



June, 1998

At the June 5 meeting...

Determining Stellar and Galactic Distances

H.A.S. member Richard Nugent will tell us how astronomers have determined distances to stars and galaxies. In addition, we'll see more of this year's Texas Star Party.

Houston Astronomical Society

GuideStar

Starline - 281-568-9340

Houston Astronomical Society presents *Starline* -- a recorded message of Society events and astronomical happenings. This service is updated regularly, so call often to keep up-to-date on Society functions, new comets and more.

H.A.S. Web Page: <http://spacsun.rice.edu/~has>

Schedule Changes & Up-To-Date Information

See the GuideStar's Monthly Calendar of Events to confirm dates and times of all events for the month, and call Starline for any last minute changes.

Observatory Site Telephone: 409-732-8967

★★★★★ **The Houston Astronomical Society** ★★★★★★

The Houston Astronomical Society is a non-profit corporation organized under section 501 (C) 3 of the Internal Revenue Code. The Society was formed for education and scientific purposes. All contributions and gifts are deductible for federal income tax purposes. General membership meetings are open to the public and attendance is encouraged.

★★★★★ **Officers and past president** ★★★★★★

President: Don Pearce H: 713-432-0734	Treasurer: Bill Flanagan H: (713) 699-8819
Vice Pres: Kirk Kendrick H: 281-391-3834	Past-President: Allen Gilchrist H: 281-558-1190
Secretary: Matt Delevoryas H: 713-795-0808	

★★★★★ **Additional Board Members** ★★★★★★

	Liaison responsibility
John Blubaugh 713-921-4275	Publicity, telescope
Jay Levy 281-992-2708	Program, Field Trip/Observing
Warren Wundt 713-697-2960	Audit, Program, Field Trip/Observing
Tom Fox 281-358-5419	Education, Welcoming

★★★★★ **Committee Chairpersons** ★★★★★★

Audit Mike Gumler 409-938-4793	Program John Chauvin 713-981-8281
Education James Benthall 713-669-0838	Publicity Marg Nunez 713-529-2549
Field Tr./Obsg. Kenneth Drake 281-367-1592	Telescope Clayton Jeter 281-383-1337
Novice Mitchell/Goldberg 713-461-3020	Welcoming Susan Spore 281-493-2614
Observatory Michael Dye 281-498-1703	

★★★★★ **Ad-Hoc Committee Chairpersons** ★★★★★★

Historian Leland Dolan 713-529-0403	Publ. Star Party Marg Nunez 713-529-2549
Librarian Peggy Gilchrist 281-558-1190	Rice U. Coord. Matt Delevoryas 713-795-0808
Logo Mds Sales Judy Dye 281-498-1703	Schedule Obs'v'ty Steve Goldberg 713-721-5077
Long Range Plan Don Pearce 713-432-0734	Texas Star Pty Steve Goldberg 713-721-5077
Parliamentarian Kirk Kendrick 281-391-3834	

★★★★★ **Special Interest Groups & Help Committees** ★★★★★★

These are now listed on the inside of GuideStar (not every month). See the Table of Contents

★★★★★ **Advisors** ★★★★★★

Dr. Reginald DuFour, Rice Univ. Dr. Lawrence Pinsky, U. of H.

★★★★★ **Dues and Membership Information** ★★★★★★

Annual Dues: Regular \$33.00	Student \$5.00
Associate \$5.00	Honorary None
Sustaining . \$50.00	

All members have the right to participate in Society functions and to use the Observatory Site. Regular and Student Members receive a subscription to *The Reflector*. Regular, Student, and Honorary Members receive *The GuideStar*. Associate Members, immediate family members of a Regular Member, have all membership rights, but do not receive publications. Sustaining members have the same rights as regular members with the additional dues treated as a donation to the Society. *Sky & Telescope* mag \$27/year, *Astronomy* mag \$24/year -- see club treasurer.

Membership Application: Send funds to address shown on outside cover of *Guidestar*. Attention - Treasurer, along with the following information: Name, Address, Phone Number, Special Interests in Astronomy, Do you own a Telescope? (If so, what kind?), and where you first heard of H.A.S.

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Call the Starline, 281-568-9340 for updates and changes

Welcome to New Members!

The Houston Astronomical Society encourages you to join our group of active amateur astronomers and take advantage of the benefits of membership. As a member you'll have access to the club observing site near Columbus, Texas. (You're required to participate in a site orientation meeting before you get the gate lock combination.) The site has concrete pads for setting up your telescope, restroom and bunkhouse facilities, and areas set aside for camping. No new members this month.

