



# the EYEPIECE



the FORT WAYNE ASTRONOMICAL SOCIETY • PO Box 11093 • Fort Wayne, IN 46855

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FWAS Web page: <http://fortwayneastronomicalsociety.com>

## GENERAL MEETING

Visitors Welcome

Tuesday Evening, June 21, 7:30 PM\*

Georgetown Public Library, 6600 East State Blvd. 46815

## ELECTIONS

### Kepler's Laws of Planetary Motion

by Amera Platt

Bring your calculator to the meeting

General Meetings are held the third Tuesday of each month, 7:30pm. Check our web site for location.

## Election Month (Revisited)

ELECTIONS did not take place last month as scheduled, but will be conducted this month. You are invited to become a Member of the Board of Directors for the Society. You may contact Nomination Chairman Bob Crider: 260-747-0774 to have your name put on the ballot. Also, nominations from the floor are encouraged. An election will first be held and followed by the program.

The presentation, given by Amera Platt, will teach the basics of using a calculator to compute several equations of astronomical interest. Bring your calculator to work them along with her.

Amera was raised on a farm, with most likely very nice views of the night sky. She graduated from Butler University in 1964. Teaching science in Public Schools, Amera became planetarium director at Wayne High School in 1991 and retired in 2007. She received an Honorary Life Membership in the Great Lakes Planetarium Association. in 2009. She currently is back into part time teaching Physical Science at Indiana Tech. She and her students quite often visit the FWAS observing site at Jefferson Township Park.

After the meeting you are invited to join the group that meets for continuing discussions at a restaurant to be selected at the meeting.

## Calendar Events Jun-July

Scheduled events for the next two months: Free public observing at Jefferson Township Park every clear Saturday for 2 hours, starting 1 hour after sunset, April - November.

### June

General Meeting Tuesday, Jun 21

Board Meeting Tuesday, Jun 28

### July

General Meeting Tuesday, July 19

Board Meeting Tuesday, July 26

## Deep Sky Star Parties

Deep Sky observing events are scheduled for FWAS members and their guests to observe the fainter objects in the sky from a location away from city lights. These events are closed to the general public to allow members to plan observing and photography projects that will be undisturbed.

This year we have not yet selected a site. Until we do you are invited to come to JTP for observing. If you have suggestions for a site contact Bob Crider at 747-0774.

Observing times are scheduled for Fridays near the new moon each month. This year the remaining dates are: **July 1, Aug 5, Sep 2 & 30, Oct 28, Nov 25.**

## Public Star Parties

The public observing season started in April. We will need trained volunteers to run the Richard Johnston (RJ) Telescope. **If you wish to participate, with the RJ scope, with your own telescope or without a scope, contact Bob Crider at 747-0774. to get on his volunteer list.** This is a great way to contribute to our community service. Current events are:

**Sat 18 June, Bluffton Star Party**, call Larry Clifford at (260)824-2655 for details on time and place.

**Sat 18 June**, New Haven Solfest at XXXX Park downtown with solar scopes 10 a.m. to 2 p.m

Sat July 9, Gene Stratton Porter at Rome City, call Bob Crider for details.

## Board Meeting Highlights

- The Board met on 24 May in Phil Hudson's office.
- Treas reported current holdings of \$4,122 for General operations and \$80,122 for S\*Q.
- The S\*Q Observatory is under construction.
- Pre-planning for 2017 solar eclipse.
- The next board meeting will be on Tuesday, 28 Jun., at 7:30 p.m. in Phil Hudson's office.

### FWAS OFFICERS

President: Larry Clifford 824-2655  
Vice-President: Phil Hudson 484-7000  
Secretary: Gene Stringer 489-8135  
Treasurer: Dave Wilkins 444-3070

### APPOINTED POSITIONS

Observatory Director: Open  
Star\*Quest Project Manager: Gene Stringer 489-8135  
Star\*Quest Treasurer: Dave Wilkins 444-3070

### EDITORIAL STAFF

Eyepiece editor, Gene Stringer, 489-8135  
Distribution, Gene Stringer 489-8135 & Phil Hudson 484-7000

Submissions to the Eyepiece are cheerfully accepted by E-mail (preferred) or on CD or other media, or on paper. Submissions may be edited

## Star\*Quest Update

By Gene Stringer

Construction of the building continues with the building completely enclosed with marine plywood. Drains were installed in the floor of the observing wings.

