Cape Fear Skies

The Official Newsletter of the
Cape Fear Astronomical Society
Wilmington, North Carolina

A Member Society of the Astronomical League

Volume 22 no. 10 ★ October 2007

www.capefearastro.org

CAPE FEAR ASTRONOMICAL SOCIETY
WILMINGTON, NORTH CAROLINA

This Month's Meeting –
Sunday, October 7, 2007
at Unitarian Universalist Fellowship of Wilmington
4313Lake Avenue

The business meeting of
the Cape Fear Astronomical Society
will begin at 7:00 pm.
The general meeting will begin at 7:45 pm.

Gastronomy!

Please join us for dinner before the meeting at Indochine, on Wayne Dr off of Market Street, at 5:15pm!

CAPE FEAR SKIES
Editor: Ric Longren
6612 Shire Road
Wilmington, NC 28411

CAPE FEAR ASTRONOMICAL SOCIETY
WILMINGTON, NORTH CAROLINA

Cape Fear Astronomical Society

No meeting minutes provided to Editor

Event Calendar for October 2007

Oct 1 - 15	Great World Wide Star Count – see News Cluster
October 3	Last quarter Moon, 6:06 am
October 5/6	**CFAS Group Viewing Sessions**
October 7	**CFAS October Meeting 7:00 pm**
Oct 8 – 14	Mid Atlantic Star Party
October 9	Draconid meteor shower peaks
October 11	New Moon, 1:01 am
Oct 12/13	**CFAS Group Viewing Sessions**
October 13	Moon at apogee, 5:51 am, 252,582 miles
October 19	First quarter Moon, 4:33 am
October 20	Moon passes 1.3º south of Neptune, 11 pm
October 20	Orionid meteor shower peaks
October 26	Full Moon, 12:52 am
	Moon at perigee, 7:51 pm, 221,676 miles

All times are EDT unless otherwise noted

News Cluster

► The next meeting of the Cape Fear Astronomical Society is October 7 starting at 7:00 pm. The meeting will be held at the Unitarian Universalist Fellowship of Wilmington (UUFW for short).

► Mid Atlantic Star Party 2007 will be held near Robbins NC from October 8 through Oct 14. Let's try for another good CFAS turnout!

► The Great World Wide Star Count will be observed from Oct 1 - 15. Location: your back yard or any good observing site. This international event encourages people to go outside, look skywards after dark, count the stars they see in certain constellations, and report what the see to the Star Count Web site. All the information needed to participate is available on the web site www.starcount.org. At the conclusion of the event the submitted data will be analyzed and a map will be generated highlighting the results of this new citizen science campaign.

► Nominations for the 2008 CFAS officers begin in October. The officer positions are: President, Vice President, Associate Vice President, Treasurer, Secretary and Editor. If your interested or know someone who is by all means come to the October meeting and nominate.

► The current CFAS Editor is announcing his retirement from the duties of CFAS Editor at the end of 2007. After two years, its time to pass this privilege on to another. I will continue to publish the Newsletter through December and will help the next Editor with publishing set up.

News from Our Sister Society Down Under

Astronomical Society of Albury - Wodonga

For the latest news from down under, check out our sister society's web site at www.asaw.org.au.

Astronomical History During the Month of October

Date	Milestone
Oct 4, 1957	Launch of Sputnik 1
Oct 10, 1967	United Nations Outer Space Treaty comes into force
Oct 15, 1997	Launch of the NASA/ESA Cassini mission to Saturn carrying the Huygens probe
Oct 18, 1967	Arrival at Venus of Soviet Probe Venera 4
Oct 19, 1967	Flyby of Venus by NASA's Mariner 5
Oct 21, 1967	Danish astronomer Ejnar Hertzsprung, co-inventor of the Hertzsprung – Russell diagram, dies

Planets in October 2007

Planet	Oct	Elong.	Mag.	Dia.	Illum.	Dist.
Mercury	1st	26º Ev	0.0	7.0"	57%	0.965
	11th	22º Ev	+0.5	8.5"	33%	0.793
	21st	7º Ev	+3.9	10.0"	3%	0.670
	31st	14º Mo	+1.2	8.8"	17%	0.763
Venus	1st	43º Mo	-4.7	34.2"	33%	0.488
	11th	45º Mo	-4.7	29.8"	40%	0.560
	21st	46º Mo	-4.6	26.3"	46%	0.635
	31st	46º Mo	-4.5	23.5"	52%	0.710
Mars	1st	97º Mo	-0.1	9.7"	87%	0.966
	16th	105º Mo	-0.3	10.8"	88%	0.870
	31st	116º Mo	-0.6	12.1"	90%	0.776
Jupiter	1st	67º Ev	-2.0	35.2"	99%	5.594
	31st	42º Ev	-1.9	33.1"	100%	5.962
Saturn	1st	34º Mo	+0.7	16.5"	100%	10.055
	31st	61º Mo	+0.8	17.1"	100%	9.694
Uranus	16th	143º Ev	+5.8	3.7"	100%	19.288
Neptune	16th	117º Ev	+7.9	2.3"	100%	29.577
Pluto	16th	65º Ev	+14.0	0.1"	100%	31.772