Special Interest Group Listing

Any member who wants specific information on a SIG listed below may call the listed individual. Also, see the "Ad Hoc Committee Chairpersons" on the inside front cover and the "Special Help Volunteers" listing (not in every issue).

Advanced	Bill Flanagan	713-699-8819
CCD	Tom Arnold	281-495-0142
Comets	Kenneth Drake	281-367-1592
Lunar & Planetary	John Blubaugh	713-921-4275
Occultations & Grazes ...	Wayne Hutchison	713-827-0828

The President's Message



Last month I discussed the HAS history of telescope development and acquisition, and I also mentioned the straw poll conducted over a year ago indicating that the overwhelming majority of members present wanted to go in the direction of acquiring a large aperture visual telescope.

This month, I would like to focus on what I think it will take to accomplish this:

- 1) Commitment of energy and know-how. People who can assist in designing and building a large telescope have to be identified and persuaded to help. Even if we opt for an “off the shelf” type of instrument, a certain amount of design and labor will go into a building etc.
- 2) Commitment of Resources. Money will have to be raised through donations or fund raisers. Once there is a desire and direction established, this can be accomplished.
- 3) Overcome dissension. It will probably come down to HAS overcoming its childlike tendency to self-destruct when attempting to take on such a large project. In the last ten years, I have watched internal dissension kill several attempts to enter into a large project such as this one.
- 4) Establish clearly defined goals and objectives; in other words, determine what type of instrument to build/acquire, and set a time table for accomplishing the results.

I think if we all work together to accomplish this, it will certainly happen.

Clear skies and le croissant lunaire

Don Pearce

Houston Astronomical Society

*Meeting Notice
For Friday, June 5, 1998*

Richard Nugent Determining Stellar and Galactic Distances

*Richard Nugent did this presentation for the
Advanced SIG last year and has updated it for our
general meeting. Richard has a bachelors and a
masters degree in Astronomy and is a long-time
HAS member.*

also

More of the Texas Star Party.

Schedule of meeting activities:

Novice meeting: 7:00 p.m.

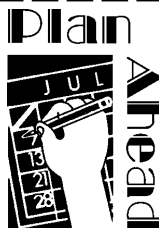
Everyone's welcome at the Novice meeting... even veterans. Scott and Amelia are reviewing the Universe Sampler, an observing program for newcomers and old hands. Completion of the program (recorded observations of all the objects) entitles you to a Universe Sampler pin.

Site orientation meeting: 7:00 p.m.

General meeting: 8:00 p.m.

See the inside back cover for more information.

June Calendar:



<i>Date</i>	<i>Time</i>	<i>Event</i>
1	8:45 p.m.	First Quarter Moon
5		HAS Club Meeting
	7:00 p.m.	Novice Presentation - U of H
	8:00 p.m.	General Membership Meeting - U of H
8	12:33 a.m.	Lunar occultation of mag 3.9 Gamma Librae, call Wayne Hutchinson, 713-827-0828
9	11:20 p.m.	Full Moon
13		Members Observatory Night-Columbus
16	7:00 p.m.	Advanced SIG Mtg.-Rice Univ., Scott Mitchell speaks about sketching one's observations, contact Bill Flanagan, 713-699-8819
17	5:40 a.m.	Last Quarter Moon
19	7:00 p.m.	JSCAS Meeting (info: http://www.ghgcorp.com/cbr/jscas.html)
20		Prime Night
21	9:03 a.m.	Summer Solstice-summer begins
23	10:52 p.m.	New Moon
10 July		HAS Club Meeting
	7:00 p.m.	Novice Presentation - U of H
	8:00 p.m.	General Membership Meeting - U of H

Send calendar events to JBlubaugh@aol.com or call 713-921-4275.

HAS Web Page

The Houston Astronomical Society Web page has information on the society, its resources, and meeting information.

The address is: <http://spacsun.rice.edu/~has>

Want your astronomy work and name on the Internet for the whole world to see? Have some neat equipment? Pictures in film, CCD, hand drawings or video format are all welcome on the page. Do you have an idea to improve the page? I'm listening. Send me Email at goldberg@sccsi.com. (You can click on my name on the HAS home page). Or, you can call me, Steve Goldberg (WebMaster), at 713-721-5077.

HAS Logo Sales

by Judy Ann Dye

Come to the meeting and pick up one of the following items, or call Judy Dye to place your order.

White sweatshirt with blue stars	\$ 13.00
Grey hooded sweatshirt (M to XL)	\$ 25.00
Grey hooded sweatshirt (XXL)	\$ 27.00
Blue satin jacket w/logo only	\$ 36.00
*Blue satin jacket w/logo and name	\$ 40.50
Observer's Guide -- Essential guidebook to 1998 astronomical events.	\$12.00

Other Meetings...

