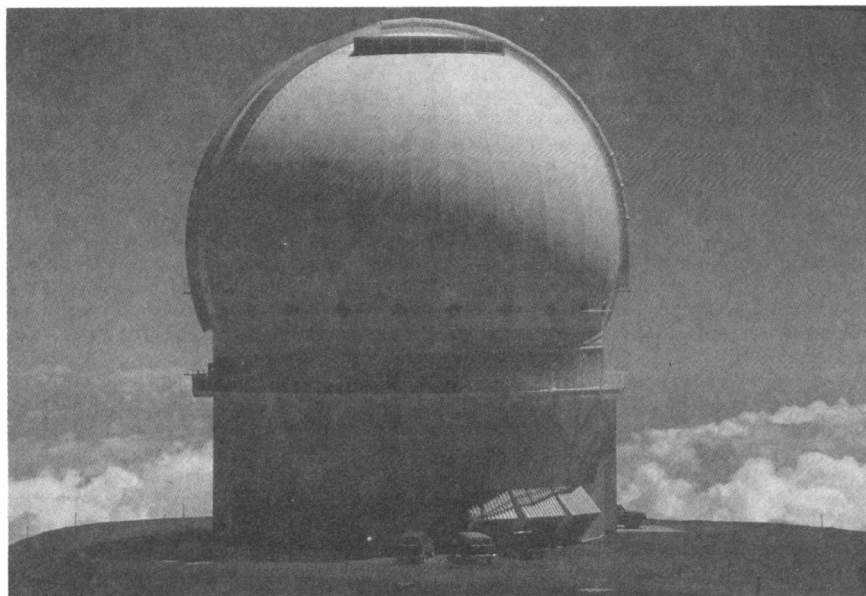

NATIONAL NEWSLETTER

Royal Astronomical Society of Canada

Supplement to the *Journal*

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The Canada-France-Hawaii Telescope (CFHT) on the summit of Mauna Kea "The White Mountain" on the island of Hawaii. *Photo by Mary Anne Harrington.*

NATIONAL NEWSLETTER

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Editorial

by Ian G. McGregor

With this issue we complete another volume of the *National Newsletter*. I hope that you have enjoyed reading it during the year just as I have enjoyed (yes, enjoyed, I guess your editor is going off the "deep end") assembling it for you.

It takes a lot of time and effort to do a newsletter as I am sure my fellow editors at the centre level would readily agree. Collecting material, editing material and preparing copy for printing is a very time consuming process. But over the last year I have been pleased to find a large number of articles are being submitted directly to the *Newsletter* so that much less reliance is being placed on regurgitating material which has already appeared in centre newsletters.

Over the past year I have tried to include material to interest a broad range of interests. I do not want the *Newsletter* to be just a counterpart of the big glossy magazines coming from the United States but something unique which represents the interests and activities of the Canadian astronomical community. Wherever possible I have included reports on amateur conventions such as the Alberta and Mount Kobau star parties, consumer related articles which since we have no paid advertising allows a more critical evaluation and dialogue on telescopes and equipment, and reports on observing activities and techniques.

I believe it is important for Canadians to be aware of the accomplishments of other Canadians. Thus, the discovery of supernova 1987A by Ian Shelton and two comets by David Levy are highlighted, comments on historical sites and modern observatories are printed, and reports on the techniques used by members to do their astronomy are shared across the membership.

However, I can only print material of which I am aware. If your group has organized a special event, unless someone sends the *Newsletter* an article, it may not be reported at all. While a lot of effort goes into planning special programs, there is usually little after-the-event reporting on the success (or failure) of an event. The final report on an event is really the first promotion for next year's event and if people feel they missed something interesting they may plan to attend the next such event. Think about that! My address is on the masthead.

About 60% of the material submitted directly to the *Newsletter* finds its way into its pages. I am not that keen about using valuable and expensive space on matters relating to space technology, the space shuttle, astronauts, etc. I prefer to focus on astronomy and in particular, the activities and interests of

the astronomical community. I have little space for extremely personal articles which have little interest beyond those of the contributing writer, and "revolutionary new theories about the state of the Universe" will find space in my waste paper basket. And if an article is written on scrap paper, in pencil, single spaced and with no sign of the Queen's English, it is unlikely to see the light of day unless it is very, very good! Like your *Journal* and *Observer's Handbook* editors, I do the Newsletter as a volunteer outside regular working hours. I type up all material onto computer disk using an IBM compatible computer and WordPerfect software. If you send me a disk, I would be most pleased as it saves a lot of time. Wonderful things, computers!

My "In File" is not exactly overflowing with contributions for the coming year so put your thoughts, experiences and accomplishments on paper, or better still, on computer disk. Send photos, preferably prints, as well. I look forward to hearing from you.

Second Comet Levy for 1987

by Leo Enright
Kingston Centre

David Levy has repeated his accomplishment of last January and discovered his second comet for 1987. On the October Thanksgiving Weekend, when most Canadians were enjoying their feast of turkey and the company of their families, the Kingston Centre's comet hunter *par excellence* was perched on the roof of his house scanning the clear evening skies for indications of faint comets. During his search session on the evening of Saturday, October 10, at about 8:00 pm local time and after he had been scanning the western horizon for about a half hour, David spotted a faint patch of light in the northwestern sky. It was in the constellation of Bootes, and east-southeast of the very bright star Arcturus. In fact, it was not far from the double star Pi (29) Bootis, and subsequent observations showed that the fuzzy patch was moving fairly rapidly eastward toward the star Omicron (35) Bootis.

As David's excitement started to build and he became more sure over the next day that what he had seen was a comet and not a faint galaxy, he notified a number of R.A.S.C. members to obtain assistance in confirming his suspected discovery. Thus, after sunset on the evening of Sunday, October 11, Terence Dickinson of Yonkers, Ontario was able to see it in his refractor and to follow it for about an hour confirming motion and the fact that it was a comet. Rolf Meier of Ottawa, Ontario, at the same time, was able to find and observe it for some time and, at least, to suspect motion. Thus, on Sunday evening after several confirmations, David sent the confirming telegram to IAU Headquarters, since on the previous evening he had sent only a preliminary report of a suspected sighting along with a report of the magnitude of Comet Bradfield. An apology was also added since he knew this new comet would receive a letter designation near the end of the alphabet "in case this discovery should cause confusion as to how it should be numbered."

