

Ex Libris  
Royal Astronomical Society of Canada  
WINNIPEG CENTRE

A HISTORY OF  
THE WINNIPEG CENTRE,  
ROYAL ASTRONOMICAL SOCIETY  
OF  
CANADA  
1911 - 1977

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## INTRODUCTION

A word about the creation of this book. It was conceived in 1976, underwent a gestation period of a few months until the decision was made to have the history written by a group of members rather than one individual.

How long should the history be? It could fill many hundreds of pages, but time and money would not permit the compiling of a lengthy book. Condensing sixty-six years into about as many pages was quite a challenge. Undoubtedly some of our members will be disappointed because events they considered unforgettable have not been mentioned, but it is not possible to refer to every single event, just as it is not possible to name every person who has participated in the Centre's activities since the day of inception.

From the small collection in our library, we selected photographs of various activities, and tried to include as many members as possible, but the quality of the print had to be considered to ensure good reproduction. It is unfortunate that there were no photographs of the early days of the Centre available to us.

The source of information available to the authors were the Centre's Minute Books and Newsletters, the Society's Journal and the recollections of the members. If more emphasis is placed on the second half of the Centre's past, it is because the records for this period are more complete.

We hope that this history of the Winnipeg Centre will awaken fond memories of the many friends and glorious starry nights.

Grateful acknowledgement is made to the Ruth Northcott Foundation for a grant to aid in the publication of this book.

The Editors

Winnipeg, Man.  
June 29, 1977

We shall not cease from exploration  
And the end of all our exploring  
Will be to arrive where we started  
And know the place for the first time....  
When the tongues of flame are in-folded  
Into the crowned knot of fire  
And the fire and the rose are one.

-T. S. Eliot, Four Quartets



## CHAPTER 1

### THE WINNIPEG CENTRE, RASC.

1908 - 1977

by Ella Dack

"All accurate time - ascertained for the regulation of human activities - comes from the stars."

"Men and Meridians"  
by D. W. Thomson

Astronomy -- the Mother of Sciences -- is an ancient science. Individuals have always been fascinated by the study of the skies, and their phenomena. Eventually this science came to play a most important part in the development of our country and more particularly, Western Canada.

A sound knowledge of astronomy was an absolute necessity for explorers of the Hudson's Bay Company, like Samuel Hearne and Alexander Mackenzie for example. Hearne acquired his knowledge of astronomy chiefly from two men, William Wiles and Joseph Dymon, who were sent out by the Royal Society of England to observe the transit of Venus on June 3, 1769. Mackenzie, in order to realize a long cherished dream of crossing Canada from Atlantic to the Pacific entirely by land, found it necessary to further his studies in the science of Astronomy. It is also interesting to note that in 1833; one John Ross named a group of islands in the North-West Territories at  $69^{\circ}50'$  and  $91^{\circ}30'$ , "Astronomical Society Islands", so named after leading members of the Royal Astronomical Society in England.\*

To name a few amateur astronomers who were involved in surveying the West for the building of the Canadian Pacific Railway Company, Otto Klotz, was one gentleman who succeeded in the herculean task of surveying a stretch of 500 miles of roadbed for the proposed rail-tracks. Mr. Charles E. Shaw and Mr. Sanford (later Sir) Fleming, were also involved in this stupendous project. These gentlemen also required of their transitmen that they have a sound knowledge of astronomy.

\* Letter dated July 2, 1974 from Department of Energy, Mines and Resources, Ottawa.

With the passage of time, is it any wonder that many of the "Amateur" astronomers should form an association? The first astronomical society in Canada came into being as early as December 1, 1868 with the name of "Toronto Astronomical Club", under the leadership of Mr. Andrew Elvins. The group later became incorporated in 1890 under the name of "The Astronomical and Physical Society of Toronto". Then in 1903 a royal charter was granted to them, changing the name to -: "The Royal Astronomical Society of Canada", with Mr. Elvins continuing to take an active part in the Society until his death in 1918. While small groups were formed in seven cities outside Toronto as early as 1893, which later affiliated with the Society in Toronto. The first real "Centre" was formed in Ottawa in 1906.

In Winnipeg, the "Astronomical Association of Western Canada" was formally organized in 1908 and continued to meet under that name until 1910. By its Minutes of December 7, 1910 this group changed its name to the "Winnipeg Centre of the Royal Astronomical Society of Canada", accepting the Constitution and By-laws of the Toronto organization, (which Constitution and By-laws bears the legend: "Accepted June 6, 1908 and enforced December 16, 1908") as its guide. A copy of our own Centre's Constitution and By-laws is on file, By-law No. 1 of which reads:

"All persons who were members of the Astronomical Association of Western Canada in December, 1910 shall be members of the Society."

The executive officers and council of this new body consisted of the following: Professor Neil B. MacLean President; Mr. C. E. Bastin, Vice President; Mr. E. V. Stout, Secretary; and Mr. Frank Powell, Treasurer; Council members were: Mrs. L. B. Ireland, Mr. H. C. Howard, Mr. R. C. Collins, Rev. Father J. Blain, and a Mrs. Kemp. The membership fee was -\$2.00 per year. At this meeting it was also decided that new members should be proposed and seconded by two members before admission to full membership, a procedure which was followed for many years. Meetings were held twice a month, except during the summer, when observational meetings were held for the general public. The installation of the 72-inch telescope in the Victoria Observatory in 1913, with Mr. J. S. Plaskett as its Director, became a subject of considerable common interest and discussion. Mr. Plaskett addressed the Winnipeg Centre on several occasions and, infact, he served as the Centre's Honourary President for a few years

Members on record for the year 1911 are listed as:

Prof. L. A. W. Warren	Mr. Allan Findlay
Mr. J. C. Johanssen	Mr. W. H. Peache
Prof. N. B. MacLean	Mr. Frank E. Hugg
Mr. Ernest MacDonald	Miss C. J. Seale
Mr. P. E. Constatin	Mr. H. W. Malpass
Mr. D. S. Charleson	Mr. E. V. Stout
Mrs. L. B. Ireland	Mr. C. W. Langdon
Mr. W. A. Dempster	Mr. Frank Powell
Mr. N. J. Dinnen	Mr. Walter Lindal
Mr. H. C. Howard	Mr. C. E. Billard
Mrs. Kemp	Rev. J. Blain
Mr. E. Nil	Mr. C. E. Bastin
Mr. J. H. Kolb	Mr. R. C. Collins

It is not known just when the first General Assembly, as we know it, took place, but there is a letter on file from the Toronto office, extending a cordial invitation to all Centres, -"to attend the Annual "At Home" to be held at the University of Toronto, on the evening of Tuesday, January 25, 1916.

An interesting and significant letter from National Office to the Winnipeg Centre indicates the high standards set for the RASC., as a Whole. A member of our Centre apparently wished to expound his views, through the RASC., on the "flat earth" theory. National Office recommended that we ask him to retire from the Centre and refund his fees, as this type of theory would only bring ridicule on the Astronomical Society; this advice was, of course, taken. A similar incident occurred in recent years and, again, the offending member was expelled from the Centre.

Despite two world wars, the Centre continued its activities, often with very small numbers, but interest was always keen and standards high. There were the usual drives for members, extending invitations to the general public to attend a meeting night. Many members of the Centre gave instructions to high school students Boy Scouts and Girl Guides, as now, to help to introduce them to the world of astronomy.

During the 1940's the Centre decided to admit junior members at a fee of 50¢ per year, without voting power, but to receive the Journal. This procedure continued in force for some years. Special talks were given for the junior members at a regular meeting of the Centre. (As a matter-of-fact, Mr. Bruce Pippy, one of our present members, enrolled as a junior originally in 1953). In later years the junior fee was increased to \$5.00 per year with full voting privileges.

Financial problems were a constant plague not only

for the Centre but for the National Office aswell. Never-the-less in 1948 the Winnipeg Centre, along with all Centres, agreed to accept an increase in annual fees from \$2.00 to \$3.00 per annum, life membership from \$25.00 to \$40.00. The Centres' present fee structure is-: \$12.50 as per National Office and \$7.50 for the Observatory Fund, total per year \$20.00.

The Centre has always been active in various observational programmes, such as Satellite Tracking, Solar, Meteors, Comets and Lunar. Dr. Ruth Northcott, during her term of National Presidency, instituted an "All Canada" observational programme designed to draw all Centres more closely together, as well as for its educational value. National co-ordinators for the various disciplines were drawn from the Centres across Canada, in this way a prodigious amount of important work was accomplished.

Telescope-making also occupied the time and talent of some of our members, this despite the fact that we have never had a permanent centralized location for this work; mirror-grinding, for example, being done in various members' basements. Indeed, a survey taken during the 1960's revealed that there were some thirty-three telescopes owned by members, many of which had been made from their own design.

General Assembly for some years had been held alternately at various Centres, the first to be held in the West having been at Edmonton in 1962. When Winnipeg Centre accepted the invitation to act as hosts for the Assembly in May, 1966, the heavy spring floods, which Winnipeg is often subject, threatened the cancellation of this special event. It was a great relief to everyone when the flood abated within two weeks of the date of Assembly. The success of this undertaking was due in no small measure to the splendid leadership of the Chairman of the Planning Committee, Professor Robert Lockhart, and his committee.

The members of the Polish Canadian Community in the City of Winnipeg, invited our Centre to join them in observing the 400th anniversary of the death of Nikolaus Copernicus and the 500th anniversary of his birth in 1943 and 1973 respectively. Both these occasions were appropriately observed by the Centre.

