

SASKATOON SKIES

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Minutes of the May Executive Meeting
May 16, 1994
Room B10, Health Sciences Building, U of S

Attendees: Dr. E. Kennedy, Al Hartridge, Gordon Sarty, Jim Young, Bill Hydomako, Garry Brett, David Cornish

1. Meeting called to order 7:01 p.m. - G. Sarty
2. Telescope Committee report given. - B. Hydomako
3. Latest Observer's Group Meeting was rained out for the most part. A rain date of May 21st was set. The next OG meeting was also set at June 11 with a raindate of June 18. - G. Sarty
4. May solar eclipse event was run by G. Sarty, S. Ferguson, and J. O'Shea. Scopes were set up downtown to show the public the sun. - G. Sarty
5. No progress has been made on a potential Saskatchewan Star Night in June. August or Sept will be investigated as alternate dates. - J. Young
6. Outline for a proposed procedure for "Temporary Memberships" was given. A 3-month newsletter subscription and information kit will be sent out to prospective names free of charge with the intent of obtaining new members. Centre brochures might also be placed in Astronomy and Sky and Telescope in bookstores. - D. Cornish
7. G. Sarty, Jim Wood, and Kim Mysyk went to the Kenneston area to look for meteorites on Saturday, May 14. None were found. - G. Sarty
8. The suggestion was made to publicize in the STF publication through ASTEP. - E. Kennedy
9. Meeting adjourned 7:38 p.m.

NOTICE OF THE NEXT GENERAL MEETING OF THE SASKATOON CENTRE

Monday, September 19, 1994, 8:00 p.m.
Room A-226, Health Sciences Building, U of S
(across Wiggins from the observatory)

The program will feature:

- (1) The Mount Kobau Experience by Al Hartridge.
- (2) The Perseids... And How to Observe the Next Shower by Richard Huziak.

Members are welcome to bring their summer slides and pictures to this meeting and to give an impromptu talk on their adventures.

The meeting is open to the General Public, and prospective members are welcome to attend.

Executive Members: Please remember that the executive meeting will be held at 7:00 p.m. in room B10.

Cover Photo - M31 by Al Hartridge

This month's front cover shows the Andromeda galaxy as photographed through a C-14 telescope by Saskatoon Centre member Al Hartridge. Al won two awards at Mount Kobau this year for his photography of the Sombrero galaxy with a C-14 telescope and of the Veil Nebula with an 8 inch Schmidt camera. (The back page shows a piece of the award-winning Veil shot.) Congratulations, Al!

Saskatoon Skies Information

Commercial vendors wishing to advertise in the "Saskatoon Skies" may do so at the following rates: \$50.00 per page, \$25.00 per half page and \$12.50 for business card ads. Individual RASC members and other parties (at our discretion) may advertise items and events for free. Summer issue deadline is Friday, September 30, 1994. Please have any submissions in to me by then in order to be included in the next issue. Submissions may be in typewritten form or on a floppy diskette (3.5 or 5 inch size and formatted for MSDOS) preferably as ASCII files. Electronic submissions are preferred as it saves me some typing. Mail or bring your submissions to:

Gordon Sarty 422 Edmund Park, Saskatoon, Sask. S7H 0Z4 phone: 374-8803	OR	Saskatoon Centre RASC Box 317, RPO University Saskatoon, Sask. S7N 4J8
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E-mail submissions to sarty@math.usask.ca will also be accepted. Saskatoon Skies is a monthly publication of the Saskatoon Centre of the Royal Astronomical Society of Canada.

Minutes of the May General Meeting
May 16, 1994
Room A-226, Health Sciences Building, U of S

1. Meeting called to order 8:04 p.m.
2. The RASC was introduced to the General Public. - G. Sarty
3. Observers Group Meeting will be May 21 and June 11 (or 18). - G. Sarty
4. Review of recent Centre activities:
 - (a) Meteorite hunting at Kenneston
 - (b) May Solar Eclipse downtown
 - (c) Astronomy Day and Star Night
5. The book "Looking Up: A History of the RASC" was donated to the Centre library by Jim Young. - J. Young
6. Kim Mysyk gave a short presentation on Meteorite Hunting.
7. Sandy Ferguson gave a presentation on "Summer Constellations" and showed "Astronomy Day Slides".
8. Gord Sarty gave a presentation on the Solar Eclipse.
9. A partial eclipse of the moon will be visible this month. - S. Ferguson
10. Meeting adjourned.