Elong. – elongation from the Sun: morning (Mo) and evening (Ev)
Dist. – distance from Earth in astronomical units

NASA'S Dawn Spacecraft Enroute to Shed Light on Asteroid Belt

September 27, 2007

Source: www.jpl.nasa.gov/

CAPE CANAVERAL, Fla. - NASA's Dawn spacecraft is on its way to study a pair of asteroids after lifting off Thursday from the Cape Canaveral Air Force Station at 7:34 a.m. EDT (4:34 a.m. PDT).

Mission controllers at NASA's Jet Propulsion Laboratory, Pasadena, Calif., received telemetry on schedule at 9:44 a.m. EDT (6:44 a.m. PDT) indicating Dawn had achieved proper orientation in space and its massive solar array was generating power from the sun.

"Dawn has risen, and the spacecraft is healthy," said the mission's project manager Keyur Patel of JPL. "About this time tomorrow [Friday morning], we will have passed the moon's orbit."

During the next 80 days, spacecraft controllers will test and calibrate the myriad of spacecraft systems and subsystems, ensuring Dawn is ready for the long journey ahead.

"Dawn will travel back in time by probing deep into the asteroid belt," said Dawn Principal Investigator Christopher Russell, University of California, Los Angeles. "This is a moment the space science community has been waiting for since interplanetary spaceflight became possible."

Dawn's 4.8-billion-kilometer (3-billion-mile) odyssey includes exploration of asteroid Vesta in 2011 and the dwarf planet Ceres in 2015. These two icons of the asteroid belt have been witness to much of our solar system's history. By using Dawn's instruments to study both asteroids, scientists more accurately can compare and contrast the two. Dawn's science instrument suite will measure elemental and mineral composition, shape, surface topography, and tectonic history, and will also seek water-bearing minerals. In addition, the Dawn spacecraft and how it orbits Vesta and Ceres will be used to measure the celestial bodies' masses and gravity fields.

The spacecraft's engines use a unique, hyper-efficient system called ion propulsion, which uses electricity to ionize xenon to generate thrust. The 30-centimeter-wide (12-inch) ion thrusters provide less power than conventional engines but can maintain thrust for months at a time

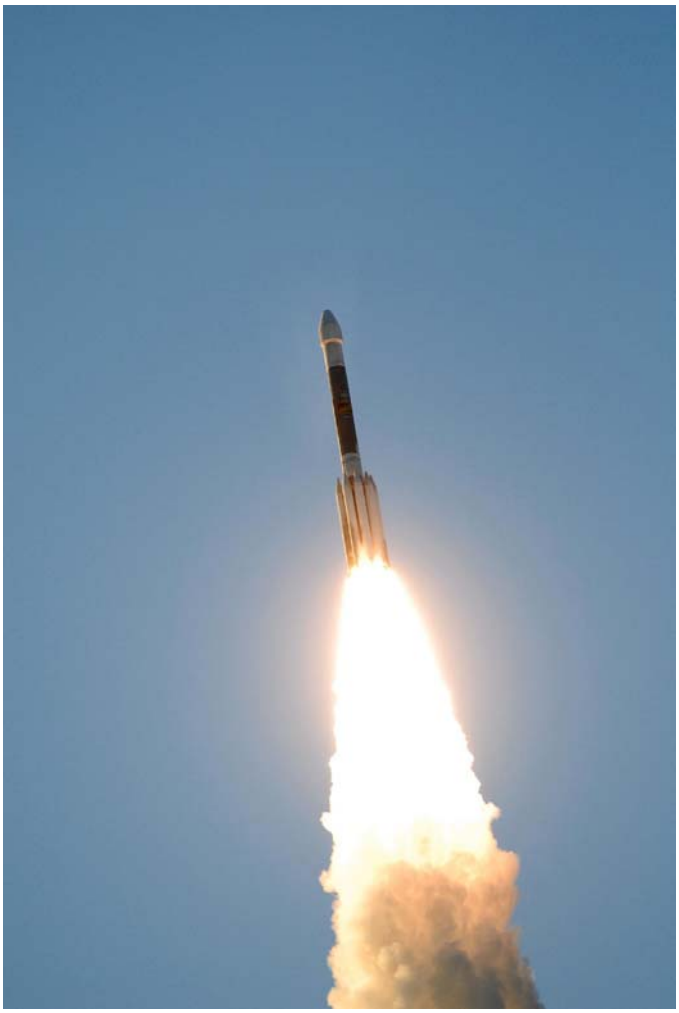
The management of the Dawn launch was the responsibility of NASA's Kennedy Space Center, Fla. The Delta 2 launch vehicle was provided by United Launch Alliance, Denver.