In 1974 the Winnipeg Centre was again hosts, this time to the joint meeting of the RASC General Assembly and the AAVSO Convention. Despite the problems of an earlier postal strike, this event was a tremendous success. The organizational work for the occasion was in the capable hands of Dr. Richard Bochonko, Professor

Robert Miller and Mr. Frank Shinn and their committee. However, Assembly was saddened by the sudden death of Professor Robert Lockhart, just four days before Assembly opened. At the time of his death, Prof. Lockhart was the Second Vice President on National Council and was a former president of the Centre.

During the 1960's and early 1970's the Centre had a membership of one hundred and sixteen. However, many of the members were students under 16 years of age and perhaps not yet ready for the full enjoyment of astronomy. In 1974 after serious consideration amendments were made to our Constitution and By-laws introducing the following changes: (1) There shall be a basic age limit of sixteen years and, (2) There shall be only one fee structure. This move caused a reduction in the membership at the time but it gave the Centre a healthy core of members genuinely interested in astronomy. We have found that this restriction in our Centre has helped the serious young applicants by making them realize that there is something worthwhile waiting for them at age sixteen.

Some of our members have remained with us for many years despite the fact that they do not reside in the City of Winnipeg. Miss Ada Staples of Oxbow, Sask., is one, she joined the Centre in 1954. Miss Staples shares her memories with us on another page. Another member, Mr. Dan Brown, lives in Georgetown, Guyana. A Mrs. Jean Howey retained her membership with the Centre for many years after moving to the USA., she was a member from 1913 until 1961.

Members who were introduced to the RASC through the Winnipeg Centre made distinctive contributions, not only to this Centre, but to other Centres as well. The Rev. Father M. W. Burke-Gaffney on being transferred to Halifax by his Order in 1940, joined that Centre and served as its President and later Honourary President for a number of years. Mr. M. P. Stanton moved to Calgary where he became a charter member of that Centre in 1958. In 1975 Mr. Alan Dyer resigned as First Vice President of the Winnipeg Centre, when he accepted a position as Education Co-ordinator at the Queen Elizabeth Planetarium in Edmonton. Mr. Dyer is now the President of the Edmonton Centre.

It is noteworthy that the study of the universe of space, which for many began as an amateur's hobby, impelled them to become astronomers of no mean ability and achievement.

## CHAPTER 2

### "ON OBSERVING HEAVENLY BODIES"

by Patricia Berezowski

Silently, one by one, in the  
infinite meadows of heaven,  
Blossomed the lovely stars, the  
forget-me-nots of the angels.

Longfellow - Evangeline

Observation nights have been the drawing card for the Winnipeg Centre for many years. It is "the" attraction which unites the membership, rekindles a new interest into all and encourages visitors to investigate and advance their own knowledge of astronomy. Star parties may appear to be a factor of the modern space era, but they have been very much a part of the Centre since the early years.

Going back in years it is interesting to see that at one time observation nights were exclusive to members. In 1910, when the Winnipeg Centre was still the Astronomical Association of Western Canada, it was recorded in the minutes of the meeting on April 27th "so that the work would not be dropped during the summer, the members were given the privilege of using the University telescope to view stars and clusters on Thursday night of each week." The work referred to appears to be of an individual nature rather than any group effort.

After the Winnipeg Centre of the R.A.S.C. was established the star nights were redistributed throughout the year rather than held in summer only. In the 1920's at least two sessions were scheduled for the fall and then in late winter. These were again restricted to members. Members were to bring their own instruments. Also it was decided at this time to allow only one quarter of the membership on a single evening.

In the 1930's the custom began to alter the regular May meeting to an annual observation night. It was also at this time when first mention of the public was recorded. Although the public was now permitted admittance to the special observing nights it was by invitation only. One such incidence is revealed from the minutes of an executive meeting on Friday, January 18,

1935 when it was decided to hold three observation meetings for the spring. To these, invitations were sent to the Board of Trade and their wives, the Medical Association and their wives and to the Boy Scouts, and their parents. One night was devoted to each group. All were highly successful.

The annual May observation night was the highlight of the year for many. At this event both members and friends were allowed. An interesting episode from the minutes of Thursday May 28, 1936 leads us to the conclusion that the enthusiasm then was no different than the enthusiasm displayed now. -- "Many were the gasps of amazement and sighs of wonder to say nothing of the kinked necks as some of the novices attempted to see the zenith through a refracting telescope."--

During the early 1940's a new condition was added to the selection of observation nights. The dates selected had to be at a time when the planets would be most suitable for observation. When a member was aware of a favourable position of the planets he had to inform everyone, most likely at a meeting, and then a date for observation was arranged.

In the 1940's the custom of sending invitations by cards rather than by telephone developed. This practice continued for many years. If you were a member at this time you may recall the following contents taken from the minutes of an executive meeting on May 2, 1945;

"Astronomical Observation Night,  
Tuesday, May 15th  
Place- University Tennis Court,  
Memorial Blvd.  
Time- 8:30p.m.  
If cloudy, come on the 17th,  
same time and place.  
Admission by card only"

These functions were quite formal. All invitations were R.S.V.P. and only those with a card were admitted. However this was not a deterrent as approximately fifty guests arrived at each session to study the heavens.

The popularity of observing sessions increased into the 1950's and 1960's. Interest by the general public was stimulated by the launching of the first satellite. Satellite tracking captivated the avid members and also non-members during the late 1950's. Correspondence bounced between members, the Smithsonian Institute and with interested non-members. With this the "space age"

had truly arrived in the Centre.

The Centre entered the 1960's with the concept of involvement. Members became increasingly aware of the starry sphere above them. Observation nights soon became synonymous with the R.A.S.C. Observing sessions were held after each regular meeting. Members were instructed to bring their binoculars and telescopes to each meeting for this reason. In addition to this, public observing sessions were held throughout the city at such places as the City Park, Assiniboia Downs, Tuxedo Park, and the Winnipeg Canoe Club. Dr. Scatliff's observatory was a star attraction during the majority of the 1960's. At that time it provided a welcome escape from the city lights plus an excellent view of the sky.

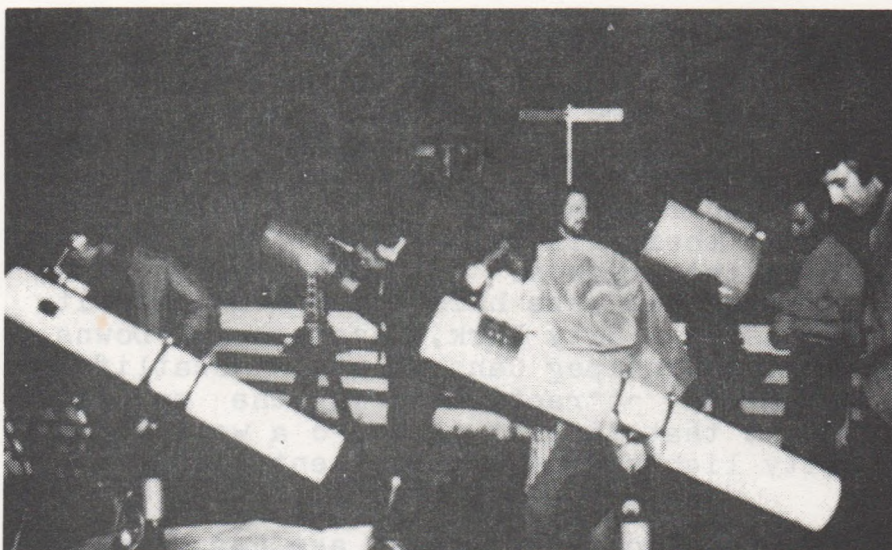
The 1970's and the rocketing space age has fired up the interest of members and non-members alike. Star nights have become very frequent in occurrence. One of the most favourite observing site is at the home of Roy and Phyllis Belfield. Many enjoyable evenings, lasting until the wee hours of the morning, have been spent viewing the "heavenly bodies" from their observatory in their backyard. (Not like the old days when - guests were dismissed at 9:30p.m.!)

Under the direction of the Centre Presidents' in this decade, the observing sessions have certainly flourished. The Centre was involved with solar eclipse sessions in Assiniboine Park, and earlier in Wivenhoe, with comet hunting, with astrophotography and with meteor counts. The interest of the members was so keen that only the complete obliteration of the sky prevented any cancellation of an observing session. It is not unusual to have seen members trekking through snow covered fields in the middle of a cold January night carrying a lawn chair with them or donning a snowmobile suit on a cool May night only to get in a few hours of meteor counting or of general observing.

Total involvement has continued to be an objective of the Centre. Members, such as Mr. B.F. Shinn and Mr. R. Belfield, have organized observing sessions simultaneously held in parks around Winnipeg to allow greater accessibility for a larger segment of the general public to these sessions. The favourable response from both the general public and from reports in local newspapers provide incentive to proceed with further programs.

In retrospect, the Centre has progressed admirably in regards to observation nights. It has advanced from a fledgling Centre which was assessing its capabilities





Belfield residence, Lunar Eclipse 1975



City Park, Solar Eclipse 1963

to a Centre of total involvement appreciating its potential. With the knowledge and enthusiasm of all its members throughout the years, the Centre is fulfilling the Society's aim of "advancing the knowledge of Astronomy and allied sciences". Now with the Centre's own observatory at Glenlea and with all the possibilities available here this aim can be fully realized.

