

IO – February 2004

www.eugeneastro.org

Eugene Astronomical Society, Annual Club Dues \$25, President: Jean Grendler, School Star Party Coordinator, 683-9382, moegren@msn.com, Secretary & Treasurer: Sue Moe, suemoe@worldnet.att.net, Telescope lending program: Rossco. Web Master Dave, Nexstar11.com ; IO editor, Sam Pitts, sampitts@aol.com: Io (*EYE-oh*) is nearest to Jupiter and fastest orbiting of the four Galilean moons

February 2, 2004 MEETING
EUGENE ASTRONOMICAL SOCIETY
North Eugene High School Room #319 at 7:00 PM



**Telescope Workshop
for New Owners**



Video presentation: Educational, TBA

Congratulations to Eugene and Tucson!

Marni Berendsen, of the Astronomical Society of the Pacific, recently announced that the Eugene Astronomical Society and Tucson Amateur Astronomy Association were drawn to send one of their members as a guest of the JPL PlanetQuest Team to the JPL Open House weekend in Pasadena, California in May 2004.

Berendsen thanked every one of the participating amateur astronomers for their dedication in developing the PlanetQuest Outreach ToolKit and the planning of the Night Sky Network program.

Locally, Jean Grendler, President of the Eugene Astronomical Society participated in the effort by testing PlanetQuest Outreach ToolKits, participating in surveys and logging events and results to the website developed for this project.

At a meeting of the Board of Directors of the Eugene Astronomical Society (*an Oregon nonprofit corporation*) was held in Eugene, Oregon on January 19, 2004. The following resolution was adopted by unanimous consent of the directors: "RESOLVED, that with respect to the expenses-paid trip to NASA's Jet Propulsion Laboratory in May, 2004 that was awarded to EAS, Jean Grendler is selected as the EAS representative to attend."

Grendler logged the most events of all the participants and will be demonstrating tools from the outreach kits in Pasadena. Each logged event garnered an "entry" in the drawing for the trips awarded. The JPL open house is expected to draw over 30,000 visitors. By representing EAS at this event, Grendler will gain experience to bring back to improve EAS Outreach programs, make important contacts and showcase Eugene Astronomical Society as a national leader in sharing astronomy with the public and students!

Astronomy Day April 24, 2004

Time to mark the Calendar and volunteer for this day of fun and education. Eugene Astronomical Society will once again hold this stellar day at North Eugene High School. Please contact EAS President Jean Grendler to volunteer.

We also need telescope equipment & other astronomy related items for Telescope Alley, contact Sam Pitts.

More details in next month's issue of IO.

Join the user List!

Keep in-touch with Members and Events!

<http://lists.cmc.net/cgi-bin/mailman/listinfo/eugeneastro>



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The Astronomical League
The World's Largest Federation of Amateur Astronomers

Astronomical League Sky Puppy Certificate

Sky Puppy Club Chair:

Kevin & Madeleine Cornwell
email: kevin@cornwell.net

Introduction:

While the vast majority of the observing programs are geared to beginning and advanced adult observers, the Sky Puppies Club is designed just for the younger observer. The Astronomical League encourages young observers to hone their skills early since most hobbies and vocational interests begin at an early age.

The purpose of the Sky Puppies Club is to familiarize young observers with the night sky and whet their appetite to eventually graduate from a Sky Puppy to a Sky Hound. This process is usually begun when a parent takes their child along on observing trips. Unfortunately, many of the observing programs are somewhat too abstract, even esoteric, to hold the attention of the younger observer. In addition many observing parents can't justify the expense of a second telescope necessary for the child to use when both parent and child are observing together. The Sky Puppies Club was created to fill just that gap. To fulfill the goals of this club and receive the Sky Puppies pin and certificate, the young observer must use only their eyes, a pair of inexpensive binoculars, pencil & paper, and charts or a planisphere. A Sky Puppy will learn the rudiments of observing, how to read a chart or planisphere, how to find and identify constellations, stars, and deep-sky objects.

