

“The Earlier Years of the Edmonton Centre”

Royal Astronomical Society of Canada

E. S. Keeping

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The Edmonton Centre came into existence in 1932, mainly because of the interest and enthusiasm of Dr. J. W. Campbell, Professor of Mathematics at this University. His special field was Mechanics and Astronomy and for many years he gave a course on general descriptive astronomy.

At that time the R.A.S.C. was about 30 years old, and was expanding vigorously under the leadership of Dr. Chant, the grand old man of Canadian astronomy. Starting in Toronto, new centres were formed in Ottawa, Peterborough, Hamilton, Winnipeg, Regina, Guelph, Victoria, Montreal, London and Vancouver, all before Edmonton, although some of these subsequently died out. There are now seventeen centres across Canada, from Victoria to St. John's, Newfoundland.

A preliminary meeting was held in the Arts Building of the University in January 1932, at which Dr. Campbell explained that we would need 50 members to start a new Centre. In February a petition, with the necessary number of signatures, was forwarded to head office in Toronto, and in March the authorization was granted. That same month officers were elected and a constitution and by-laws were drawn up. The first president was naturally Dr. Campbell. I was vice-president, and Dr. E. H. Gowan of the Physics Department was Treasurer. Few, if any, of the founding members, except myself, still belong to the centre. The membership fee at that time was \$2.00 per year, for which one obtained the Handbook and ten issues of the Journal.

A special meeting of the Centre was held in June 1932 in Athabasca Lounge to welcome a party of British scientists passing through Edmonton on their way up north to Fort Rae, where they were to spend 15 months studying meteorology, terrestrial magnetism and the aurora. This was part of the International Polar Year, and for it the Meanook observatory in Alberta was equipped

with special magnetographs. Mr. J. M. Stagg, the leader of the British party, described the kind of work they proposed to do, establishing two stations 25 miles apart to make simultaneous observations. Balloons would be used to take instruments into the upper atmosphere. The great mass of data collected took more than 6 years to be worked up and published, and I remember reviewing one of the reports for the Centre in May, 1938.

At our first regular meeting the plan was adopted of having a short talk on some topic of immediate interest, such as a planet in a good position for observation, or permanent constellations visible at the time, or a forthcoming eclipse, and also a main paper given by a member or by someone on the University staff. From the beginning the University was counted on heavily for main speakers. Dr. Campbell, Dr. Gowan and myself gave papers nearly every year, sometimes twice in a year, and other members of the Mathematics, Physics and Geology staffs were frequently drawn in. The custom of an annual banquet, at which reports of the year's work and nominations of officers were received, started in 1932. For many years the Corona Hotel was the scene of the banquet. At the first one I was elected President, and Mr. M. J. Hilton, then Principal of the old Technical Institute, was the new Vice-President.

In January 1933 I gave a talk on the Calendar, describing the reasons for the present inconsistent and illogical calendar and various proposed schemes of reform. I advocated the so-called World calendar, and I thought the chances pretty good that it would be in use by 1939. Now it seems farther off than ever.

In May, Dr. and Mrs. J. A. Pearce were guests of the Centre. Dr. Pearce was Director of the Dominion Astrophysical Observatory at Victoria, and an excellent, popular speaker. He described some of the recent work that he and Dr. Plaskett had done on the distribution of interstellar calcium and the effect of this on the estimated size of our galaxy. For several years we had visits in May from the professional astronomers who stopped off at Edmonton on their way to meetings in the East.

In 1934 for the first time Dr. Campbell was appointed Honorary President, a post he continued to occupy until his death in 1955, since when I have been regularly re-elected. Also in 1934, Dr. Crosby became a member, along with his brother Fred. Dr. Gowan gave a talk on spectroscopy, well illustrated with all the resources of the Physics department for demonstrating spectra and spectroscopes. We were fortunate in those days to meet in the main physics lecture room (in the Arts building) and to have several of the Physics staff willing to give talks. In May, we had a visit from Dr. W. E. Harper of the Dominion Astrophysical Observatory, who gave an account of the building of the 72-inch telescope at Victoria, in 1915-16, which for a short time (until 1918) was the largest in the world. He described the work done on radial velocities and concluded that "the amount of money spent by a country in astronomical research is truly an indication of the cultural development of that country".