## CHAPTER 3

### PROJECT MOONWATCH

by Don. Hladiuk

On Monday, February 13th, 1961, the Satellite Tracking Committee of the Royal Astronomical Society of Canada Winnipeg Centre, actively began carrying out regular observations of all viewable earth satellites, of any national origin, under the project name Moonwatch. Project Moonwatch was a co-ordinated world-wide network of over 200 satellite tracking stations in 19 different countries and were sponsored by the Smithsonian Institute of the United States. The Winnipeg Station was situated at the south end of Westview Park and was one of four planned for Canada. The others were situated in Calgary, Toronto, and Halifax.

The Satellite Tracking Committee first appears in Winnipeg's R.A.S.C. records in early 1958 with Mr. J.L. Green as Chairman. Satellite observing at this time was a new and challenging field because the first artificial satellite was launched in late 1957. Winnipeg's high latitude; provided a definite advantage over the American Moonwatch stations; in that satellites to the north of us, during the summer months, were in sunlight and thus visible all through our nights while, those stations to the south of us could generally view satellites only during the relatively short morning and evening twilight hours. For this reason the Winnipeg Satellite Tracking Committee was capable of contributing much valuable information to the Moonwatch network. The Winnipeg Centre first considered joining the project July 4, 1960, when Dr. Gustav A. Bakos, senior astronomer of the Moonwatch Project, at the Smithsonian Institute, Cambridge, Massachusetts, spoke to the Society of the need for higher latitude stations. Dr. John Scatliff was responsible for communicating with His Worship Mayor Stephen Juba and attaining the Westview Park as the observing station.

The duties of the Winnipeg Moonwatch team could be brought under four basic headings:

- 1) First, they were to search for and acquire new satellites as they were launched. This was - carried out on an emergency basis until such time the orbital details became known.
- 2) Emergency observations were also conducted at

the re-entry period of a satellite's life. As a satellite nears its end, the orbit changes rapidly and the vehicle must be watched as closely as possible.

For both these operations special alerts were sent out by the Smithsonian Institute only to the stations-concerned.

- 3) A third and very important duty was that of searching for lost satellites. Moonwatch had proven to be highly successful in achieving this function.
- 4) Finally, regular tabs were kept on all satellites through routine observations.

The method used by the Winnipeg Centre was both simple and effective. First of all, schedules were examined to see if any satellites were high enough to be in sunlight, after darkness had fallen over Winnipeg. Then the expected path of the satellite across our local sky sphere was calculated as closely as possible. Telescopes were erected in such a way that their overlapping fields formed a straight line, or optical fence, across the satellite's path. Meanwhile, with a short-wave radio nearby, each observer would check his stopwatch with the U.S. -WWV, National Bureau of Standard's time signal. At a set time before the satellite crossing, all stopwatches were set into motion, and the observers would take their positions and begin their vigilance. As soon as one of the observers spotted the satellite in his field of vision, the others were notified and all observers would focus their attention on the moving point of light. The satellite was followed visually until it passed close to a star which could easily be recognized. Then at the point where the satellite appeared to be closest to the star, the stopwatches were stopped and the observation was completed. The position of the satellite, when it was in alignment with the star, was then carefully calculated, using an accurate star atlas and mathematical co-ordinates were given to it. Finally, the time registered on the stopwatches were averaged and added to the known time when the watches were started. The precise time that the satellite was in the above position was known to within 1/5 of a second.

Such information from the Winnipeg station and from similar stations all over the world were then transmitted by telegram to the Smithsonian Observatory at Cambridge. There it was fed into a computer which combined it with pre-recorded data on the position of the observing site (accurate to 50 feet), compared it with all other observations that had been made at other loca-



tions and poured out new data on the satellite's exact orbit. Thus, by the use of Smithsonian's predictions, we could make satellite sightings which, in turn, were used to produce newer, more accurate predictions. Those predictions served a multitude of scientific organizations which, without the help of Moonwatch, would not have been able to carry out their vital work nearly as efficiently.



"Moonwatchers"

photo: Winnipeg Free Press, 1961

After 18 years of co-ordinated observations, project Moonwatch folded up shop on July 1, 1975. Dry runs, to test the abilities of Moonwatchers to actually sight a tiny metal sphere spinning through space several hundred miles above the Earth began in June 1957, when an imitation of the proposed United States' satellite flew over Ft. Belvoir, Va. at 6,000 feet. The substitute satellite was a tiny flashlight bulb fastened to a plumber's suction cup and towed at the end of a clothesline by an airplane. The light from this object was calculated to be the same amount produced by a rising or setting sun hitting a metallic surface of a real satellite. The rehearsal went off without a hitch, and the same technique was later used to train Moonwatchers across the United States. To show their appreciation for Winnipeg's involvement in Project Moonwatch, the Smithsonian Institute donated all the equipment in our possession to the Winnipeg Centre. There have been many active members in the Satellite Tracking Committee here are just a few; R. Bendall, G. Melnyk, J. Newton, B.F. Shinn, E. Anema, G. Dorwood, P. Moffat, R. Doner, T. Cairns and many more.

In conclusion, the Winnipeg Centre should consider itself quite fortunate to have participated in the pioneering of a new field in amateur astronomy, the observation of artificial satellites.

## CHAPTER 4

### FROM TELESCOPE TO OBSERVATORY

by G. E. Bailey

The establishment of an observatory is a common goal of many astronomical associations wanting superior facilities with which to view the heavens. The Winnipeg Centre is no exception to that goal. The history of its observatory is scattered intermittently throughout the history of the Centre.

To begin with, it is necessary to open the yellowed leaves of the Accounts and Record books to the year 1923, where an entry dated May 14th, noted the payment of \$100.00 to Mr. H.B. Allan, for the purchase of a telescope. This telescope, a brass refractor four inches in diameter, appears to be the first such instrument bought by the Centre, and still remains in use today.

A quarter century passed. Then, in November 1948, a Mr. Gardner offered to form a group to investigate the possibility of erecting an observatory for the Centre. In 1949, the Centre received the gift of a telescope from Mrs. Kozer, the wife of a member who had recently died. This was followed by a suggestion that a dome might be built on the roof of the proposed Tech. Voc. School to house our equipment. Negotiations were held, but the plan was rejected by the Winnipeg School Board in April 1950. Still undaunted, members looked into the possibility of establishing an observatory at United College. Proposed plans for the building included these details; quoted from the minutes of the Council Meeting September 8, 1950. "The structure would be of fireproof construction, with a revolving dome approximately 20-feet in diameter. A fifteen by twenty foot annex to house equipment would complete the plan.

It would seem that no further ideas or inspiration were forthcoming until 1963. Dr. Scatliff, a prominent member of the Society, found that the "population explosion" was hampering the effective use of his observatory in the city and generously donated the building for the Centre's use. A location was provided by the owners of CKY Radio Station, at their transmitter-site south of St. Norbert. At the same time, Mrs. E. Gardner donated the entire complement of astronomical equipment owned by her late husband, thus providing the Centre with a 12-inch telescope mirror possibly suit-

able for the observatory.

It would seem however, that the Scatliff Observatory was destined not to house an instrument of major size. Various smaller telescopes were, at one time or another, in use there, but enthusiasm about the project, while initially high, was short-lived. The observatory fell into disuse, and by 1973, new plans were formulated for the raising of funds.

When new discussions began about a Centre Observatory, Mr. R.R. Belfield became the driving force behind these plans. He believed that this dream could be brought to fruition if the Centre relied on its own resources. Accordingly, a fund-raising campaign was begun, with donations from several private members along with a public raffle. The raffle, which offered three colour televisions as prizes was a success due, in part, to the energy spent in selling tickets. Mr. B. Hanson acquired the assistance of the Winnipeg Police Department to sell the major portion of the tickets, thus ensuring a successful venture. The raffle netted the Society some \$1,100.00 after expenses.

An undertaking of this nature cannot be accomplished overnight, and although the funds continued to grow, the administration of the Centre changed hands in October 1974 before further action was taken. By the end of 1975, the President, Mr. Belfield, pledged to make the fiscal year 1975-76 the year of the Observatory. Several locations were proposed, and each had to be considered before being either accepted or rejected. The site at Glenlea was finally chosen for its exceptionally dark sky and its proximity to the main highway.

The Glenlea site is located on University of Manitoba property some twenty miles south of the downtown core of Winnipeg. Discussions were set up between the Centre and the University by Dr. M. Clutton-Brock, who stepped into the breach when Dr. R. Bochonko went on Sabbatical. Many long hours of negotiations were held, with Mr. Belfield speaking on behalf of the Society. The terms of the agreement, signed in July 1976, provide the Centre with a fully serviced observing site for the period of twenty-five years providing the Centre properly and adequately maintains its building. The agreement is most generous, and it is greatly to his credit that Mr. Belfield was able to weld a solid relationship between the University and the Centre.

The design of the building was based on the design of Mr. Belfield's personal observatory, with certain enlargements and modifications. Thus, a twelve-foot dome crowns the upper storey of a twelve-by-thirty-one-foot

structure containing the observing chamber, storage space and a small, but cozy meeting room. A Twenty-four inch diameter concrete pier stands fifteen feet below ground level, and nine feet above it to provide rigid mounting for a telescope of substantial size. The building sits on a reinforced concrete pad six inches thick.