In addition, a Sky Puppy will learn that the night sky is not just about dots and fuzzy blobs, but about history, culture, and stories. Their goal will be to draw, identify, and describe 15 IAU constellations. Know the difference between an asterism and a constellation. Be able to tell at least two traditional stories implied by the constellations (stories may originate from any documented cultural tradition.) And, be able to use a pair of binoculars to locate 5 deep-space objects and identify what they are.



Membership Requirements:

To qualify for membership in the Sky Puppies Club, the observer must be 10 years of age or younger. Either they or their parent must be an Astronomical League member through either an affiliated club or as a Member-at-large. They must complete all of the Sky Puppy Projects with each project's completion substantiated through log notes, drawings, or other appropriate documentation. To receive the Sky Puppy pin and certificate, copies of all documentation must be signed by a parent and submitted with a letter stating the date-of-birth of the candidate to the Sky Puppies Club chair OR reviewed by a society officer who must then forward a letter stating that the observations have been properly completed and that the candidate meets the age requirement. The young observer must complete all projects prior to his/her 11th birthday and must submit their club membership request no later than their 12th birthday. The young observer should also state in their membership request whether the pin and certificate should be sent directly to him/her, or to his society officer for formal presentation (please provide address.)

Sky Puppy Manual:

Each Sky Puppy candidate is encouraged to purchase the Sky Puppy Manual. The special edition manual includes a variety of projects tailored specifically for the Sky Puppy. The workbook style enhances learning through hands-on projects, matching word exercises, coloring, word games, and includes a make-your-own planisphere project. Included with the manual is an audio CD-ROM with a variety of constellation stories artfully re-told. Order the Sky Puppy Manual from
Astronomy League Sales.

<http://www.astroleague.org/al/obsclubs/skypuppy/skypuppy2.htm>

Starfinders, Inc. March Meeting

Larry Deckman of Starfinders, Inc. has generously agreed to be the presenter at the March 1st EAS meeting. His program is titled: "Learning the Constellations - A New Approach." This will tie in with March being "Messier Marathon" month.

Deckman has also confirmed that he will give an evening presentation at the April 24th EAS Astronomy Day 2004 event. This popular program is titled: "Journey to the Outskirts of the Universe!" EAS Astronomy Day will be held at North Eugene High School, which is a cosponsor of the event. New this year will be access to the auditorium and stage area which will comfortably seat more visitors!

As a special collaborative opportunity, Larry is furnishing EAS with his products to offer at our December 1 EAS meeting. Members will have tables for swap and sell at this meeting and EAS will share in the profits from the sale of these products. (EAS will have no risk and no initial investment- a good deal for EAS!) Members and guests will have the convenience of purchasing these products at the meeting and benefit our organization at the same time!

Thank you Larry & Starfinders for contributing to astronomy education in our community and for helping EAS!

-Jean Grendler, EAS president

Jupiter's Red Spot Centered PST

01/31		21:47		02/16	05:04	
02/02	03:34	23:25		02/17	00:55	20:46
02/03	19:16			02/18	06:41	16:37
02/04	05:12			02/19	02:33	22:24
02/05	01:03	20:54		02/20	18:15	08:19
02/06	06:50	16:45		02/21	04:11	
02/07	02:41	22:32		02/22	00:02	19:53
02/08	08:28	18:23		02/23	05:48	
02/09	04:19			02/24	01:40	21:31
02/10	00:10	20:01		02/25	07:26	17:22
02/11	05:57			02/26	03:17	23:09
02/12	01:48	21:39		02/27		05:00
02/13	07:35	17:30		02/28	04:55	
02/14	03:26	01:17		02/29	00:47	10:42
02/15	05:08					

