NATIONAL NEWSLETTER

GENERAL ASSEMBLY AT EDMONTON
May 15-18, 1970

The 1970 "Klondike" General Assembly got off to a fine start at the Old Timers' Cabin with a friendly greeting from beautiful Klondike Kate and her husband, both attired in their handsome period costumes. In this perfect setting, we were delighted to see so many of the westerners (and easterners!) also in period dress. The "gastronomical" banquet was attended by approximately 125 persons who, for the first time for most of the guests, partook of roast beaver! After the meal, the stirring sight of the lighted skyline of Edmonton was enjoyed from the balcony. To round out the evening, four teenage Toronto members entertained us with their show on meteor observing at the David Dunlap Observatory, complete with a well prepared commentary. This was followed by a film of the recent trip of members of the Winnipeg Centre to view the total solar eclipse.

The Session for Papers was held in the Medical Science Building, University of Alberta, on Saturday morning, with the following papers on the program:

Planetariums I Have Known – and Nearly Loved! (Invited Paper), *Ian McLennan*, U.S.A., unattached member.

Hamilton Centre's Eclipse Team and the Eclipse of March 7, 1970, *Kenneth Chilton*, Hamilton Centre.

The 157-inch Canadian Optical Telescope, *G. J. Odgers*, Victoria.

Comet Bennett (1969i) – Observations in March and April 1970, *D. H. Fallows*, unattached member, Vancouver.

Variable Interests, *R. Lavery*, Ottawa Centre.

Visible Photometry of the Aurora, *E. R. Milton*, Montreal Centre.

Meteor Observing 1969–1970: Orientation, Objectives and Photography, *H. Gilday*; Systems, Problems, etc., *L. Sonstenes;* Results, *R. Simon*, Toronto Centre.

Lunar Organic Matter: Pre-Biotic Evolution?, *G. W. Hodgson*, Calgary Centre.

Developments in the Field of Observing and Reduction of Lunar Occultations, *J. Howell*, Calgary Centre.

Photoelectric Observations of Lunar Occultations, *M. D. Burke; G. L. Gumming*; *D. P. Hube; C. C. Lin* and *E. H. Pinnington*, Edmonton.

A Home-Built Basement Planetarium, *J. B. Gould*, Winnipeg Centre.

Because of projection problems, the invited paper by Mr. Ian McLennan was held over until the close of the Annual Meeting on Saturday evening, as was the paper by Mr. Gould of the Winnipeg Centre, which was read by Mr. Franklin Shinn. All of the papers were well received. The group photograph was taken immediately after the papers session in the morning, then a quick lunch and back to the meeting of the COCOCA Committee. This was chaired by Dr. John Percy and the members discussed at length and in a spirited way the difficulties involved in producing the recently iaugurated Newsletter. While the Council met at the Faculty Club, others enjoyed a tour of the campus. A total of twenty-nine attended the dinner for Council members

and their wives before the Annual Meeting in the imposing General Faculty Council Chambers. Member participation was most gratifying again this year.

Although we truly learned the meaning of the words "wind-swept", most of the delegates turned out on Sunday for the tour of the Alberta Game Farm – an extraordinary experience. Animals such as rhinoceros, giraffes, lions, tigers, cheetahs, elk, buffalo and many more were on view in a setting designed to keep them happy. The "Old Style Barbeque" given by courtesy of the City of Edmonton and the Edmonton Centre, was moved because of the high wind to the Molson Edmonton House (a delightful spot) and the pit-roasted beef lost none of its savour and flavour for being served indoors instead of in the great open spaces as planned.

In the "Room at the Top" of the Students' Union Building, Dr. John F. Heard delivered the Ruth Northcott Memorial Lecture on "Stellar Radial Velocities and Spectroscopic Binaries". He was introduced by Professor E. S. Keeping and thanked by Dr. J. L. Locke. As Professor Kennedy stated later at the Council meeting, "this lecture paid tribute to the memory of Miss Northcott with clarity, dignity and the greatest respect for her many contributions to astronomy and to this Society".

On Monday morning, a bus load of members enjoyed a tour of the city of Edmonton, with commentary by Mr. Dave Bruner; this trip ended with a visit to the impressive new Museum.

Sincere appreciation is extended to all those members of the Edmonton Centre who made certain the delegates would return home from this Assembly wishing they, too, belonged to this friendly city and to this group of enthusiastic amateur astronomers Special thanks are in order for the Ralph Haeckels, the Angus Smiths, the Franklin Loehdes and Mrs. Jenny Rusch for all they did to make our visit so delightful. The tradition of western hospitality is strong in Edmonton!

Marie Fidler, *Executive Secretary*.

Centre Activities

An account of the many activities of the Centres of our Society is preserved for posterity in one of the lesser-known publications of the Society: the Supplement to the JOURNAL. Description of the more than one hundred meetings of the Centres, an analysis of the financial state of the Society, a listing of the Officers of the Society and its Centres–all these are contained in the May 1970 Supplement, which you have all received by now.

Observational Activities

For many years, the Society has maintained a system of national co-ordinators for the purpose of encouraging, assisting and co-ordinating the observational activities of individual members and Centres. The names of these co-ordinators, and their fields of interest, are printed on the inside back cover of the JOURNAL; you should feel free to write to them if you are interested.

A committee of the Society is presently studying the structure and function of this system of co-ordinators, with a view to improving the efficiency of the system. Mem-

bers and Centres who wish to make comments and suggestions about the system of co-ordinators should do so (soon) to: Kenneth E. Chilton, 93 Currie St.

Novae

We now have two bright novae in very good observing positions, both discovered by the same person, M. Honda of Japan. 182502 N Ser 1970: $18^h29^m16^s$, +2°35′6 (1970), discovered Feb. 13.9, now about mag. 7 and 191904 N Aql 1970: $19^h22^m16^s$, +4°08′8 (1970), discovered April 14.8 at mag. 8, now about mag. 9. The two novae discovered by G. E. D. Alcock in England continue to be observable. 203718 N Del 1967 remains fairly constant near mag. 8; 194326 N Vul 1968 has faded to about 13. Charts are available from the A.A.V.S.O., 187 Concord Ave., Cambridge, Mass.

CAMBRIDGE, MASS. A.A.V.S.O.

What a Gorgeous Eclipse!

Fifteen Ottawa members helped to fill up the Montreal Centre's bus to North Carolina for the eclipse of March 7th, and at least fifteen bad cases of Eclipse Addiction were contracted.

Elizabeth City had made superb arrangements for visiting astronomers—a school football field with plenty of power outlets, a seminar room for exchanging observations afterwards, "Welcome, Royal Astronomical Society" on the motel billboard, and coverage in the local papers. Even if they didn't actually arrange the cloudless blue sky for our benefit, they richly deserved it. About 200 were there all told and quite a bit of French was heard in addition to a fascinating variety of accents.

CHU Canada beeped out its signals loud and clear from all over the field while every variety of weird and wonderful equipment took shape piece by piece.

First contact was timed by several alert people, and cameras clicked as the light gradually took on that eerie character preceding totality. According to the well-organized Montreal group, the temperature went up to 68°F before its sudden plunge by 20.5° through totality, bringing up a breeze where there had been just an air.

Several excellent shadow-band rigs were in action and proved extremely successful visually. Rick Lavery and his team are now processing film with the utmost care, hoping for some rare pictures of the bands, while Ed TerHeijden got interesting photocell recordings of them.

The Diamond Ring was succeeded so swiftly by totality that none of us remembered seeing Baily's Beads, but as the corona appeared there was a bedlam of applause, cheers, and Indian war-whoops. As covers were whipped off telescopes, the glory of the corona was momentarily forgotten to examine the large prominence on the NE limb—perhaps 20,000 miles high and 80,000 long—before it sank out of sight.

For first-timers the telescopic view of the corona was breathtaking but also surprising. The inner glow seen on photographs actually consists of a myriad of hair-like bright lines many of which could easily be followed right out from the limb for three solar diameters, curving smoothly and often crossing others. The corona was captured on film by nearly everybody but Allen Miller's colour slides were certainly of outstanding quality, and Dr. Lossing's too.

Another prominence appeared on the SW limb before mid-eclipse and proved to be just as big as its opposite number but of a deeper red.

The diamond ring burst forth as totality ended to the click of stopwatches and shouts into tape recorders, and once more the shadow band experts got frantically busy while the visual gang reluctantly covered up their optics. Everyone was in an ecstatic daze—"We were there, and we saw the whole marvellous thing!". Our cordial thanks to Montreal, and especially warm thanks to Elizabeth City.

Who's for Great Whale River in July '72?

OTTAWA TOM TOTHILL

A Different Story

A small group of members from the Toronto Centre met with a group from Hamilton Centre at Jasper, Florida, to study the solar eclipse on March 7. Several of the group had hoped to photograph the sequence and also the corona at various stages. Instruments were set up to measure the change in temperature and also to measure any change in gravitation, during the period of totality. Plans were also made to photograph the shadow bands; however all this was to no avail as the cloud cover increased as the zero hour approached. The only noticeable thing other than the dark shadow that raced across the field was the behaviour of the birds; they gathered in flocks and settled in the trees as if night had approached but returned to normal activity as the light again increased.

TORONTO CYRIL.G. CLARK

From the Library

As mentioned in the last NEWSLETTER, the cataloguing of all the books in the national Library is, at the moment, the top priority job of your librarian. The earnest hope that the completed catalogue would be presented to the 1970 General Assembly could just not be realized.

In spite of the fact that the cataloguing is at times a bewildering task, especially for one with no librarian's training, it is undoubtedly the very best way to become familiar with the books that are on hand. A considerable number of old books dating back to the early eighteenth century, which surely could be deservedly called rare books, form a nucleus for what ought to be an excellent historical collection. There seems to be a growing awareness of our historical heritage in the sciences as demonstrated, for instance, by the recent establishment of an Institute for the History of Science at the University of Toronto. A new publication, the *Journal for the History of Astronomy*, also evinces this trend and the Library now subscribes to it.

Amongst the old books is a copy of Sir John Herschel's *Treatise on Astronomy* (1851). It is interesting to note that there are still members of this famous family taking an interest in astronomy. C. Wise, in the April 1970 *Journal of the B.A.A.*

(to which the Library also subscribes), reports on recent observations made with one of the original telescopes of Sir William Herschel, John's father. The observing party included Mrs. Shorland and Miss Caroline Herschel, both great-great-grand-daughters of Sir William.

TORONTO R. PETER BROUGHTON

Kings and Stars

Allen's fascinating work of reference, *Star Names, Their Lore and Meaning*, contains many little gems of information, if one has the patience to dig them out. In fact, if I were to go to Mars, and be allowed to take only five books with me, this would be one of my choices, for I then should have time to study this painstaking and fascinating work.

Royalty has played its part in supplying some of the star names, yet more kings have failed to gain their niche in heaven's hall of fame than have succeeded. The constellation of Lacerta, the Lizard, is a relatively modern group of stars. Two attempts have been made by ambitious astronomers to honour their sovereigns by resurrecting this little known constellation and presenting it under the name of their king. In 1679, Louis IV was thus honoured, and the constellation was named the Sceptre and Hand of Justice. What Louis ever did to deserve this in a chequered 72-year reign is a matter upon which history remains silent.

Another attempt was made later to name the constellation Frederick's Glory, in honour of Frederick the Great of Prussia. Both attempts failed, and the pale and insignificant Lizard has held his own against all bids to use his stars for political purposes. Lacerta remains, while Frederick's Glory has departed, and Louis is remembered as a gang leader who kept the European kings so thoroughly in his pay that they were to all intents and purposes, his vassals.

Sobieski's Shield is the coat of arms of Sobieski of Poland (the third King John) who performed a number of heroic deeds. Scutum remains today, a very small and inconspicuous group of fourth and fifth magnitude stars, but of importance because in its northeast corner is found an extremely pretty open star cluster, M11. Scutum is as near Aquila as makes no difference, and a line drawn from Altair to Antares passes practically through the centre of this constellation.

Another king of Poland is remembered in Poniatowski's Bull. This was made up from some unformed stars of Ophiuchus, in honour of Stanislaus Poniatowski. It has some resemblance to the great zodiacal Taurus in that some stars form the letter V as in the Hyades, and these may be found between the shoulder of Ophiuchus and Aquila the Eagle. It was never, however, officially recognized as a constellation, and its stars were eventually restored to their original place.

Charlemagne had better luck, for Charles' Wain (the Big Dipper) is so known in England to this day. The courtiers of Charles I and II made a concerted effort to claim the Wain in honour of their sovereign. Fortunately, they got nowhere with it. However, the lovely star Cor Caroli (Heart of King Charles) was named by Halley for Charles II—it was said to have shone with exceptional brilliance the night of the king's return to London in 1660.

Ludwig V didn't make it either. If you look at the double star in the handle of the Big Dipper (Mizar and Alcor) through good binoculars you will see a third star, bluish, and barely visible. A German astronomer, noting it, decided he had discovered a new planet and named it after his sovereign. History, at that time, does not indicate whether the astronomer's face was eventually red.

George II of England once had a constellation named after him, called Psalterium Georgii, whose stars were borrowed from Eridanus and the forefeet of Taurus. The stars have since been returned to their proper owners.

The Emperor Napoleon had more than a "thing" about his Star. He had a constellation, however briefly. In 1807, the University of Leipsic gave the Belt and Sword of Orion the title Napoleon. Immediately an Englishman retaliated with Nelson, as what red-blooded Englishman wouldn't. Since neither were recognized, it goes to show that it takes more than royalty, riches and power to get a spot of your own in the sky.

ST. JOHN'S — MRS. DORA RUSSELL

Letters to the Editor

The Ottawa Centre Observers Group would very much like to welcome all readers to this edition of the NEWSLETTER. We offer greetings personally because the creation of this newsletter has been a deep concern of the Ottawa group for several years now.

The idea behind the NEWSLETTER is communication; informal talk between Centres on a national scale. Agitating for improved communication between Centres, the Ottawa group's former chairman, Mr. Tom Tothill, brought forward a motion at one of our late 1960 meetings concerning a periodical such as this. Various ideas were thrown about in Ottawa Centre Council and other areas but very little was accomplished.

In the meantime, our Centre's activities were flourishing and undoubtedly so were others. Our lunar grazing teams, meteor observers, and variable star watchers all had active programs on the go and were anxious to hear from other Centres on similar projects. The only way this could be done was through personal letters. This was fine on its own small scale but few serious developments could evolve from this form of communication. For example, the national solar co-ordinator has desired a national "solar-patrol" for some time now. However, attempts to carry out such a program by means of personal lettering have proven to be not only financially difficult but far too cumbersome as well. Methods and results of solar programs, it was reasoned, could best be shown through the use of some national newsletter or bulletin that would be both easy to submit to and far less costly.

Steps toward this ideal were further taken when Mr. Tothill sent to the various Centres a questionnaire dealing with ideas and proposals on a national newsletter, Sufficiently impressed with the results of this move, our man with a mission put forward at last a formal bid at the 1969 General Assembly in Toronto for the con-

structive beginnings of a national newsletter "before this decade is out!" The results of the proposals and discussions that followed is what you are reading today.

If Centres from across the nation now submit notes on projects that might be of national interest, then we might all benefit from it. Indeed, co-operative programs between several Centres in certain fields of amateur astronomy could very well come about. Ideas concerning this are being aired in this Centre right now.

Our group participates in three or four main fields of astronomy supplemented by many smaller and less extensive endeavors. From a basic early interest in comprehensive meteor observations for which we now believe we have a reasonably sophisticated statistical reduction program, the group has taken new interests in solar and deep sky work. Just recently variable star observations have become a deep passion with a number of members. The programs are simple but ideal for the amateur who is striving for new accuracy in all his astronomical observations. This Centre would like to deal more thoroughly with these main interests in future NEWSLETTER articles. We would like to share and compare our ideas on these programs and others with people from other Centres. We would like to hear from you and what your Centre is attempting in these fields.

In short, the people from Ottawa would like to "talk shop" with any other group across the land who is interested.

What is *your* Centre doing?

Ken Hewitt-White
2456 Beaver Avenue
Ottawa 8, Ontario

I am an unattached member of the R.A.S.C. and I thought that you might be interested in hearing of a successful (?) observation of the March 7 solar eclipse.

On March 7, ten members, including myself, of the University of New Brunswick Physics Club, travelled in three cars to Halifax to watch the eclipse. Our equipment included two telescopes, several cameras, thermometers, radios and ancillary equipment. Our main goals were to obtain accurate contact timings, to measure temrature changes from first to fourth contact, and to photograph various stages of the eclipse, using a variety of films and focal lengths.

As you probably know, the sky in Halifax during the eclipse was covered by dense clouds and no observations were possible. However, about two hours before totality, our group decided to drive south-west. We stopped near Mahone Bay, about 75 miles from Halifax, at 2:44 local time, nine minutes before totality. At this point the edge of the cloud cover had just moved to the north of the sun.

Due to the lack of time and our overall excitement, most of our projects had to be abandoned. We were unable to observe temperature changes and we also failed to obtain contact timings. Neither shadow bands nor Mercury were seen; however, Venus was seen quite clearly about 18 degrees to the east of the sun.

We were successful in getting two or three of the cameras prepared in time and we have several black-and-white photos of various stages of the eclipse.

The colour photo and slide which I've sent was obtained only by a great stroke of luck. This photo is made from the one and only frame we were able to obtain before the camera jammed, ending our plans to take a series of exposures. The picture was taken with a modified Nikon-F camera, mounted on a Questar field-model telescope. An exposure of ½ second was used, on High-Speed Ektachrome, Daylight type.

The original slide shows a central dark gray spot with two very faint, concentric dark gray rings; this may be due to the interior design of the Questar. The colours in the corona are more noticeable on the print than they are on the original transparency.

I hope that the R.A.S.C. will enjoy having this print and slide as much as we enjoy being able to send it to you.

Yours sincerely,
Gordon K. Falconer,
178 Drummond Drive,
Oromocto, New Brunswick

Editor's Note: The 35mm slide mentioned in the above letter can be borrowed from the National Library in the usual way. The Society is grateful to Mr. Falconer for his donation.

An Apology

This Newsletter has been suffering from growing pains! Due to circumstances beyond the control of either the Editor or the Society, the February and April NEWSLETTERS were delayed at the Press for more than two weeks. These delays certainly did not contribute to the effectiveness of these issues, particularly the April one. The printers have assured us that these delays will not occur again in the future. Therefore, please bear with us. ...