The construction of the project was very carefully orchestrated by the President, with several events occurring simultaneously. While the site was being surveyed by our Engineer, Mr. L. Bunting, other members began work pre-fabricating the walls at a warehouse in the west end of the city. On July 31st, these were moved by flat-bed trailer to the Glenlea site. Two days later, a half-dozen members excavated the foundation and inserted wooden formers for the concrete pad.

At the same time, construction of the dome began at the Canadian Army Base in the west end of the city. The dome is made from double-thickness 3/4-inch plywood struts and cross-beams and is covered with masonite. All joints were caulked and covered, making it quite water-tight. Construction of the dome was supervised by the late Mr. E. Dyer, who took great pains about the quality of his finished product. The Polomer-type shutters, also constructed from wood, gave Mr. Dyer a particularly trying time, but much good humour, the occasional curse, and many cups of tea later produced a set of functional shutters that would be the envy of any professional dome builder.

Meanwhile, back at the site, our dauntless workers dug and poured the pier, with the aid of a hole-borer. A week later, on August 21st 1976, a dozen people turned out for the pouring of the concrete floor. This was a major job, but was accomplished in about three hours. The masterpiece finished, and still very wet.. Well, who could resist the urge to write in wet concrete anyway? The ceremonial nail used to inscribe the names of the construction crew has been gilded and added to the Centre's Archives.

Construction began on the walls and roof sections with such rapid progress that a substantial part of the building was erected by August 26th. On that date, a convoy formed on Kenaston Boulevard to move the dome by flat-bed truck, which Mr. Belfield had the dubious honour of driving, to the site. It moved slowly down Waverly Road to Pembina Highway, past the Fort Garry Campus and out onto the open highway of the prairie south of Winnipeg. The threat of rain hung in the sky as the convoy reached Glenlea and turned onto the half-mile lane to the site, but the sun shone through for



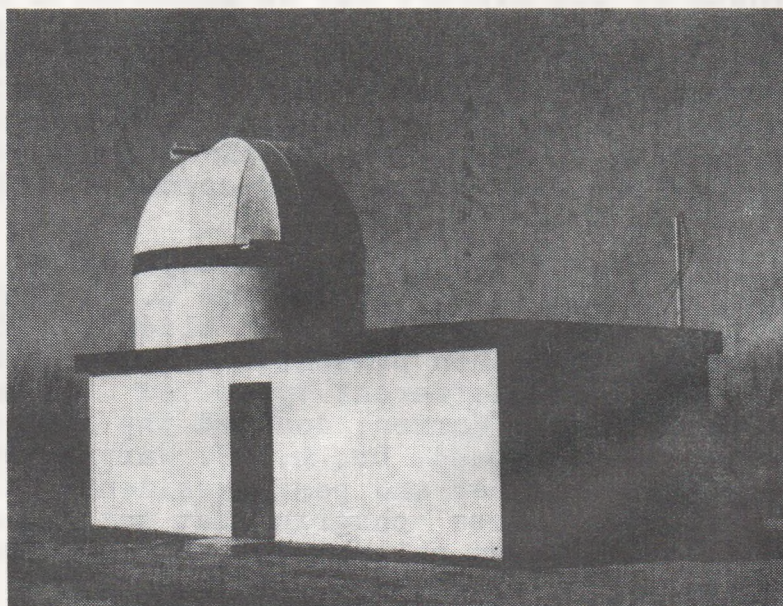
a brief instant, almost in exhaltation when the work of unloading this precious cargo had been completed.

By Labour Day, the building was virtually complete outside, and the dome had been mounted. However, the task continued, as refinements and finishing touches were added here and there. Electric wiring was installed to provide heat and light in the meeting room. Additional hardware was mounted on the dome to allow better movement. Although work slackened during the winter, it did not stop entirely, for insulation was purchased and installed, as were the laminated wood panels to finish the inside walls.

With the passage of time, still more changes may occur. The basic observatory is finished and arrangements have been made for it to house a variety of instruments. With the approach of summer, and more amenable observing weather, observing programmes can be established and implemented. A system is being formulated to regulate fairly, the use of the building, to enable the greatest possible number of members to benefit from the Centre's dream.

For there it stands--a tribute to the countless men and women throughout the Centre's history who envisioned the day we would have an observatory of our own: a tribute to the men and women who gave of their time so freely during the summer of 1976 towards the realization of their dream--a stairway to the stars.

#### QUO DUCIT URANIA





## CHAPTER 5

### THE BOOK CORNER by Phyllis Belfield

The Library at the Winnipeg Centre is not a large one but the way it is now growing, more bookshelves will have to be constructed very soon to take the overflow. It now contains 200 books in addition to periodicals. The books cover a wide range in the subject of Astronomy and related sciences. There are books for the budding astronomer, others for the advanced amateur, books on astrophotography, telescope-making or old historical books of great interest.

Trying to determine the exact date that a Library was formed proved to be somewhat difficult, as there is no official date recorded. The earliest date recorded, in regards to books, was on February 12, 1936, when the Centre purchased a book entitled -- "Introduction to Astronomy" by F.R. Moulton. Two years later; on January 12, 1938, a Professor Jackson offered a complete set of Journals of the Society's from 1930 to 1937 to the Centre, "In the event of a Library being established." By the end of the same year three more books had been donated to the "Library". It would appear that sometime during the year of 1938 the formation of a Library took place.

The slow growth of the Library may be attributed to the Centre not having a Librarian, as there is no mention of books again until the December of 1942, when the secretary reported -- "The telescopes and library are in the keeping of Mr. Colquette". This gentleman was the President at the time. Unfortunately the number of books belonging to the Centre was not recorded at the same time.

In 1948 the National Office of the Society donated a set of slides to the Centre, this was the C. A. Chant collection; which consisted of a hundred slides. In the same year Mr. H. Rasmussen presented a number of slides, to the Centre, of different types of telescopes. Then in 1952 Mrs. Warren; donated the slide collection of her late husband, Dr. L.A.H. Warren, who had been a very active member and past president of the Centre. It is to the Centres' chagrin that not one of these slides, from the three collections, has survived the passage of time.

During the second half of the 1950's books of an astronomical nature were borrowed from the Hudson's Bay and Eaton book stores and displayed at the meetings. There were Star Maps; from the University of Manitoba, which members could purchase, if so desired. This "Book Corner" as it was called, (it is also used for the title), was set up under the guidance of Professor Robert Lockhart and Mr. G. Wiseman. There were a few donations made to the Library during this period. It is not known if the members took advantage of the small collection of books; as no report has been found. In 1965 a detached member from south of the border arranged to have the "Griffith Observer" publication sent to the Centre, which was greatly appreciated.

It was at the Council Meeting of January 10, 1966, that Miss Shelia Nixon was appointed the Centre's first Librarian. A list of books were distributed to the members within a month; the Library now contained 17 books plus periodicals and publications of the Society. When Miss Nixon became president of the Centre, (1967) she still continued with the office of Librarian. At the end of 1967 the Library was housed at the new Winnipeg Planetarium; where the Centre was to hold its future meetings. As the members became more aware of the Library; they donated many books over the next few years. Miss Nixon resigned the office of Librarian in the year 1970.

In 1971, Mrs. Dorothy Robertson became Librarian. It was during this point in time that bound copies of the Society's Journal were procured from the National Library. There were also a few books and bound copies of "Sky and Telescope" publications donated. Mrs. Robertson resigned in 1972 because of moving to British Columbia. At the end of 1972 the Centre moved to facilities at the University of Manitoba, where Mr. Larry Frostiak offered to take on the responsibilities of Librarian. For the next two years Mr. Frostiak put a lot of time and effort into the Library, at one time he expressed his concern about the lack of interest shown by the members. By the end of 1974 Mr. Frostiak resigned as Librarian due to pressure of University life. After a few months Mrs. Marilyn Richardson was appointed to the office. Mrs. Richardson found that she was unable to devote the time needed to put the Library in order; as she decided to visit her and her husband and leave a beautiful baby daughter.

In the August of 1975, this writer volunteered to take the office of Librarian. Boxes of books (total 112 and records, belonging to the Centre, were collected from the University of Manitoba and housed at a

more central location in my home. When a check of the books had been completed; it was found that a number of books were missing, according to the records the Centre at various times had given books as prizes to school children. One assumes that these books missing from the Library are the ones given as prizes.

Since August 1975 to the end of 1976 the Library has grown considerably, through the generosity of many members and friends far too numerous to name. Also forays around the new and used book stores have turned up quite a few gems for the bookshelves. The Centre is fortunate to own a few precious old books that are now out of print, members are asked to handle these, and all books, with care. A more comprehensive system of cataloguing and indexing the Library has been introduced also a slide collection has been started; which is growing very quickly. The records from 1910 onwards has also been put in order and filed away for future reference. As of January 1976 all donations and purchases are published in the Centre's publication--"Winnicentrics".

The members seem to enjoy watching the Library grow, and judging by the numerous inquiries; they are also taking advantage of the collection of books. The future looks very bright for--The Book Corner.

## CHAPTER 6

### MINUTES AND MOMENTS

by Hans Thater

#### "Time Is A Fortress That Seals All History"

Anonymous

During the past 66 years the Winnipeg Centre was entertained and enlightened by a plethora of speakers. Speakers ranging in professional prominence, like Canada's own Peter Millman to the diverse and scientific amateurs like those in Winnipeg.

The Trend was set by Mr. Lindal in 1911, on a cold day of January. In the old University Building on Broadway Mr. Lindal set the precedent for the quality of future presentations.