There was also an interesting event without which the comet might not have been discovered. Some time ago David noticed that from the observatory housing his 16-inch telescope "Miranda", used for his previous discoveries, that trees and other obstructions were preventing him from seeing as low to the horizon as he wished he could. Therefore, he had built on the roof of his house an observing platform big enough to hold "Pegasus," his 8-inch f/6 Cave telescope, which remains there permanently in a covered shelter. The final stages of the platform construction had only been finished on Wednesday, October 7, the date of the penumbral lunar eclipse when it was used for the first time. Just three nights later the platform was the scene of a comet discovery. Little wonder that David found the flow of adrenalin was almost overpowering. He says it was so great that he was almost ill, and a friend Jim Scotti, assisted him in confirming the coordinates of the comet on the Sunday evening.

Thus after his final confirmation there was no doubt that the object was indeed a comet and the following day the IAU Circular carried the report of the discovery of Comet Levy 1987y.

The very best of continued good luck to a most worthy comet discoverer who now has three comets bearing his name!

Across the R.A.S.C.

by Betty Robinson

CALGARY: Brian Martin won the competition to design a T-shirt logo for the Calgary Centre.

EDMONTON: The Alberta Star Party at Chain Lake Provincial Park in late July was immensely successful, thanks to organizer Simon Hum. As the Edmonton Centre did not participate in Astronomy Day this year, it held a star night on October 2 and 3 at the Edmonton Space Sciences Centre Observing Deck. National President Mary Grey spoke to the members on October 19 on the founding of Ottawa's Dominion Observatory. Alister Ling is preparing a deep sky workshop, free for centre members. Bob Breckenbridge plans to reconstruct the 17.5-inch telescope. Because of the telescope's size, those who can't move it are unable to use it. The plan is to redesign the telescope to fit more easily into a car or small truck.

HALIFAX: The Halifax executive took part in two events over the summer. The first was an astronomy weekend, where a group from the Summerside Astronomy Club came to see how the Halifax Centre is set up and tour the Burke-Gaffney Observatory. The second event was an astronomy camp for children held at the museum. The executive gave presentations and provided hands-on activities that covered the whole range of astronomy. The children also saw a show at the planetarium.

HAMILTON: Ian Stuart and John Gauvreau spoke to 70 campers, ages between 9 and 13, in August. Although clouded out, the campers enjoyed the slide show and talk. The new 5-inch refractor from McMaster University has been cleaned, polished, and mounted on a new post in the Chilton building. The 17.5-inch has been realigned and painted. October was a busy month for Hamilton Centre members with a mall display at the Burlington Mall and two public nights.

KINGSTON: The Kingston Centre's first annual picnic was held in August at Grassy Creek Picnic Park. Although the weather was not great, members enjoyed themselves during the day with food, frisbees, bird watching, and a little observing in the evening. National President, Mary Grey, spoke to the members in October.

KITCHENER-WATERLOO: Several members of the centre travelled to Mount Forest, Ontario in late August to attend the North York Astronomical Association's Starfest '87 observing convention. A star party at the Ayr Observatory on the night of September 12-13 to view the Pleiades occultation was clouded out. Paul Bigelow held a star night for the Kitchener-Waterloo Field Naturalists on the night of October 21.

MONTREAL: In late August, the Montreal Centre formally named its observatory after a lady whose name and reputation as an amateur astronomer are legend in the centre, Miss Isabel K. Williamson. The Townsend lecture featured Dr. Hubert Reeves discussing the beginning of the universe. Former Montreal centre member and director of observational activities, Enrico Kindl has been killed in a mountain-climbing accident in British Columbia.

NIAGARA: The Niagara Centre bought a 17.5-inch telescope with trailer in August. The purchase was formalized at a public star night, one of the busiest ever held, with over 80 people in attendance. Tom Dey from Rochester, New York was the guest speaker at the annual banquet in November.

OTTAWA: The December issue of *Astronotes*, the newsletter of the Ottawa Centre, will be the 25th anniversary issue. The new road to the Indian River Observatory has been completed.

SASKATOON: The annual public star night and members' picnic was rained out again. This has been the case for the past three years.

TORONTO: Although the annual picnic was rained out, the annual Open House at the David Dunlap Observatory was held regardless, with 80 attendees. The organizers of the solar eclipse expedition now

now have 17 people signed up for the March 1988 event in the Philippines. The Annual Awards Banquet will be held on November 21 with Chris Trump, vice-president of Spar Aerospace, as guest speaker.

VICTORIA: National President, Mary Grey, spoke to members of the Victoria Centre in September on the early days at Ottawa's Dominion Observatory. Muriel Enock has resigned the presidency of the centre and Philip Stooke is acting president. Jack Newton is now overseeing the plans for the 1988 General Assembly. Muriel Enock and Allan Cook went to Paris in June to attend the 98th Colloquium of the International Astronomical Union. Muriel gave a paper on the making of the new display at the Dominion Astrophysical Observatory. Allan Cooke reported the trip to be very worthwhile.

WINDSOR: At Starfest '87 last August, four centre members set up trailer mounted telescopes. Both Al Legary's 16-inch reflector and Brian Perry's 14.5-inch reflector were mounted under domes similar to conventional permanent site designs. Lorison Durocher and Tim Bennett also had 12.5- and 10-inch reflectors mounted, though open to the sky. Quite favourable responses were given by visitors who viewed these observing platforms.

WINNIPEG: *Winnicentrics* has a new co-editor: Myra Banman.

Observer's Cage

by David H. Levy
Astronomical Nationalism?

In the minds of some observers, the boundaries of countries and citizenship have now spread away from the surly bonds of earth and now they border the edges of the solar system. Seven comets, for instance, have been given de facto Canadian citizenship (van den Bergh, Meier, Meier, Meier, Meier, Levy-Rudenko, and Levy) and Ian Shelton's discovery of supernova 1987A in the Large Magellanic Cloud pushes Canada's claim to borders stretching beyond the galaxy!