PUBLIC STARNIGHT - SEPTEMBER 9 and 10
WANUSKEWIN HERITAGE PARK

Our final public starnight of the summer will be held the evenings of Friday and Saturday, Sept. 9 and 10 (weather permitting, of course!). This time we will be having a nice change from our usual site at Diefenbaker Park. The folks at the Wanuskewin Heritage Park are kindly allowing us to set up our scopes and other paraphenalia on their grounds. Some of us have had our scopes out there before and although the Park is north of the city, making for poor southern viewing, we have found the eastern, western and particularly the northern horizons are very good. Objects available for viewing the nights of the 9th and 10th will be a crescent moon, Jupiter and Venus (though quite low) and Saturn, along with a number of the usual late summer and early fall objects. There should be a good variety to show the public.

We have arranged to have our members show up at the Park between 8:30 and 9:00 p.m. The Park closes at 9:00 p.m. and they would like to give their staff an opportunity to close up the building areas before the public turns up anytime after 9:00.

So, if you are able to help out at this public starnight by bringing your scope/binoculars/expertise, whether it be both nights or either night, please give me a call at 931-3184 or Rick Huziak at 665-3392 (H) or 933-1676 (W). This should be a great opportunity to observe from another part of the city, at a time of year free from mozzies and other person-eating bugs, and with comfortable temperatures. Bring family and friends (and a snack, if required, as cafeteria facilities will not be open at the Park!) Wanuskewin Heritage Park is located approximately 3 km north of the city; take Warman Road north and follow the signs (which are brown with a bison's head).

See you there!!

Sandy Ferguson

WANTED - 0.965 inch accessories for a small refractor; eyepieces and a star diagonal at a reasonable price. Call Rick at 665-3392.

FOR SALE - 7 aluminum sleeves intended for a large (16 to 18 inch) telescope tube. Each sleeve is 22 inches in diameter (made to assemble to around 20 inches diameter) and are 14 inches long. These sleeves are 18 gauge aluminum (0.040 inches thick) and were intended for a telescoping telescope tube for a 17.5 inch reflector. Paid \$140 for the sleeves, will sell for \$100. These are ideal for making a large, transportable telescope with an enclosed tube. Phone Gord at 374-8803.

GIVE-AWAYS - One mirror-grinding barrel; Old *Sky and Telescopes* and *Scientific Americans*. 374-8803.

Minutes for the June Executive Meeting
7:00 p.m., June 20, 1994
Room B-10, Health Sciences Building, U of S Campus

Present: Ed Kennedy, Richard Huziak, Gord Sarty, Al Hartridge, David Cornish

1. Meeting called to order.
2. Saskatoon Centre extends our sympathy to Ed Kennedy on the passing of his wife, Mrs. Caroline Kennedy.
3. Bill H. and Sandy F. have both made recent trips into the hospital; hopes for their speedy recovery.
4. Telescope committee / new site report: Bill H., being sick, hasn't had a chance to get to the machine shop.
5. Observatory repairs still required: door knob, dome leak (leaks in hurricane winds), Eetook; Rick will repair.
6. New dome; tentative pick-up this fall.
7. A long hot discussion over Gord's article regarding sun viewers.
8. Temporary membership program is working well; David Cornish already has 10 names on the list.
9. July Public Star Night in Diefenbaker (July 8 & 9) - still need large signs, advertising, planning.
10. Corporate donation program. D. Cornish has procured a donation of \$200 already. Program explained to executive.
11. Metal stantions are available for \$40 at 21 Murphy Cres. at a garage sale; we will purchase them for displays.
12. E. Kennedy has donated a number of publications from the David Dunlap archives to the library (via U of S archives).
13. Sandy Ferguson is doing well after her surgery.
14. The Montreal meteorite and the Jupiter/comet collision were discussed.
15. Meeting adjourned; motion by Gord Sarty; seconded by Ed Kennedy; carried.

**NOTICE OF THE NEXT OBSERVER'S GROUP MEETING AT THE RYSTROM
OBSERVATORY**

Come one, come all to the OG Meeting at the RYO. The next meeting is October 8, 1994, at 8:30 p.m. and is for members and friends. Bring your scope if you have one. If you don't have a scope, we have a few we can provide for you. This OG meeting will introduce new members to the facilities and will give other observers time to work on their Messier Catalogs, with pointers from experienced observers if required. We guarantee that it will be dark at night.