The only telescope we had in those days was a portable 4-inch refractor, belonging to the Mathematics Department. It was often in use at meetings, as it could be set up anywhere, although it had no drive and so needed constant adjustment. It was quite common on clear evenings to troop outside, after the main talk, and look at Saturn or the Moon or whatever object was of interest at the time.

At the banquet in 1934, Mr. C. G. Wates was a guest and he soon became a most active and valued member of the Centre. He gave the main talk in January 1935 on the construction of a home-made telescope. He had built a 9-inch reflector mounted in an observation hut in a commanding position on the bank of the North Saskatchewan River near what is now Kinnaird Park. This instrument was depicted on the cover of the Scientific American for October 1934. Mr. Wates described the care and precautions necessary in grinding and silvering a mirror (this was before the days of aluminizing) and mentioned that he intended to go ahead with a 12 1/2 inch instrument with an improved mounting.

That year, 1935, Dr. Gowan was president. Dr. Carl Beals from Victoria (later Dominion Astronomer) spoke to us on "What is a Star?" At the banquet, in December I took on the job of Secretary which I kept for five years, until succeeded by Dr. Gowan, who continued to act until his last illness in 1957.

In 1936 the Centre made a presentation of ten transparencies of Astronomical objects to the University; these were installed on the second floor of the Arts Building in the corridor, with lights behind them which could be switched on. At that time the Arts Building housed not only Arts subjects but also the Administration, the Library, the Bookstore, and the Departments of Mathematics, Physics, Geology and Botany. The President of the University, Dr. R. C. Wallace, was there at the meeting to receive them and he commented that, pending the time when we have an actual observatory here, these photographs would stimulate interest in astronomy.

One of the events of that year, and of several other years, was an astronomical picnic held in the early fall near Mr. Wates's home. Refreshments were served by Mrs. Clarke, wife of Joe Clarke, Mayor of Edmonton, who lived near by. Those who turned out enjoyed wieners by the bonfire and a look through Mr. Wates's telescope. Also in 1936 the library of the Centre was started with the purchase of five books, Norton's Star Atlas, Moulton's "Astronomy", Moulton's "Consider the Heavens", Frost's "Let's Look at the Stars" and Bartky's "Highlights of Astronomy". This was a small beginning, but those were depression years.

In 1936, I gave a talk on "Planetaria", illustrated by slides loaned by the Adler Planetarium in Chicago. At that time I had visited both the Adler and the Hayden Planetaria (the latter in New York) and was quite enthusiastic about them, but it seemed absolutely hopeless to expect that Edmonton would ever have one. One of our members, who used to run for Mayor every year and collected a mere handful of votes, was all for petitioning the Government of Alberta to build a planetarium here, but nobody else thought this a good idea. The Spitz projector, such as we

have now, had not then been invented, and the cost of the large Zeiss projector was far, far beyond what any Canadian government in those years would dream of spending for so useless a purpose.

At the end of 1936, Mr. J. G. Taylor, a high school principal, became President, with Mr. Wates as Vice-President. During 1937 the question of student membership was first raised, and it was agreed to charge 50 cents for associate members, who would receive the Handbook and notices of meetings, but not the Journal. This scheme was originally on a trial basis, but was later incorporated into the by-laws. By this time the paid-up full membership was down to 35.

In 1937, Miss Jean McDonald became a member of the Centre. She later became a professional astronomer, took a Ph. D. degree, worked at the Dominion Astrophysical Observatory, published many papers and married the Director, Dr. R. M. Petrie, later Dominion Astronomer. She is still active and has recently completed some of the research her husband was engaged in at the time of his recent death. As a hobby, she shared with Mr. Wates a love of mountaineering.