Most interesting is the range of topics the Winnipeg Centre was interested in. As the aspects of Astronomy had changed so did their interest. But they never lost their enthusiasm in new ideas or concepts. As each new speaker left it was not long before another arrived with newer ideas and newer concepts. Whatever the topic the Centre was on the tracks or frontiers of new astronomical knowledge.

That very first presentation by Mr. Lindal entitled "The Spectrum" did just that. Of course techniques in spectroscopy are relatively old now, but new in 1911. Totally new and challenging this was what got the stone rolling. The Centre had made its first start. Here for them was a new technique by which to study the stars.

The Winnipeg Centre has always kept in touch if not totally immersed with the advancements of astronomy. With Dr. E.H. Gingrich and his presentation on "Modern Methods in Stella Photometry" yielded not only its principles which were relatively new but also its potential scientific advancement. The Centre being, again, on a forward approach to scientific discoveries and studies in Astronomy.

Dr. J. S. Plaskett's talk on the "Structure and Rotation of the Galaxy" along with Dr. Bakos lecture on "All Aspects of Artificial Satellite Observing" impressed upon the members the need for progress and developmental -

research in the field. By their presentations the Centre had become more knowledgeable with the latest techniques and analysis.

When we speak of prominency especially in the field of astronomy we are speaking of people like -:

Dr. Wilhemena Iwanouska, from Warsaw, Poland.

Dr. Tom Bolton, specialist in binary star systems.

Dr. Robert Lockhart, who discussed the World Calendar.

Dr. Ruth Northcott, prominent Canadian Astronomer, discussed her visit to USSR.

Dr. John F. Heard, contributing invaluable to astronomy in Canada.

Mr. Malcolm Ellis, member of British Astronomical Association. Speaking on various aspects of the BAA.

Right Reverend T.W. Morton, spoke on many occasions to the Centre.

Dr. Richard Bochonko, discussed on numerous occasions The Structure Of Our Galaxy.

Dr. Martin Clutton-Brock, who discussed many times the Modern Theories of Cosmology.

Their knowledge can only be surpassed by the curiosity and eagerness of the Winnipeg Centres' membership.

It would be impossible to name all the members who have contributed to the Winnipeg Centre; as well as all those scientists from across Canada, USA., and from within our province of Manitoba. - Without these people the Centre would have never been as rich and fulfilling.

## CHAPTER 7

### O U T R E A C H

by P. Berezowski

"You cannot teach a man anything; you can only help him to find it within himself"

-Galileo

Extending our knowledge of astronomy to the public is perhaps the most extensive activity that the Winnipeg Centre is engaged in. It is only through increasing the awareness of others that we become aware of our own accumulation of knowledge and therefore increase our appreciation of astronomy.

Paging through the records I found scattered references to observation sessions devoted to the Boy Scouts, and to the general public. It is regretful that it was only after the Second World War that the Centre began to be involved with public programmes. This result could be a condition of the inception of an easier lifestyle, thus allowing more time for the pursuit of astronomy or perhaps there was involvement, but it was not mentioned in the minutes at the time.

In the 1940's and 1950's members of the Centre, Messrs. D.R.P. Coats, G.P. Morse, G. Wiseman, H. Rasmussen, Miss O.A. Armstrong, and Miss M.E. Watterson and many more, gave lectures to various groups around the city. Members were also asked to act as adjudicators for some of the schools annual Junior Science Fairs.

During the 1960's, members such as Dr. J. Scatliff, Mr. F. Shinn, Mr. E. Rotoff and Mr. J. Stewart accepted invitations to Boy Scouts and Girl Guide Packs to conduct observing sessions and to test candidates for their astronomy badge. The Outreach programme was not limited to observing sessions and school children. Adults had the opportunity to broaden their knowledge of astronomy through a 10-week course, offered by the extension service at the University of Manitoba, and taught by Dr. Scatliff. This was an informal as well as interesting class. Dr. Scatliff was also involved with telescope-making classes at various schools. St. John's Boy School was one such school to benefit from his experience.

In the early 1970's Mr. D. Stevens and other members would travel hundred of miles to conduct observing sessions at school summer camps. As the decade advances the educational activities continues to mount. Many schools began to request speakers for both in class and observing sessions. Mr. R. Belfield along with his wife Phyllis, prepared numerous slide shows to present to the students. The students and staff were most appreciative as indicated by the large number of complimentary letters he has received. Mr. Belfield is now more than ever before, in constant demand and has to juggle his school visits with his own astronomical activities. Mr. D. Haladiuk has also been involved with slide presentations which are appropriate for all age levels.

At the present time (1977) we have several members who are teaching formal astronomy courses. Dr. M. Clutton-Brock and Dr. R. Bochonko lectures at the University of Manitoba. Prof. R. Miller conducts courses through the U of M's Lockhart Planetarium. Mr. Belfield lectures part-time at the University of Winnipeg. Many of our members are teaches at either the secondary or elementary level and are incorporating astronomy with the science curriculum. These teachers along with their colleagues have the opportunity to develop their talents at inservices were astronomy classes are conducted by Mr. Belfield. During the annual Science Teachers Convention, Mr. Belfield has always been a highly anticipated speaker.

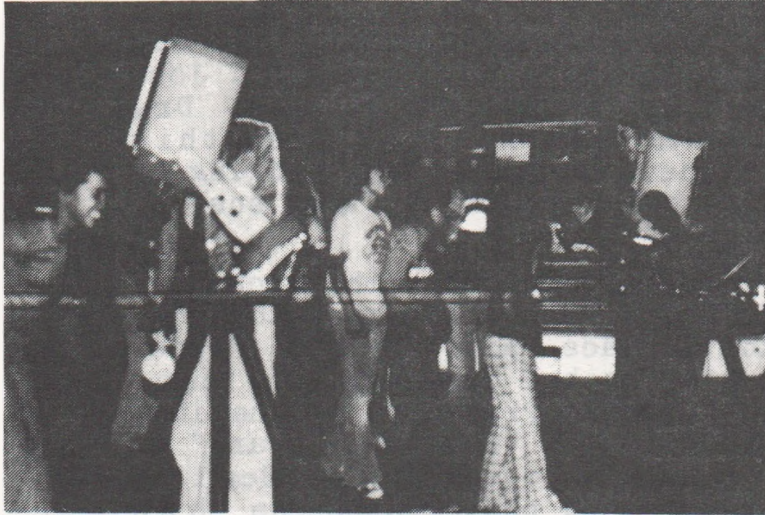
On several occasions displays, etc., have been shown to the general public at different locations in the city. In 1963, Mr. R. Stanger was the Planning Chairman for the Centre's participation in the Red River Exhibition. During the 1975 Christmas season members presented a slide show of the Winnipeg Centre and its activities to a large segment of the Winnipeg population. Mr. B. Krosney was Planning Chairman, and he along with Mr. and Mrs. Belfield, and Messrs. H. Thater, D. Hladiuk, J. Wunderlich, P. Moffat and those who volunteered to man the show put up a fine display in the Unicity Shopping Centre. In 1976 displays were exhibited at the University of Manitoba during their open house week. Each time the general public has appreciated the efforts shown by the members of the Winnipeg Centre.

Since the construction of our Glenlea Observatory many of the ambitions of the Centre can now be realized. Mr. Belfield has been diligently working on his aim of public education. As previously mentioned he has spent a lot of his own time travelling to various schools, camps, and groups. He is now completing arrangements





1



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1&2: Howden School students at summer camp 1976

with school divisions to have classes or groups come to our observatory where more members would be available and a more varied programme can be offered. Plans are underway to have every Saturday evening as a public viewing night where individuals are free to attend or groups may make a booking for the evening. A meeting room is available for films, lectures, etc. although we anticipate greater use of the actual observational equipment. The Centre is well prepared for both alternatives.

As is evident from the few incidents that I have mentioned, The Winnipeg Centre has been actively involved in an Outreach programme. Our own appreciation of the world of astronomy is greatly heightened through increasing the awareness of others. With the completion of our observatory and with the programmes planned within it, our ambition of extending our knowledge and interest to others will soon be realized.



## CHAPTER 8

### TO CAPTURE AN IMAGE

by Phyllis Belfield

As we look back through the records to the early years of the Winnipeg Centre, we find numerous references to photographic slides, of an astronomical nature, being shown on a meeting night. Unfortunately it is not known if these slides were obtained by any member experimenting with the art of astrophotography.

The beginning of the photographic activities, now carried on by the Centre, can be attributed to Dr. John Scatliff. A month before the 1960 lunar eclipse, Dr. John began to encourage the membership to photograph this event. The results must have been exciting judging by the photographic alacrity that occurred in the ensuing years.

A few members began to experiment with the mechanics of a camera and in 1963, Mr. Norman Wilde took top honours at the -Canada Wide Science Fair- for his "Wide-angle Astro-camera", which he had designed and constructed. The R.A.S.C. National President at the time, Dr. Ruth Northcott, presented the "Astronomy Award" to the proud young man. On another occasion, Dr. Scatliff showed his "Match-box camera and photographs he had taken using this ingenious method. A gentleman named Joel Matthews showed the members, on another meeting night, the results obtained with a "Light-weight space camera" that he had constructed.

At the January meeting of 1965, Mr. Horace Burgoyne related to the members his sad experience while photographing the lunar eclipse the previous month. Apparently Horace did not despair when his movie camera froze up in minus 30° Celsius temperature. Instead, he showed the pioneer spirit by running in and out of the house and thawing it out, only to discover at the end, that the film had broken.