The dates of the OG meetings for the membership year are:
1994: Nov 5, Dec 3, Dec 31 (maybe)
1995: Jan 28, Feb 25, Mar 4, Apr 1, Apr 29, May 27, Jun 24.

These dates are subject to change, but write them down on your calendar. We may also set more dates for special events and may also add in rain dates. Watch the newsletter for changes.

To find the observatory, drive south on hiway #11 to the Grasswood Esso station and drive-in, turn left past the KOA campground and head down the road approximately 1.5 miles to the last mailbox on the right before the railway tracks. The mailbox is the Rystrom's. Go down the driveway past two homes and around the large equipment building to the right. Be sure to dim your lights.

In addition to the Observers' Group meeting, members are welcome to visit the Rystrom site at any time provided you phone ahead. The number to call is 955-2370, ask for Nelson or Gloria. If you do not have a key, find a member who does and talk them into a trip to the dome. After you have been checked out on the equipment there you are entitled to a key of your own.

Minutes for the June General Meeting

8:00 p.m., June 20, 1994

Room A-226, Health Sciences Building, U of S Campus

1. Meeting called to order. Members and guests welcomed.
2. Condolences to E. Kennedy for the passing of Caroline Kennedy.
3. Bill Hydomako and Sandy Ferguson have both made recent trips to the hospital.
4. Promotional items for sale: Beginner's Observing Guide, Asteroid Charts and Messier Album.
5. July Public Star Night in Diefenbaker - dates at July 8 & 9, 1994.
6. Other summer events:
 - (a) Perseid Star Night - August 11, 1994.
 - (b) Mt. Kobau Star Party (B.C.) - August 10-13, 1994.
 - (c) Alberta Star Party (Caroline, Alberta) - September 2-5, 1994.
 - (d) September Public Star Nights - September 9 & 10, 1994.
7. Presentations:
 - (a) 25th Anniversary of Apollo 11 - R. Huziak's Scrapbooks - R. Huziak
 - (b) The Peekskill, N.Y. meteorite - video - K. Mysyk
 - (c) The Lunar Eclipse of May 17, 1994 - R. Huziak
8. Meeting Adjourned.

Dues Dues Dues

Yes, it's time to pay your dues for the 1994 - 1995 year. Please send dues directly into the Centre mailbox, or pay Mike Williams at the next General Meeting.

Regular membership	\$40.00
Youth membership (21 or younger)	\$22.50

Membership in the Saskatoon Centre of the RASC gets you the use of the Centre Observatory, Centre library, the 1995 *Observer's Handbook*, monthly issues of *Saskatoon Skies*, membership in the National RASC, 6 issues of the *Journal of the RASC*, participation in Centre events, the right to hang out with lots of cool people, and much, much more. New members are welcome.

Renew Sky and Telescope Through the Centre

Members are reminded that they should subscribe or renew *Sky and Telescope* magazine through the Centre to qualify for a discount. Just return your subscription card with your payment to Mike Williams and he will forward it to S&T to get your discount. Remember also that you qualify for a 10% discount on all other Sky Publishing Corporation books and materials. Just note that you qualify for the discount because you are a member of the Saskatoon Centre when you make your order. Details appeared the April issue of *Saskatoon Skies*.

Color copies of the Shoemaker-Levy 9 SASKATOON SKIES

Color copies of the Shoemaker-Levy 9 issue of *Saskatoon Skies* are available; but they are not cheap. The editor is selling them for \$20 each (including mailing). This offer is not financially supported by the Saskatoon Centre of the RASC so I must ask for payment before copies can be made. Phone 374-8803 if you are interested, or see me at a Centre meeting.

1994 RASC Publications for Sale

ASTEROID FINDER CHARTS

for the year

1994



A publication of the
Saskatoon Centre
of the
Royal Astronomical Society of Canada
©1994

The Beginner's Observing Guide

An Introduction to the Night Sky
for the Novice Stargazer



Leo Enright
The Royal Astronomical Society of Canada

The new 1994 *Asteroid Finder Charts* are now available for \$5.00 each. These charts, prepared by our our Saskatoon member, Gord Sarty, make asteroid hunting very easy. They are designed to be easy to use at the telescope, being Cerlox bound with a stiff, clear cover. The charts are similar to the Comet Takamizawa-Levy finder chart printed on the last page of the May newsletter.