Brazosport Astronomy Society meets at 7:00 p.m. on the 2nd Thursday of each month in the Planetarium of the fine Arts Center at Brazosport College. Call Steve Lamb for program details (409) 297-3984

Fort Bend Astronomy Club meets the third Friday of the month at 8:00 p.m. at the First Colony conference Center. Novice meeting begins at 7:00, regular meeting begins at 8:00

Johnson Space Center Astronomical Society meets in the the Lunar and Planetary Institute on the 2nd Friday of each month.

Telescope Survey

*Do you
regularly use a
telescope
bigger than 10
inches in
diameter?
NASA wants
to know!*

(This item from the Astronomical League publication *The Reflector*) Mark Kowaleski, NASA Goddard Space Flight Center wants to know how many telescopes larger than 10 inches are in use by amateur astronomers around the world. NASA is working on the ICESat mission (an earth facing laser altimeter) and are trying to estimate the probability of an amateur astronomer viewing a laser beam straight on through such a telescope. He is looking for only a rough estimate (1 million, 20 million, how many?)

Since the AL is the largest amateur astronomical organization in the world, they are hoping we can help. I would like

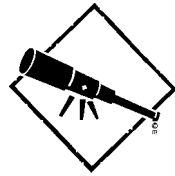
to ask amateurs to tell me via the Internet their telescope aperture, city, state, latitude/longitude. This information will not be made public, but will be kept by the League for projects such as ICESat.

Send your response to Ken Wilcox, Rt 2, Box 940, Bartlesville, OK 74006. 919-333-1966 (home), 918-661-3217 (work)
KWilcox@solar.stanford.edu

Election Notice

On April 30th, the Board of Directors accepted a resignation from the office of Director-at-Large, and one of these five positions became vacant. This shall serve as notice that the Society shall hold an election for one Director-at-Large at the July 10th meeting. The winner of the election shall serve from July 10th until December 31st. Any regular member with no lapse in membership since July 10th, 1997, is eligible to run for Director-at-Large. For any further information, contact any Officer of the Society. (See the inside cover for telephone numbers.) In the unfortunate event that a quorum of the Society does not attend the July meeting, this shall serve as notice for an election at the August 7th meeting.

Observatory Corner



By Michael B. Dye Observatory Chairman



July 1st will be the official Observatory Site Combination change date. This means that on that date, I will go out to the Observatory Site and change all the Common Access combination locks (both gates, pump house, and electrical boxes). I have determined the new combination number and started handing out the new combination packets to members at the last (May) General Membership Meeting. I will continue handing out Combo Change Envelopes at the June

General Membership meetings. These individualized envelopes will contain the new combination and other assorted information for Members who have taken the Observatory Site orientation course. Sometime in June, I will mail the remaining Combo change information to those members who have not picked up their envelopes. Save the Observatory Committee some postage and come and pick up your envelope at the General Meeting.

The first month of the 1998 Observatory Site Fund Raising Drive was a resounding success. The Observatory Committee received \$3,040.00 in cash donations from 50 members. The average donation size is \$60.80. The fund raising drive continues and as I said before no donation is too small. If you use and enjoy the Observatory Site, please donate to the Observatory Committee so that we can continue to add improvements to the Site and the Facilities. All donations are tax deductible and receipts will be issued by January 31, 1999.

On the same subject as donations, we (the Houston Astronomical Society) now have a Randalls Card Number. Randalls will donate a percentage of our total grocery purchases to the Houston Astronomical Society as long as the member is in 'good standing' (does not owe Randalls any money). The amount of the donation is dependent on our (HAS members) purchases. Randalls will make payments on a quar-

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terly time frame based upon the following percentage schedule:

1% Donation on total purchases up to \$19,999.00.

2% Donation on total purchases up to \$20,000.00 to
\$49,999.00.

3% Donation on total purchases over \$50,000.00.

I have selected to roll the amount over each quarter until we total over \$50,000.00, at which time Randalls will mail the HAS a check for \$1,500.00. As per a Board Of Directors agreement, half the money will go to the Observatory as a donation and the other half will go into the General Account as a donation. The number is #6618. If you shop at Randalls, please have your Randalls Card coded to #6618 and support the Houston Astronomical Society.

The new building roof is complete. Ralph Overturf went out the first Saturday of May to finish it (the roof). The next item to add to the building is the gable sides and vents. A work weekend is scheduled for the third weekend of May and we may be able to get some of this stuff done.

