

SASKATOON SKIES

Volume 24, Number 3

March, 1994



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Minutes of the February Executive Meeting
7:00 p.m., February 21, 1994
Room B-10, Health Sciences Building, U of S Campus

Present: Ed Kennedy, Richard Huziak, Scott Alexander, Bill Hydomako, Jim Young, Sandy Ferguson, Gord Sarty, Al Hartridge, Mike Williams

1. Meeting called to order 7:00 p.m.
2. No further news about Peter Broughton's visit at this time. We will keep the meeting at room A-226 Health Sciences Building at 8:00 p.m. on the 15th of March. (J. Young)
 - (a) No "special" arrangements will be made for Mr. Broughton's visit, except we may arrange a members' supper before the meeting.
 - (b) Regina Centre will not be attending due to day of the week.
3. Regina/Saskatoon (Saskatchewan) Star Party is a possibility in initial discussions with Regina. Suggested location is one of the provincial parks at Lake Diefenbaker or Cypress Hills in June. Jim Young to have further discussions with the Regina Centre.
4. Mike Wesolowski has donated \$60.00 to the Centre (sold his *Sky & Telescope*). (R. Huziak)
5. Light Pollution Committee report. (G. Sarty) No further news from the city about the light pollution presentation. The committee should be continued in its present form.
6. Telescope Committee report.
 - (a) A letter of appreciation has been sent to Dr. Dick Eager for his kind donation to the telescope fund. (R. Huziak)
 - (b) Fate of 16" telescope discussed (continue or buy). (G. Sarty) A lengthy discussion followed on whether to buy a scope for the centre or to continue to build the 16".
 - (c) Current status of project (drawings/costs) discussed. (B. Hydomako)
 - (d) A 14-ft dome is available in Minnesota for \$100 U.S. (R. Huziak) The executive decided to pursue this option.
 - (e) The telescope fund is up to \$4100.00 at this point. (M. Williams)
7. The Observatory display will be ready for March. (S. Ferguson)
8. Executive positions. The following will be nominated:
 - (a) Membership/Promotions - Garry Brett (new member)
 - (b) Librarian - no one available yet. (R. Huziak)
9. Observer's Group
 - (a) OG Director (non-executive) - Don Friesen has volunteered. Note, if Don cannot make the Observers' group nite then it is his responsibility to find a replacement to go out and open up the Dark Site. (J. Young)
 - (b) Astro-Buddies has been suggested by a member. A new member get assigned an old member, who becomes an observing buddy and teaches them the ropes for a few months. Discussion. Sandy Ferguson has volunteered to implement this idea.
10. Sky and Telescope subscriptions. Mike was finding out details, but left before was complete. Need someone to take on this task and complete it. Rick Huziak has volunteered to follow up on this task.
 - (a) Centre's *Sky and Telescope* subscription. Motion to renew our subscription to *Sky and Telescope*: Jim Young; Second: Sandy Ferguson. Carried by show of hands.
11. Promotional Materials
 - (a) Asteroid Charts 1994 sales report. To date we have sold two copies. (G. Sarty)
 - (b) Beginning Observer's Guides received (unsolicited). (B. Hydomako) The selling price for the Beginning Observer's Guides will be \$8.80 + GST = \$9.50
12. New Business
 - (a) Information received from ASP. (E. Kennedy)
 - (b) Have received a copy of "History of Geophysics Volume V" called *The Earth, the Heavens and the Carnegie Institution of Washington*. (Ed Kennedy)
13. Meeting adjourned 7:55 p.m.