At the banquet meeting in 1937, Mr. C. G. Wates became President and the Handbook talk was taken over by Dr. Gowan, who prepared a series of slides showing each month the main constellations visible, and commented on the mythology connected with them. In 1938, Dr. Crosby gave his first talk in the Centre, on Solar and Lunar Haloes, illustrated by models of ice crystals.

In February three astronomical movies were shown to an audience numbering 95. This was the first time we had movies and the largest attendance up to then, but in October we had an audience of 150 for a movie on Solar Prominences, made at the Mc-Math Hulbert Observatory in Michigan.

At the annual banquet in 1939 the Centre sent congratulations and Christmas greetings to Doug Crosby who had recently been elected Rhodes Scholar for Alberta. Unfortunately, owing to the war, he was unable to take it up until considerably later.

Mr. Wates prepared a set of bookplates for the library of the Centre, based on the Society's seal and motto "Quo Ducit Urania". These were posted into all the books belonging to the library at that time. Also, the Centre began publicizing its meetings by notices placed in the Edmonton Public Library.

An annular eclipse of the Sun on the morning of April 19, 1939 was about two-thirds total at Edmonton, and since the weather was good, many of our members watched it through dark glasses or saw it projected by a telescope on to a screen. Also one of our members, Mr. Lewis Smith of Sedgwick, Alberta, was officially recognized as an independent discoverer of comet 1939 d. This was of the 2nd to 3rd magnitude, with a fairly long tail. It was seen in Andromeda at 9:30 p.m. on April 15, and Mr. Smith was later awarded the Donohoe medal of the Astronomical Society of the Pacific for his discovery.

At the October meeting a talk was given on Sundials, and a brass portable sundial was shown which had been turned up by the plough in Southern Alberta. It was of the universal ring type, in an excellent state of preservation. I wrote a description of it for the Society's Journal, in 1940, illustrated by a photograph taken by Dr. Gowan. These portable sundials were common in the 17th and 18th centuries, before pocket watches came into regular use.

At this time Mr. Wates had finished a machine for grinding mirror discs. This was described in the Society's Journal for January, 1941, accompanied by a photograph of Mr. Wates with his 12 1/2 inch reflector and his 4-inch richest-field telescope. Mr. Wates was a telephone engineer by profession, but spent most of his leisure time in his basement, working on telescopes. His wife once described herself as a "telescope widow".

At the annual banquet in 1939 a very interesting and scholarly paper on "Shakespeare and the Stars" was given by Dr. S. W. Dyde. This paper was printed in our Journal for February, 1940.

At this time the post of Librarian was created, and I took on the job and kept it until 1957. In 1940, I gave a paper on early astronomical instruments illustrated by slides and by a model astrolabe which I constructed myself. In November there was a transit of the planet Mercury across the face of the Sun, which was observed in clear weather with Mr. Wates's telescope and the University refractor.

One of our members, Mr. K. Angus, while looking through an old volume of sermons, printed in 1578, came on a poem about the then recent new star, Tycho's nova (or super-nova) of 1572-73. The writer called it a comet, but there is no doubt that he meant Tycho's star, and he asserted that this was the star of Bethlehem and wondered what great event its re-appearance portended. An article by Mr. Angus appeared in our Journal for July, 1941.

By the end of 1941 the Centre had acquired a locked glass-fronted cupboard for our books and journals. This was kept in the old Physics lecture room and continued in use for many years.

In 1942 the University agreed to accept the gift of Mr. Wates's 12 1/2 inch telescope and to build a small observatory to house it and some smaller telescopes, including the 4-inch refractor. The site chosen was on land now occupied by the Jubilee Auditorium parking lot, but at that time it was in among trees and bush, and relatively far from bright lights. The Observatory was built during the fall of 1942 and in February 1943 the Centre adjourned after the Handbook talk to the observatory to see the new set-up. The clock-drive for the telescope had not then been installed, but the telescopes were all mounted on solid concrete piers and the mechanism for rotating the dome and opening the shutters was functioning. The building was of frame construction, 20 ft. by 32 ft. with the Wates telescope housed in a 16 ft. dome at the north end. In the south end were located the 4-inch refractor, a 2-inch zenith telescope and a transit telescope. The finder for the big telescope was a 4-inch richest-field telescope also made by Mr. Wates.