For deep sky hunters, Rick Huziak has prepared a booklet of observing forms called *My Messier Album*. It is useful for collecting your observations of Messier objects together and is being sold for \$2.00.

Finally, the *Beginning Observer's Guides*, 1994 edition (45 copies available) are being sold for \$9.50 each. These excellent guides are for the rank beginner or for those who instruct rank beginners. They are packed with loads of information on how to get started and what to see. They are excellent for beginning adults, school-age kids, Cubs, Guides, Brownies, and make excellent presents for up and coming amateurs. Written by a Canadian amateur, Leo Enright, for the Canadian audience. An excellent buy.

You can pick any of these up at the next General Meeting or, if you'd like any of these mailed out to you, please add \$2.00 for postage, or I'll deliver them for free anywhere in town, if you give me a call: Rick Huziak, 665-3392. All proceeds go to the Saskatoon Centre.

University Observatory Hours

The U of S Observatory will be open to the public on Saturday evenings from 8:30 to 10:30 p.m. during September and from 7:30 to 9:30 p.m. during October. Visitors will be able to view Saturn, the Ring Nebula, the Andromeda Galaxy and other celestial objects. Observatory assistants will be present to answer questions about astronomy and to assist the public in viewing through the telescope. The observatory is located on campus, one block north of the corner of Wiggins Ave. and College Drive. For more information, call Stan Shadick at 966-6434.

Shoemaker-Levy 9 Smacks Jupiter a Good One

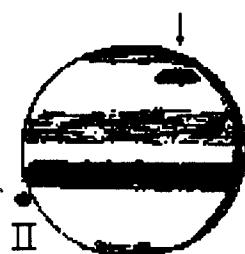
I was very surprised that the impact structures on Jupiter, resulting from the collisions of Comet SL9, were so easy to see. Within a minute of turning my scope on the planet, I saw the results of what must have been a truly awesome firestorm to the amoebae that may inhabit Jupiter's atmosphere.

On July 20th, 1994, Bill Hydomako, Ted Firman, Don Friesen and I set up at the Rystrom Observatory to try to observe the impact of fragment "R" at a predicted time of 11:22 p.m. I got my first observation in at 10:20 p.m. as the drawing shows and was able to spot a disturbance later identified as spot "K". The spot was dusky gray and was as dark as the South Equatorial Band (SEB) and much easier to see than the Great Red Spot ever is! Over the next hour, spot "K" was observed to move slowly across the face. At 11:20 p.m., Ted and I simultaneously noticed the appearance of a very dark spot on the limb. We at first thought that this spot was the result of fragment "R" hitting the surface a few minutes earlier than predicted, but I have since identified the structure as spot "L". We did not actually manage to see a direct impact event such as a flash. By the time of the last drawing, 11:42 p.m., Jupiter was only 3 degrees off the horizon and setting behind the trees at the Observatory. One thing to note was that the smaller 4-inch telescopes revealed the spots more clearly than the larger 8- and 12.5-inch scopes. This is most probably due to the smaller apertures "seeing" less disturbed air due to their smaller surface areas. Over the next several days I was able to detect spots E, H, K, L Q1, and the D/G/S complex. After seeing the effects of the comet impact, I could not help but wonder if other amateurs in the past have seen the effects of other impacts when mysterious dusky ovals appeared suddenly in Jupiter's clouds and were recorded in logbook drawings.

Rick Huziak

JULY 20
(CST)