The roots of nationalistic discovery in space go at least as far back as Halley who chided everyone to remember that his comet's nature was first understood by an Englishman. Fortunately, the sky of the past was an ethereal place, not readily looked at in terms of real estate. Italy had never thought to claim Jupiter's satellites, and the minor planet discoveries of the early 19th century were treated as the new science, interesting but aloof.

In the case of the discovery of Neptune, the question of nationalism became very real. The story began in 1841 when John Couch Adams of England became interested in the orbit of Uranus. Realizing that the eighth planet was "a long way out of his course," he began in 1843 computing positions for a trans-Uranian planet. Through either arrogance or misunderstanding, George Airy, the Astronomer Royal of the time, was either too busy or "at dinner" to meet with Adams, who was forced to leave his calculations at the door. When Airy finally got around to looking at Adam's work, he found the results interesting but did not suggest an actual search. Now Adams, hurt by Airy's attitude did not respond to a letter from Airy for almost a year. Even though a position had been calculated, even Adams did not forcefully pursue the acquisition of a telescope to search for the planet.

In 1845, the brilliant computer Urbain Jean Joseph Leverrier of France, submitted his own calculations to George Airy, who responded warmly but did not reveal that Adams had independently come to the same conclusion. From two different approaches, the two computers had come to much the same conclusion. Airy asked James Challis, the director of the Cambridge observatory, to begin a visual search for the new planet, which he began most laboriously covering a much wider area of sky than the predictions had called for. The final prediction by Leverrier, on August 31, 1846, was a position specifically five degrees east of the star Delta Capricorni, and still Challis plodded along. The result was not so much a physical search as a theoretical debate about which Clyde Tombaugh would comment 150 later: "I cannot imagine why the astronomers did not take their small telescopes and simply look!" With no one willing to look through a telescope, Leverrier eventually persuaded Johann Gottfried Galle of the Berlin observatory to have a search. Assisted by Heinrich Louis d'Arrest, who would later become famous as a finder of three comets, Galle discovered Neptune on the first night of his search and established its motion within a few days.

Thus, Leverrier was credited with the discovery of Neptune, at least until October 3, 1846 when John Herschel, son of the discover of Uranus, wrote of the parallel work of Adams. Challis, whose inefficient search had not revealed Neptune, now tried to cover his tracks by writing how he had searched for the planet using Adams' positions, offered some prediscovers sightings of Neptune, and did not mention Leverrier at all. Accusing the English of trying to steal the credit for the discovery, the French Academy protested vigorously, denied Adams the slightest credit for his work, and then the French press carried the attack much further through vicious attacks on Challis, Airy, John Herschel and Adams himself. Proud of their achievement, the French were livid at what they saw as an English attempt to take undeserved credit.

Meantime the English, clearly embarrassed, met on November 13, 1846 with Airy, Challis and Adams presenting their case at the Royal Astronomical Society. At the meeting we would not have missed today for the world had we the chance to attend, Airy began in his candid but methodical manner to describe his actions. Challis then summarised his search, and Adams described his calculations. Although the three presentations were pointed and accurate, the result was devastating for the two senior astronomers, who were strongly questioned. The only person who emerged cleanly from the meeting was Adams. We still wonder, did Adams in fact "publish" his calculations correctly by delivering them to the Astronomer Royal, as was the procedure then, just as correctly informing the International Astronomical Union's Central Bureau for Astronomical Telegrams would be the proper procedure today? Leverrier seemed the more confident of the two men, and certainly he took a much more active role in pushing his work to its successful conclusion through observation. Incidentally, though England and France had quarreled, Adams and Leverrier did become close friends after they met for the first time a year after the discovery.

Ultimately, the universe is not kind to those who seriously seek to nationalize it. Just as Adams and Leverrier became friends, so have the discoverers of supernovae and comets who share the common love of the sky and its uncounted secrets.

The White Mountain

by **Mary Anne Harrington**
Toronto Centre

During a recent holiday in the Hawaiian Islands I was very fortunate to be able to visit the "Big Island" known as Hawaii and to make the incredible journey to the summit of Mauna Kea. Rising 4,205 metres above sea level, Mauna Kea (meaning the "White Mountain" because of the frequent snow on its summit) is presently the home for eight astronomical telescopes including the Canada-France-Hawaii Telescope.

The largest telescopes in operation on the summit include the United Kingdom's 3.8-metre infrared telescope, the Canada-France-Hawaii 3.6-metre, NASA's 3-metre infrared telescope, and the University of Hawaii's 2.2-metre. Also, construction is well underway for the W.M. Keck telescope which is being built at a cost of \$85 million by the California Association for Research in Astronomy. When completed in 1991, the Keck telescope will be the world's largest optical infrared telescope with a segmented 10-metre primary mirror consisting of 36 hexagons. A similar \$80 million telescope is also being planned by Japan.

In March 1987, the National Optical Astronomy Observatories in Arizona announced that Mauna Kea had been selected as the site for what will be the world's biggest telescope – the National New Technology Telescope (NNTT). Construction should begin in the 1990's at an estimated cost of \$150 million. It will be half again as large as Keck and twice as powerful. Consisting of four 8-metre telescopes, the telescope will be the equivalent of a 16-metre telescope! When completed this giant eye will be capable of detecting light sent from distant stars more than 14 billion years ago.

Although I found the journey truly spectacular I look forward to a return visit. By the year 2000 it has been predicted that there will be thirteen telescopes on the summit of Mauna Kea including three of the largest telescopes on earth. The "White Mountain" will never be the same again!

James Clerk Maxwell Telescope

The National Research Council has signed an agreement to participate in the James Clerk Maxwell Telescope, one of the world's most sophisticated radio telescopes. Named after a 19th century British physicist whose mathematical equations predicted the existence of radio waves and showed that light is a form of electromagnetic radiation, the telescope is located on the summit of Mauna Kea on the island of Hawaii a short distance from the Canada-France-Hawaii Telescope. It was officially opened by H.R.H. Prince Philip, Duke of Edinburgh last April.