Minutes of the February General Meeting 8:00 p.m., February 21, 1994
Room A-226, Health Sciences Building, U of S Campus

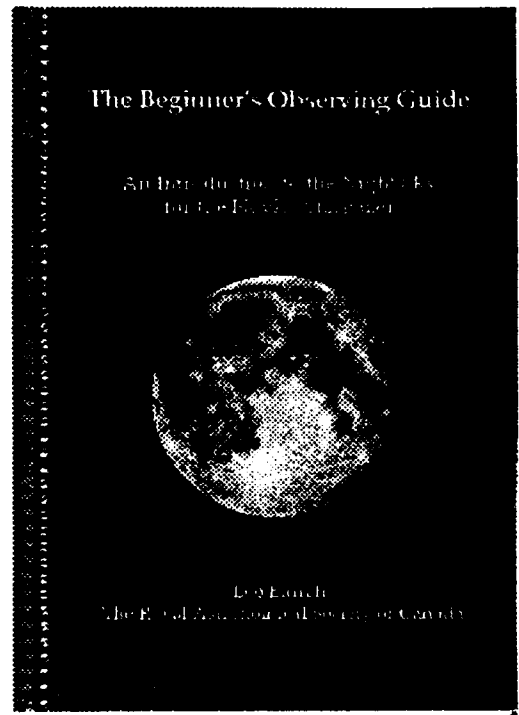
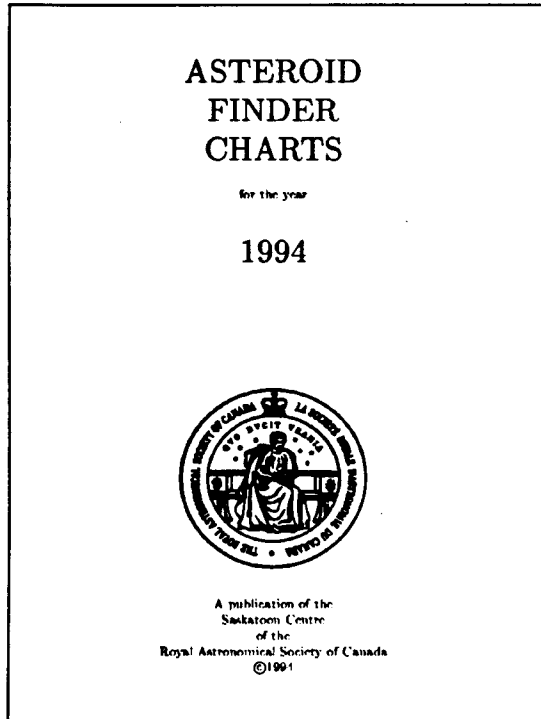
1. Meeting called to order 8:05 p.m.
2. Everyone welcomed & RASC described. (R. Huziak)
3. Motion that the January minutes be adopted as published. Moved: Gordon Sarty; Seconded: Jim Young; Carried by show of hands.
4. Feb 12 Observer's Group Meetings were poorly attended. Next OG meetings set at March 5 with the alternate date of March 12.
5. Two 1994 RASC Calendars are still available for \$6.50 each. As well, Asteroid Charts for \$5.00 and the Beginner's Observers Guide for \$9.50.
6. Executive positions to be filled: A call for nominations from floor:
Membership/promotions - Garry Brett nominated.
Librarian - It was suggested the at the Saskatoon Centre approach Stan Shadick about taking over this position.
Motion for nominations cease - Jim Young; Second - Mike Williams; Carried by show of hands.
Garry Brett elected. Librarian is still outstanding.
7. Don Friesen has volunteered for OG Director.
8. Hubble has found Heaven!! Rick Huziak presented positive proof that Heaven was found by the Hubble Telescope as described in a reputable publication.!?*#@?
9. Next month's meeting is on TUESDAY, March 15 to accommodate Peter Broughton's visit. Meeting will be held at 8:00 p.m. in Room A-226.
10. Regina/Saskatoon (Saskatchewan) Star Party is a possibility in initial discussions with Regina. (J. Young)
11. *Sky and Telescope* subscriptions will be sorted out by R. Huziak.
12. Dates for summer activities have to be set. (R. Huziak)
 - (a) **Astronomy Day and Star Night:** April 16, 1994, we will have a mall display at Circle Park Mall.
 - (b) **General Assembly** (St. Johns): July 1-3, 1994
 - (c) **July Public Star Night** set at July 8 & 9, 1994 (This may coincide with the Exhibition.)
 - (d) **Sept. Public Star Night** set at Sept. 9 & 10, 1994
13. Treavor Harle of "The Innovator's Program", wants an astronomy lecturer for grades K-1, grade 3 in Asquith for 2 short programs on one day between March 7-11. Starlab may possibly be available. Volunteers requested. (R. Huziak)
14. National Council Meeting of Oct 30/93. Minutes have arrived. Highlights as follows:
 - (a) Proxies are still in the news, modified yet again!
 - (b) Slight changes to Messier Certificate rules to help remote members.
 - (c) Mock-up of joint Journal/Bulletin being readied.
15. Nova Cas 1993 has faded from 8th to 12th mag., but is expected to brighten again. (G. Sarty)
16. Presentations:
 - (a) The Invention and Evolution of the Telescope - E. Kennedy
 - (b) Brass Telescopes and Astronomy Magazine - Garry Brett
 - (c) Three Solar Eclipse Expeditions and the Next (May 10th Annular Eclipse) - Don MacKinnon
17. Meeting Adjourned 9:58 p.m.