The formal opening took place on May 20, 1943, with Dr. Pearce and Dr. McKellar from Victoria, the Lieut. Governor of Alberta and the President of the University in attendance. Dr. Pearce gave the main address, complimenting the Centre on having the sixth largest telescope in Canada and complimenting Mr. Wates on the excellence of the mirror which he had tested the evening before.

This observatory continued in use until the construction of the Jubilee Auditorium, although towards the end it was becoming less useful as city lighting in the neighbourhood increased. For many years Dr. Campbell was unwearied in holding public nights for viewing the moon, planets and star clusters, and the public responded very well. Time and again the little observatory was packed with people, young and old, waiting their turn to climb up the movable wooden steps and peer through the Newtonian eye-piece.

In 1943 the Chant medal of the Society was awarded to Mr. Wates for his contributions to astronomy. This was the first time the medal had come to Edmonton, and it was only once awarded here since, to Mr. Earl Milton in 1960. Mr. Wates wrote a paper in our Journal for 1944 on the method of adjusting the polar axis of the telescope. He also reported in the same issue on observations made on the occultation of Jupiter by the moon on the morning of January 13, 1944. Dr. Campbell was at the 12 1/2 inch, I was at the 4-inch, and Mr. Wates was at his private observatory with a 9-inch reflector. He almost missed the show, as a Chinook thaw, followed by a hard frost, had clogged the door of the observatory with ice, which had to be chipped away with a screw-driver before he could get in. The moon was hidden by heavy clouds until 10 minutes before first contact, but at the critical time seeing was excellent. A remarkable feature of the emersion of Jupiter from behind the moon was a narrow greyish-blue band apparently separating the moon and the planet. Could it have been due to some thin and localized atmosphere on the moon, illuminated by the planet?

Alpine Club of Canada. He gave the Handbook talks for several years and often the main address at our meetings. A framed photograph and a brass tablet were placed in the observatory to commemorate him.

During the summer of 1945 I was employed as an astronomer at the Dominion Observatory in Victoria. Dr. Pearce, the Director, visited the Centre the following May and spoke of the work going on at Victoria. He mentioned the studies by Jean McDonald and by myself on some extremely hot double stars of the Wolf-Rayet type, and also the work he had recently been doing on the Pleiades cluster. At the annual banquet in 1946, Dr. Walter Johns, then a Professor of Classics, gave the main talk on "Nature and the Ancient World".

In February 1947 I commemorated the hundredth anniversary of the discovery of Neptune by a talk on "Adams and Leverrier", and later that year Dr. Gowan commemorated the jubilee of the discovery of the Electron. In February 1948 Dr. Campbell gave a talk on Space Travel which he had delivered in January as the Presidential address to the general meeting of the Society in Toronto. This talk is printed in our Journal. In view of what has been accomplished since, it is interesting to see how sceptically rocket flight to the moon was viewed by a competent mathematician less than 20 years ago. Dr. Campbell's calculations were based on sound mechanical principles, but did not of course take into account the tremendous technological improvements in fuels, materials, circuitry and computerization that have since occurred. Also, 20 years ago, it seemed most unlikely that even the United States would be prepared to put billions of dollars into so fanciful a scheme as flight to the moon. In his talk, Dr. Campbell made many references to a book on Rockets and Space Travel by Willy Ley, who in a later number of the Journal replied to some of these criticisms. He pointed out that a rocket could be maneuvered satisfactorily by vanes in the exhaust, and he concluded "Like Dr. Campbell I do not believe that anybody will make a landing on the moon within the next ten years. But I do

believe that the engineering fundamentals for such a feat are solved right now, and that there is no need to wait for the discovery of new principles." I think we must concede that Willy Ley was right.