In 1966, Mr. Willard Elliot showed the members how a television could be used for other purposes besides watching the situation comedies. Willard had constructed a television camera, and with the aid of a TV. set demonstrated how a telescope mirror can be tested, using television techniques.

Solar eclipses are always a great attraction. Some of our members will travel to the far corners of the world to witness, and photograph, such an event. Mr.

Peter Abel travelled to South America to witness the solar eclipse of 1966, where he also experienced the bizarre effects of an earthquake. Peter arrived back home, safe and sound, with some intriguing photographs of both phenomena.

As more members became interested, an astrophotography section was formed in March of 1969. Mr. Jack Newton became the first Chairman of this group. Jack always had the time to help a budding astrophotographer. He has had many of his photographs published and has also written numerous articles on the subject. When Jack moved to Toronto in 1973, Mr. Roy Belfield, who has had many of his own works published, took over the Chairmanship. Under the continued guidance of Roy, those who are interested have mastered some of the techniques of photographing the celestial objects.

When winter weather conditions dampen the enthusiasm of the camera buffs, all it takes to stimulate them is the arrival of a spectacular comet. Such was the case in March 1976, when "Comet West" appeared in the morning sky. A few members braved the elements to photograph this beautiful object. Messrs. Bill Krosney Don. Hladiuk, Paul Moffat, obtained some marvellous photographs. Roy Belfield also acquired excellent results, using his 5½-inch Schmidt camera.

Through the years there have been exciting times for our 'picture taking' members. They also have many tales of despair to tell, such as-:

- \* Taking a 30 minute exposure, in below zero temperature, and forgetting to take the lens cap off the camera that had been piggy-backed on top of the telescope.
- \* Taking a 15 minute exposure, then finding the camera setting was on 1/1000 of a second instead of bulb.
- \* Driving 30 miles to photograph and finding your telescope mirror had been badly damaged during the trip out.
- \* Forgetting there was no film in the camera!

The future of astrophotography in our Centre seems quite secure as there are always new members wanting to learn about this discipline. Members such as Patricia Berezowski and Ned Mazerall. To the new camera buffs and the old, we wish you every success in your endeavor to --'capture an image'.

Editor's note: The author has refrained from mentioning the many photographs that she herself has taken, some of which have been published.

## CHAPTER 9

### THE NEWSLETTER

by P. Belfield

"The vital measure of a publication is not its size but its spirit"

Temple Israel

In the early years of the Winnipeg Centre's history, the method of announcing a meeting night was to send each member a Canada Post Card, each containing pertinent information with regards to speaker, time and place.

This method continued for many years until the council Meeting of Dec. 11, 1946. On this occasion, Mr. D.R.P. Coats suggested a printed monthly bulletin, this would contain information regarding future meetings also items of general interest. It was moved by Mr. C. G. Card, seconded by Mr. V. C. Jones that this suggestion be put into effect. Mr. Coats volunteered to do the printing for the Centre, he also named the bulletin "Starlight". This bulletin came out each month until 1948, but it was not destined to grow, fortunately the idea lingered while the Centre went back to sending Post Cards.

In the 1960's, Mr. B. Franklyn Shinn, proposed the printing of a monthly bulletin -to keep members informed of all future meetings, etc. He also volunteered to do the arduous task of editing and printing.

This new bulletin went through various stages, and names such as "Centralla" and "Prairie Stargazer" until ...but we would like Mr. Shinn, the Founder of our present publication, to tell us in his own words how.....

"WINNICENTRICS" was born...

"For years the Centre had used Post Cards to notify members of up-coming meetings, eventually the supply of postcards ran out. The Centre's Council pointed out that a sheet of paper could be mailed in an envelope at the same cost as a card, and there was a surplus of envelopes and a dearth of funds to reprint cards. The sheet of paper appeared a trifle empty with only the essential information on it, so a paragraph emphasizing the importance of the great talent that the Society was able to engage was added relative to each speaker after

the topic was announced.

Even the great talents available seemed unable to create quite enough copy for a full page, so a line was drawn under the pertinent information relative to fees, and a few chatty paragraphs about who was building what telescope, or how Dr. Scatliff had spent a cold evening sketching Mars at the eyepiece of my 12½-inch while he was dressed in a racoon overcoat. Such local gossip was headed, for lack of a better idea, WINNICENTRICS. The idea might have stopped there if Mr. Basil Rotoff, while addressing the Centre on the subject, "Changing Views of the Universe" had not elaborated on the fact that man's original view had been geocentric, then after Copernicus it became Heliocentric, etc. He then proceeded with the phrase: "Of course we must not forget that great new viewpoint promulgated by our President, the Winnicentric Viewpoint".

About this time disaster struck again; we ran out of envelopes! We also felt that a mere folded sheet of paper mailed fourth-class was hardly in keeping with the dignity and image of The Royal Astronomical Society of Canada. Having acquired a duplicating machine it was proposed that a cover-stock format enclosing the - data sheet be adopted. Membership had grown, and funds were capable of such stretching and a cover was drawn by Florence Shinn.

However, the method of duplication was such that the master cover lasted for only about a month's issue. It was proposed that a more permanent form should be evolved. The cover eventually was designed by Mr. Howard Woods, in full colour, Mr. Woods kindly offering to create the necessary separation plates for its production. Finances were again a problem, but Jack Newton and Tony Luchik undertook a selling campaign, and found enough merchants willing to advertise inside and on the back to provide for printing for several years' supply of covers. There was still some reservations about the name WINNICENTRICS, but the Centre Council unanimously preferred it to any other. The matter was finally referred to Dr. Ruth Northcott at a National Assembly in Ottawa, and she firmly supported their choice, so in its new dress; WINNICENTRICS "hit the stands" with the November issue in 1969. In subsequent years it ran - into the kind of troubles that beset Big Business when it was found that before the supply of covers was used up; some of the merchants had gone out of business, - some no longer wanted to pay for their ads, or wanted to update them when we had them already printed."

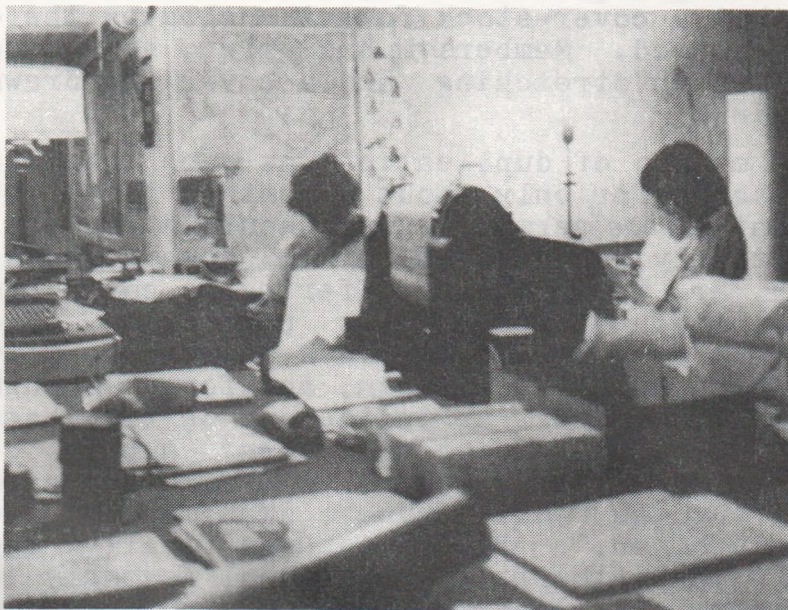
Thank you Mr. Shinn for sharing some of your memories

with us.

As was mentioned above, our WINNICENTRICS had run into a problem, not only with the cover crisis but our duplicating machine decided to be temperamental around this time. The staff at the Winnipeg Planetarium offered to print the contents on their Gestetner, which they continued to do for the next few years.

Meanwhile Mr. Shinn had to relinquish the editorship due to heavy pressure of work. Miss Ella Dack took on the task in 1972 and kept the WINNICENTRICS going until 1974.

Between 1974 and to the end of 1976, there has been three editors. Our present WINNICENTRICS' staff is: Messrs. John Wunderlich and Wm. Krosney, Co-editors; with Miss Patricia Berezowski, and Mr. Greg Bailey assisting. All the printing is now accomplished on our own Gestetner, purchased in 1976. The new masthead for our publication, depicting the observatory building, was designed by Phyllis Belfield and made its first appearance on the March 1977 issue.



Production of Winnicentrics

WINNICENTRICS has come a long way since the days of a small paragraph on a one page bulletin, under the guidance of our Co-editors, we now have 10 pages full of information, and articles written by many people. The Centre feels quite confident that the "Press" will continue to roll far into the future.



## CHAPTER 10

### R.A.S.C. AWARDS

#### THE SERVICE AWARD

In 1959, the Service Award was established, and "is a small bronze plaque which may upon the recommendation of a special Committee of the National Society, be awarded to members of the Society who have performed outstanding services to a Centre or to the National Society." On a national basis, several awards are made each year, and in the eighteen years this Award has existed, the following members of the Winnipeg Centre have received it.

#### D. R. P. Coats, 1968.

The following is from the citation published in the June 1968 Journal: "Nominated by the Winnipeg and Calgary Centres. Mr. Coats has made many important contributions to the early development of radio communication in Canada. His fulltime duties never interfere with his favourite hobby of astronomy for which members of many Centres are most grateful. He has a number of firsts to his credit; his education broadcasts on astronomy in the early 1930s should be given special emphasis. Telescope-maker of highest repute, lecturer of most noteworthy ability, member of the Society for half a century, while we recognize all these attributes, we are fully aware that this honour is inadequate thanks for his many contributions to us.