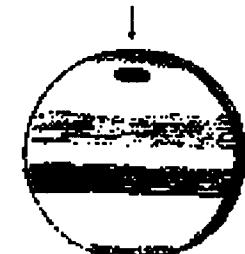
10:20 PM



II

I

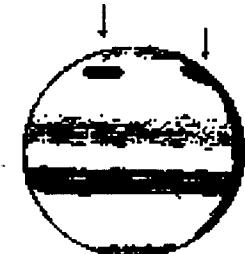
10:45 PM



II

I

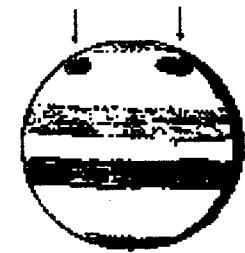
11:20 PM



II

I

11:42 PM

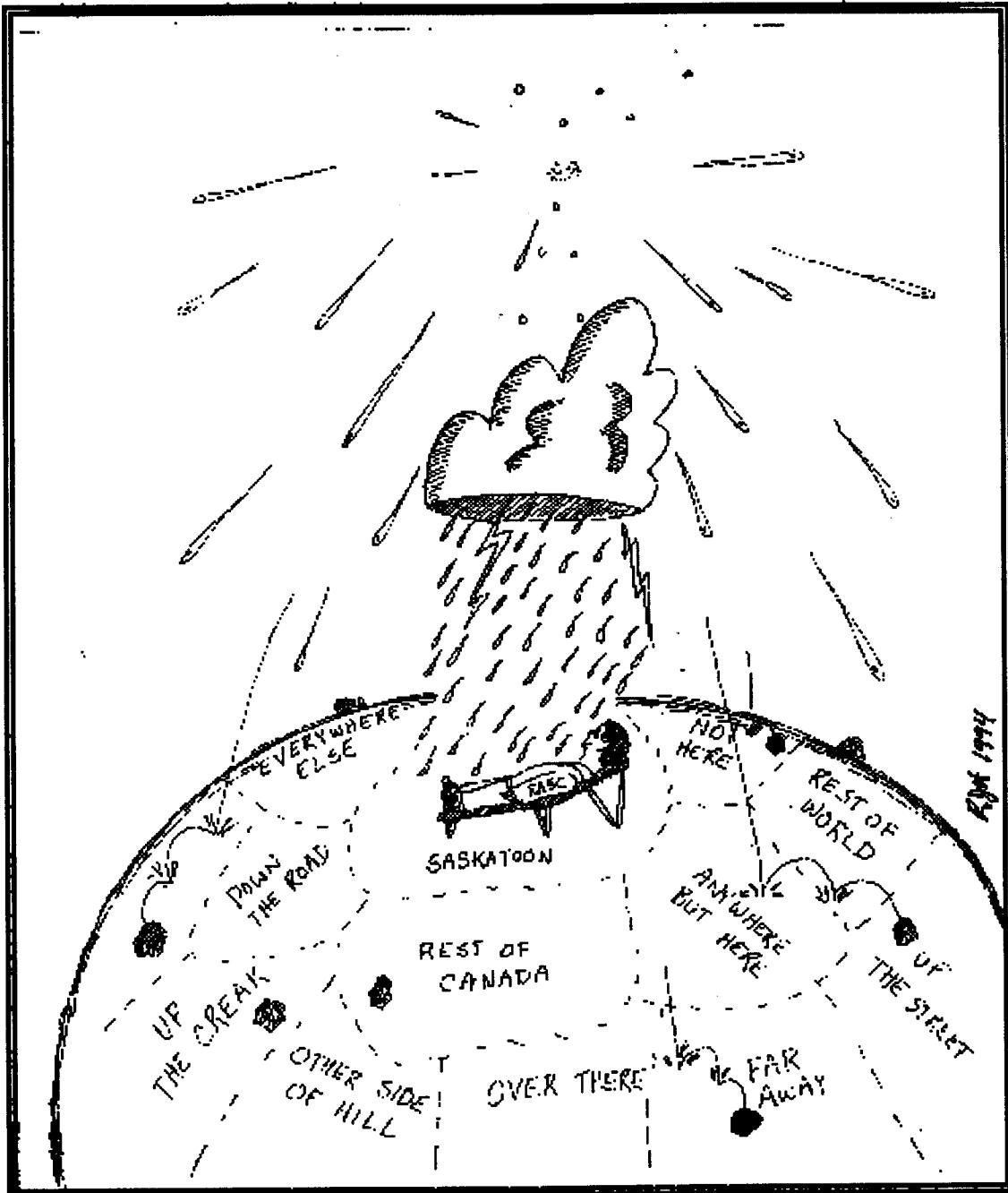


II

I

SPACE FUNNIES

R. Huziak



Meteor Observing at the Saskatoon Centre

Galileo Images of Fragment W Impact

These four images of Jupiter and the luminous night-side impact of fragment W of Comet Shoemaker-Levy 9 were taken by the Galileo spacecraft on July 22, 1994.