Transits of Jupiter's Moons



02/01	21:25	Europa	Shadow Begins
	22:51	Europa	Transit Begins
02/02	01:40	Europa	Transit Ends
	03:33	Io	Transit Begins
	05:48	Io	Transit Ends
02/03	21:59	Io	Transit Begins
02/04	00:14	Io	Transit Ends
02/05	16:25	Io	Transit Begins
	18:40	Io	Transit Ends
02/06	21:07	Callisto	Transit Begins
	22:42	Ganymede	Transit Begins
	23:46	Callisto	Ends Begins
02/07	01:58	Ganymede	Transit Ends
02/09	01:10	Europa	Transit Begins
	03:58	Europa	Transit Ends
	05:18	Io	Transit Begins
02/10	23:44	Io	Transit Begins
02/11	01:59	Io	Transit Ends
02/12	18:10	Io	Transit Begins
	20:25	Io	Transit Ends
02/14	02:02	Ganymede	Transit Begins
	05:18	Ganymede	Transit Ends
02/16	03:26	Europa	Transit Begins
	06:15	Europa	Transit Ends
02/18	01:28	Io	Transit Begins
	03:43	Io	Transit Ends
02/19	19:23	Europa	Transit Ends
	19:54	Io	Transit Begins
	22:09	Io	Transit Ends
02/21	05:19	Ganymede	Transit Begins
02/23	05:42	Europa	Transit Begins
02/25	02:11	Io	Transit Begins
	05:26	Io	Transit Ends
02/26	18:50	Europa	Transit Begins
	21:37	Io	Transit Begins
	21:39	Europa	Transit Ends
	23:52	Io	Transit Ends

Shadows cast on Jupiter's disk by Transit of its moons may Begin and end after transit times. Begin observing before Times listed do time variation due to precise location within time zones.

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"Sleepy Hollow," a shallow depression in the Mars ground near NASA's Spirit rover, may become an early destination when the rover drives off its lander platform in a week or so. That possible crater and other features delighted engineers and scientists examining pictures from the Mars Exploration Rover Spirit's first look around.

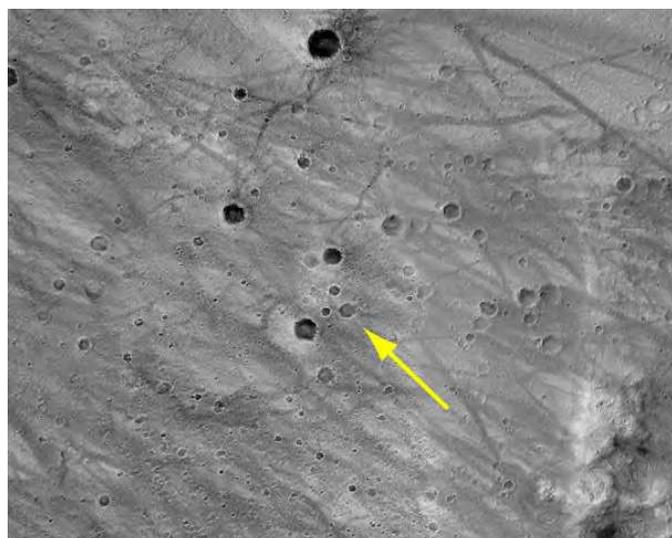
"Reality has surpassed fantasy. We're like kids in a candy store," said Art Thompson, rover tactical activity lead at NASA's Jet Propulsion Laboratory, Pasadena, Calif. "We can hardly wait until we get off the lander and start doing fun stuff on the surface."

A clean bill of health from a checkout of all three science instruments on Spirit's robotic arm fortified scientists' anticipation of beginning to use those tools after the rover gets its six wheels onto the ground. Also, Spirit succeeded Sunday in finding the Sun with its panoramic camera and calculating how to point its main antenna toward Earth by knowing the Sun's position. "Just as the ancient mariners used sextants for 'shooting the Sun,' as they called it, we were successfully able to shoot the Sun with our panorama camera, then use that information to point the antenna," said JPL's Matt Wallace, mission manager. Within sight of Spirit are several wide, shallow bowls that may be impact craters, said Dr. Steve Squyres of Cornell University, Ithaca, New York, principal investigator for the spacecraft's science payload. "It's clear that while we have a generally flat surface, it is pockmarked with these things. The mission's scientists, who are getting little rest as they examine the pictures from Spirit, chose the name "Sleepy Hollow" for one of these circular depressions. This one is about 9 meters (30 feet) across and about 12 meters (40 feet) north of the lander, Squyres said. "It's a hole in the ground," he said. "It's a window into the interior of Mars."