An interesting talk was given that year by Major Rex Gibson, "one of those crazy people", as he described himself, "who climb mountains for fun", on Lunar Mountaineering. He pointed out that conditions on the moon would be in many respects ideal for mountaineering - low gravity, long days, no bad weather, and so on. Of course the absence of an atmosphere would make it necessary to climb in a space suit, and there would be a risk of being hit by meteorites, but then every ascent would be a "first ascent", with all the glory that implies to a mountaineer.

In 1949, Dr. Campbell was again President of the main Society and gave an address on "The Universe - Whence?" This was printed in our Journal and discussed the still unsettled question of the beginnings of the Universe. I followed this the next month with "The Origin of the Solar System", another vexed question in astronomy, and Dr. Folinsbec of the Department of Geology spoke in May on "The Origin of the Moon". It was certainly a year for speculation.

In 1951 the idea was mooted of having a public star night, and the new President, Mr. S. G. Deane, along with Prof. Gads of Engineering promised to look into it. The practice of having a question box available at meetings, into which members could drop questions to be answered later, was also started this year.

By 1953 the younger generation was coming forward in the Centre. In October that year, Franklin Loehde gave a talk on the summer observing programme in aurorae, sun-spots, meteors and eclipses, and Earl Milton gave the main address on "Our Cosmic Neighbours". Later Dr. P. M. Millman of the Dominion Observatory, Ottawa, spoke on "An Astronomical Pilgrimage". This was mainly about Flagstaff, the Arizona meteor crater and the four Schmidt meteor cameras operating in New Mexico.

In 1954 the observing programme was organized in four main divisions:

- (1) Atmospheric phenomena, including the aurora, meteors and solar and lunar haloes, under Earl Milton.
- (2) Solar and lunar observations of sun-spots, faculae, eclipses, lunar features and occultations, under Franklin Loehde.
- (3) Planetary and comet observations under Arthur Dalton.
- (4) Photographic observations (of the moon, star trails, Messier objects, etc.) under Ian McLennan, later director of the Planetarium.

In 1954, Dr. Campbell showed signs of failing health and he died in January 1955, at the age of 65. He had from the beginning taken the keenest interest in the Edmonton Centre, and he constantly promoted public interest in astronomy by writing weekly notes for the Edmonton Journal and showing visitors the beauties of the night sky through the Wates telescope.

A new era for the Centre began in October 1954 with the first issue of Stardust, originally a single dittoed sheet. This issue recorded the observation of the solar eclipse of June 30, 1954, which was partial in Edmonton and was enthusiastically watched at 4:00 a.m. from the roof of the Macdonald Hotel, by the observers group. Dr. Campbell, Dr. Grayson-Smith of Physics, and Prof. Gads travelled east to different places on the path of totality, but only Dr. Grayson-Smith was lucky enough to have a clear sky at the time of the total eclipse.

In 1955 at one of our meetings, Earl Milton directed an astronomical quiz game, based on the Handbook. The meeting was divided into two groups, the observers in one and the professors in the other, with the laity split between the two. The Professors finally came out ahead by five points, and according to Stardust this result was mainly due to my own ability to remember such numbers as Planck's constant, the gravitational constant, and Pi to ten decimal places!

One of the more ambitious projects of 1955 was an organized hunt for a meteorite that was believed to have fallen into Lake Wabamun the previous December. A farmer near Seba Beach reported hearing a terrific blast from the direction of the lake and found a large hole in the ice with debris strewn around. In June Ian McLennan and Willy Hrudehy went out to investigate the report and they felt that quite possibly a large meteorite had actually fallen there. A large search party nicknamed Operation W.H.A.M. (Wabamun Hunt for Aqua Meteorite) was set to work, but even with the help of a mine detector and aqua-lungs the meteorite, if it was really in the lake, was never found.