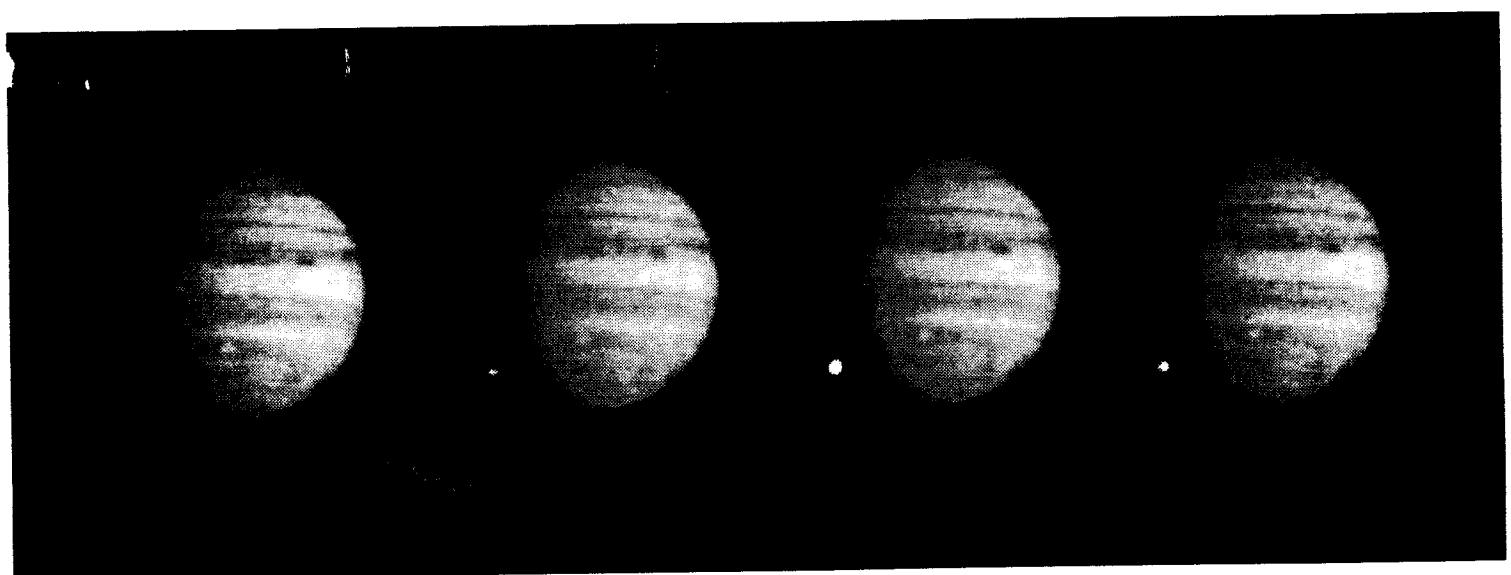
The spacecraft was 238 million kilometers (148 million miles) from Jupiter at the time, and 621 million kilometers from Earth. The spacecraft was about 40 degrees from Earth's line of sight to Jupiter, permitting this direct view. The images were taken at intervals of 2 1/3 seconds, using the green filter (visible light).

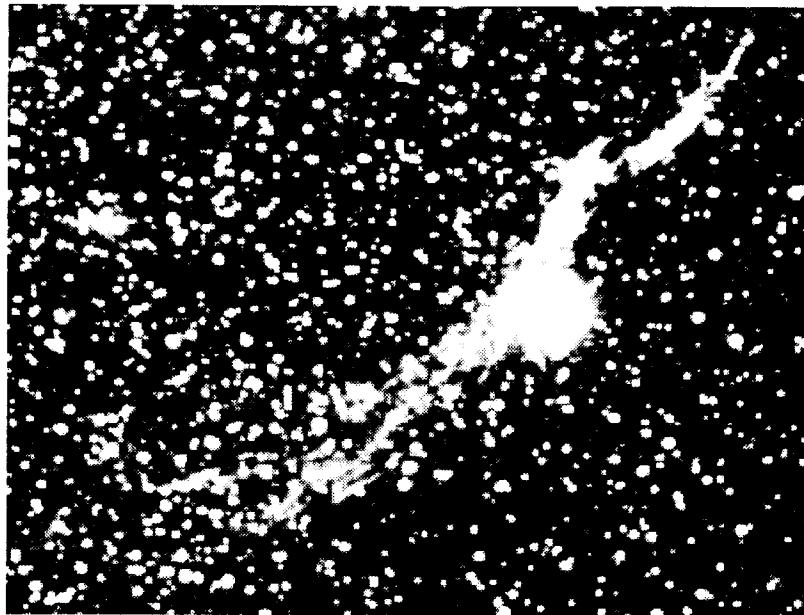
The first image, taken at an equivalent time to 8:06:10 Greenwich Mean Time (1:06 a.m. Pacific Daylight Time), shows no impact. In the next three images, a point of light appears, brightens so much as to saturate its picture element, and then fades again, seven seconds after the first picture. The location is approximately 44 degrees south as predicted; dark spots to the right are from previous impacts. Jupiter is approximately 60 picture elements in diameter.