One of the next steps in preparing Spirit for rolling onto the soil is to extend the front wheels, which are tucked in for fitting inside a tight space during the flight from Earth.

Spirit arrived at Mars Jan. 3 (EST and PST; Jan. 4 Universal Time) after a seven month journey. Its task is to spend the next three months exploring for clues in rocks and soil about whether the past environment at this part of Mars was ever watery and possibly suitable to sustain life.

Spirit's twin Mars Exploration Rover, Opportunity, will reach its landing site on the opposite side of Mars on Jan. 25 (EST and Universal Time; Jan. 24 PST) to begin a similar examination of a site on the opposite side of the planet from Gusev Crater.



JPL, a division of the California Institute of Technology, manages the Mars Exploration Rover project for NASA's Office of Space Science, Washington. Additional information about the project is available from JPL at <http://marsrovers.jpl.nasa.gov> and from Cornell University at <http://athena.cornell.edu>.

Donald Savage (202) 358-1547

NASA Headquarters, Washington, D.C.

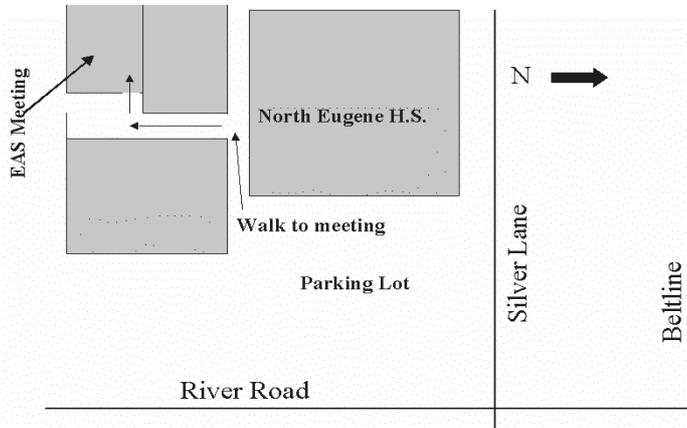
Guy Webster (818) 354-6278

Jet Propulsion Laboratory, Pasadena, Calif.

NEWS RELEASE: 2004-005



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EAS Meetings 1st Monday of the Month
 7:00-9:00 PM

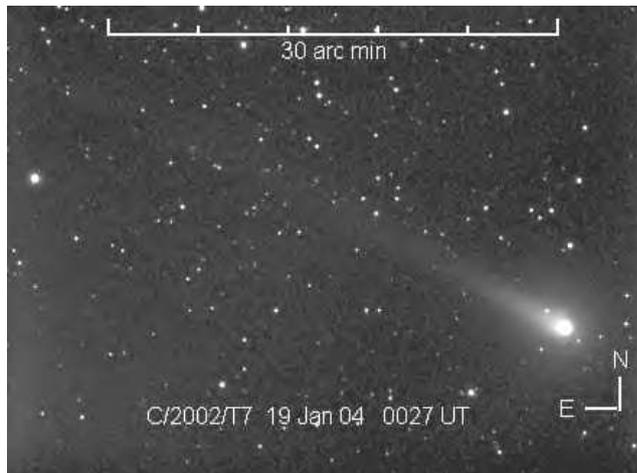
★ -eugeneastro - ★ Mail list of the Eugene Astronomical Society

The List keeps growing! Join the fun and discuss Astronomical Topics with others! Keep informed to local astronomical events and happenings. Use the list to ask questions about equipment or anything regarding Astronomy. The NW Astronomy list is open to anyone to join. Dave Cole, the EAS Webmaster, moderates this list. To join, visit <http://lists.cmc.net/cgi-bin/mailman/listinfo/eugeneastro>

