbs and Energy Star appliances, etc. FIU Prof.Yong Tao believes the design could be used in S. Florida. 10 nations were invited to China's project--FIU was the ONLY American university!

Village of Key Biscayne is working on a new lighting ordinance for controlled seaside lighting that effects sea turtle hatching season, May-November.

Bent Tree community in W. Dade switched on to solar-powered street lights in 1992.

Some Home Owner Associations refuse to allow residents to use solar panels.

FPL recently had its Green Energy Program cancelled when state regulators found millions of dollars from customers had been funnelled into advertising and FPL salaries!

Where are the desalination plants, wind and water turbine projects, solar-powered nuclear plants, solar-synchronized traffic and street lights? Wake up Miami, it's the 21st century!

Compiled by Barb Yager, Editor/IDA Sponsor

