The Objective View

August 1999

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Next Meeting: August 5, 7:30 pm Discovery Center, Fort Collins
“Famous Eclipses and Their Impact” by Ken VanLew

Club business from 7:00 to 7:30

August Meeting Directions:
Discovery Center, 703 E Prospect Rd, Fort Collins
From Loveland go North on US 287 to Prospect Rd in Fort Collins, go East about 0.5 miles. Look for the Discovery Center sign on the South side of the street.
From I-25, take Exit 268, head West into Fort Collins. Continue past Lemay Ave about 0.5 miles and see the Discovery Center on the left.

Upcoming Events

Weekend Under the Stars
Foxpark, Wyoming August 12-14
For more information, Marty Curran at 307 635 5944
http://users.sisna.com/mcurran

Western Colorado Astronomy Club Star Party
“Our club is hosting a star party August 13 and 14 on the Grand Mesa All are welcome to the party. The location is at 10,000 feet, about an hour east of Grand Junction. Our web page (www.wic.net/WCAC) has a map.” No fee, donations accepted. Newsletter editor is Mark Goodrich, 970-250-6975.

Laramie Astronomical Society and Space Observers
Libby Flats Star Party, August 21
Summit of Snowy Range Road

Okie-Tex Star Party October 4-10
Camp Billy Joe near Kenton, OK
Guests include Brian Marsden and Mel Bartels
For info: seadkins@icon.net
405-350-3108
1604 Boundbrook Lane
Irving TX 75060

Mars Society Convention Aug 12-15
Call Brad Jarvis for info, 686-7317, or on the web:
www.marsociety.org
For a preliminary schedule for the Mars Society Convention see:
http://www.newmars.com/

Starwatch at Rocky Mountain National Park
Site is the end of the Upper Beaver Meadows Road. Contact Dan Laszlo if you wish to volunteer, 282-8692. Dates are Friday nights: August 6, August 20, September 3

Submitted by Brad Jarvis:
From: JPL. News@jpl.nasa.gov
Asteroid Found By Spacewatch Is Fastest Spinning Solar System Object University of Arizona News Services July 22, 1999

TUCSON, Ariz. – A unique near-Earth asteroid discovered last year by Spacewatch at the University of Arizona in Tucson is the fastest-spinning solar system object yet found, scientists report in tomorrow’s issue (July 23) of Science.

Only 30 meters (100 feet) across, asteroid 1998 KY26 spins once every 10.7 minutes. That’s 10 times faster than the spin rate of any other object and almost 60 times faster than the average of all known asteroid rotation periods, the scientists say.

Whirling at that speed and given its size, 1998 KY26 has to be a strong, single chunk of rock that was sent reeling from its parent asteroid in some space collision, said James V. Scotti, a senior research specialist at the UA Lunar and Planetary Laboratory (LPL) and co-author of the Science paper.

LPL Professor Tom Gehrels, Spacewatch co-founder, discovered asteroid 1998 KY26 on May 28, 1998, using the 0.9 meter (36-inch) Spacewatch telescope at Kitt Peak, Ariz. Six nights later Scotti, joined at the Spacewatch telescope by Dan Durda, took 111 images of the asteroid, measuring its minimum to maximum changes in brightness. Durda of the Southwest Research Institute in Boulder, Co., was formerly with LPL.

Astronomers at telescopes in the Czech Republic, Hawaii and California also made the same kind of photometric measurements from June 2 to 8. This was when the
asteroid made its closest swing by Earth at a half million miles, or twice the distance between the Earth and the moon. Between June 6 and 8, Steven J. Ostro headed a team from the NASA Jet Propulsion Laboratory in Pasadena, Calif., that used the Goldstone X-band radar of NASA’s Deep Space Network to track the asteroid. Radar echoes revealed the asteroid’s rapid spin rate. Petr Pravec of Ondrejov Astronomy Institute in the Czech Republic combined data gathered by the different optical observing groups and constructed a light curve to determine the precise rotation rate.