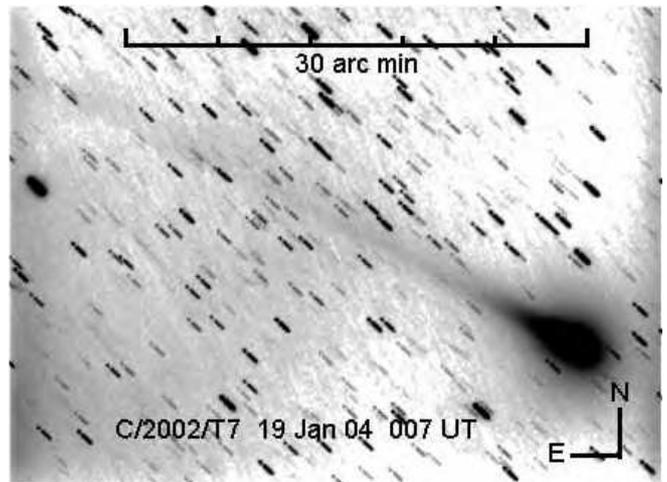
Comet CX/2002 T7 (Linear) Shows a Tail

Images by Dennis Persyk

Visit his Web Site: Igloo Observatory Home Page <http://dpersyk.home.att.net>



Scope: NP101 4-inch refractor at f/5.4 ©
 Camera: MX716
 Image: 2 x 5 minutes unguided Processed in ImagesPlus
 Conditions: Transparency 6/10; Seeing 5/10 Pickering VLM ~ 3.5
 Mount: AP1200QMD "push-to" with MG5/ECU computer interface



Negative image. Tail about 30 arc minutes long ©
 Scope: NP101 4-inch refractor at f/5.4
 Camera: MX716
 Image: 10 x 5 minutes unguided Adaptive Add in ImagesPlus
 Conditions: Transparency 6/10; Seeing 5/10 Pickering VLM ~ 3.5
 Mount: AP1200QMD "push-to" with MG5/ECU computer interface

<http://dpersyk.home.att.net/>

Please take time on February 1, to reflect back and pay our respects to those that have made the ultimate sacrifice in humanity's quest for the Stars



The STS-107 crew, clockwise from top: Mission Specialist Kalpana Chawla, Commander Rick Husband, Mission Specialists Laurel Clark and David Brown, Pilot Willie McCool, Payload Specialist Ilan Ramon and Payload Commander Michael Anderson.



Three astronauts, Lt. Col. Virgil I. Grissom, a veteran of Mercury and Gemini missions; Lt. Col. Edward H. White, the astronaut who had performed the first United States extravehicular activity during the Gemini program; and Roger B. Chaffee, an astronaut preparing for his first space flight, died in this tragic accident. January 27, 1967



Space Shuttle Challenger January 28, 1986
Space Shuttle Mission # 25: Commander Francis R. Scobee; pilot Michael J. Smith; mission specialist Ronald E. McNair, Ellison S. Onizuka and Judith A. Resnik; and payload specialist Gregory B. Jarvis, Sharon Christa McAuliffe (teacher)



On April 23, 1967 the Soyuz 1 took off from the Baikonur Cosmodrome, carrying a single cosmonaut, Colonel Vladimir Komarov, who died.

