

The Shoreline Observer



Newsletter for the

Shoreline Amateur Astronomical Association

May 1996

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May Meeting

The May meeting of SAAA will be held on Thursday May 16th at 7:00 PM in the West Ottawa Middle School Planetarium.

- Business Meeting.
- Sandy will give a tour of the May night sky.
- Tim will speak on Virgo.
- Jeff Lutz will speak and have slides on South Pole.
- Phil will be bringing snacks.
- Everyone will have fun.

Treasurers Report

As of May 9, 1996: \$244.52

Star Party

On May 17th or 18th (depending on the weather), our star party will be at Vivekananda Monastery in Ganges. We start at dusk and continue until Maps are available at the meeting.

If you need a ride call Mike and he'll help to get you one. If you want to make sure there will be people there, call Pete.

Solar Systems in the Making

The Hubble Space Telescope once again shows its stuff. A composite mosaic of 15 different fields-of-view revealed protoplanetary disks around 160 young stars in a patch of the Orion Nebula. The mosaic is only 2.5 light-years across where as the entire Orion Nebula is 1,500 LY across. The Orion disks have at least the mass of 750 times that of Earth. There is potential for a planetary system to form, but that does not mean that there will definitely be planets forming. These disks are not massive enough to form a planetary system as large as our own Solar System. The disks are six to fifteen times the diameter of Pluto's orbit. They are thought to be made up of 99% gas and 1% dust.

This is an amazing display of HST's power. In the article, it stated that the resolution of the mosaic of the Orion Nebula was down to 4 billion miles (about Pluto's distance from the Sun). With that power we may be able to detect other civilizations in nearby planetary systems. All the more reason to continue funding the Hubble Space Telescope. The HST is one of the most productive and worthwhile projects of NASA in my opinion. It may even contribute as much as the Voyager program did to understanding the cosmos. Lately there has been a considerable emphasis on finding extrasolar planets and protoplanetary systems. With recent technology such as the HST, the Very Large Array, and the Keck Telescope searching out extra-solar planetary systems is now feasible. It is about time!

-Justin M. Welsh

This Month's Observations

Venus, which has dazzled the western sky all spring, is getting lower each night as it approaches inferior conjunction on June 10. Venus sets 3 hours after sunset on May 13, 2 hours after sunset on May 24, and by June 5 the planet sets just 30 minutes after the sun. On what date will you last see Venus as an evening star? As mentioned last month, now is a good time to observe Venus in the daytime (just before sunset) and to observe its changing crescent phase, which grows larger in size but thinner as it approaches us. By late June, Venus will have become a morning star, preceding the rising sun by 30 minutes on June 17, and by 1½ hours on June 30.

Jupiter can still be found in the southern sky one hour before sunup, while Saturn is just rising nearly due east. Mars and Mercury can also be found in the NEE, very low at dawn. On June 13, a thin crescent moon helps binocular users locate these planets.

Everyone is encouraged to go out and try to observe as many as the planets as you can now that the weather is starting to improve. For more information on these and other sky events, see the Skywatcher's Diary on the World Wide Web:

<http://www.pa.msu.edu/abrams/diary.html>

Peter Burkey

New Instrument could spot faintest stars

To learn about the births and deaths of distant galaxies, astronomers must catch the handful of photons that make it to Earth from the farthest reaches of the universe. A new electronic device that can detect high-energy photons promises to make that task easier.

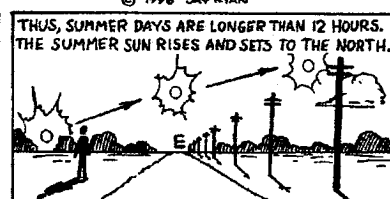
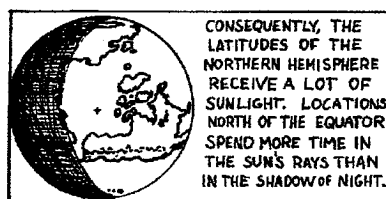
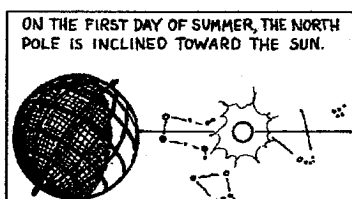
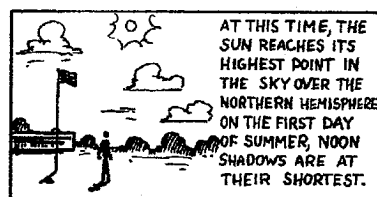
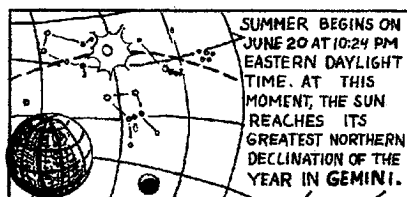
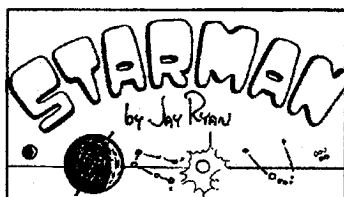
Anthony Peacock, an astrophysicist at the European Space Agency in Noordwijk, the Netherlands, and his colleagues have built an optical measuring device that they maintain "can overcome the limitations" of conventional CCDs for optical astronomy.

The new CCD can detect the position, arrival time, and energy of individual photons whose wavelengths measure from near ultraviolet to visible light.

The new device may enable astronomers "to gather thousands of spectra simultaneously just by taking an image," says Charles C Steidel of the Cal Institute of Tech in Pasadena. "For someone studying very faint galaxies, this technology could bring significant gains."

Right now, no instrument can make 3-d panoramic views of the sky and at the same time record the position and time of the photons arrival, as well as its energy level. The new technology will enable astronomers to analyze large portions of the sky that today must be studied piecemeal.

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