April Observers' Group Meeting

The next Observers' Group observing session will be held on April 9 at Rystrom Observatory, with a "rain date" of April 16. Time: After 8:00 p.m. 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.

1994 RASC Publications for Sale



A limited supply of 1994 RASC Calendars (2) are still available to purchase. These calendars are excellent quality, professionally done and feature super pictures of the sky by Canadian RASC astrophotographers. At only \$6.50 each, they are a steal.

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 Shoemaker-Levy 9 finder chart printed on the last page of this newsletter.

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.

Welcome New Member

The Centre welcomes new member Garry Brett. Garry is a telescope maker and has been elected to the executive to the Membership/Promotions position. Garry brings a sales and graphic arts background into the Centre. Welcome aboard.

Garry Brett, 522 Devonshire Cres. Saskatoon, SK, S7L 5W1, ph (306) 384-1807

ASP Publication Available

The Astronomical Society of the Pacific (ASP) publishes *The Universe in the Classroom*, a newsletter available free of charge to teachers, school librarians and administrators, and youth group leaders who request it on institutional stationary. Address all correspondence to: Teachers Newsletter Dept., 390 Ashton Avenue, San Francisco, CA 94112.

The 16-Inch Telescope Report

This is the first in the FINAL series of 16-inch telescope reports; FINAL, because come hell or high water, the Saskatoon Centre will have a 16-inch telescope of some description this year. Reports on the progress of the telescope will appear in every issue of *Saskatoon Skies* until the scope is completed.

The 16-inch telescope project has been in the works for over a decade. Due to many factors, progress on building a research-quality scope has been painfully slow. However, recent discussions have got the project back on track and in high gear. At the February executive meeting, the members discussed the current status, and Gord Sarty made a suggestion that if the 16-inch could not be or was not desired to be completed, then an alternate solution was to purchase a 16-inch or similar completed telescope. After much discussion, it was decided that both angles should be pursued, but that the emphasis was to be on completing the original 16-inch if time and budget would allow. Gordon is currently obtaining information on the quality of the Meade 16 Newtonian advertised in *Sky and Telescope*. Although attractive due to its price, the major concern about the telescope as an alternative was its light weight shafts and its optical quality.

In the mean time, Bill Hydromako has made great progress on the final design of the 16-inch, including detailed drawings of most components, pricing of materials, and lining up people who can do our machining and welding. Doug Miller will soon be providing us with a final optical and baffling design.

Work that has been carried out in the last month is as follows:

The 16 inch mirror has been cored by Bill and myself. The figure has been checked and was not affected by the final removal of the core. Two other problems have surfaced though. First, we found that the mirror is not co-planar front to back, causing us a problem with the design of the mounting cell. This also caused the actual core to be somewhat at an angle. Both are not major problems, just inconvenient.

Detailed drawings of the fork and mirror cells have been completed, and quotes for material and labour have been obtained. The fork and wedge will cost about \$1000 to make. The work will be done by a man who is a precision welder, who regularly welds to ultra-precise tolerances. The mirror cell can be done by AJ Machine for something less than \$600. The cell requires a special design and some intricate machining because of the center mounting style. [Editor's Note: As an alternative, we are also investigating the possibility of purchasing a custom designed mirror mount from a commercial supplier of telescope components like Novak in the U.S.]