The astronomers discovered the size and shape of 1998 KY26 from the radar echoes. This asteroid is unusual in that it is almost spherical, with a bare-rock surface pocked at least in part by meteoroid bombardment, they report. Their optical and radar observations show this asteroid is similar to carbonaceous chondritic meteorites, objects that formed early in solar system history. These meteorites are rich in primordial complex organic compounds and water.

Asteroids in the 30-meter-diameter range survive between 10 million and 100 million years before being destroyed in space collisions. Carbonaceous chondrites are weaker meteorites, so this asteroid will be smashed sooner than later, they add.

Information from recent asteroid flybys suggests that large asteroids are less dense than the meteorites recovered and measured on Earth. Scientists theorize that most larger asteroids are porous "rubble piles" rather than monolithic bodies, Scotti said. Current theory says that "these rubble piles are conglomerates of debris broken apart by multiple collisions and held together by their mutual gravity, spinning slowly enough so that they don’t fall apart," he added.

Studying the detailed structure of these asteroids involves more than just scientific curiosity, Scotti said. There are two practical reasons for learning more about them: Asteroid minerals can provide raw materials for future space construction, and knowing how asteroids are put together provides critical knowledge for deflecting large ones headed for Earth.

Each month, Spacewatch - the world’s first telescope dedicated to searching for near-Earth asteroids - finds an average of two-to-three asteroids in our vicinity, and another 2,000 new ones in the asteroid belt. Spacewatch is funded by NASA, the University of Arizona and private donors.

Related links:
http://www.lpl.arizona.edu/spacewatch
http://www.lpl.arizona.edu/~jscotti/

Scope for Sale:
For sale: Meade 8", 1200 mm focal length Dobsonian reflector with 25, 12, and 10 mm eyepieces. $275 or highest offer. Call Andy at 482-0809

Best Looks
Moon 8/18,19 Near Mars and Antares
Mercury Low in E dawn, max elongation 14th
Venus In inferior conjunction August 20
Mars In SE, predawn
Jupiter In SE, predawn
Saturn In S, late eves
Uranus, Neptune In S, eves
Pluto

Perseid Meteors at Maximum in at August 12 and 13

Comet Viewing Ephemerides by Don Macholz
(for 0h UT)
C/1999 N2 (Lynn)
08-02 12h01.4m +14o39' 47" E 8.4
08-04 12h07.7m +16o20' 46" E 8.5
08-06 12h13.4m +17o51' 46" E 8.7
08-08 12h18.4m +19o13' 45" E 8.9
08-10 12h22.9m +20o28' 44" E 9.1
08-12 12h27.0m +21o36' 43" E 9.2
08-14 12h30.7m +22o38' 43" E 9.4
08-16 12h34.0m +23o35' 42" E 9.6
08-18 12h37.2m +24o28' 41" E 9.8
08-20 12h40.1m +25o17' 41" E 9.9

C/1999 H1 (Lee)
07-06 08h02.3m +26o42' 15" E 6.7
07-11 07h56.7m +28o52' 11" E 6.7
07-16 07h50.6m +30o55' 10" E 6.7
07-21 07h44.2m +32o52' 13" M 6.9
07-26 07h37.6m +34o44' 18" M 7.0
07-31 07h30.6m +36o33' 24" M 7.2
08-05 07h23.3m +38o23' 30" M 7.4
08-10 07h15.4m +40o16' 36" M 7.6
08-15 07h06.5m +42o15' 42" M 7.8
08-20 06h56.0m +44o23' 50" M 8.0
08-25 06h43.1m +46o43' 57" M 8.1
08-30 06h26.5m +49o17' 65" M 8.2
09-04 06h04.2m +52o05' 73" M 8.3
09-09 05h33.4m +54o58' 82" M 8.4

Viewing the International Space Station, Mir
Az is compass direction, 0=360=North, 90=East, 180=South, 270=West. El is Elevation above the horizon, 90 is straight up. ISS is about as bright as the Big Dipper stars, Mir is brighter.

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From: NCAS  
c/o Dan Laszlo  
2001 S Shields St Building H  
Fort Collins CO 80526  

TO: