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# NEWSLETTER/BULLETIN

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La Société Royale d'Astronomie due Canada

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The eastern portion of Veil Nebula (NOC 6992-5) in the constellation of Cygnus. Prime focus photograph using 10-inch f/6 Newtonian telescope and 45 minute exposure on hypered 2415 film. *Photo by Bryce Heartwell.*

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Deadline for October issue is September 1.

### **New World Record For Youngest Naked-Eye Crescent Moon Sighting**

**by Dr. Mohibullah N. Durrani**  
**Muslim Students Association**  
**Islamic Amateur Astronomers Association**  
**102 Earl Hall, Columbia University**  
**New York, New York 10027**

The youngest naked eye crescent moon, only 13 hours and 24 minutes after New Moon phase, was sighted on Friday, May 5, 1989 at Houston, Texas by two separate groups of observers thus making a new world record. The previous record was 14 hours and 30 minutes on May 2, 1916 at Scarborough, Yorkshire, England. The first group consisted of the Badat family: Mr. Mohammed Iqbal Badat, Mrs. Famida Iqbal Badat, Mr. Mohammed Hanif Badat, Mr. Abdul Quadir Badat, and Miss Fatima Badat. The second group consisted of Mr. Saleh Al-Thani, Mr. Nash Al-Qaouq, and Mr. Aymen Qadorah.

#### **Meteorological Conditions at Houston, Texas**

|                    |   |
|--------------------|---|
| Time:              | 20:00 Central Daylight Saving Time<br>Friday, May 5, 1989 |
| Temperature:       | 25°C (74°F)   |
| Pressure:          | 29.99 inches of Mercury                                   |
| Relative Humidity: | 74%   |
| Winds:             | 10.8 km/hr North  |

### Relevant information on the Lunation

|                   |                                     |
|-------------------|-------------------------------------|
| Lunation No:      | 821                                 |
| Time of New Moon: | May 5, 1989 11h 46m UT              |
| First Sighting:   | 20: 10 Central Daylight Saving Time |

The following is the report of the first group, given by Mr. Mohammad Iqbal Badat to Dr. Mohib N. Durrani on Monday, May 8, 1989:

“I was with my family – uncles, brothers, sister and wife preparing for the *Maghrib* (sunset) prayers on Friday, May 5, 1989 in Houston, Texas. The sun had set at around 8:04 pm and the *Adhan* (Call for Prayers) was given by my brother. We broke our fast for the day with *Khajjoors* (dates). We were in the backyard of our place and were preparing for *Namaz* (prayers). Just before the *namaz* started I turned my face backwards to see if I could locate the *hilal* (crescent moon). As you know, muslims offer their prayers facing Mecca in Saudi Arabia. From most of the United States the approximate direction for Mecca is towards your shadow when the time is near the time of sunset. This direction is approximately a few degrees north of east. Hence I had to turn backwards to try and locate the *hilal* on the western horizon. The time was around 8:16pm when I was delighted to see the *hilal*.

Since the *namaz* had started I joined the prayers. The prayers and the *dua* (supplications) took about five minutes and then I again turned to look for the *hilal*. The *hilal* was still visible from around 8:21 or 8:22pm till around 8:30pm when it faded away while still being above the horizon. The *hilal* looked like a curved piece of white thread or you may say, like a rice seed. We were also looking at the *hilal* through binoculars. The first sighting was a naked-eye sighting, just before the *maghrib* prayers.

Our family regularly sights the *hilal* and in fact it was I who had called ISNA (Islamic Society of North America), P.O. Box 38, Plainfield, Indiana 46168, at (317) 839–8150 or (317) 839–8157, for the previous *hilal* sighting on Thursday night April 6, 1989 to report the previous *hilal* sighting which determined the beginning of the month of Ramadan (the month of fasting) as Friday April 7, 1989. ISNA coordinates the *hilal* sightings for all of the United States and Canada.

The *hilal* of May 5 was just above the *surkhi* (reddish glow of the twilight) but lower than the higher whiter portion of the sky. The direction of the curve of the *hilal* can be explained by placing an imaginary watch on the western horizon. The *hilal* extended from approximately slightly less than the 2 o'clock position to slightly more than the 8 o'clock position. When the *hilal* was first sighted it was about three *baalish* (an open hand's width at arm's length) above eye-level (horizon) and when the *hilal* faded away it was at about a *baalish* above eye-level. The people who made naked-eye sightings were my brothers Mohammed Hanif (age 29 year) and Abdul Quadir (age 25 years), my sister Fatima (age 24 years), my wife Fahmida (age 24 years), and myself (age 31 years). With us were my father Mr. Mohammed Yacub (age 59 years), a friend Mohammed Ibrahim (age 26 years), and other uncles. This later group could not see the *hilal*. In fact, my father would not believe me since he could not see the *hilal* himself and it is only after my wife and sisters insisted that they too had seen the *hilal* that he was convinced. We then called the ISNA and reported our sighting.

We were happy since the *hilal* sighting meant that the *Eid-ul-Fitr* would be on the next day. Just to further convince ourselves, we made a point to see the *hilal* on the next evening, and we were convinced that on this second evening, this was the *hilal* of the second-day since it was thicker and brighter than the first-day *hilals* we had sighted before. All my uncles could easily see the second-day *hilal* and they too felt it was a second-day *hilal*.”

The following is the report of the second group, given by Mr. Saleh Al-Thani to Dr. Mohib N. Durrani on Monday, May 8, 1989:

“I was at the North-West Houston *Masjid* (mosque) on Friday, May 5, 1989 evening near sunset time along with two friends, Brother Nash Al-Qaouq and Brother Aymen Qadorah. The *masjid* is about 45 miles (81 km) north-west of Houston, Texas. We were in an empty area and had a clear view of the western horizon. We had stopped near the *masjid* to perform the *maghrib* (sunset) prayers. The sun had set at about 8:02 pm and we had the *Iftar* (breaking of the fast). Meanwhile we were searching for the *hilal* since it was expected to be sighted that evening or the next evening. At 8:10pm, we sighted the *hilal* and all three of us could see it. We were looking at the *hilal* for about four minutes, then we started preparing for the *maghrib* (sunset) prayers. The prayers took about ten minutes. When we tried to look at the *hilal* again, after prayers, from around 8:25pm, we could not locate it again.

The *hilal* was from around the 2 o'clock position till about the 7 o'clock position of an imaginary vertical clock on the western horizon. One of the ends of the *hilal* was not very clear, the one towards the right. The *hilal* itself was thicker towards the 7 o'clock end and was thinner towards the 2 o'clock end. The *hilal* was above the horizon at more than an eight finger width kept at an arm's length, which I estimate to be about 15–20 degrees. I am estimating all of these values. My major is in computer science

For further information on these sightings, Dr. Durrani can be contacted c/o Islamic Amateur Astronomers Association, Research Division, 601 West 113 Street, Suite 11-K, Columbia University, New York, New York, 10025, or by electronic mail at: [mnd@cunixb.cc.columbia.edu](mailto:mnd@cunixb.cc.columbia.edu) (Mohib.N.Durrani).

## Observer's Cage

by David H Levy

The Aurora is a special Canadian domain, something with which northern observers are blessed. Possibly the members of the Calgary and Edmonton Centres might wish that somebody else had been so “blessed” – with eternal twilight in summer and very frequent aurorae in spring and autumn, that leaves only the frigid winter months for uninterrupted observing of objects farther away than our upper atmosphere.

The great auroral display of March 12–13, 1989 was visible over much of the planet's northern hemisphere. I received reports of absolutely stunning displays from Montreal and Kingston. Observers from England reported it as one of the best in thirty years. From Tucson, we observed a faint reddish glow during the evening of March 13.

These observations reminded me of some aurorae I recall. On September 3, 1966, I was on my way to the Montreal Centre's observatory during early twilight when I looked up to see what looked like a softly glowing cirrus cloud overhead. It just stayed there for about thirty seconds, then suddenly shifted. Oh, my, a “coronal” display! I rushed to my grandparent's apartment which was nearby, and set up on the roof and observed all night. At times the sky was completely covered with reds and greens, homogeneous arcs, rayed arcs, spots appearing and disappearing – as bright as a fireworks display, and people on the street below looking up and applauding.

Another late 1970's display involved rays that moved around the sky in sudden shifts. I decided to try an impromptu experiment. Often I would hold my cat Boulder so that he would look skyward, purring in satisfaction. This night I tried the same thing, and he stared

intently, clawing at the sky! Perhaps the sudden auroral shifts had caught his attention.

We are in the strongest solar cycle in some thirty years. The increased solar activity will force the early re-entry of the orbiting Solar Maximum satellite into the atmosphere and it has been blamed for the power failure in the province of Quebec in March. Quite likely, we are in for a series of big, exciting and inspiring auroral displays.

## **Astronomy in the Blood**

**by Dennis Ryan  
St. John's Centre**

The quote in the *Newsletter/Bulletin* (February 1989) for *Across the R.A.S.C.*, Montreal Centre read: "another member with a very distinguished service record for the Centre, Dennis Ryan, moved to Newfoundland this summer." The "distinguished service" referred to included being Editor of the Montreal Centre's newsletter *Skyward*, being on the Board of Directors, and a few other activities thrown in for good measure. In other words, I, like any serious amateur, was a part of the Centre.

Then, as often happens these days, our situation changed and my wife and I moved to Newfoundland. As much as we have come to like it here, there were lots of things we have had to get used to, including the fact of not being in the midst of familiar surroundings. As well, the very physical demands of my new job in construction has left me too weary to observe regularly and the St. John's Centre does not meet as often as Montreal does.

This situation did have a bad effect on me, what you might even call "withdrawal symptoms", and there have been times that I felt depressed and longed to be back in Montreal, remembering all the good friends and times I had there.

I had contacted the St. John's Centre but apparently they did not have any regular meetings for a few months after Christmas.

Then one evening in March, one of the Centre's members called to tell me there was meeting planned for the following Wednesday and would I be able to attend and introduce myself. I said, most emphatically, yes.

Wednesday rolled around and I found myself on the way to the Physics Building at Memorial University where the meeting was being held. The meeting itself was quite informal. We sat around a large table in the middle of the room as members took care of Centre business. An hour-long, fascinating lecture on black holes followed, and we ended the evening by having donuts and coffee.

All the while this was happening I could feel myself revitalized, the feeling of melancholy slowly melting away. Before I left that evening, I gave my address to the Centre secretary, feeling good that I was back into astronomy the way I had always enjoyed it.

## **Across the R A S C**

**KITCHENER-WATERLOO:** The Centre was hoping to hold its first "in-town" observing night in late March. A backyard star night would eliminate the long drives to the observatory in Ayr. Many members witnessed the spectacular auroral display on March 12.

**SARNIA:** Reg McMichael, secretary for the Centre, reports that the centre is pursuing a membership drive in 1989. Reg was interviewed by the local *Observer* newspaper and an article with photograph appeared in the April 7, 1989 issue. Contact is being maintained

with neighbouring centres and clubs and a speaker exchange and observing program are being considered. For International Astronomy Day in May a shopping mall display was being planned. Scout groups and teachers have been encouraged to enlist the groups' aid in providing observing outings and talks.

WINDSOR: The Centre has moved to its new home for membership meetings in Essex Hall at the University of Windsor. Thanks go to president, Steve Pellarin, for having made the arrangements for this location. On February 11, a number of members observed Supernova 1989B at Pat Langin's place in the country. Al Des Rosiers, Director of Observing, reported that it was fairly easy to see in his 20 cm reflector. Dan Taylor, Librarian, stated that the brightness of this object rivalled the brightness of the nucleus of the galaxy M66 in which the supernova was observed.

NIAGARA: A "new look" demeanor spread through the centre in recent months reports *Niagara Whirlpool* Editor, Gregory Saxon. Many new faces have appeared on the scene due to the dramatic increase in Niagara Centre membership this year. The *Whirlpool* has undergone a facelift, and has entered the 1980's (with a year to spare) with computer layout, laser printing, and other changes in format. A promotional video of the Niagara Centre produced by Dan Braun has been completed and has received airtime on the local cable-TV outlets. The "New Look" has also overtaken the membership with the arrival of the new Niagara Centre sweatshirts and T-shirts. Together with the Centre's jackets and astro-caps, the membership will cut quite a dapper figure at the upcoming public star nights scheduled for the summer months.

A telescope workshop was held on April 9 for the benefit of the newer members to help acquaint them with the workings of their instruments. Astronomy Day was celebrated with a Mall Display at the Niagara Square Shopping Centre with a public star night later in the evening.

OTTAWA: Sandy Ferguson coordinated the Centre's celebration of Astronomy Day this year. Displays were set up at the Place d'Orleans Shopping Mall. Paul Comision is teaching a three week mini-course on *Stellar Evolution* during June. The Centre's April meeting featured Terence Dickinson speaking on "Mars, Martians, and Little Green Men".

CALGARY: The Centre has joined the NetNorth communication system. This will improve communication with other RASC centres as well as some planetaria and observatories. Secretary Glenn Hawley (403) 259-6547 has details. Centre members Cam Fahrer, Glenn Hawley, Brian Loranger, Jason Nishiyama and Erroll Zastre helped out as judges at the Calgary Youth Science Fair held in April. The Centre sponsors a trophy and keeper plaque for the Best Astronomy project at the Fair. This year Todd Kemp, a grade 5 student, received the award for his display on radio astronomy.

HALIFAX: The Centre's Annual Banquet was scheduled for May 19 with guest speaker Walter Zukauskas speaking on *Supernova 1987A: Two Years Later*. The January/February, March/April and May/June issues of *Nova Notes* featured an interesting exchange of letters by members on the features to look for in buying telescopes.

EDMONTON: Congratulations to Russ Sampson who has made his 1000th variable star observation. The Centre's refurbished 17.5-inch telescope saw its "first light" in February and members were looking forward to its active use. Karen Gray is succeeding Peter Ceravolo as editor of the Centre's fine newsletter *Stardust*.

VANCOUVER: Co-editors Hugh Dolden, Tim Novak and Mike Chutter are putting out an excellent *Nova* newsletter. The Centre's Astronomy Day activities in May were centred around the Southam Observatory. The results of a membership survey conducted by Gerry Knight were summarized in the May/June *Nova*. Interest in the use of small telescopes was high, there was little interest in "grand projects" relating to observatories and telescopes, and more public programs were desired.

TORONTO: The Centre's newsletter *Scope* has received permission to use Second Class Postage rates, the second centre in the Society to receive approval from Canada Post. As a result, newly-elected editor Mary Anne Harrington is undertaking a major redesign and expansion of the newsletter since the \$500 per issue postage bill will be substantially reduced. Special visits to the Star Theatre of the McLaughlin Planetarium to view the night sky in "cloud-free" conditions have resumed prior to Members Nights.

*Across the R.A.S.C.* is a regular feature of the *Newsletter*. Centre editors or secretaries should send reports of their centre activities and upcoming events directly to the editor. Deadline for the October issue is September 1.

## Letters to the Editor

### Who's Leading What or Whom Where?

The article *Quo Ducit Urania* (February 1989 page 9) brought vividly to mind one occasion at a General Assembly shortly after I joined the Society.

One of our most highly regarded professional members of council (unfortunately, I cannot remember precisely who) was presenting a most interesting lecture on a subject about our increasing knowledge of the size of our Universe and its expansion. He concluded standing beside the projector with which he had been showing us slides. As he turned off the lamp, he added "In the words of our beautiful Society motto *Whithersoever thou mayest lead us, O Goddess of the Universe*".

To me it was a much remembered climax. I am more prone to think of the motto that way than just the computational exactitude of impersonal translation in "*Where Urania Leads*". But then, I am 77!

Frank Shinn  
Nanaimo British Columbia

### A Peruvian Amateur's Dilemma

When I was in Peru last autumn, I met by chance the country's only amateur astronomer, Professor Julio Rivera. He has built himself an observatory in the small city of Tarma, at an elevation 3048 metres, in the central Andes and about six hours drive east of Lima. The Observatory sits on the top of Rivera's hotel in the centre of town but as Tarma has few cars, no industry, and an irregular electricity supply, he obtains excellent viewing with his 4-inch equatorial refractor. Over many years he has filled notebooks with data and has developed his own system for predicting the rising points and times of all the planets as seen from Tarma.

Professor Rivera wishes to make contact with astronomers in other countries and is willing to put his observatory at the disposal of anyone interested in viewing the southern

hemisphere in return for access to more sophisticated equipment at a reasonable price. He would prefer a large refractor since the mirrors of reflectors have to be regularly re-silvered and there is no place closer than Buenos Aires to do this.

Some members may wish to contact Professor Rivera. He speaks only Spanish but a relative would translate letters received in English. His address is: Professor Julio Rivera C., Hostal Central, Jiron Huanco 614, Tarma, Peru (Tel: Tarma 2198).

Ronald Wright  
Port Hope, Ontario

### **Simon Newcomb an American Astronomer**

In the October issue (*National Newsletter* Vol. 82 No. 5, October 1988, page 71) it was stated that Simon Newcomb was a Canadian astronomer. Recently, due to the work of Dr. Albert E. Moyer of the Department of History, Virginia Polytechnic Institute and State University, Blacksburg, Virginia it has been learned that Simon Newcomb (1835–1909) who was born in Wallace, Nova Scotia became a naturalized U.S. citizen on June 16, 1864. He became famous for his work published primarily in the United States.

Roy North  
Colorado Springs, Colorado

## **Events Calendar**

June 27–29

*Annual conference of the Canadian Astronomical Society*, Montreal, Quebec. Contact Chris Aikman (604) 388-0008.

June 27–30

*Biennial conference of the Planetarium Association of Canada*, Montreal, Quebec. Contact Mrs Nicole Patenaude (514) 872-4530.

June 30–July 3

*General Assembly of the Royal Astronomical Society of Canada*, Sydney, Nova Scotia.

July 20

*20th Anniversary of the first astronauts to walk on the surface of the Moon*. Neil Armstrong and “Buzz” Aldrin spent 22 hours on the Moon’s surface before their lunar module Eagle returned to lunar orbit to join Michael Collins and return to Earth.

July 28–29

*14th Annual Public StarNight*, Saskatoon, Saskatchewan. Hosted by the Saskatoon Centre RASC. Contact Jim Young c/o Box 317, Sub P.O. Box #6, Saskatoon, Saskatchewan S7N 0W0.

July 28–30

*19th Annual Syracuse NFCAA Summer Seminar*, Syracuse, New York. Hosted by the Syracuse Astronomical Society. Contact Rod McCabe (315) 454-3150. See ad in this issue.

August 4–5

*Stellafane*, Springfield, Vermont. Contact: Dennis di Cicco, 60 Victoria Road, Sudbury, Massachusetts 01776.

August 10–13

*Alberta Star Party*, Waterton Lakes International Peace Park, Alberta. Hosted by the Lethbridge Astronomical Society. Contact: Rick Ponomar (403) 381–1332. See ad in this issue.

August 12

*Perseid Meteor Shower*. Moon phase: Waxing gibbous moon.

August 16–17

*Total eclipse of the Moon visible from all of North America*. See 1989 *Observer's Handbook* pp 84–94 for details.

August 19

*Annual Telescope Making Contest*, Montréal, Québec. Sponsored by La Société d'Astronomie de Montréal. Contact Marc Gélinas (514) 728–4422.

August 25

Voyager 2 flyby of Neptune.

August 25–26

*Starfest '89*, Mount Forest, Ontario. Hosted by the North York Astronomical Society. Contact Andreas Gada (416) 761–1798. See ad in this issue.

August 25–28

*Nova East '89*, Fundy National Park, New Brunswick. Sponsored by the Halifax Centre RASC. Contact Doug Pitcairn (902) 463–7196.

August 30–September 3

*6th Annual Mount Kobau Star Party*, Mount Kobau, British Columbia. Hosted by the Okanagan Astronomical Society. Contact Peter Kuzel (604) 545–1226.

## Syracuse Summer Seminar

July 28–30, 1989

The Syracuse Astronomical Society will host its 19th Annual Summer Seminar at Darling Hill Observatory in Vesper, New York from July 28–30. Free campsites are available on a first-come, first-serve basis.

This year's guest speaker is the well-known Canadian writer and observer, Terence Dickinson, who will wrap up Saturday's events of contests and short talks. For more information, contact Rod McCabe, 706 Campbell Road, Mattydale, New York, USA 13211, or call (315) 454–3150 evenings and weekends.

October 13–14

*1989 Kingston Meeting*, Dominion Astrophysical Observatory, Victoria, British Columbia. Annual gathering of theoretical astronomers. Topic: The Age and Evolution of the Galactic Disk and Halo. Contact Chris Aikman, DAO, 5071 West Saanich Road, R.R. #5, Victoria, B.C. V8X 4M6.

## **Mary Grey Receives Award**

Mary Grey, a Senior Curator of Physical Sciences at the National Museum of Science and Technology in Ottawa has recently received a government merit award recognizing her exceptional contributions to the objectives of the museum. Mr. John Edwards, Secretary General, National Museums of Canada, on behalf of NMC management bestowed on Mary a merit award of \$500. and a certificate in recognition of her personal dedication to the dissemination of knowledge about astronomy through her museum work, teaching and broadcasting activities and her involvement in the Royal Astronomical Society of Canada.

Mary is editor of Museum's *Stargazing* column and has served as an active member of the Society's National Council. At the 1988 General Assembly of the Society in Victoria, Mary completed her two-year term as the Society's President. Congratulations Mary!

*Editor:* I wish to thank Paul Donahue, Assistant Director, Collection and Research, National Museum of Science and Technology for bringing this deserving recognition to the attention of the *Newsletter*.

## **Astronomy Day Expands in Centennial Year**

**Steve Dodson**

**Science North, Sudbury**

**RASC Astronomy Day Coordinator**

The planning of celebrations for the Society's Centennial next year has prompted re-examination of the time frame of Centre Astronomy Day observances. In 1990, Astronomy Day will become "Astronomy Week" with Centres encouraged to schedule events on any or all of the seven days starting with Monday April 23 and ending with Sunday April 29. Beyond the flexibility this offers each Centre in the scheduling of public observing sessions and other events an Astronomy Week would provide many more opportunities to influence public attitudes towards Astronomy.

For example, consider a large potential audience of unrivaled importance – the local elementary schools. By serving this sector a Centre would have the greatest possible influence on the local community. Young students are extremely curious about the universe and often more open-minded about astronomy than their elders. Their teachers frequently express a need for information about astronomy and help in presenting it. However most Centres lack means for responding to these interests and meeting these needs.

If arrangements were made to publicise school-oriented Astronomy Week activities through local school boards, class visitations could be the highlight of the first five days of Astronomy Week. The Centre would benefit from the long-term support of many students and teachers.

In order to seize this opportunity to increase the effectiveness of Astronomy Week as a means of developing public awareness it is important that each Centre gear up now. A

vigorous and varied program requires the kind of organization that assures a division of labour among a good number of committed individuals each with a well-defined task. In order that each of these Astronomy Week Organizing Committee members can begin lining up the resources, contacts, reservations and other details necessary for each task early in the autumn of 1989, each Centre should consider setting up or re-invigorating a committee for that purpose as soon as possible. It is by organizing this kind of division of tasks before time becomes critical that we can offer more to our communities than ever before without overworking a faithful few.

Every aspect of the structuring of a successful organizing committee is well covered in the Astronomy League's *Astronomy Day Coordinator's Handbook*. This excellent manual, written by the international coordinator of Astronomy Day, also explains dozens of ideas for activities, many of which might otherwise be overlooked. This manual has been out of print for a few months and many Centres are not in possession of it. Because of its considerable usefulness as Centre organizing committees distribute tasks and address program alternatives, one copy will be made available to each Centre at the General Assembly in June. It is hoped that it will be thoroughly and widely read, and that many of its excellent ideas will be integrated into the work of the organizing committees.

The benefits of implementing some of these suggestions in the near future may be enjoyed years beyond the Centennial and might well permanently raise the level of excellence of the RASC Astronomy Day offerings!

## **J'ai mon voyage**

**par Raymond Auclair  
Collège de la Garde Côtière  
Sydney, Nouvelle-Ecosse**

En Septembre 1988, un groupe de neuf astronomes amateurs, membres de la Société d'astronomie de Montréal et de la SRAC sommes parti pour une visite au pays de l'étoile rouge. Nous devions visiter différents observatoires de l'Union Soviétique au cours d'un voyage de deux semaines.

## **Starfest '89**

**August 25–26, 1989**

The North York Astronomical Association, in co-operation with the River Place, invites all astronomers to attend its eighth annual observing convention/camping weekend. The convention includes observing sessions, slide presentations, workshops, commercial displays and a "Twilight Talk". Observers are invited to bring their telescopes and share their observing experiences. The convention will be held at the River Place Campground located 14 kilometres north of Mount Forest, Ontario. To obtain more information, please write to: Starfest '89, c/o Andreas Gada, 26 Chryessa Avenue, Toronto, Ontario M6N 4T5.

Après avoir vu, de nos yeux vu, les installations du radio-télescope RATAN-600 et du Grand Observatoire Astronomique (télescope de 6 mètres) situés dans les monts du Caucase, nous avons profité du climat estival de Yalta, d'où nous avons visité le centre d'astronomie de la Crimée (10 télescopes). Je vous fais grâce des détails techniques de la visite car nous vous en parlerons en long et en large durant l'assemblée générale de 1989, à Sydney.

Déjà, avant de quitter Yalta, je commençais à me sentir moms en forme. En arrivant à Kiev, je n'en pouvais plus et j'ai fait demander un médecin. Appendicite aiguë, opération immédiate! On m'a transporté d'urgence à l'hôpital où l'opération a eu lieu au milieu de la nuit.

Une fois l'inquiétude passée, le groupe a pu continuer le voyage vers Leningrad et Moscou, faisant partout de nouveaux amis et des découvertes intéressantes. Hélène et moi sommes restés en Ukraine; elle à l'hôtel, moi à l'hôpital. Là, nous avons appris ce que signifie "la barrière des langues". J'ai quand même eu de bons soins, j'ai fait de nouveaux amis et j'ai même appris quelques mots. Mais si vous voulez en savoir plus, venez me voir à Sydney en 1989.

## **Supernova 1989B**

by **Murray Paulsen**  
**Edmonton Centre**

Upon his return to Toronto from a recent trip to Edmonton, Alister Ling received notification of a supernova in the galaxy M66. He phoned Edmonton Centre Observers Group Coordinator Dave Clyburn and gave him the particulars. Supernova hunter Robert Evans of Australia had found yet another supernova, this one a 13th magnitude object 50 arc seconds north and 15 arc seconds west of the nucleus of M66.

## **“Rocky Mountain High” The 1989 Alberta Star Party**

**August 10–13, 1989**

The Lethbridge Astronomical Society is proud to present the 1989 Alberta Star Party. This premier event will be held August 10–13 near the world famous Waterton Lakes in the Glacier International Peace Park located in the south-west corner of Alberta. The location is a very breathtaking one where the foothills of Alberta meet the majestic Rocky Mountains. The location is dark and superb for astronomy.

The programs includes: competitions; prizes; a traditional western BBQ supper; a “Swap Meet” and much more. Our guest speakers are well-known writer and lecturer Terence Dickinson and lecturer/astrophotographer Alan Dyer of the Edmonton Space Sciences Centre.

For more information write to: Lethbridge Astronomical Society, Alberta Star Party 1989 Committee, P.O. Box 1104, Lethbridge, Alberta T1J 4A2, or phone: Rick Ponomar at (403) 381–1332 (residence) or (403) 381–381–3744 (business).

Uncooperative weather thwarted our efforts to see it until February 14. The afternoon had been cloudy so a few of us had gone to our favourite “watering hole” (it was too cold to go observing anyway). As the night progressed the sky cleared. Suddenly the bartender was calling me over to the phone. Centre President Peter Ceravolo had caught us before we could sneak away and retire for the evening.

I was surprised when Peter informed me that the supernova was now magnitude 10.5. We arranged to rendezvous in my backyard observing site at 11:30pm. Dave Parker and Dave Clyburn were the first to arrive and we set about hunting down M66 in the glare of the city. (I have four car lots within three blocks of my house). A few minutes later we had M66 centred in the 12.5-inch telescope. With high magnification to reduce sky brightness, we could easily see the supernova.

Peter brought a photographic supernova finder handbook and immediately opened it up to the M65, M66 field. He then proceeded to point to M65 and questioned whether we had the right galaxy. A photo in *Burnham's Celestial Handbook* saved the day (night) and Dave Clyburn wrote out an “Arrogant Observing” citation to Peter. We cycled through a few more turns of the M66 field, then congratulated each other on seeing this marvelous apparition. At minus 25 degrees Celsius, we did not waste any time shutting down. We were back indoors within minutes.

A few days later I dragged the telescope out to the country and made a drawing of the field of M66. The moon was past First Quarter so I did not need a red flashlight, sunglasses maybe, but definitely no red flashlight. A magnification of 330X increased the contrast in the moon-polluted sky. The drawing took five minutes and my fingers were going numb as I packed up.

A few days later I got a call from Father Lucien Kemble, a highly experienced observer from Cochrane, Alberta. He had discovered the supernova before the news came out, but four or five days after Evans. This was the second supernova that he has independently discovered.

My last observation of the supernova on March 4 estimated its magnitude around 12.5 to 13. Curiously enough, the February issue of *Sky and Telescope* (page 224) featured a photograph of the M66 field.

Reprinted from Edmonton Centre's *Stardust*

*Editor:* Robert Evan's discovery of Supernova 1989B was made on January 30.5 UT. It was announced on *IAU Circular No. 4726* dated January 30, 1989.

## Observing the March Solar Eclipse

by Daryl Rybotycki  
Saskatoon Centre

The following report appeared in May 1989 issue of *Saskatoon Skies*.

I hope you caught the solar eclipse during lunch hour on March 7. After watching the dull white clouds move towards the east all morning, I didn't expect clearer skies than we had for the overcast lunar eclipse just 15 days before.

But with one eye on the sky, I waited for the clouds to open. Around 12:38pm, the Sun broke through enough clouds for my first glimpse of the event. Using my 16X50 binoculars, I projected double images of the eclipse onto a piece of paper. The Sun was obscured by a

thin layer of quickly moving clouds which added a mottled texture of light and dark grey patterns to the solar images on the paper as I watched. I estimated that only 30–35% of the Sun was occulted by the Moon by this time. I was joined by a co-worker and we watched the light show for a few minutes together. We stared as the eclipse unfolded on the paper until the clouds reclaimed the solar eclipse for their own pursuits.

With the dense grey clouds again covering the Sun, it was impossible to look about and tell that a third of its rays were blocked. Outside there was no indication that the rest of the world took notice of what was happening high above us. Outside the traffic surged forwards at its own pace. Overhead, the birds continued to fly in paths only they could follow. It seemed as if the significance of the eclipse overhead was lost on everyone except me. I felt as if I had seen something special, like a small child looking at the gears inside a watch turning.

In less than 20 minutes the eclipse was over. The sense of awe and wonder stirred by watching the eclipse remains within me still. I hope you had the opportunity to capture a part of that experience for yourself.

## **A Cheap Red Night Light for Astronomy**

**by Richard Huziak  
Saskatoon Centre**

I have discovered an easy method of obtaining a red flashlight for astronomical purposes. Canadian Tire sell an inexpensive Pulsar brand penlight (part #65-2013-4) which uses two AA batteries. This flashlight comes with a semi-transparent red plastic bezel around the light bulb with a tiny hole that emits a deadly white beam of light.

To modify the penlight for astronomical use, unscrew the bezel and plug the hole with anything that fits (tissue paper, gum, etc). You will now have a great little night vision flashlight which emits enough red light to read sky charts outdoors, next to a telescope in the dark. The flashlight costs less than \$3.00.

Reprinted from *Saskatoon Skies*

## **First Light on the 25-Inch**

**by Jack Newton  
Victoria Centre**

Christmas 1988 didn't arrive in December. It made a slightly delayed, but spectacular, appearance this February. That's when I took delivery of my new Galaxy Optics 25-inch *f*/5 telescope. It is dynamite! For the first time, I have a telescope with which I can use a 6mm eyepiece at 530X and the images just get better and better. But back to the beginning.

As any of you know who follow my astrophotography know, I have been progressing over the years through a succession of ever-larger aperture telescopes, my most recent being a 20-inch *f*/5 Newtonian. In spite of the thrill in being able to observe and photograph through some fairly impressive "light buckets", I must confess that I have continued to suffer from what boaters refer to as "2-foot-itis" (I guess in astronomy that's 2-inch-itis"). In whatever lingo, I have always been driven toward the promise of really good images, even in the unpredictable Vancouver Island skies.

I first spoke to John Hudek of Galaxy Optics late last November and raised the subject of my lifelong dream – a 25-inch mirror. To my delight, he informed me that his company would soon be producing a run of 25-inch mirrors, and that if I wished to order one, he could promise 1/20th wave! I had, of course, heard the usual horror stories concerning delivery dates that never came or optics that proved unsatisfactory in performance. But I'd heard much about a telescope owned by Tom Clark in Florida. He had ordered it from Galaxy Optics a while ago, and had nothing but good things to say about their optics. Based on his comments, and those of a number of other trusted individuals, I felt that I had lucked out by finding a really reliable source. In January, I had the chance to look through Clark's telescope on the Florida Keys, at the Winter Star Party and was very impressed. I went ahead and ordered the mirror in December, and was told it would be completed and shipped to Seattle in early February. With my fingers crossed, I arrived back from Florida on February 8, and lo and behold, there it was, waiting to come home! Only 60 days to produce a 1/20th wave 25-inch f/5 mirror. To say I was thrilled is truly an understatement.

The switch to the new telescope meant that I had to change my declination shaft to a 2-inch diameter right through my 400 lbs of counterweight. This totally eliminates vibration. The 27-inch aluminum tube was rolled by a local company in three sections. A 50 lb cradle was constructed to support the tube and allow for its rotation. George Ball made me a beautiful 5-1/2 inch minor axis secondary mirror, flat to 1/10th wave. The main mirror is supported on two layers of blister pack (bubbly packing material) set onto a 1/2 inch plate of aluminum which is 1/16th inch larger than the mirror. A 2-1/4 inch wide band of aluminum surrounds the mirror which is held in place with eight support claws. Bolted onto the back of the mirror cell are six lengths of 1-inch steel angle-iron, which radiate out like the spokes of a wheel. This support system lets the mirror actually "float on air" and it is restrained only by its own weight. No direct pressure is put on the mirror, and this mounting system seems to be working satisfactorily so far. I make adjustments to the mirror one inch outside of the cell at the end of the angle-iron.

During those miserable winter months, it is an exercise in frustration to wait for a hopefully good, extended observing run. I had wanted to have a "first light" party to put the new mirror through its paces and show it to our Centre's Observing Group. Unfortunately, the party was rained out, as did a number of later attempts. Instead, I had to settle for a little "backyard" observing under less than ideal conditions at home and one three-hour stint at my dark site at East Sooke Park. After I had finally psyched myself up to quit gawking through the eyepiece and get down to the serious business of taking a couple of photos, I managed a 15 minute cold camera shot of the Orion Nebula and a second (not so successful) photo of the Crab Nebula. Ten minutes into the later shot, a curious truck driver directed high beams straight into my face and yelled "hey man, what's happening?". After his rather hurried departure (no doubt to report that some fool with a rocket launcher was hanging out on Becher Bay Road), I thought I would salvage what I could of the exposures in the camera. I placed the camera in a light-tight black plastic bag and unpacked my brand spanking new 12-volt hair dryer. I plugged the dryer into the cigarette lighter of my car and left the dryer to do its job of warming the camera while I headed back to the telescope for another quick peek. I got quite mesmerized out there and totally forgot about the dryer. When my nostrils finally detected the faint smell of smoke emanating from my car, I flung open the door to be met by a blast of smoke filling the cool night air. I quickly pulled the plug and grabbed the camera bag, only to have it explode with a flash of light right in my face. "Oh well", I said to myself, nursing in my hands the amorphous blob that had once been my shiny dryer, "the truck probably wrecked the shot anyway, and really didn't need those eyebrows". Ironically, only one of the exposures was ruined and the Orion Nebula turned out OK! This experience gave a whole new meaning to "first light"!

As for Galaxy Optics' mirror I have nothing but praise. I could easily resolve the face in the Eskimo Nebula and the stars around the Trapezium in the Orion Nebula looked like diamond chips embedded in pale pink nebulosity. The first quarter moon was like a religious experience. My ill-fated first light photo of the Orion Nebula showed very good star images at the edge of the field. My off-axis guider stars actually hid under the cross-hair at 800x magnification. I used a 160 line grating for a null star test and was pleased to see the straight lines right off the edge of the field.

Galaxy Optics certainly lived up to its 1/20th wave advertisement. Now, if only I can ever drag myself away from the eyepiece long enough to take some photographs, I might be able to share with others what I am seeing!

## **Congratulations Jack**

Jack Newton, an innovative astronomical photographer and past president of the Victoria Centre of the Royal Astronomical Society of Canada, has won the 1988 Amateur Achievement Award of the Astronomical Society of the Pacific. Considered one of the very highest honors that an amateur can receive, the international Award recognizes outstanding contributions to astronomy by individuals who are not employed as professional scientists, but instead pursue astronomy as an avocation. Previous winners include Frank Bateson of New Zealand, George Alcock of the United Kingdom, Robert Evans of Australia, and Clinton Ford of the United States.

Newton, who works as a manager of a large department store in Victoria, is particularly known for his astronomical photographs and articles on photography which have appeared in magazines in the United States and Canada. He is author or co-author of four books on astronomy and photography, including *The Guide to Amateur Astronomy*, just recently published by Cambridge University Press.

Newton was the first amateur astronomer in North America to capture Comet Halley on film during its recent pass. Using a 20-inch telescope mounted on a trailer, he travels to dark sites and clear skies whenever he can to pursue his photography. He is regularly called upon to evaluate new films and photographic techniques for use in astronomy.

In addition he has, during his many years of service as a member and officer of various centres of the Royal Astronomical Society of Canada, helped train dozens of other serious astronomical observers and photographers. He is a frequent and popular lecturer at astronomical conferences and meetings, and he has had a tremendous influence on amateur astronomy around the world.

The Astronomical Society of the Pacific, founded in 1889, is an international scientific and educational organization that brings together astronomers, educators, amateurs, and others interested in the exploration of the universe. The Amateur Achievement Award is one of a number of programs by which the Society recognizes and encourages the contributions of amateurs to astronomy.

*Press Release from the Astronomical Society of the Pacific*