The Dawn mission to Vesta and Ceres is managed by JPL, a division of the California Institute of Technology, Pasadena, Calif., for NASA's Science Mission Directorate, Washington.

The University of California, Los Angeles, is responsible for overall Dawn mission science. Other scientific partners include Los Alamos National Laboratory, N.M.; Max Planck Institute for Solar System Research, Katlenburg, Germany; DLR Institute for Planetary Research, Berlin; Italian National Institute for Astrophysics, Rome; and the Italian Space Agency. Orbital Sciences Corporation of Dulles, Va., designed and built the Dawn spacecraft.

To learn more about Dawn and its mission to the asteroid belt, visit:

http://www.nasa.gov/dawn



Rising above a cloud-filled horizon, the Delta II rocket carrying the Dawn spacecraft roared into the sky. Image credit: NASA

Meetings of the CFAS are held on the first Sunday of The month (if holiday weekend or special event, second Sunday) at

7:00pm – Unitarian Universalist Fellowship of Wilmington

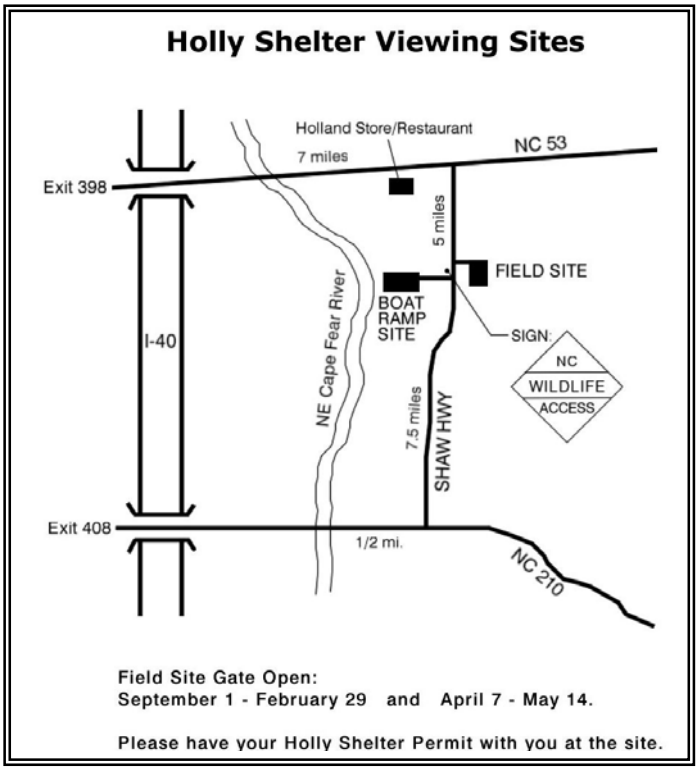
Group Viewing Sessions 5194

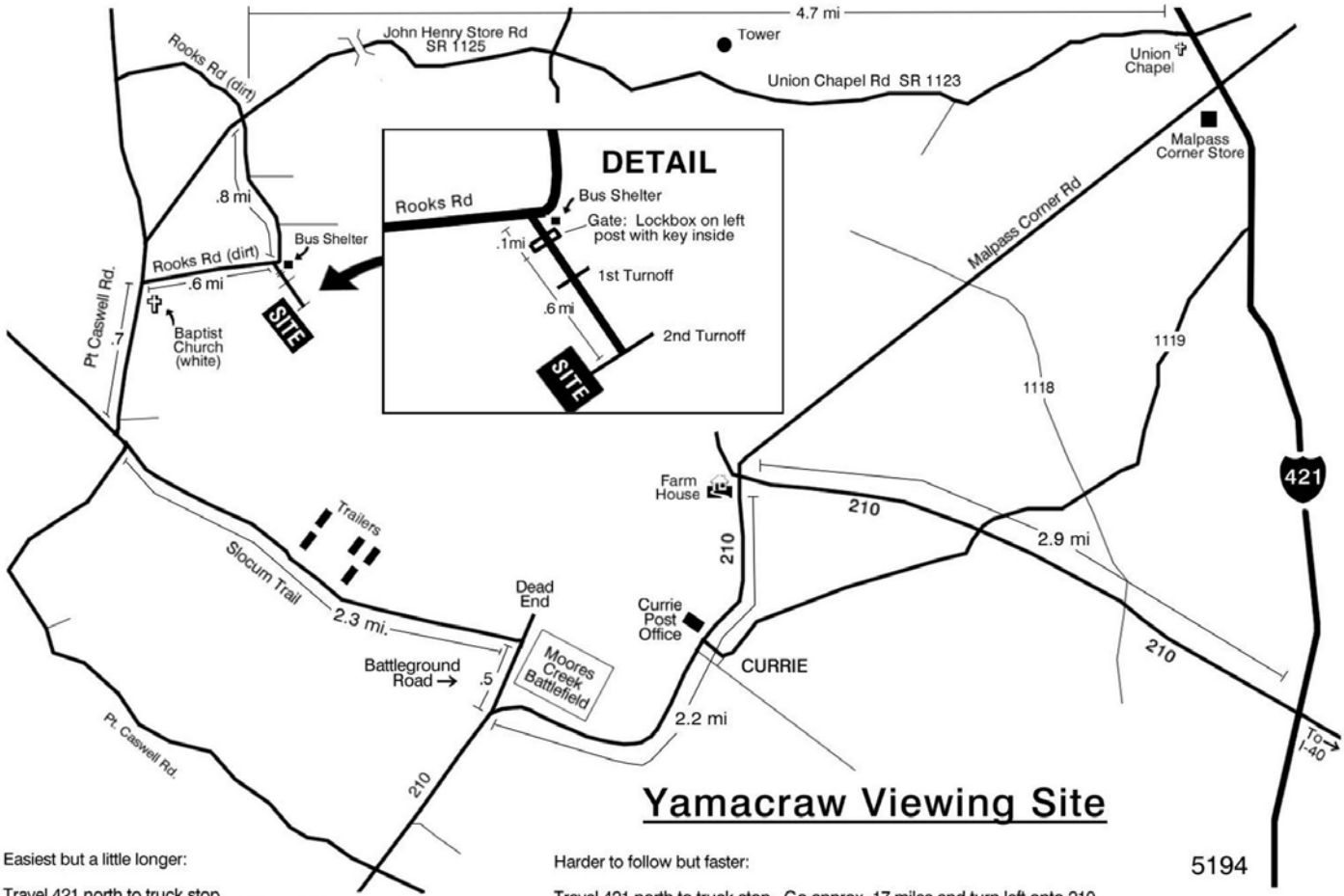
Call Ron Hawes at 762-1033 or check our email list to confirm a formal viewing session. Listed below are moonless nights so you can schedule a good viewing. All group viewing sessions will be at the Holly Shelter boat ramp site, unless otherwise specified. Time: Dusk until ?