*Please fill out the appropriate log form when you use the site,
even if you do not observe.*

**GuideStar deadline for the July issue is
June 12**

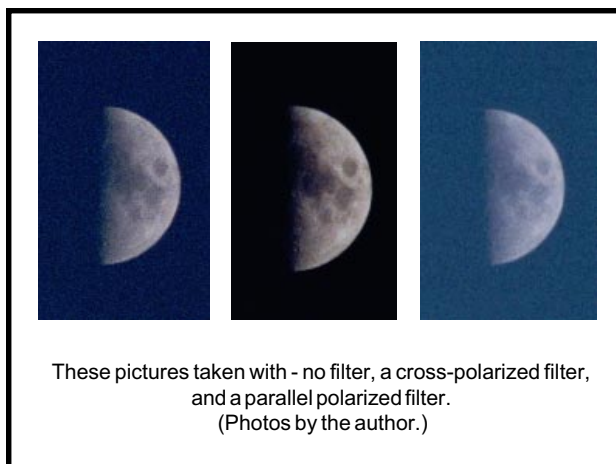
Daylight Pix of Quarter Moon using Polarized Light

By Leland A. Dolan

In my pursuit of astronomy, I like to experiment with unusual techniques in photographing celestial objects. I took pictures of the First Quarter Moon by daylight, using a polarizing filter to suppress the sky brightness and enhance the features of the Moon. The daytime sky is bright because tiny particles suspended in the atmosphere diffuse

Sunlight, causing the sky to appear blue. One property of the sunlit sky is that its light is polarized. And this polarization is at maximum along a band of sky 90 degrees from the Sun. The Moon passes through this band both at First Quarter and again at Last Quarter, when its elongation equals

90 degrees east and west of the Sun. The polarization is still prominent within a few degrees on either side of this band.



Although I had tried this before, I wanted to record on film how a polarizing filter on my camera would suppress the daylight sky brightness. I began by taking a series of exposures without the filter, as a “standard” against which to compare those taken with the filter. After

Continued...

Daylight Pix... from previous page

attaching the filter to a 200mm telephoto lens, I made several exposures with the polarization set perpendicular to the sky's polarization followed by another set taken with the polarizer parallel to that of the sky. However, the photographic process has exaggerated the contrast, so the sky looks "black" in the photo taken with perpendicular polarization. The picture on the left was taken without a filter. The middle picture was taken with the polarizer perpendicular, and the one on the right, with the polarizer parallel to that of the sky.

While you may not wish to photograph the Moon, you can still observe visually how the contrast of a First or Last Quarter Moon's is enhanced by using a polarizer. If you have a pair of polarizing sunglasses, hold them between the Moon and your eye and observe what happens as you rotate them. The next three opportunities to observe this will occur on June 1 around 6:30 p.m., June 17 about 9:00 a.m., and July 16 near 10:00 a.m. If you are at your job during those hours, ask your employer if he will let you step outside for a couple of minutes. Tell him you need some "fresh air."

In the meantime, you can demonstrate this principle on any sunny day, using a polarizer to observe some small cumulous clouds located about 90 degrees from the Sun. This will show you what to expect when you try it on the Moon. Happy observing!

Want Ads

For Sale: 8" Meade equatorial Starfinder telescope with Telrad. Original owner, in excellent condition. Great for Messier objects and beginner/intermediate viewing. \$500 Arnie Kaestner 713-464-6703

For Sale: Meade 2045D, 4" SCT, hard case, field tripod, wedge, finder, eyepiece, battery pack. This is a great telescope for portable use... easy to pack and carry. \$650. Original owner. Excellent condition. Call Bill Pellerin 713-880-8061

Observatory Duty Roster

by Michael B. Dye, Observatory Chairman

This is the duty list for June, July and August. Be sure to contact your supervisor for any information that you may need and the date and time to be at the site. You may change from site duty to open house or from open house to site duty by pre-arrangement with the Site Supervisor for that month. Changes between months require Observatory Chairman coordination.

For June supervisor Matt Delevoryas 713-795-0808

Ben Negy, Jr. Members Observatory Night 06-13-98
Johnny Norris Site
Richard Nugent Members Observatory Night 06-13-98
Ralph Overturf, Jr. Site
Don C. Pearce Site
Michael D. Peters Site
Sim Picheloup Members Observatory Night 06-13-98
Leonard W. Raif Site

For July supervisor Dana Lambert 281 933-4627

Gary Ray. Site
Glenn L. Ray Members Observatory Night 07-18-98
George E. E. Reder Site
Henry Schneider Site
Carl Sexton Members Observatory Night 07-18-98
Steve Simpson Site
Larry C. Wadle Site
Mark R. Watson Members Observatory Night 07-18-98