#### John N. R. Scatliff, M.D., 1971.

In the August 1971 issue of the Journal the following was published: "Few people have been as effective as Dr Scatliff in promoting astronomy to the public, through both radio and television appearances as well as through university extension lectures at the University of Manitoba. His enthusiasm for observational astronomy has been a major factor in the organization of solar eclipse expeditions by members of the Winnipeg Centre while his appreciation of fine instruments combined with his exceptional patience have made him an invaluable

teacher in the telescope-making activities of the Centre. In honouring him with the Service Award we acknowledge not only Dr. Scatliff's years of guidance to the Winnipeg Centre in various capacities on its Council but, in addition, we salute his achievements as a versatile leader in astronomical activities".

B. Franklyn Shinn, 1972.

Taken from the August 1972 Journal: "An infectious love for astronomy combined with creative ability and technical expertise have assured the success of Franklyn Shinn as Director of the Manitoba Planetarium. His patience and painstaking generosity in helping others are the qualities that have established the high esteem in which he is held by fellow Manitobans. As a keen observer he has introduced many members to variable stars and grazing occultations but, above all, his willingness to serve at the workbench has earned the gratitude of many less experienced telescope-makers. Frank has also served the Winnipeg Centre as President, editor of "Winnicentrics" and he has taught astronomy to a variety of Winnipeg audiences. For service to astronomy and for the inspiration he continually brings to his fellow astronomers the Society is pleased to present the Service Award to Franklyn Shinn."

Roy and Phyllis Belfield, 1976.

From the August 1976 issue of the Journal: "The Royal Astronomical Society of Canada was fortunate to add to its membership in 1968 two people whose contribution through the Winnipeg Centre has been a constantly increasing story of dedication and service. Roy served on Council and later became the president of the Winnipeg Centre in 1974. Since that time their home has been a volunteer-manned office of the Winnipeg Centre on a seven day basis. Many of the younger members of the Centre developed much of their skill, especially in the field of astrophotography, under the guidance of Roy at the telescope in his observatory, and Phyllis in the darkroom. Perhaps the greatest achievement by Roy has been in the field of education. Dr. Duckworth of the University of Winnipeg has invited him to join the staff as a part-time instructor. His advice and recommendations are sought on many matters pertaining to the growing department of astronomy at that institution. Added to these activities are countless other visits to schools, camps and societies, all undertaken with a modest reserve that so exemplified the manner in which

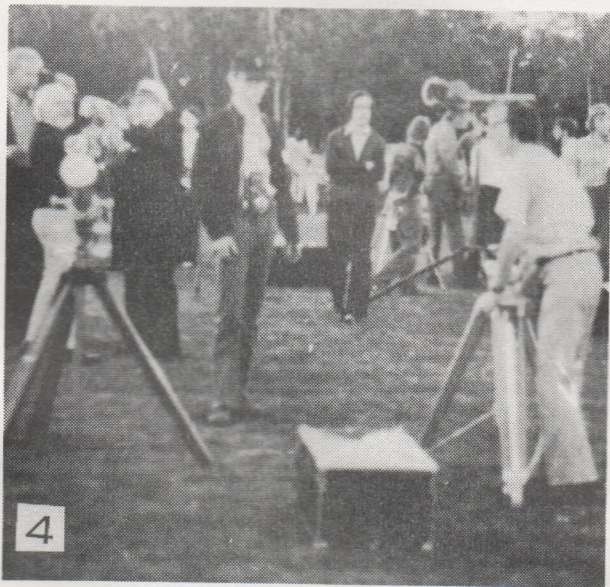
Roy and Phyllis are present at meetings, Roy presiding in the Chair and Phyllis presiding at the coffee percolator. It is therefore fitting at this time that the Royal Astronomical Society of Canada bestow on Roy and Phyllis the Service Award Medal which has been established precisely for the acknowledgement of the type of service represented by these members of the Winnipeg Centre of the Society.

#### The Membership Certificates

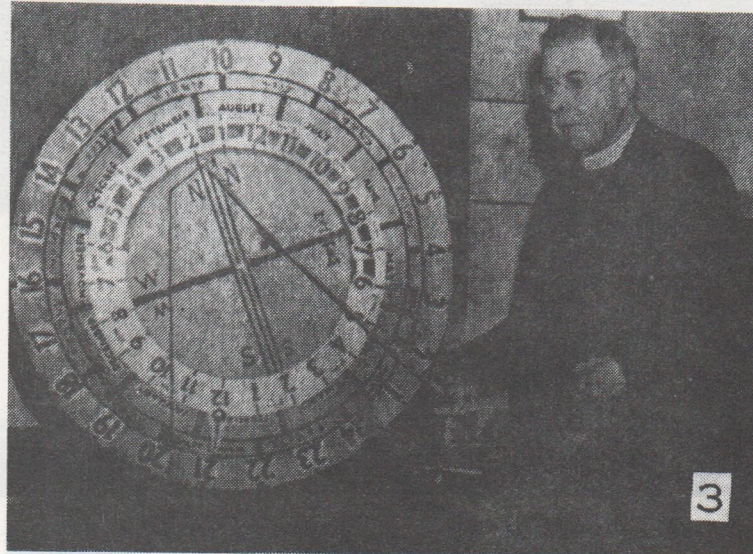
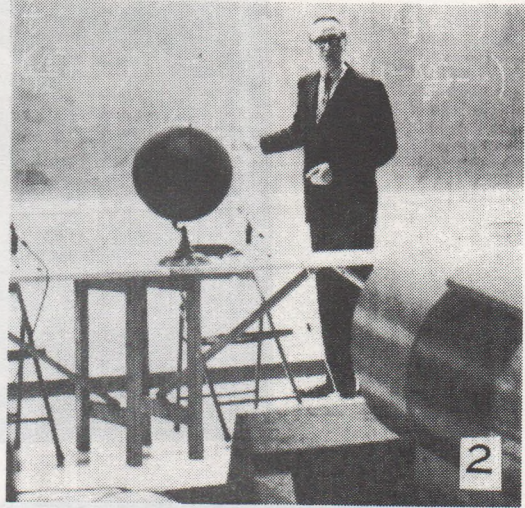
This award was established at the National Council meeting of January 6, 1961. From the minutes of that meeting, the following resolution was passed: "that the Certificate be awarded only to members of not less than five consecutive years standing. ..." The names of the Winnipeg Centre's members who has received the Membership Certificate are listed below.