Friday, October 5 Saturday, October 6

Friday, October 12 Saturday, October 13

Please be cautious of unusual wildlife behavior while observing. A golf club or stick could be useful to keep nearby.





Yamacraw Viewing Site

5194

Easiest but a little longer:

Travel 421 north to truck stop.
Go approx. 20.5 miles and turn left onto Union Chapel Road.
Follow for 4.7 miles (becomes John Henry Store Road) and take left onto Rooks Road (dirt).
Follow Rooks Road .8 miles around curve, pass bus shelter and take left onto our site's road.
Travel .1 mile, unlock/relock gate, travel .6 miles, take 2nd right.

Harder to follow but faster:

Travel 421 north to truck stop. Go approx. 17 miles and turn left onto 210.
Follow 210 for 2.9 miles to intersection (stop sign and big white farm house), turn left onto 210 W.
Follow 210 W past Currie Post Office and Battlefield, turn right onto Battleground Rd.
Follow Battleground Rd .5 miles, take sharp left onto Slocum Rd, follow for 2.3 miles.
Take a right onto Pt. Caswell Rd, follow .7 miles past Church, take right onto Rooks Road (dirt).
Follow Rooks Rd .6 miles, turn right onto our site's road. (If you see the bus shelter, you've gone too far.)
Travel .1 miles, unlock/relock gate, travel .6 miles, take the 2nd road on the right to our site.