The tube is in existence, and there are still plans to split the tube to allow for future upgrades of alternate heads, (for example, a Newtonian, Cassegrain, and photographic head). Just unbolt one head, bolt on the next and you have a new instrument. We have found a machine shop who will produce the stiffener rings for the heads at a reasonable cost. The polar axis will be made from a rocket spin-up table from SED Systems. This table is exceptionally rigid and will save us some money on shafts and bearings. It is currently located in Doug Miller's garage.

The spider, drive motors, clutches, digital setting circles, and eyepiece holder must still be designed or selected, though all are in preliminary consideration or better. The Cassegrain secondary still has to be ground, but this may be started in my basement very shortly. [Editor's Note: The alternative of purchasing a completed secondary would cost \$1200 U.S.] We already have the mirror blank for the secondary, and we also have a finished flat for the Newtonian focus.

A used 14-foot observatory dome has been located by Gordon (via email) in Minnesota. I have negotiated a cost of \$100 US for the dome, but we'll have to drive down in the spring and pick it up. Even with transportation costs, this is a very cheap price for a dome. It will have to be modified slightly, and the main observatory building built beneath it, but its an excellent start. A search for a new observatory site is being conducted by myself and others. Last fall we checked out Percy Crosthwaite's Pike Lake location and found it acceptable, though I will also be approaching the MVA, the University and others to explore other alternate sites. We may also be considering a partnership of some type with these organizations (i.e. a joint venture on developing an RASC and adjoining U of S facility?), although this idea is preliminary and very undefined at the time.

If anyone has any comments on the 16-inch project, please feel free to call me and discuss it. I'm home most evenings after 9:30 p.m. (ph. 665-3392).

Richard Huziak

Searching For Meteorites

Meteorites are extraterrestrial rocks that have fallen to earth from space. (Meteor is the term for the bright streak of light observed when a rock enters the earth's atmosphere and burns up before it reaches the ground.) Meteorite "falls" are those which are actually observed to fall and are recovered shortly after the event; these are relatively rare. Most meteorites are "finds" in that there is no recorded observation of the fall and they are found by chance at some time much later than when they fell to earth.

Meteorites are divided into 3 general classes:

Stones (chondrites) contain silicate chondrules (spheres) and small amounts of nickel-iron metal in a silicate matrix; achondrites do not have chondrules.

Stony irons are composed of about 50% nickel-iron and 50% silicates by weight.

Irons are mainly nickel-iron with small amounts of accessory silicate minerals.

Searching for meteorites is an extremely difficult task, much like looking for the proverbial needle in a haystack. The purpose of this short article is to outline some of the common methods and problems encountered in meteorite searches in order to increase search efficiency and, hopefully, success.

(1) Climate: Generally searches are best conducted in the spring or autumn when ground cover foliage is absent, making it easier to see rocks. Summer searches may be carried out in areas of minimal vegetation. Winter searches are only useful in the case of immediate follow-up of a meteorite actually seen to fall, with excellent location data available in order to pinpoint the location of the fall; this was accomplished with the Innisfree, Alberta meteorite which was recovered in 1977 due to the MORP camera network and several quality observer reports.

(2) Terrain: Cleared farmland or open grassland make it relatively easy to conduct a meteorite search. Searches in these areas are easier if there are few rocks that have been deposited by glacial processes; the presence of such material requires the searchers to check the rocks more frequently and will slow down the search process. Densely forested areas are considerably more difficult to search. The only feasible method for searches here is pace and compass using aerial photographs for location and control. This method requires the services of individuals who have experience in the technique.

(3) Meteorite Identification: Meteorite identification is extremely difficult for "finds" which may have been weathered by soil, water and atmospheric action for many years or decades. The fresher the find, the less difficult it is to identify.

Main characteristics of meteorites are:

- Dimpling ("thumbprints" or regmalypts) on exterior
- Thin, soft, dull black or brown fusion (melted) crust
- One smooth ablation surface from atmospheric entry
- Iron meteorites are dense, magnetic, irregularly shaped
- Stony meteorites have a dark outer surface and often a lighter colored interior

What is NOT a meteorite:

- Sedimentary Concretions (round, rusty, nonmagnetic, less dense)
- Blast Furnace Slag (porous, may or may not be magnetic)
- Grinding Balls (dense, but too round and smooth)
- Furnace Slag (glassy, low density)

In short, any rock that is very round, and/or light weight and/or porous may immediately be eliminated from consideration.