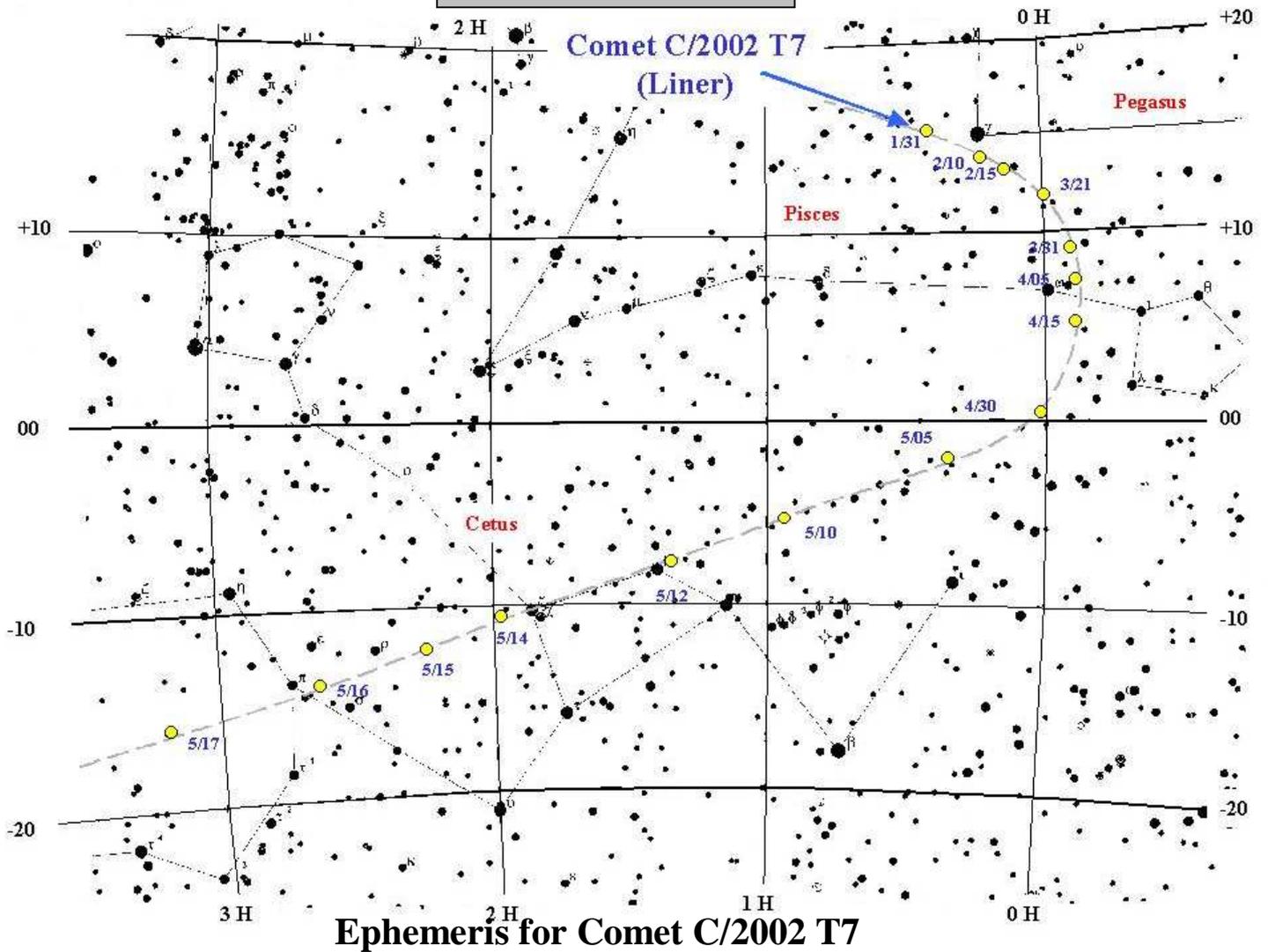


Back-up Crew for Soyuz 11; Georgi Dobrovolski, Vladislav Volkov and Viktor Patsayev, who launched on June 6, 1971. The capsule descended and was recovered on June 29, 1971 23:17 GMT. When the hatch was opened it was discovered that the crew was dead.

EAS Member Donates Scope

The EAS Telescope Lending Program has a "new" telescope thanks to the generosity of EAS member **Garth Price**. Garth donated a complete Meade ETX 70 telescope system including tripod and bag to carry it, and eyepieces for the scope. This is an excellent learning tool. Many thanks to **Garth!**

EAS maintains the telescope-lending program for members in good standing. Roscco manages the program under the direction of the EAS Board of Directors who set the policies for all EAS programs. He will try to match the experience of the borrower with an appropriate telescope. EAS member borrowers must sign an agreement to assume responsibility for the scope, properly care for it, store it safely, use it for personal viewing and bring it to EAS sanctioned events for the benefit of the club and the visiting public. Borrowers should report any problems with a club scope and should not perform any repairs or adjustments to the club scopes themselves.