In the fall of 1955 a debate was held on the possibility of successful human inter-planetary space travel. The affirmative side was taken by Dr. Grayson-Smith and Arthur Dalton, the negative by myself and Franklin Loehde. I doubt whether we on the negative side were completely convinced of our case, but we did bring up all the arguments we could as to the possibilities of human error or malfunctioning of machinery leading to disaster, as well as the risks from meteorites and cosmic radiation. The debate, as might be expected, was inconclusive and it was felt that time alone would tell.

In 1955 the observers' group acquired a welcome meeting place in which to warm up after a spell in the cold observatory. Because currents of hot air spoil good seeing, observatories are not heated, and that, in an Edmonton January, is quite a consideration. The University moved a hut to the site, and fixed it up so that it could be used for small meetings. In 1956, a whole series of weekly lectures from the beginning of May to the end of September was organized, given in the new hut by members of the observers' group. Two of them were by Franklin Loehde.

By 1958 the sputnik age had begun, and the public had a new interest in astronomy. An overflow crowd of about 125 persons jammed the Physics Lecture Theatre to hear the first of a series of lectures on space, sponsored by the Society. I gave the talk, on "What makes the Solar System Tick?". These monthly talks were intended to foster public interest in establishing a new observatory.

At this time the old observatory was showing signs of wear and tear and vandals wrecked the furniture and contents of the observers' hut. Also the construction of the auditorium and the proposed demolition of the University rink made it imperative to find a new site. In the summer of 1959, I went out with Mr. Earl Milton to look at a piece of land north of Devon, recently acquired by the University and used by the Department of Field Crops. A small hill with tree shelter on the east, appeared a suitable site and we so recommended. The Department of Field Crops agreed to stake off a piece of land 60 ft. by 200 ft. to be reserved for the observatory. The Observatory Committee headed by Dr. Grayson-Smith drew up plans and a sum was put into the estimates to provide for construction. However, this item did not survive the subsequent economy drive and paring of the budget. Dr. Grayson-Smith tried for some years to get it back again but was never successful.

The old observatory was pulled down in 1961 and the Wates telescope was housed temporarily in the Physics Building. We have never since then had adequate observing facilities and this has certainly had a detrimental effect on the observing programme.

But if we have no observatory we have at least a Planetarium. In 1958, Earl Milton was President of our Centre and Dr. Crosby was Secretary. The Edmonton City Council was considering suggestions for commemorating the forthcoming visit of Her Majesty Queen Elizabeth in 1959. Among the suggestions were a tower or pylon, a fountain, and an observatory, but it was pointed out by Mr. Frank Page that the lights around Coronation Park made it an unsuitable location for an observatory but that a planetarium would be a valuable tourist attraction as well as a splendid educational project. A small committee headed by myself was formed to press this idea. During the early part of 1959 we were busy enlisting support. Milton and I spoke to civic groups, and Professor Gads and I attended a meeting of City Council and urged the adoption of our idea. I managed to convince the Mayor, Mr. Hawrelak, and although some councillors were still opposed, we finally carried the day and the city architect was instructed to draw up plans for housing a Spitz projector.

The day of the royal visit was beautiful and although the planetarium was still in the future and Coronation Park itself looked rather bare, the ceremony of turning the sod was one to remember. At a subsequent garden party in the Legislative grounds, Mr. Page represented the Centre.

The official opening of the Planetarium took place in September 1960. A message from the Queen was read by Chief Justice C.J. Ford. Our President, Mr. Harrington, extended greetings to those present and I made a presentation of a large lump of the Bruderheim meteorite, to be placed on exhibit as a permanent loan. The mayor, Dr. Elmer Roper, declared the building officially open, and the director Ian McLennan put on a show.

The year 1960 was quite an important one for our Centre. Mr. Earl Milton was awarded the Chant medal for his outstanding contributions to amateur astronomy. Since his arrival from Montreal he had been very active in observers' groups and in the special projects for International Geophysical Year. He was chairman of the National Observing Committee of the R.A.S.C., had taken part in Variable Star and Lunar observations, and was President of our Centre in 1958 - 59.

In 1960 the 84 foot diameter radio telescope at Penticton was opened and I was there for the ceremony along with the Dominion Astronomer and many others from across Canada. The Minister of Mines and Technical Surveys pressed a button and set the great parabolic dish sweeping across the constellation of Cassiopeia. As it crossed the intense radio source in Cassiopeia the receiver picked up the signals, transmuted them into sound and sent out a loud musical note.

Also in 1960, on March 4, a brilliant fireball was seen over Edmonton by those who were outside at 1:00 a.m. Reports soon came in of a six-pound fragment of a meteorite having been picked up near Bruderheim. Within 24 hours another 150 pounds of material belonging to the meteorite had been collected, mainly due to the efforts of two men from Fort Saskatchewan. A snow cover made the fragments easy to identify although they were spread over four sections. Altogether the Geology Department collected

finally close to 300 pounds of stony meteorite, oxidized black on the surface. The find was particularly valuable because it was so fresh, and portions of it went all over North America for analysis and particularly for detection of fairly short-lived radioactive products. The piece in the Queen Elizabeth Planetarium weighs 67 pounds.

In 1960, the Centre began meeting in the Planetarium, with Franklin Loehde as President. In 1961, he along with Ian McLennan and Earl Milton went to the annual general meeting in Toronto where they put on an impressive display of the Centre's observing activities. They each gave papers, Loehde on the Role of the Astronomical Society in the Modern Neighbourhood, McLennan on the use of the Planetarium and Milton on the scientific findings regarding the Bruderheim meteorite. Also they carried an invitation for the 1962 meeting of the National Council to be held in Edmonton.

Dr. R. M. Petrie, Director of the Observatory at Victoria, visited Edmonton in May accompanied by his wife, the former Jean McDonald, of Edmonton. He spoke of the difficulties in estimating astronomical distances, especially to the further galaxies, and he also congratulated Edmonton on having the first public planetarium in Canada.

In May also the first Star Night was put on in Queen Elizabeth Park. Many of our members put in weeks of hard work preparing shows or exhibits. The weather man cooperated wonderfully and hundreds of people turned out to see the planetarium show, to look at the moon through telescopes or to watch the open-air films and the slide-viewer set up outside. Franklin Loehde nearly had a model of the solar system ready in time, but he did manage to count the money that came in and cleared nearly \$200 above expenses.

The great event of 1962 was the meeting here of the general assembly, May 18 - 21. On Friday, May 18th, the City of Edmonton tendered a banquet in the Macdonald Hotel at which I was chairman. Afterwards Dr. Millman, the retiring President, gave his address on "The Frontiers of Space", the R.A.S.C. Service awards were presented, and Dr. Millman himself was presented with a tie pin containing a fragment of the Bruderheim meteorite.

On Saturday morning a session for contributed papers was held in the Mathematics-Physics auditorium. Seventeen papers of high quality were given and various displays of observational work were arranged in the rotunda near by. In the afternoon the National Council met in Edmonton House (Molson's Brewery) for a business session, and that evening a banquet was tendered by the Province of Alberta, represented by the Hon. R. D. Jorgenson. Mr. McLennan was chairman and the appreciation of the Society was expressed by Dr. K. O. Wright of Victoria, Vice-President. After dinner the party went along to the Planetarium for a demonstration.

On Sunday most of the delegates enjoyed a trip to the Meanook Meteor Observatory, 90 miles north of Edmonton, where they saw the super-Schmidt camera, the all-sky auroral camera and various other pieces of equipment demonstrated by Mr. Jack Grant. This completed the Edmonton programme, but many of the visitors went on to Calgary and Banff to see the Cosmic Ray Observatory on Sulphur Mountain and other Banff attractions.

In the general opinion the 1962 assembly was an unqualified success, and on this happy note we may leave the history of the Centre. Many of you are familiar with our more recent activities which scarcely yet belong to history. By 1962 we had completed thirty years of activity and I believe had done a creditable job in keeping alive an interest in astronomy in the neighbourhood of Edmonton. It is a job that still needs to be done.