(4) Previous Searches, Probability and Luck: Consider the fact that a particular area has been searched for a meteorite and nothing has been found. This in no way means that the area should be written off as a completed effort. Regardless of how intensive a search is, there is always the chance that the meteorite has eluded the searchers for a number of possible reasons. Perhaps the meteorite fell 10 or 15 years ago in an agricultural area which is plowed every year; in this case it is a matter of chance whether the meteorite has been turned up on the surface or plowed under the soil when the search is conducted. Many meteorites have been discovered in farmers' fields, so you may encourage them to keep an eye on the rocks they turn up.

Further Reading

- Brown & Zalcik (1992): "Recent Field Research on Potential Meteorite Falls from the Meteorite Observation and Recovery Project", *J. RASC* 86 (3) 130-139.
- Halliday et al (1978): "The Innisfree Meteorite & the Canadian Camera Network", *J. RASC* 72 (1) 15-39.
- Halliday et al (1989): "Detailed Records of Many Unrecovered Meteorites in Western Canada for which Further Searches are Recommended", *J. RASC* 83 (2) 49-80.
- Herd, R. K. (1994): "Meteorite Identification", *Observer's Handbook* (R. L. Bishop, ed.) 170-171, The Royal Astronomical Society of Canada.

Kim Mysyk

[Editor's Note: MIAC is willing to partially fund a search for the October 30, 1993 fireball that has been predicted to have landed north of Brandon, Manitoba. We're hoping that Kim can be a part of that search.]

Novae, Novae, Novae!

Since I completed my 8 inch telescope a couple of years ago, and began a second serious observing interval in my life, I have been amazed at how many nova (exploding stars) that are visible with this telescope. The first one, brought to my attention by Richard Huziak at an Observer's Group Meeting in the summer of 1992 was Nova Cygni 1992 (now designated V1974 Cyg). This nova was so bright and powerful that I am still observing it now, nearly two years later. Using mine and Richard's observations (plus some from the AAVSO and VSOLJ e-mail), I have plotted the visual light curve of Nova Cygni 1992 below. For reference, April 1, 1992 is Julian day 2448714, while December 1, 1993 is Julian day 2449323.

Nova Cygni has also been observed extensively by the Hubble space telescope. Pictures from Hubble (see next page) show an expanding shell of dust. The most recent HST image [right] reveals an elliptical and slightly lumpy ring-like structure. The ring is the edge of a bubble of hot gas blasted into space by the nova. The shell is so thin that the FOC does not resolve its true thickness, even with HST's restored vision. An HST image taken on May 31 1993, [left] 467 days after the explosion, provided the first glimpse of the ring and a mysterious bar-like structure. But the image interpretation was severely hampered by HST's optical aberration, that scattered light from the central star which contaminated the ring's image.

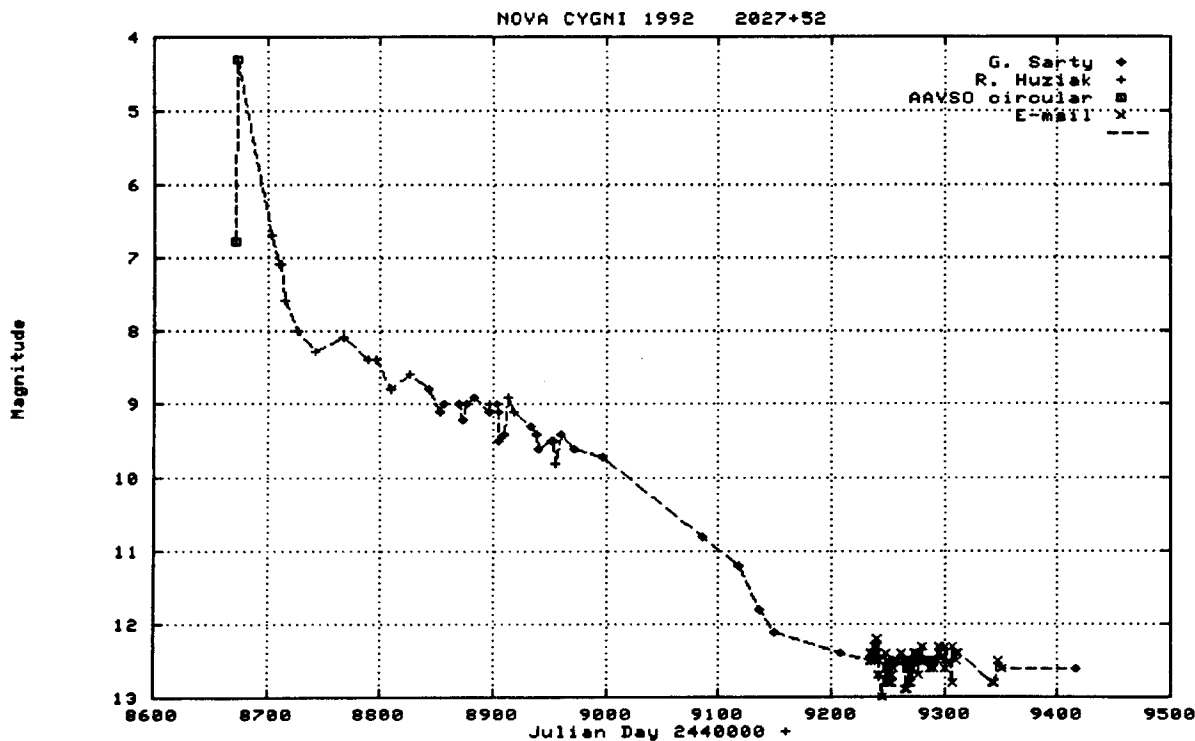
A comparison of the pre and post COSTAR/FOC images reveals that the ring has evolved in the seven months that have elapsed between the two observations. The ring has expanded from a diameter of approximately 74 to 96 billion miles.

The bar-like structure seen in the earlier HST image has disappeared. These changes might confirm theories that the bar was produced by a dense layer of gas thrown off in the orbital plane of the double star system. The gas has subsequently grown more tenuous and so the bar has faded.

The ring has also grown noticeably more oblong since the earlier image. This suggests the hot gas is escaping more rapidly above and below the system's orbital plane. As the gas continues escaping the ring should grow increasingly egg-shaped in the coming years.

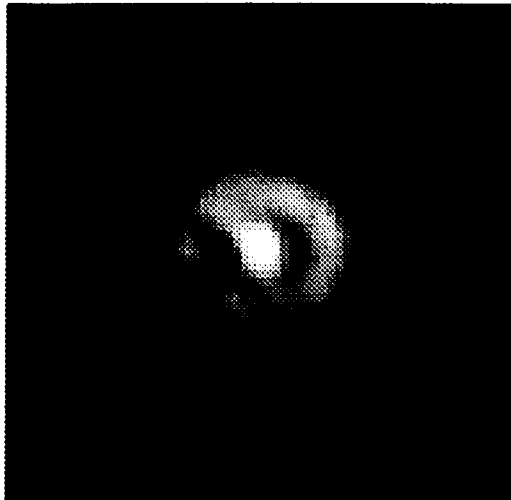
Based on measurements of the ring, Nova Cygni has been computed to be 10,430 light years away. These Hubble pictures and the above information about them was posted to a publicly-accessible location in the Space Telescope Science Institute's computer by F. Paresce and R. Jedrzejewski of NASA/ESA.

The next exploding star that I was able to observe was the supernova 1993J in the nearby galaxy M81. I was able to first observe the supernova very shortly after its discovery in April 1993 thanks to notification from Rick who was notified by Stan Shadick from the University who found out about the supernova from the IAU Circulars in the university library. I went to Boston for a holiday at the end of April and while I was there, I visited the AAVSO (American Association of Variable Star Observers) and took out a membership. At that time they were preparing an "Alert Notice" to announce the discovery of another nova: Nova Ophiuchi 1993. This nova was hard to observe because of it's southerly declination and because it only reached 9.5 magnitude at its peak. I only managed to get a glimpse of this nova at approximately 12.5 magnitude on May 20, 1993 (I reported my observation to the AAVSO as <11.1).

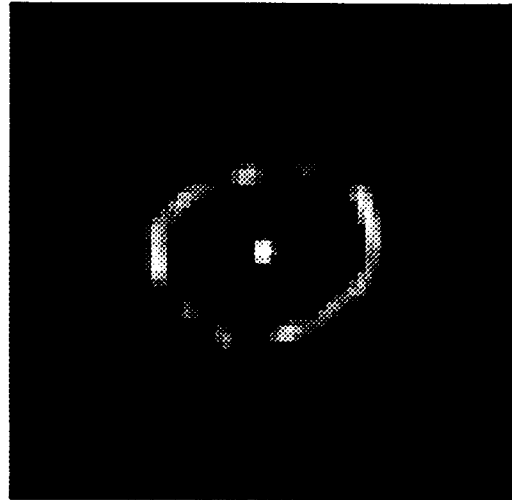


Nova Cygni 1992

Hubble Space Telescope
Faint Object Camera



Pre-COSTAR
Raw Image



With COSTAR
Raw Image

But I didn't have to wait long for a more conveniently located nova. Nova Aquilae 1993 was discovered on May 15, 1993 and I received AAVSO's "Alert Notice" days later. This nova peaked at a more accessible 7.6 magnitude and I began a string of observations of this nova from my front yard on May 26, 1993 with an estimate of 8.5 magnitude. I was able to see the nova until June 23 when it had faded to magnitude 9.9. On a subsequent observation on July 12, it had faded below at least 11th magnitude and beyond the reach of my city-bound telescope.

Later in the summer, Nova Sagittarii 1993 erupted low in Saskatoon's southern sky. It briefly reached a peak magnitude of 7.9 on September 16. I was only able to observe this nova once on September 18 at our Public Star Nite in Diefenbaker Park. It was very low in the sky and was shining at roughly 8th magnitude (as I had no AAVSO chart at the time, I could not make a more accurate magnitude estimate).

After that, all was quiet on the nova front until last December when the exceptionally bright Nova Cassiopeiae became my Christmas Star. Peaking at magnitude 5.7, it was easy to observe in binoculars for weeks. I was informed of the nova by e-mail on December 12, 1993. I read the e-mail while working late that night and, before heading off to bed, I looked out the window to discover a break in the clouds. I was able to step out with a pair of binoculars to see the nova at magnitude 6.2 on the morning of the 13th at 3:25 a.m., before the nova was to peak in brightness. This was the first time that I was able to observe a nova on the rise, thanks to the speed of e-mail. On the evening of the 13th we had our monthly General Meeting, where I was able to provide finder charts for the nova to members of the Saskatoon Centre. After the meeting, me, Rick and Scott Alexander went to the Rystrom site to see the nova at magnitude 6.1. Mike Wesolowski also took a look at the nova from his backyard when he got home and Stan Shadick, using the University's 6 inch refractor tracked down the nova the next night.

Presently, Nova Cassiopeiae has faded to below 14th magnitude, well beyond the reach of my telescope. In their "Alert Notice 180" the AAVSO has noted that the behaviour of the nova's light curve has been very similar to that of DQ Herculis, a nova that erupted in 1934. Based on that similarity they predicted that the nova would undergo a very rapid fading in the space of a few days. And it did. On February 14, 1994, I observed it at magnitude 8.7. By the next time I observed it, on February 20, it had dropped out of sight (<11.2 magnitude). Rick has seen it with the Centre's 12.5 inch Eetook telescope at magnitude 14.2 on March 3.

But we'll keep watching because, based on the similarity to Nova Herculis 1934, the AAVSO is predicting a dramatic brightening in the next few weeks. The theorists tell us that the dimming is due to an expanding dust cloud around the nova, composed in part of iron (hence the term "iron curtain" that they use to refer to the effect that this cloud has on the spectrum and brightness of the nova). As this cloud expanded and cooled, the absorption of light by the cooling iron has increased. However, it is expected that as this cloud expands further and dissipates that the light from the fading nova will be again be able to reach us here on Earth.

Nova Cassiopeiae's light curve has also shown some oscillations which may be due to the fact that this nova is also an eclipsing binary system.

And the nova just keep coming. The latest, Nova Sagittarii 1994, has just been discovered; on February 24 at magnitude 8.9. This nova is presently visible only just before sunrise. I went out to the Rystrom site twice on the mornings of March 2 and 4 to track it down. I had trouble with clouds both mornings, but managed to see the nova for a couple of minutes on the morning of the 4th through a small break in the clouds. Not long enough for me to make an accurate magnitude estimate; but it was around 9th magnitude, probably past peak brightness. I can provide finder charts for you if you give me a call.

I'm hooked. To be able to watch the heavens in action and to be able to see and participate directly in the advancement of astronomy with our simple telescopes makes nova-watching, and variable star watching in general, a very enjoyable hobby for me.

Gord Sarty

Coming Events

- March 15 - General Meeting - National President, Peter Broughton
- April 16 - Astronomy Day and Star Night - We will need volunteers to man displays and telescopes!
- May 10 - Partial Annular Eclipse of the Sun - There will a public display somewhere - need volunteers again.
- May 25 - Partial Lunar Eclipse - An OG event.
- June - A Saskatchewan Star Party ?? - It's a possibility!
- July 8,9 - Annual Star Night in Diefenbaker Park
- September 9,10 - 3rd Annual Fall Star Night in Diefenbaker Park

Broughton to Speak at the March General Meeting

RASC National President, Mr. Peter Broughton, will be in attendance at our March General Meeting. Mr. Broughton will provide the Saskatoon Centre with a presentation entitled *What is the RASC?*. This presentation will focus on the history of the RASC as a national organization and the forces that shaped it. Mr. Broughton has recently completed a book on the subject: *Looking Up - A History of the RASC*. Members are also encouraged by Mr. Broughton to be ready to discuss the current state of the RASC and its future outlook. Please plan to attend this meeting if its the only one you attend all year!

MEMBERS PLEASE NOTE

The March General Meeting will be held on TUESDAY, MARCH 15, 1994, in Room A-226, Health Sciences Building, U of S Campus, at 8:00 p.m. This date change is necessary to accommodate Mr. Broughton's busy schedule of tours to Western Canadian Centres. Unfortunately, copies of Mr. Broughton's book will not be available at the meeting, as the publication date has slid into late March.

EXECUTIVE MEMBERS

There will be a regular meeting of the executive at 7:00 p.m. in Room B-10 on March 15. (The previously discussed supper will not be held, due to the lateness of Mr. Broughton's arrival on Tuesday afternoon).

Cover Photo - Killer Dinosaurs

This months front cover shows a drawing originally published in the *Globe and Mail*. It shows "kick-boxer" dinosaurs devouring a more peaceful dinosaur. Some people believe that a comet eventually devoured all dinosaurs 65 million years ago.

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.

Next months deadline is Friday, April 1, 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

E-mail submissions to sarty@math.usask will also be accepted. Saskatoon Skies is a monthly publication of the Saskatoon Centre of the Royal Astronomical Society of Canada.

COMET SHOEMAKER-LEVY 9

It is postulated by some that the devouring dinosaurs depicted on the front cover were in turn devoured when a large comet hit the Earth 65 million years ago. We will have a rare opportunity to witness the effects of a similar event when Comet Shoemaker-Levy 9 impacts Jupiter this summer, around July 25. The comet has been broken up into several pieces and it will take several days for all the pieces to hit Jupiter. Jim Young has suggested that members of our Centre plan to photograph Jupiter for a couple of weeks on either side of the impact dates in order to catch changes to Jupiter caused by the impact. The comet itself is very faint at approximately magnitude 13.5 but could be seen with a 12 inch or larger telescope in dark skies. The chart below was prepared using data from the *Observer's Handbook 1994*; see page 177 there for more information about this amazing comet.