<u>DATE</u>	<u>R.A.</u>	<u>DEC.</u>	<u>MAG.</u>	<u>DATE</u>	<u>R.A.</u>	<u>DEC.</u>	<u>MAG.</u>
2004 01 31	00 23.85	+17 17.9	7.7	2004 04 05	23 54.95	+08 04.3	3.7
2004 02 05	00 19.80	+16 17.9	7.5	2004 04 10	23 53.26	+07 06.6	3.2
2004 02 10	00 16.43	+15 24.3	7.3	2004 04 15	23 52.23	+05 58.9	2.8
2004 02 15	00 13.61	+14 36.3	7.2	2004 04 20	23 52.62	+04 39.1	2.3
2004 02 20	00 11.22	+13 53.1	6.9	2004 04 25	23 55.71	+03 03.7	2.0
2004 02 25	00 09.15	+13 13.5	6.7	2004 04 30	00 03.62	+01 05.3	1.7
2004 03 01	00 07.31	+12 36.8	6.4	2004 05 05	00 20.45	-01 34.2	1.3
2004 03 06	00 05.60	+12 01.8	6.1	2004 05 10	00 55.86	-05 40.1	0.9
2004 03 11	00 03.96	+11 27.5	5.8	2004 05 15	02 16.57	-12 42.9	0.4
2004 03 16	00 02.30	+10 52.9	5.5	2004 05 20	05 02.51	-19 57.2	0.4
2004 03 21	00 00.58	+10 16.7	5.1	2004 05 25	07 33.50	-17 43.5	1.3
2004 03 26	23 58.77	+09 37.6	4.6	2004 05 30	08 44.10	-13 50.2	2.5
2004 03 31	23 56.86	+08 54.1	4.2				

WARNING!

This comet gets close to the sun during the period covered in the ephemeris above. Observers are warned to be wary of observing comets near the sun. NEVER point any kind of optical instrument at the sun--instant blindness will be the probable result.

February 2004

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Space Shuttle COLUMBIA LOSS 2003 Comet C/2002 T7 Linear 23.0 RA +17.05 Dec (8.1) Pisces	2 Asteroid 6239 NEF 0.056 AU EAS MEETING NEHS 7:00 PM	3 Mars Occults (11.4) TYC 0625-01155-1	4 Asteroid 2002 pz39 NEF 0.152 AU	5 Mirror Grinding Class 7:00 Mars Occults (7.9) HIP 8973 Star AMC Atlas 2AS Launch	6  FULL MOON Sunset 5:28PM Moonrise 5:57PM	7 William Huggins 1824 A.S. of the Pacific 1889 Sunrise 7:24 AM Moonrise 7:08 PM
8	9	10 Asteroid 2000 WO107 NEF 0.190 AU	11 Mirror Grinding Class 7:00 Comet C/2002 T7 Linear 15.8 RA +15.14 Dec (7.9) Pisces	12 Lincoln's Birthday	13  Last Quarter Jupiter Occults (11.3) PPM 157614 Star Sunset 5:38 PM Moonrise 1:15 AM	14 DSP-22 Launch Valentine's Day Sunrise 7:14 AM Moonrise 2:33 AM
15 Galileo 440th Birthday 1564 Neptune 1.9° N of Mercury	16 Asteroid 2003 WE157 NEF 0.165 AU President's Day	17	18 Orange Blossom Star Party Florida Venus Occults (8.7) PPM 143762 Star	19 Asteroid 2003 YR70 NEF 0.105 AU Mirror Grinding Class 7:00	20  NEW MOON Venus Occults (9.9) PPM 143928 Star Sunset 5:48 PM Moonset 6:20 PM	21 Asteroid 3192 a'Heart NEF 0.992 AU Sunrise 7:04 AM Moonset 7:32 PM
22	23 Planetary Defense Conference- CA	24 Mariner 6 Launch 1969	25 Mirror Grinding Class 7:00 Venus Occults (9.8) TYC 0613-00933-1 Star Ash Wednesday	26 Moon Occults Mars Rosetta Ariane 5 Launch	27  Sunset 5:57 PM Moonset 1:05 AM First Quarter	28 Asteroid 2000 EV 70 NEF 0.164 AU Sunrise 6:52 AM Moonset 2:08 AM
29						