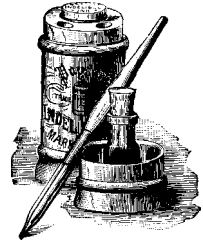
For August supervisor Logan Rimes 713 681-5397

Tom Williams Members Observatory Night 08-15-98
Barbara Wilson Members Observatory Night 08-15-98
Buster Wilson Members Observatory Night 08-15-98
Warren Wundt Site
W. Charles Barnes Site
John Blubaugh Site
Ken Carey Site
Ronald R. Carman Site

Please remember that Site work can be done anytime and does not have to be done just before Members Observatory Night. Contact your Site Supervisor for details. Names are selected for Site Duty using the current Alphabetical listing for Observatory Key Holders. If any member knows of a conflict please call me before your name is listed.

B&Ps from the IAUCs

by *Matt Delevoryas*



We have this month three supernovae (we think it's three) to mention, out of the dozens reported, an update on a nova, and an Orion Nebula tidbit.

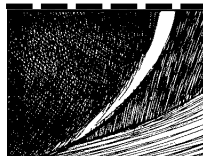
Another supernova has brightened to within the reach of typical amateur telescopes. IAU Circular 6875 announced the discovery of SN 1998aq in the Ursa Major spiral galaxy NGC 3982, at magnitude 14.9 on unfiltered CCD images in mid-April. The galaxy is photographic magnitude 12, at $11^{\text{h}} 56.5^{\text{m}} +55^{\circ} 8'$. Relative to the nucleus of the galaxy, it is 7 seconds north and 18 seconds west. IAUC 6898 reported the supernova to have brightened past 12.5 and stayed that bright for the last week of April and the first week of May. It is a type-Ia supernova. Charts with comparison star magnitudes are available by arrangement with this author, at the number listed inside the front cover. Check Starline for current magnitude reports.

Barely in time for this article, IAUC 6899 announced another bright supernova was discovered on May 10, around magnitude 13 in M 96 (NGC 3368), at $10^{\text{h}} 46.8^{\text{m}} +11^{\circ} 49'$. Relative to the nucleus of the galaxy, it is 55 seconds north and 4 seconds east. Again, check Starline for current news.

There is yet another supernova (maybe) of interest. IAUC 6884 reported a gamma-ray burst GRB 980425, detected by BeppoSAX late on April 25. A position was derived, somewhere within a circle of radius $8'$, containing two x-ray sources. IAUC 6895 reported the ESO NTT imaged the region and found what seems to be a type-II supernova in an arm of the face-on barred spiral ESO 184-G82, but not coincident with either of the x-ray sources. IAUC 6896 reported that neither x-ray source appeared in a radio image with the Australian Telescope Compact Array, but a bright source at the location of the presumed supernova could. Assuming this really is a supernova, it is "one of the most luminous radio supernovae discovered, and is still brightening." Before concluding that the supernova and the gamma ray burst are the same, the supernova

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Comets in June



by *Kenneth Drake*

Circular No. 6894 of the Central Bureau for Astronomical Telegrams reported the discovery of Comet C/1998 J1 (SOHO) by S. Stezelberger using the SOHO-LASCO C3 coronagraph on May 3rd. C. St. Cyr of the Naval Research Laboratory estimated the comet at mag 0 or possibly brighter. A fanshaped tail was noted also. At this time, (May 9) no visual sightings have been reported. Since the comet is so close to the Sun, it may be mid month before anyone nails it visually. I have provided an ephemeris using MegaStar and elements provided by CBAT which can be found at: <http://cfa-www.harvard.edu/cfa/ps/Ephemerides/Comets/index.html>

SOHO is moving southeast through Orion as you read this and continues to get dimmer but to increase its elongation from the Sun.