The 15-metre Maxwell telescope was initially to be built by Britain in the Canary Islands but in 1982 the site was switched to Hawaii. Designed to operate at sub-millimetre wavelengths, the Maxwell telescope will allow more detailed study of the molecular clouds found in deep space and the formation of stars.

Canada's participation in the Maxwell telescope was recommended by the Canadian astronomical community rather than spending \$15 million to resurface the Algonquin Radio Observatory (ARO) and \$3 million a year after that to operate the 1959 instrument. The ARO will be maintained with a minimal staff for at least two years until a final decision is made on its future.

There are three partners in the Maxwell telescope – Britain, Canada and the Netherlands. Canada will contribute \$10 million over 10 years to reimburse Britain for 25% of the capital costs as well as \$700,000 annually in operating costs and a share of the annual \$1 million development fund. In return, Canada gets 25% of the telescope's available observing time.

Report of the September 1987 National Council Meeting

by Leo Enright
National Recorder

The National Council of our Society held its annual September meeting during the afternoon of Saturday, September 26, 1987 at the Nova Scotia Museum in Halifax, Nova Scotia. The National President, Mrs. Mary Grey, presided, and ten centres of the Society were represented.

The essential agenda items of the meeting included reports from all officers and from most of the standing committees of the Society, as well as a number of important decisions.

The President's report noted that three asteroids had recently been named after prominent Canadian scientists. The President, who had recently spoken to several of the Centres of the Society, had plans to speak to five more of the Centres. The Secretary, Dr. Tindall, was able to report that twenty new unattached memberships in the Society had been requested since the time of the General Assembly. The Treasurer, Dr. Chou, presented the Interim Financial statement as at August 31, 1987, and it was approved by Council. It showed a very healthy operating surplus, largely because of foreign exchange and the sales of the *Observer's Handbook* had been better than expected. At the Treasurer's request, \$10,000. was transferred to both the Ruth Northcott Memorial Fund and to the Endowment Fund, in order to raise the principal in these funds to meet current and expected demands upon them. The Librarian, Mr. Beattie, reported that all 253 books that had been removed from the Library shelves had been either sold to Centres of the Society, or to an individual member who would make use of them. In the next phase of library development would be consideration of the necessary acquisitions to make the facility a centre for the history of astronomy. The editor of the *Journal*, Dr. Batten, gave notice that he would be resigning from his position in one year. Council accordingly, established a committee to search for a successor. On the editor's suggestion, Council also approved a motion to share with the Canadian Astronomical Society one-half of the cost of the publication of the annual Hogg lecture.

At the request of the Awards Committee, Council approved the awarding of nine Membership Certificates (to members of the Ottawa, Vancouver and Windsor Centres) and five Messier Certificates (to members of the Halifax Centre). Dr. Bishop, the editor of the *Observer's Handbook*, reported that the 1988 issue, the largest one in the history of the publication, would be off the press with in a month

and it was being advertised with the endorsement of supernova discoverer Ian Shelton, in a half-page colour ad in *Sky and Telescope* magazine.

A recommendation from the Honorary Members Committee that Dr. Helen Sawyer Hogg become an Honorary Member of the Society was enthusiastically approved by Council. The report from the Nominating Committee urged members of the Society to consider the fact that five positions on Council would become vacant next year, and members should think about making nominations for these positions. A motion from the Computer Use Committee that the National Office of the Society join the NetNorth electronic mail network was approved. This network is one which links over 1700 educational and scientific organizations around the world. Mr. Watson, the chairman of the Constitution Committee, reported that the presentation of the second draft of a revised set of bylaws for the Society would have to be delayed because there were still several major matters on which the members of the committee had not yet reached a consensus.

Council approved a motion to limit the Messier Certificate to those who find the Messier objects without the assistance of computer-driven telescopes. Support was also given by Council to a motion of concern from the Calgary Centre regarding the proliferation of space debris and light pollution.

Mr. Enright, the Astronomy Day Coordinator, noted that, in 1988, the International Astronomy Day would be celebrated on Saturday, April 23. The President noted that the centenary of the incorporation of the Society was approaching and members should begin to think about marking the occasion in a suitable way.

Complete details of all the items discussed at this meeting may be found in the Minutes of the meeting which have been distributed to all Centre Presidents and National Council Representatives.

Nova East '87

by Doug Pitcairn
Halifax Centre

This year's camping observing weekend took place from July 31 to August 3 at Fundy National Park in southeastern New Brunswick. People began arriving Friday night, and after a bit of initial confusion, all of the approximately 30 members and their families found their accommodations. Skies were clear with intermittent cloud for the first night, but observing went ahead "in the clear spots." Notable mention goes to Hugh Thompson who persevered to observe Mercury rise in a clear pre-dawn sky.

On Saturday, people explored the sights until 4:30 pm when we gathered at the group campsite for a talk by Dave Driscoll of the Saint John Astronomical Society entitled "Beefing Up Your Optics." After supper, we got together at the lecture hall for some films supplied by the Saint Mary's University astronomy department and talks by Pat Kelly on the currently visible planets and yours truly on observing with binoculars. That evening, seeing was good but "spotty". However, the members with large aperture binoculars would scout the sky and cry out the names of objects in the clear, and the telescopes would all swing from object to object as the clear spots permitted! Good fun was had by all.

Sunday came with clear skies, and members again spent the day exploring all the wonders of the beautiful park. At 4:30 pm, Len Larkin (also of the Saint John Astronomical Society) gave a talk on "Dynamics of Double Stars", a favourite subject of his as he owns a 6-inch refractor! This was followed by a group photo session with telescopes on display. After supper, it was back to the assembly hall for more films and talks by Mary Lou Whitehome on still camera photography and Len Larkin on observing double stars. We emerged from the talks to find an excellent twilight promising a night of rare seeing, and it was!

Telescopes present included six Celestron 8-inches, a 6-inch refractor, a 10-inch f/6, a 12-inch f/9, and a score of smaller telescopes. Observing continued until the wee hours. On Monday morning, people went their own way taking their memories and their pictures with them.

Although it was not the first Camping Observing Weekend sponsored by the Halifax Centre, Nova East '87 will definitely stand out in the minds of the participants as one of the best. The site chosen, Fundy National Park, is truly an ideal location for a star party, and is currently under consideration as the permanent site for the event.

The seeing was remarkable with the entire southern horizon over the Bay of Fundy giving jet black

skies! The Helix Nebula for example was plainly visible in 7 x 35 binoculars. In addition, the park features excellent camping, hiking, swimming and sightseeing, as well as a large lecture hall with complete audiovisual services. For those who prefer a roof over their heads, there are motels and chalets right in the park. The staff were more than helpful, and the astronomers responded with three well-attended public viewing sessions. The site offers the added advantage of being centrally located between astronomy groups in Halifax, Saint John, and Summerside. Indeed the site is also within easy reach of the many members in Quebec and the eastern United States, suggesting that with a bit of advertising, the attendance could be even better. Everyone who did not attend this year should plan to attend next year. And if you do, bring a friend, the more the better!

Reprinted from Halifax Centre's *Nova Notes*

Mount Kobau 1987

by Gerry Knight
Vancouver Centre

Editor: The 4th Annual Mount Kobau Star Party was held at Osoyoos, British Columbia from August 21–22. It is an annual event hosted by the Okanagan Astronomical Society.

This year's event featured a good showing of Vancouver people and it was nice to see so many of you. Those of us who went early to get a good spot were not too surprised to see some of the Calgary folks already set up! It was great to be back! There is something about going up that road to the site knowing the sky would be clear and the observing would be better than you had seen in a while. We found a decent spot on a nice hillock overlooking the whole site and with reasonable privacy.

On the first night, even with the long drive and little sleep the night before, I still could not resist the night sky. The Milky Way in Sagittarius was visible right down to the horizon and my new telescope just seemed to glide from object to object. Comet Sorrels was spotted as well as the two nearby globular star clusters to confirm I had not made a mistake. M17 was just amazing.

From across the road at about 2:00 am I could hear Gary Seronik mumbling "Look at the edge of the north equatorial bands, the white spots, the festoons!" Needless to say I knew what our resident Jupiter fanatic was looking at.

The waning crescent moon lifting over the chaparral signalled the end of night number one. There had been a minor aurora and a walk to the top of the mountain for a view of the total horizon. There had been a lot of "oh wows!" but it was time to sleep.

I stumbled up at 9:30 am with the heat as an alarm clock. You could feel the air was different, maybe could feel the height of 1600 metres. Peter Kuzel of the Okanagan Astronomical Society was across the road trying to figure out where to put the second biffy. Bill Roberts and I got the job of digging the hole and were soon joined by Gary Seronik after he popped his head out of his tent.

The day moved slowly and was quite warm. In the afternoon, more people arrived and we walked to the fire lookout for its outstanding view. Maybe I am just used to sea level but I sure noticed the effort needed on the first two days to walk uphill. Back at the compound there were more new arrivals, the sites were spreading out and the event still did not start officially until the next day. Arlene and Al Mumby from Edmonton selected an adjacent camp site and Al set up his very nice 10-inch Dobsonian. By early evening I was exhausted, and though I hate to admit it, I went to bed at 9:00 pm. However, I was up at 4:30 am to watch Orion rise with a silver of a moon.

More people arrived on Thursday and lots of them from Vancouver. It was starting to look like a serious star party. Rather ominous clouds built up in the afternoon but assurances were passed around. "Only convection, they'll go away." And they did. It was time for some serious observing.

That night in the dark, Al and I visited up and down the hillock. The wind had been quite strong early on but died down and allowed good seeing. In the early morning the seeing was the finest I had ever experienced.

As we wandered around the telescopes, there was a sense of reverence. I got a wonderful view of NGC253, a large galaxy in Sculptor through a 17-inch telescope, dust lanes extended over the glow.

Then up a bit to NGC246, a planetary nebula I had never seen before. It looked like a mandela. Through my own 12.5-inch, the nebula did not look quite the same. By 4:30 am I began to get tired.

A group gathered on the hill where Gary Seronik was set up to watch the glow of dawn. The reddening dawn, the crescent moon with the Pleiades blazing above it – all stopped us with its beauty. We finally noticed that the sun was up, and then it was time for bed, it was after 6:00 am. We took a last peek at Jupiter and discovered a shadow transit was taking place. An hour later, we were shading the sun with a hand while staring at the perfect black dot of the shadow on the face of Jupiter. The planet itself could not be seen in the sky but in the telescope the detail was stunning. The crisp, sharp, lovely tawny browns of the bands ... and a black dot. The contrast was exquisite.

We slept in until 10:30 am. Most of us looked like we have been run down by trucks. More people were arriving and the first talks began. This year an army tent was put up to hold the afternoon sessions. Jay Anderson from Winnipeg gave a delightful and informative talk and Alan Gorski gave an inventive talk on lunar photography. The evening sky did not seem quite as dark as the previous evenings but the seeing was close to perfection. Sky Instruments has 2-inch 32 mm Erfle eyepieces for sale and Gary Seronik and I bought one. It literally expanded the enjoyment of viewing the sky. The huge field made sweeping the Milky Way like cruising in a Caddy on the prairies with the bright and dark nebulae just leaping out.

By Sunday when the prizes were announced, I was quite frankly, getting burnt out. John Mirtle of Calgary won the best photo for a fabulous shot of M8 and Lance Olkovick won the best Dobsonian telescope category. His craftsmanship was present in no less than five telescopes on the mountain.

For the Sunday night observing, people seemed both happy and sad. Happy because this year's event was a great success and sad because it was closing. I wandered around and talked here and there. Jupiter still snared the "Jovian Crazies." I had a great view in Al Miller's fine 14-inch telescope. There were lots of strange surrealistic silliness and jokes, and repeated talk of "next year." The 1989 Mount Kobau Star Party will be held on the New Moon which happens to fall smack on the peak of the Perseid meteor shower. I could not think of a better place to see them. For all those who did not come because they did not have a telescope, this is a reason to come. Also, Mars will be just a little short of opposition, much higher than in 1986 and the closest to the earth in 17 years. What more could we ask for?

All in all it was a fantastic time, six days of observing heaven, good fun, clean air and sunshine. To everyone who came, I hope it brings you back. See you there next year! And thanks again to our hosts, the Okanagan Astronomical Society.

Reprinted from Vancouver Centre's *Nova*

Victoria in '88!

The Victoria Centre invites you to attend the 1988 General Assembly to be held at the University of Victoria, from June 25 through July 2 inclusive. This G.A. promises to be especially interesting as we are holding joint meetings with the Astronomical Society of the Pacific and the Western Amateur Astronomers, both groups based in the western United States. The scientific symposium on the extragalactic distance scale will include invited papers presented by experts from around the world. There will be a teachers' workshop held June 25–26 for teachers of science courses from grades 2 through 12.

General registration will start on Tuesday, June 28 for the symposium and continue on through Friday, July 1. Concurrent paper sessions will be scheduled for Thursday, Friday and Saturday. As well, the meeting will offer various displays and competitions, including amateur astrophotography and observations.

Start preparing your paper abstracts now. A complete program outline will appear in the February *National Newsletter*.

In the meantime, pass the word along and extend the invitation to your friends and associates to come to Victoria next summer. We are looking forward to seeing everyone there!

Vancouver Island Observers Meet

by **Donovan Fallows**
Ladysmith, British Columbia

For several years the Mid-Island Astro Observers have not had a permanent place to hold regular meetings in the Nanaimo area of Vancouver Island. Although space had been available at Malaspina College, it had limited seating. Then, last December, the Rutherford Shopping Mall in North Nanaimo built the Rutherford Playhouse which was to be used by community organizations. We applied to use this theatre and held our first meeting in it in January.

Since the event was fairly well attended, another meeting was planned for February. We invited well-known astrophotographer Jack Newton to be our guest speaker. A major publicity program was mounted with announcements in local newspapers, and on radio and television as well as publicity on bulletin boards and in libraries.

Jack Newton gave an excellent talk describing his own observing experience, from his youth in Winnipeg, through Toronto to his present day activities in Victoria. Slides showed his telescopes and his photographs with successive instruments culminating in his current 20-inch telescope and successes with his "cold cameras".

We were pleased to see an audience of over 70 people attend this meeting with many staying afterwards to speak to Jack Newton, Frank Shinn (another ex-Winnipegger now living in Victoria), or the writer. The favourable comments received to holding the meeting have encouraged us to organize future meetings. We are hoping to hold a meeting every month, on the third Friday, and complete the evening with an observing session.

Editor: Mr. Fallows was active in the formation of the North Shore Astro Observers in North Vancouver several years ago. In his letter he states: "By keeping articles and news items circulated, and telephone teams going to alert members of activities and observing sessions, we built the membership up to 160-180 members in just over a year. I feel that this is the secret of a young club." Mr. Fallows can be contacted by writing to him at Box 1201, Ladysmith, British Columbia V0R 2E0, or by phoning (604) 245-4702.

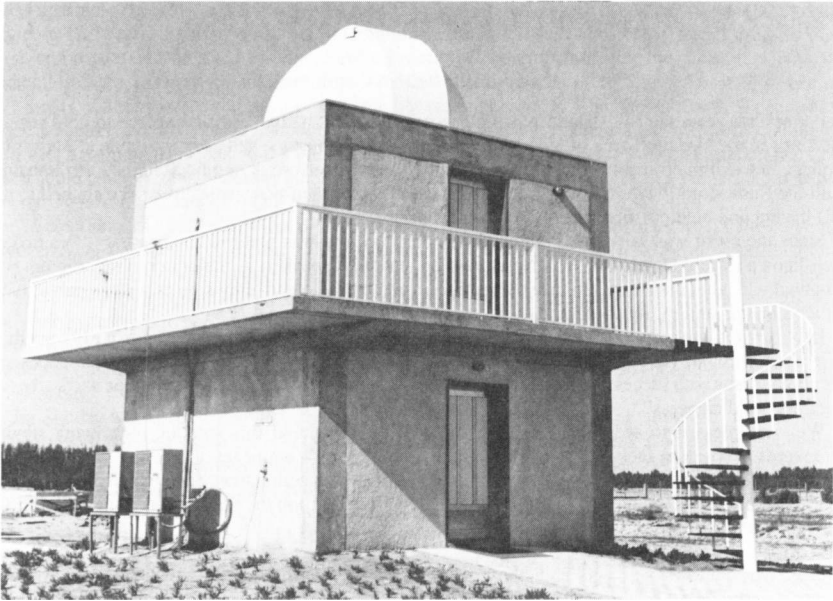
Due\$ Due

This is a last reminder that if you have not yet renewed your membership for the 1988 membership year which started last October 1, you may miss receiving some of the 1988 publications and your name will soon no longer be on the Society's mailing list. The national fees are as follows:

-Regular Membership	\$25.00
-Youth Membership (under 18 years of age)	\$15.00
-Life Membership	\$500.00

For all foreign members outside Canada, these fees are quoted in U.S. funds. Several Centres also have surcharges in addition to the national fees. Check with your Centre to get the correct fee. Centre members should send their renewals to their Centre Treasurer. Unattached members send their renewals to the National Office. Late renewals cause extra work for the members responsible for handling the processing of memberships. Please help them by renewing promptly.

If you haven't renewed yet what's holding you back?



The Wafra Observatory of Kuwait

The Wafra Observatory

by Abdul Ilah Marafie
Wafra Observatory, Kuwait

The Observatory was organized in 1985 on the initiative of six amateur astronomers for the purpose of conducting observational astronomy and astrophotography. It is located in the southern part of Kuwait about 100 kilometres from the port city and in a mainly agricultural region.

Our initial equipment was an 8-inch Celestron and a 16-inch Meade telescope. During 1986 we installed an 8-inch Schmidt camera with which we managed to take many photographs of Comet Halley. In March 1987, we installed a 14-inch Celestron telescope with a computerized German equatorial mount.

In addition to the telescopes we have a good astronomy library and a special photographic laboratory for developing our photographs at the observatory.

The Wafra Observatory is now known throughout the Persian Gulf states and a number of our photographs of Comet Halley and solar and lunar eclipses have been released to local newspapers. The observatory is the leading source of advance information for the Gulf States on phenomena in the sky and solar system.

Editor: The staff of the Wafra Observatory wish to contact other amateur astronomers to exchange information. Write to: Abdul Ilah Marafie, Wafra Observatory, P.O. Box 122 Safat, Zip Code No. 13002, Kuwait.

I Remember the Good Old Days

by Clive Gibbons
Hamilton Centre

I am sorry to start this article with such a hackneyed cliché but it is the only one that seems to fit. Fit what, you may ask? To answer the question, let's sample the evolution of amateur telescope equipment. We only have to look back to 1979 to see what has happened in the last few years. Let's take 8-inch Schmidt-Cassegrains as a case in point. Back then, you could buy either a Celestron C-8 or a Criterion Dynamax 8 period. The big choice was whether to get "special coatings" or not. Both telescopes had been around for the best part of a decade largely unchanged, including their retail prices. Both instruments had good, basic features and high quality optics.

Now let's look at 8-inch Schmidts today. The Dynamax 8 has become the Bausch and Lomb 8001, with little evolution in the intervening years. However, Celestron has gone nuts. Currently available are the Super C-8 Plus, Super Polaris C-8, Powerstar 8, and Computer Controlled C-8. In 1980, Meade Instruments jumped in on the Schmidt bandwagon and in quick succession have released the 2080, the 2080LX, the 2080LX2, the 2080LX3, the 2080 GEM and the 2080 LX4. That makes eleven (11) models on the market within the past few years versus two previous to 1980. In addition, Meade is just about to announce the 2080LX5 and who knows what Celestron has tucked up its sleeve.

This highlights a problem that seriously afflicts today's telescope marketplace – premature obsolescence. Meade and Celestron are the worst culprits here, with many of their models being phased out just to make room for the latest and greatest gizmo-laden offering. Thus, the telescope industry has fallen prey to the same quandary that affects so many markets today. Technology is not allowed to mature, artificial needs are created, and we are at the mercy of "Gee-Whiz" engineers and marketing men.

This is bad news for both consumers and retailers. With a new model coming out every year (or less!) the buyer can feel burned if he spends \$2,000 on a telescope only to find out a few months down the road that a "better" model is now available. The consumer can also adopt a "wait and see" attitude, convinced that since something new is just over the horizon, it is better to wait than to buy. This brings us to the problems of the retailer who must cope with the manufacturer's fickle nature. What if he buys telescopes and does not sell them before the new ones come out? More retailers will opt not to stock such instruments and sell on a "special order" basis to avoid all the headaches.

Do these "new and improved" telescopes really outperform their ancient brethren? To a large extent, no! In terms of image quality, compared to telescopes of 10 or even 100 year's ago, today's super systems will not show more detail. Improved coating technology can make the image a bit brighter, and exotic eyepieces can give wider fields, but when it comes down to brass tacks, diffraction-limited is diffraction-limited, now as in the past.

Today, we are being overwhelmed by a corporate game of one-upmanship, with companies constantly trying to outdo each other for your dollar.

Tele Vue introduced the Nagler eyepiece a couple of years ago as the ultimate in oculars. With seven elements, an 82-degree field, and several hundred dollars each, they deserved the title. Then, last year, Meade flaunted their Ultrawide oculars with eight elements and 84-degree fields. Now, Tele Vue offers the Nagler Type 2, which outperforms all the rest. You can imagine all the astro-yuppies eating their old Naglers so they can once again lay claim to owning the king of oculars.

Presently, Meade and Celestron seem to be sinking a lot of effort into computer-controlled 'scopes. The marketing angle is that if you do not have computer control, you are not serious about the hobby. Actually, the opposite is true. Computer control is meant to circumvent a basic ignorance of the sky, which everyone starts out with. Learning where constellations and deep sky objects lurk is a formidable task, but one which can be enjoyed, especially as one's experience grows. Indeed, the hunt is more than half the fun with regards to most deep sky objects! A computerized telescope is a lot like being a musician and owning a player piano.

Telescope manufacturers would be better off if they worked towards rock-solid mounts and rugged but functional components instead of more techno-glitz. More starlight and less "star wars" would be a breath of fresh air!

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NATIONAL NEWSLETTER

Index for the Year 1987

Supplement to the *Journal of the Royal Astronomical Society of Canada*

Volume 81

-
- A
- Across the R.A.S.C. *Betty Robinson*, 5, 24, 42, 61, 68, 84.
- Alberta Star Party. *Simon Hum*, 76.
- And Miles To Go. *Dennis Ryan*, 78.
- Anderson, Jay. Eclipse Weather: The March 1988 Total Solar Eclipse, 18.
- Attwood, Randy. 1988 Solar Eclipse Expedition, 60.
- B
- Beginners' Guide to Astrophotography. *Bryce Heartwell*, 25, 44, 57, 74.
- Bigelow, Paul. Binocular Testing, 71.
- Binocular Testing. *Paul Bigelow*, 71.
- Bishop, Roy. The Montagnais Impact Structure, 10.
- C
- Canadian Amateurs Invited to Japan, *Osao Shigehisa*, 36.
- Ceravolo, Peter. Letter: In Defence of Quality Products, 40.
- Comet Halley Time Capsule. *Michael Watson*, 27.
- Comision, Paul. Forty Years of Observing Trends, 79.
- D
- Dekker, John. Digitizing the Moon, 37.
- Digitizing the Moon. *John Dekker*, 37.
- E
- Eclipse Weather: The March 1988 Total Solar Eclipse, *Jay Anderson*, 18.
- Editorial, *Ian G. McGregor*, 2, 82.
- Enright, Leo. International Astronomy Day, 14.
- Minutes of National Council, 54.
- Second Comet Levy for 1987, 83.
- Eyewitness Report: Spica Snuffed for 53 Minutes. *Mark Zalcik*, 48.
- F
- Fallows, Donovan. Vancouver Island Observers Meet, 91.
- Fort Maiden Telescope: The Story Continues. *Hein van Aspern*, 56.
- Forty Years of Observing Trends. *Paul Comision*, 79.
- G
- Gibbons, Clive. I Remember the Good Old Days, 93.
- Letters: 39, 41.
- Make Your Own Nagler, 11.
- H
- Harrington, Mary Anne. The White Mountain, 86.
- Heartwell, Bryce. Beginners' Guide to Astrophotography, 25, 44, 57, 74.
- Higgs, Lloyd. Long Range Goals for the R.A.S.C., 27.
- Hum, Simon. Alberta Star Party, 76.
- Hurd, David. Solar Eclipse '88, 72.
- I
- I Remember the Good Old Days. *Clive Gibbons*, 93.
- In Memoriam: Dora Russell, 7.
- Tom Tothill (1921-1987), 23.
- Index for the Year 1987, 94.
- International Astronomy Day, *Leo Enright*, 14.
- K
- Knight, Gerry. Mount Kobau 1987, 89.
- L
- Lemay, Damien. *Nouvelles de l'A.G.A.A.*, 6.

Leonard, Brenda. Visiting Montreal's Seismographic Station, 13.
 Levy, David H., Observer's Cage, The, 8, 30, 43, 55, 73, 85.
 Ling, Alister. Thoughts on Light Pollution, 79.
 Long Range Goals for the R.A.S.C., *Lloyd Higgs*, 27.

M

Make Your Own Nagler. *Clive Gibbons*, 11.
 – Replies to Readers, 39, 41.
 Make Your Own Nagler: Reader Replies.
 – *Albert Nagler*, 39
 – *Peter Ceravolo*, 40.
 Marafie, Abdul Ilah. The Wafra Observatory, 92.
 McGregor, Ian G. Editorial, 2, 82.
 – McLaughlin Planetarium's New Astrocentre, 12.
 – Planetarium Community Meets, 59.
 – Supernova Celebration!, 34.
 McLaughlin Planetarium's New Astrocentre.
 Ian G. McGregor, 12.
 Montagnais Impact Structure. *Roy Bishop*, 10.
 Mount Kobau 1987. *Gerry Knight*, 89.

N

Nagler, Albert. Letter: The Value of A Nagler, 39.
 News Notes
 – Alberta Star Party, 36.
 – Algonquin Radio Observatory To Close, 7.
 – Amateur Achievement Award, 64.
 – Astronomy in the House, 63.
 – Auroral Secrets Revealed, 12.
 – Brighter Skies for D.D.O., 8.
 – Bumper Stickers, 64.
 – Comet Levy 1987a, 31.
 – Earlier Start to Daylight Time, 9.
 – Events Calendar, 29, 46.
 – Greenwich Observatory on the Move, 64.
 – James Clerk Maxwell Telescope, 87.
 – Lost Asteroids Recovered, 10.
 – News of the ASP., 29.
 – Nouvelles de l'A.G.A.A., 38.
 – Satellite Receives Emmy Award, 78.
 – Stamps Remember Newton, 30.
 – Star Dome in Mississauga, 4.
 – Syracuse Summer Seminar, 47.
 – Thirty-nine Cents and No Staples, 16.
 – 300th Anniversary of *Principia*, 14.
 1988 Solar Eclipse Expedition, *Randy Attwood*, 60.

Nova East 1987. *Doug Pitcairn*, 88.
 Nouvelles de l'A.G.A.A.. *Damien Lemay*, 6.

O

Observations About Graze Occultations. *Frank Shinn*, 66.
 Observer's Cage. *David H. Levy*, 8, 30, 43, 55, 73, 85.
 Observing at Mount Lemmon. *Neil Rowlands*, 3.
 On The Naming of Minor Planets. *Christopher E. Spratt*, 28.

P

Pitcairn, Doug. Nova East '87, 88.
 Planetarium Community Meets. *Ian G. McGregor*, 59.

R

Robinson, Betty. Across the R.A.S.C., 5, 24, 42, 61, 68, 84.
 Rowlands, Neil. Observing at Mount Lemmon, 3.
 Royal Astronomical Society of Canada
 – Abstracts of Papers (Toronto), 51.
 – Awards, 62, 69.
 – Change in Deadlines, 2.
 – Council Meetings, 54, 87.
 – Due\$ Due, 70, 91.
 – Nominations, 71.
 – 1987 General Assembly (Toronto), 9, 31, 50, 51.
 – 1988 General Assembly (Victoria), 90.
 Ryan, Dennis. The 1987 General Assembly in Toronto, 50.
 – And Miles to Go, 78.

S

Sabatini, Denise. Syracuse Summer Seminar, 77.
 Second Comet Levy for 1987. *Leo Enright*, 83.
 Shigehisa, Osao. Canadian Amateurs Invited to Japan, 36.
 Shinn, Frank. Observations About Graze Occultations, 66.
 Solar Eclipse '88. *David Hurd*, 72.
 Spratt, Christopher E.. On The Naming of Minor Planets, 28.
 Supernova Celebration!. *Ian G. McGregor*, 35.
 Syracuse Summer Seminar. *Denise Sabatini*, 77.

T

Thoughts on Light Pollution. *Alister Ling*, 79.

V

Van Aspern, Hein. The Fort Malden Telescope: The Story Continues, 56.

Vancouver Island Observers Meet. *Donovan Fallows*, 91.

Visiting Montreal's Seismographic Station. *Brenda Leonard*, 13.

W

Wafra Observatory, The. *Abdul Ilah Marafie*, 92.

Watson, Michael. Comet Halley Time Capsule, 27.

White Mountain, The. *Mary Anne Harrington*, 86.

Z

Zalcik, Mark. Eyewitness Report: Spica Snuffed for 53 Minutes, 48.