Galileo tape-recorded most of its observations of the Shoemaker-Levy events during the second week of July 1994 and has since been playing the tape back selectively. Many more pictures and data from other instruments remain to be returned from the spacecraft's tape recorder. Playbacks will continue through January 1995.

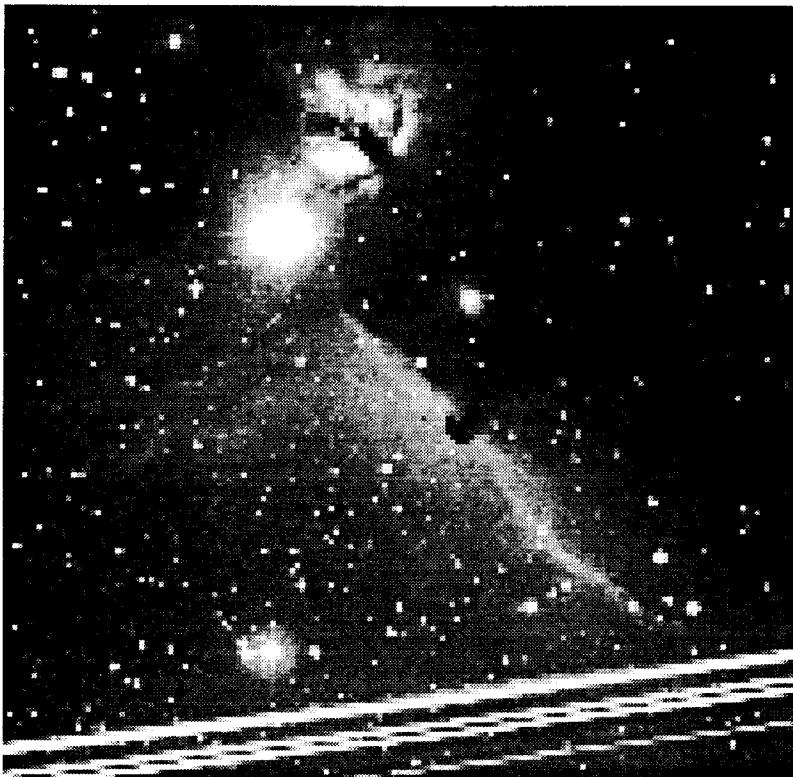
It is not yet certain whether the data relate to meteor bolides (the comet fragment entering Jupiter's atmosphere) or to the subsequent explosion and fireball. Once all the Galileo, Hubble Space Telescope and ground-based data are integrated, an excellent start-to-finish characterization of these remarkable phenomena will be available.

The Galileo project, whose primary mission is the exploration of the Jupiter system in 1995 through 1997, is managed by the Jet Propulsion Laboratory for NASA's Office of Space Science.





A piece of the **Veil Nebula** as seen by Al Hartridge's camera. This nebula is the dust and gas remnant of a supernova and is a very large object in the sky off the south wing of Cygnus. It is quite beautiful visually in small telescopes under dark skies.



The **Horsehead Nebula** in Orion. This is another picture taken by Al Hartridge. The streaks in the picture are from a jet that crossed the telescope's field-of-view when the picture was being taken. The Horsehead Nebula is extremely difficult to see visually; requiring exceptionally dark skies, a large telescope (at least 12 inches) and probably a hydrogen filter.