SOHO C/1998 J1

Local Time	U.T.	RA	Dec	Mag	E.D.	S.D.	E
1998 May 21 19:00	May 22 0:00	05 34 11.9	+03 37 17	3.6	0.8314	0.5006	29
1998 May 22 19:00	May 23 0:00	05 41 21.6	+01 38 42	3.8	0.8319	0.5287	31
1998 May 23 19:00	May 24 0:00	05 48 17.6	-00 17 15	4.1	0.8339	0.5563	33
1998 May 24 19:00	May 25 0:00	05 55 0.9	-02 10 18	4.3	0.8375	0.5836	35
1998 May 25 19:00	May 26 0:00	06 01 32.7	-04 00 11	4.5	0.8423	0.6104	37
1998 May 26 19:00	May 27 0:00	06 07 53.8	-05 46 45	4.7	0.8484	0.6369	39
1998 May 27 19:00	May 28 0:00	06 14 5.1	-07 29 50	4.9	0.8556	0.6630	40
1998 May 28 19:00	May 29 0:00	06 20 7.1	-09 09 23	5.1	0.8638	0.6888	42
1998 May 29 19:00	May 30 0:00	06 26 0.6	-10 45 23	5.2	0.8730	0.7143	44
1998 May 30 19:00	May 31 0:00	06 31 46.1	-12 17 49	5.4	0.8830	0.7394	45
1998 May 31 19:00	Jun 1 0:00	06 37 24.0	-13 46 42	5.6	0.8939	0.7642	47
1998 Jun 1 19:00	Jun 2 0:00	06 42 54.7	-15 12 07	5.8	0.9055	0.7888	48
1998 Jun 2 19:00	Jun 3 0:00	06 48 18.6	-16 34 08	5.9	0.9178	0.8130	49
1998 Jun 3 19:00	Jun 4 0:00	06 53 36.2	-17 52 50	6.1	0.9307	0.8370	51
1998 Jun 4 19:00	Jun 5 0:00	06 58 47.6	-19 08 19	6.2	0.9442	0.8608	52
1998 Jun 5 19:00	Jun 6 0:00	07 03 53.3	-20 20 42	6.4	0.9582	0.8843	53
1998 Jun 6 19:00	Jun 7 0:00	07 08 53.4	-21 30 05	6.5	0.9728	0.9075	54
1998 Jun 7 19:00	Jun 8 0:00	07 13 48.2	-22 36 36	6.7	0.9878	0.9305	55
1998 Jun 8 19:00	Jun 9 0:00	07 18 38.0	-23 40 21	6.8	1.0032	0.9533	56
1998 Jun 9 19:00	Jun 10 0:00	07 23 23.0	-24 41 29	6.9	1.0190	0.9759	57
1998 Jun 10 19:00	Jun 11 0:00	07 28 3.3	-25 40 06	7.1	1.0351	0.9983	58
1998 Jun 11 19:00	Jun 12 0:00	07 32 39.2	-26 36 18	7.2	1.0516	1.0205	59
1998 Jun 12 19:00	Jun 13 0:00	07 37 10.9	-27 30 14	7.3	1.0684	1.0425	60
1998 Jun 13 19:00	Jun 14 0:00	07 41 38.4	-28 22 00	7.4	1.0855	1.0642	61
1998 Jun 14 19:00	Jun 15 0:00	07 46 2.1	-29 11 41	7.6	1.1029	1.0859	62
1998 Jun 15 19:00	Jun 16 0:00	07 50 21.9	-29 59 25	7.7	1.1205	1.1073	62
1998 Jun 16 19:00	Jun 17 0:00	07 54 38.2	-30 45 17	7.8	1.1383	1.1286	63
1998 Jun 17 19:00	Jun 18 0:00	07 58 51.0	-31 29 23	7.9	1.1564	1.1497	64
1998 Jun 18 19:00	Jun 19 0:00	08 03 0.4	-32 11 49	8.0	1.1746	1.1706	64
1998 Jun 19 19:00	Jun 20 0:00	08 07 6.5	-32 52 40	8.1	1.1930	1.1914	65

Continued...

Comets... from previous page

1998 Jun 20 19:00	Jun 21 0:00	08 11	9.5	-33	32 00	8.3	1.2117	1.2120	65
1998 Jun 21 19:00	Jun 22 0:00	08 15	9.6	-34	09 55	8.4	1.2304	1.2325	66
1998 Jun 22 19:00	Jun 23 0:00	08 19	6.6	-34	46 28	8.5	1.2493	1.2529	66
1998 Jun 23 19:00	Jun 24 0:00	08 23	0.9	-35	21 45	8.6	1.2684	1.2731	67
1998 Jun 24 19:00	Jun 25 0:00	08 26	52.4	-35	55 49	8.7	1.2876	1.2931	67

Comet Meunier-Dupouy continues to stay about magnitude 11.0 as the Earth closes the distance while the comet slowly recedes from the Sun. In theory, the comet could brighten somewhat as we close from 3.1 A.U. to 2.8 A.U. Comet Meunier-Dupouy is making a slow arc through Pegasus at about four minutes per day while SOHO is flying along at three degrees per day. This difference is caused by not only the distance difference but the geometry as well.