Many thanks to the Support Team members who accomplished the painting of the rail system and the painting of interior surface of fifteen 4' x 8' plywood sheets that were used to panel the sides of the roll-off roof frames.

Continuing work includes insulating the control room, installing doors, electrical wiring, and the HVAC system and the installation of the drive systems for the roll-off roofs.

Pre-finished (white) metal roof and siding will be ordered shortly for installation in July. Photos (thanks to Phil Hudson) at right show the progress to date.

I will be scheduling another meeting of the construction support Team shortly to discuss and schedule the accomplishment of more of the support tasks as reported in the April newsletter.

## Schouweiler Planetarium Update

By Gene Stringer

From the local news media we have learned that the Schouweiler Planetarium at USF has been closed, and that negotiations are in progress to remove the contents of the planetarium into storage in the care of Science Central, who is looking for space within that building to erect the planetarium indoors. Speculation is that Science Central will be looking for funding for this project.





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## NOAA's Joint Polar Satellite System (JPSS ) to revolutionize Earth-watching

By Ethan Siegel

If you want to collect data with a variety of instruments over an entire planet as quickly as possible, there are two trade-offs you have to consider: how far away you are from the world in question, and what orientation and direction you choose to orbit it. For a single satellite, the best of all worlds comes from a low-Earth polar orbit, which does all of the following:

- orbits the Earth very quickly: once every 101 minutes,
- is close enough at 824 km high to take incredibly high-resolution imagery,
- has five separate instruments each probing various weather and climate phenomena,
- and is capable of obtaining full-planet coverage every 12 hours.

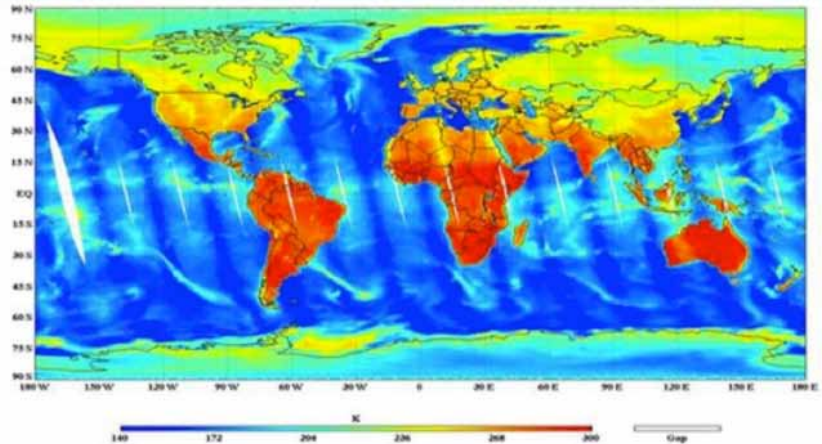
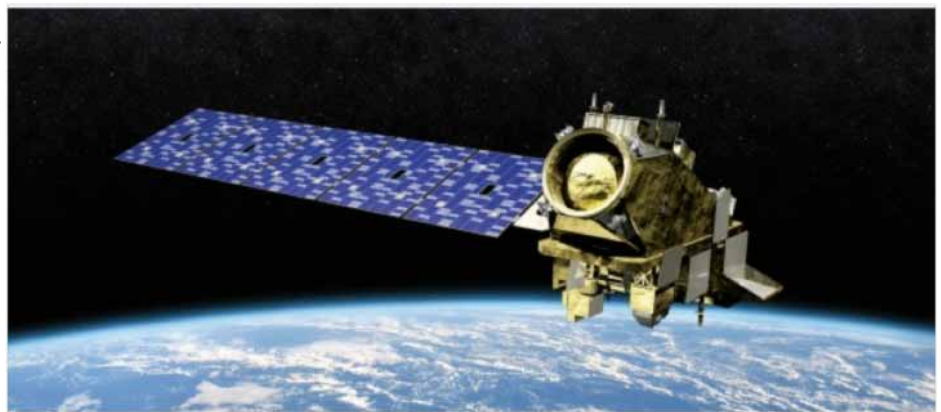
The type of data this new satellite – the Joint Polar Satellite System-1 (JPSS-1) -- will take will be essential to extreme weather prediction and in early warning systems, which could have severely mitigated the impact of natural disasters like Hurricane Katrina. Each of the five instruments on board are fundamentally different and complementary to one another. They are:

1. The Cross-track Infrared Sounder (CrIS), which will measure the 3D structure of the atmosphere, water vapor and temperature in over 1,000 infrared spectral channels. This instrument is vital for weather forecasting up to seven days in advance of major weather events.
2. The Advanced Technology Microwave Sounder (ATMS), which assists CrIS by adding 22 microwave channels to improve temperature and moisture readings down to 1 Kelvin accuracy for tropospheric layers.
3. The Visible Infrared Imaging Radiometer Suite (VIIRS) instrument, which takes visible and infrared pictures at a resolution of just 400 meters (1312 feet), enables us to track not just weather patterns but fires, sea temperatures, nighttime light pollution as well as ocean-color observations.

4. The Ozone Mapping and Profiler Suite (OMPS), which measures how the ozone concentration varies with altitude and in time over every location on Earth's surface. This instrument is a vital tool for understanding how effectively ultraviolet light penetrates the atmosphere.

5. Finally, the Clouds and the Earth's Radiant System (CERES) will help understand the effect of clouds on Earth's energy balance, presently one of the largest sources of uncertainty in climate modeling.

The JPSS-1 satellite is a sophisticated weather monitoring tool, and paves the way for its' sister satellites JPSS-2, 3 and 4. It promises to not only provide early and detailed warnings for disasters like hurricanes, volcanoes and storms, but for longer-term effects like droughts and climate changes. Emergency responders, airline pilots, cargo ships, farmers and coastal residents all rely on NOAA and the National Weather Service for informative short-and-long-term data. The JPSS constellation of satellites will extend and enhance our monitoring capabilities far into the future.



Images credit: an artist's concept of the JPSS-2 Satellite for NOAA and NASA by Orbital ATK (top); complete temperature map of the world from NOAA's National Weather Service (bottom).



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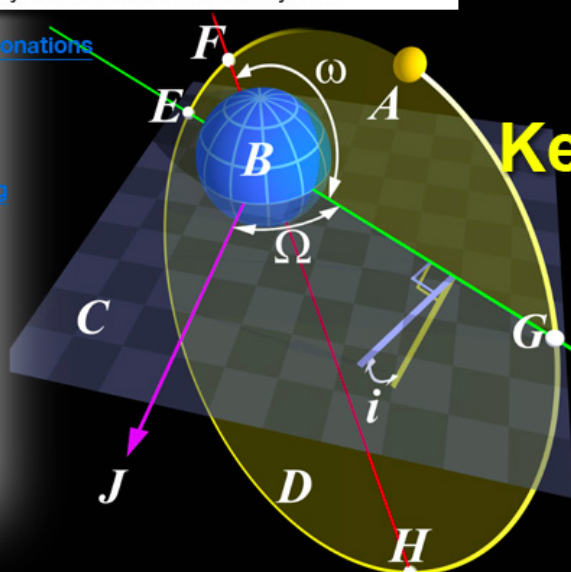
Next General Meeting:  
 Tuesday, June 21, 7:30 pm  
 Georgetown Public Library  
 6600 East State Blvd. 46815

\*Program:\*

# Kepler's Laws of Planetary Motion

by Amera Platt

Saturday Night Stargazing  
 at Jefferson Township Park  
 every clear Saturday night  
 starting 1 hour after sunset and  
 continuing for 2 hours.  
 April through November



**June Night Sky:** Saturn is directly opposite Sun the 3rd and is up all night. Mercury in the morning is at its greatest distance from the Sun the 5th. A poor one for northerners being too close to the horizon at sunrise. Jupiter will be just west of the waxing crescent Moon at sunset on the 11th. Monday, June 20, 6:34 p.m. EDT, Summer Solstice, longest daylight, Summer begins. Venus is too close to the Sun to be observed. Mars continues to dominate the evening sky in Libra. Saturn is nearby in Ophiuchus. Jupiter is well placed in the evening sky in Leo. Full Moon June 20th. Next new Moon, July 4th.