Meunier-Dupouy C/1997 J2

Local Time	U.T.	RA	Dec	Mag	E.D.	S.D.	E
1998 May 21 19:00	May 22 0:00	22 28 56.6	+30 22 33 11.0	3.2811	3.1332	73	
1998 May 22 19:00	May 23 0:00	22 29 13.3	+30 20 16 11.0	3.2704	3.1355	73	
1998 May 23 19:00	May 24 0:00	22 29 28.9	+30 17 53 11.0	3.2596	3.1378	74	
1998 May 24 19:00	May 25 0:00	22 29 43.3	+30 15 25 11.0	3.2486	3.1400	75	
1998 May 25 19:00	May 26 0:00	22 29 56.5	+30 12 52 11.0	3.2376	3.1424	76	
1998 May 26 19:00	May 27 0:00	22 30 8.5	+30 10 12 11.0	3.2265	3.1447	76	
1998 May 27 19:00	May 28 0:00	22 30 19.3	+30 07 26 11.0	3.2153	3.1471	77	
1998 May 28 19:00	May 29 0:00	22 30 28.8	+30 04 33 11.0	3.2040	3.1495	78	
1998 May 29 19:00	May 30 0:00	22 30 37.2	+30 01 34 11.0	3.1926	3.1520	79	
1998 May 30 19:00	May 31 0:00	22 30 44.2	+29 58 28 11.0	3.1812	3.1544	79	
1998 May 31 19:00	Jun 1 0:00	22 30 50.0	+29 55 14 11.0	3.1696	3.1569	80	
1998 Jun 1 19:00	Jun 2 0:00	22 30 54.6	+29 51 53 11.0	3.1580	3.1594	81	
1998 Jun 2 19:00	Jun 3 0:00	22 30 57.9	+29 48 24 11.0	3.1463	3.1620	82	
1998 Jun 3 19:00	Jun 4 0:00	22 30 59.9	+29 44 47 11.0	3.1346	3.1646	82	
1998 Jun 4 19:00	Jun 5 0:00	22 31 0.6	+29 41 02 11.0	3.1228	3.1672	83	
1998 Jun 5 19:00	Jun 6 0:00	22 31 0.1	+29 37 08 11.0	3.1109	3.1698	84	
1998 Jun 6 19:00	Jun 7 0:00	22 30 58.2	+29 33 05 11.0	3.0990	3.1725	85	
1998 Jun 7 19:00	Jun 8 0:00	22 30 55.1	+29 28 53 11.0	3.0870	3.1751	86	
1998 Jun 8 19:00	Jun 9 0:00	22 30 50.6	+29 24 31 11.0	3.0750	3.1779	86	
1998 Jun 9 19:00	Jun 10 0:00	22 30 44.8	+29 20 00 11.0	3.0629	3.1806	87	
1998 Jun 10 19:00	Jun 11 0:00	22 30 37.7	+29 15 19 11.0	3.0508	3.1834	88	
1998 Jun 11 19:00	Jun 12 0:00	22 30 29.2	+29 10 27 10.9	3.0387	3.1862	89	
1998 Jun 12 19:00	Jun 13 0:00	22 30 19.4	+29 05 25 10.9	3.0266	3.1890	90	
1998 Jun 13 19:00	Jun 14 0:00	22 30 8.2	+29 00 11 10.9	3.0144	3.1918	91	
1998 Jun 14 19:00	Jun 15 0:00	22 29 55.7	+28 54 47 10.9	3.0022	3.1947	92	
1998 Jun 15 19:00	Jun 16 0:00	22 29 41.8	+28 49 11 10.9	2.9900	3.1976	92	
1998 Jun 16 19:00	Jun 17 0:00	22 29 26.5	+28 43 23 10.9	2.9778	3.2005	93	
1998 Jun 17 19:00	Jun 18 0:00	22 29 9.9	+28 37 23 10.9	2.9656	3.2035	94	

Continued...

Comets... from previous page

1998 Jun 18 19:00	Jun 19 0:00	22 28 51.9	+28 31 10 10.9	2.9534	3.2065	95
1998 Jun 19 19:00	Jun 20 0:00	22 28 32.5	+28 24 44 10.9	2.9412	3.2095	96
1998 Jun 20 19:00	Jun 21 0:00	22 28 11.6	+28 18 05 10.9	2.9291	3.2125	97
1998 Jun 21 19:00	Jun 22 0:00	22 27 49.4	+28 11 12 10.9	2.9169	3.2156	98
1998 Jun 22 19:00	Jun 23 0:00	22 27 25.8	+28 04 05 10.9	2.9048	3.2186	99
1998 Jun 23 19:00	Jun 24 0:00	22 27 0.8	+27 56 44 10.9	2.8927	3.2217	100
1998 Jun 24 19:00	Jun 25 0:00	22 26 34.4	+27 49 08 10.9	2.8807	3.2249	101

In the above ephemerides, the columns ED, SD, and E are Earth distance, Sun distance and elongation in degrees between comet and Sun as viewed from Earth.

Good hunting,

Kenneth Drake — Field Trip and Observing Chairman, and Chairman of the Comet SIG

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drako@ix.netcom.com

B&P's.. from page 14

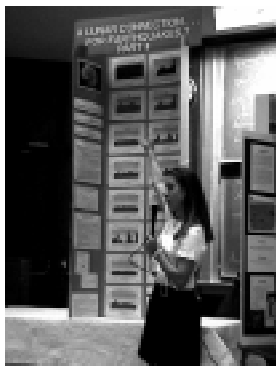
needs to be watched long enough to figure out how long ago it exploded. If the gamma ray burst coincides with the explosion, the association would probably be considered confirmed. If not, then some more thinking will be needed!

IAUC 6889 reports that Nova Sagittarii 1998 (see last month's *GuideStar*. p. 14) was fading to magnitude 11.0 as May began.

Orion Nebula fans should note that IAUC 6893 reports that there is greatly enhanced water maser emission from the Kleinmann-Low nebula, with the flux having grown more than two orders of magnitude since January.

Science Fair Projects Presented at May Meeting

by Bill Pellerin, *GuideStar* Editor



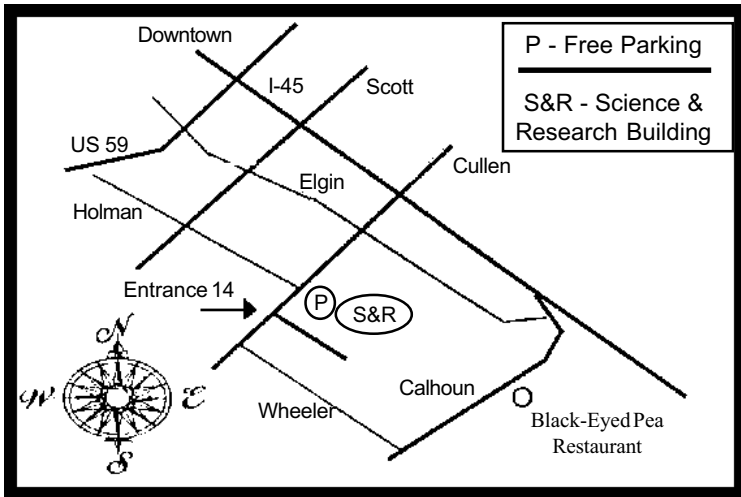
One of the best meetings of the year is the one at which Science Fair Winners are invited to present their projects. This year, three presenters came to the meeting.

Jennifer Golightly (left) presented "A Lunar Connection for Earthquakes, Part II" in which she investigated the relationship between earthquakes and tidal influences on the earth from the moon.

Sarina Hickey (right) showed us her presentation entitled "Does the Coriolis Effect Cause Erosion?" In this study, she investigates the relationship between riverbank erosion and the coriolis effect (acceleration of the water as it approaches the equator).



Our final presenter was Ingrid Lindstrom (left). Her presentation was titled, "Mars: Lost in the Dust". Her study investigated the possibility that data about the composition of Martian rocks was inaccurate due to the heavy dusting of the rocks.



General Membership Meeting

The Houston Astronomical Society holds its regular monthly General Membership Meeting on the first Friday of each month, unless rescheduled due to a holiday. Meetings are in Room 117 of the Science and Research Building at the University of Houston. A Novice Presentation begins at 7:00 p.m.. The short business meeting and featured speaker are scheduled at 8:00 p.m. Also typically included are Committee Reports, Special Interest Group Reports, current activity announcements, hardware reviews, an astrophotography slide show by members and other items of interest.

Board of Directors Meeting

The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. in Room 106 of the Space Science Building at Rice University. Call StarLine for Board Meeting information. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

GuideStar Information

The H.A.S. *GuideStar* is published monthly by the Houston Astronomical Society. All opinions expressed herein are those of the contributor and not necessarily of Houston Astronomical Society. The monthly Meeting Notice is included herein. *GuideStar* is sent via bulk rate mail to Regular, Student, and Honorary Members of H.A.S., selected individuals and recent visitors to the General Membership Meeting. Contributions to *GuideStar* by members are encouraged. Electronic submission is helpful. Submit the article in ASCII text, MS-Word (preferred), or WordPerfect format on an IBM format floppy or via AOL (BILLP10566). Mail copy to the address shown on the outside cover or to the editor at 256 East 5th Street, Houston, TX 77007. Copy must be received by the second Friday of the month for inclusion in the issue to be mailed near the end of the same month. Or, bring copy to the General Membership Meeting and give it to the Editor, or phone to make special arrangements.

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