1976. W. L. Bunting.	1977. R. A. Storch.
P. Moffat.	Wm. Krosney.
	J. Wunderlich.

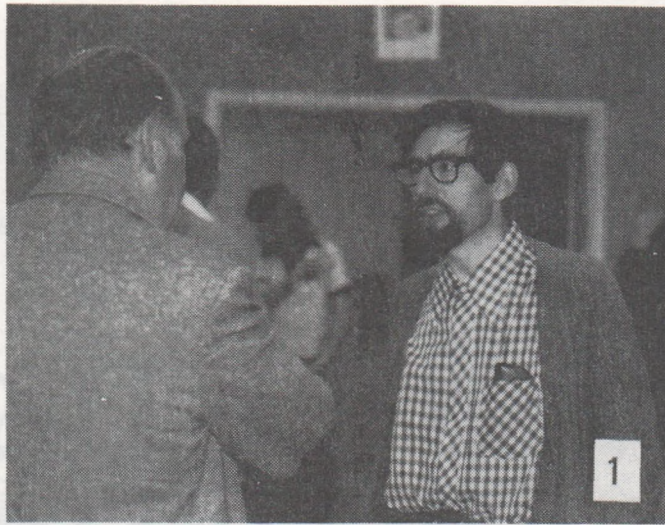








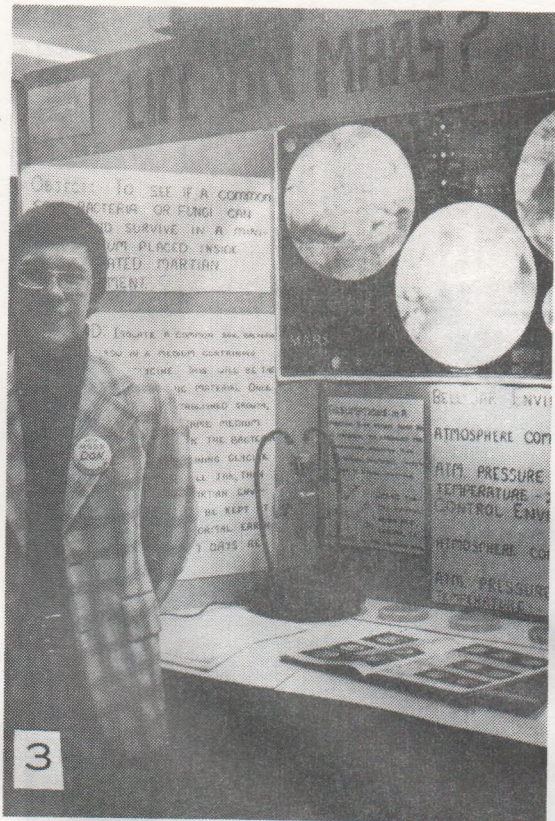




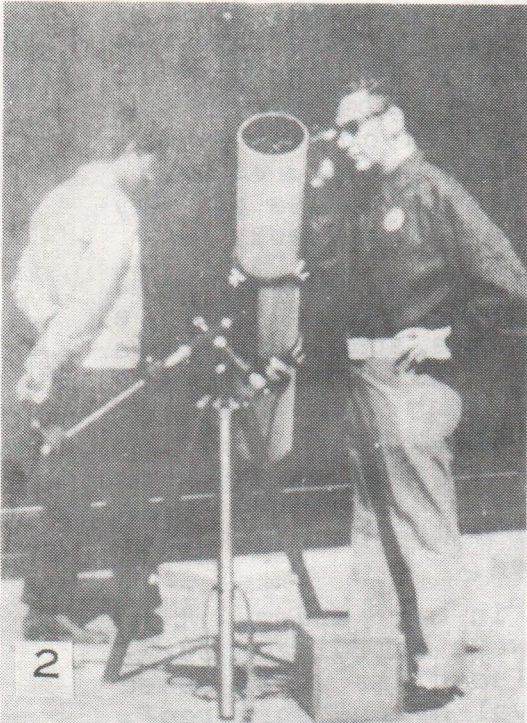
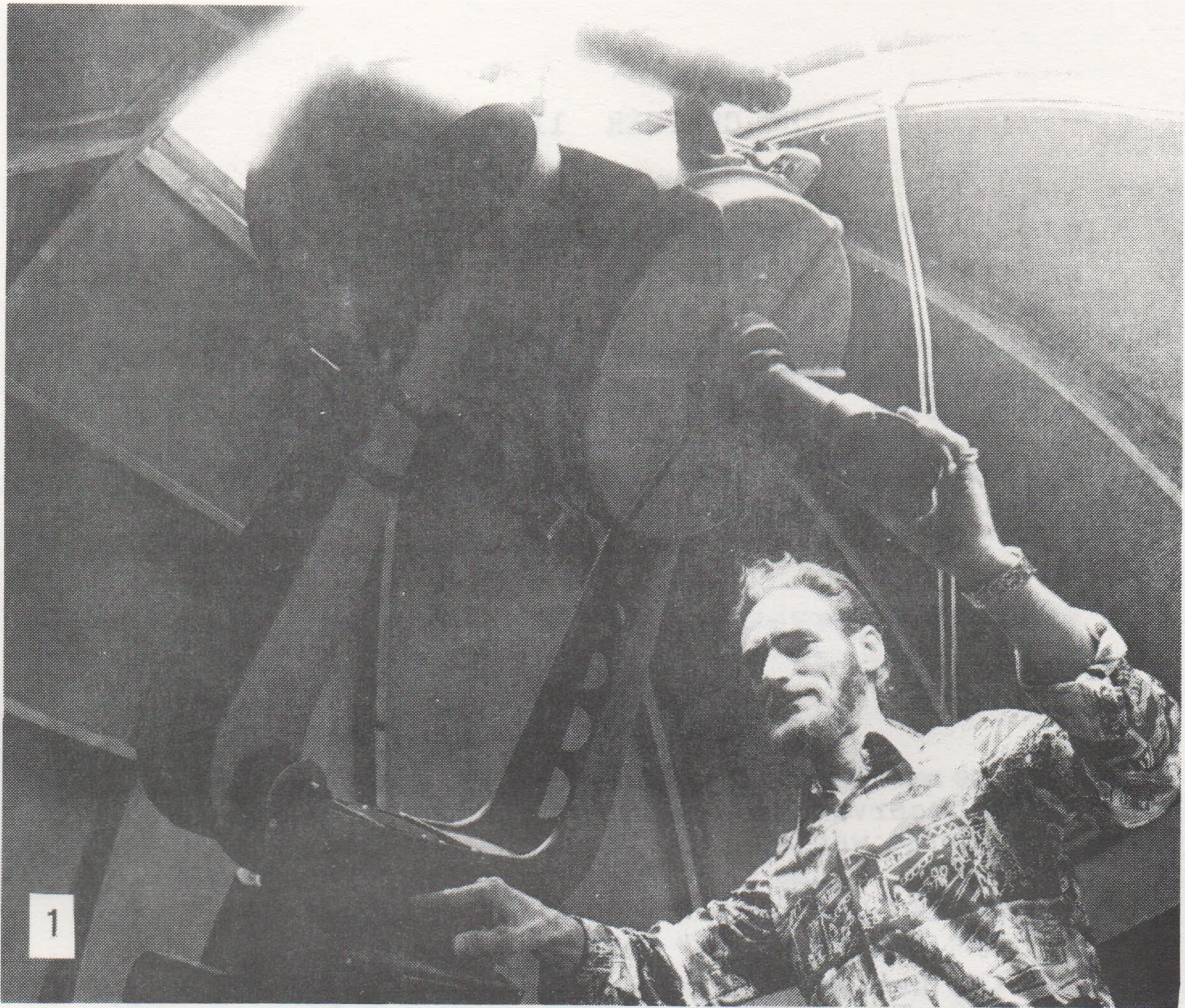














## CHAPTER 11

### AN AMATEUR'S OBSERVATORY

Some of the Winnipeg Centre's members have designed and constructed their own observatories, after dreaming about one for a period of time. In this Chapter one member describes how he was able to realize his dream a few years ago. Amateur observatories are also mentioned in Chapter Thirteen.

#### The Belfield Observatory

by R. R. Belfield

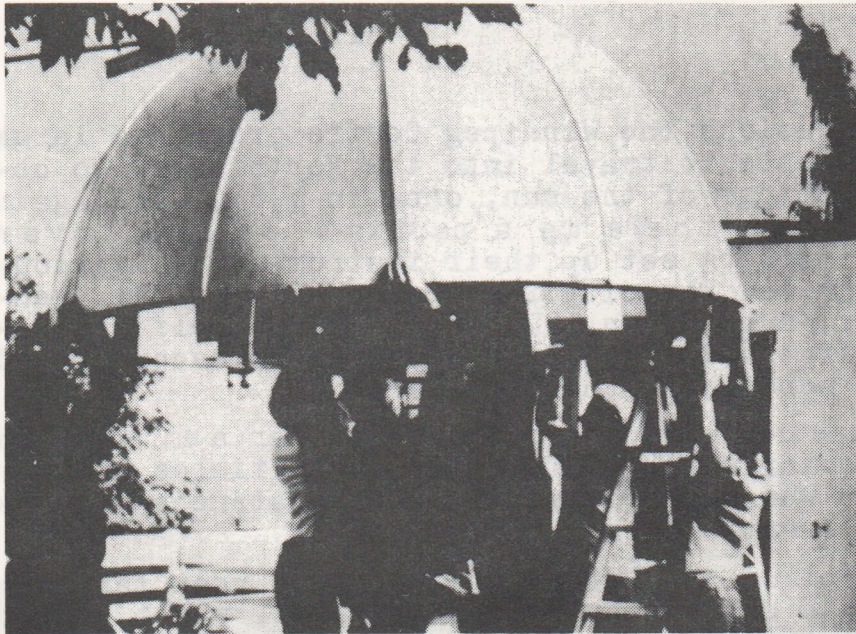
It is the ambition of most amateur astronomers to build their own observatory one day, especially if they live in such adverse weather conditions as we experience here, in Manitoba. I was able to accomplish this desire in 1974, when we purchased a house that had an 8-ft by 8-ft shed at the bottom of the garden.

After the decision to make an observatory out of this structure (fortunately for me there are no ardent gardeners in our family), I approached a very good friend of mine, Mr. Ed. Dyer, a cabinet maker, with the idea of converting the shed into an observatory. Ed's first reaction was to think I had gone 'out of my mind', but the more we talked the more intrigued he became with the concept. Neither Ed nor I had built an observatory dome before; consequently there was many an evening where we could be found looking through issues of "Sky and Telescope" and various books on the subject.

We decided to make the dome ring, ribs, shutter and framing out of 3/4-inch exterior-grade plywood. The dome was covered with 1/8-inch masonite, applied as gores with plenty of nails and caulking. All the 'buted' gore joints were covered with a 1-inch wide piece of 1/4-inch masonite. The laterally-traversing shutter proved to be a problem, which we were able to overcome mostly by trial and error. The dome structure, which took four weeks to complete, was then thoroughly soaked in linseed oil before being painted.

With all this activity going on in our garden, the neighbors began to wonder what we were building. Curiosity was the undoing of one gentleman, as we hijacked him into helping us with the removal of the shed roof.

Steel brackets were bolted to the 8-ft diameter steel ring, which was then bolted to the building, after the corners had been adjusted. With the wheel system in position, the dome was lifted into place using the muscle power of five friends and the encouragement of the spectators. During the summer months I have the University of Winnipeg's 14-inch Celestron mounted in the observatory. For the rest of the year my 8-inch Celestron sits on the pier.



Hoisting dome onto tracks.

In the two years that have gone by, my observatory has proven so successful from such things as snow, rain, wind and extreme fluctuation in temperatures that I persuaded Ed, who had become a member of the Winnipeg Centre, to build the Centre's observatory dome, which he did, as well as becoming our 'Task-master' where the whole building project was concerned. Perhaps in another two years someone else will want to construct an observatory. Ed? Anyone seen Ed?

Editor's Note: Since the above was written, Mr. Ed Dyer passed away on February 6, 1977.



## CHAPTER 12

### SOLAR ECLIPSES

In old Cathay, they saw the moving  
fount of day  
Eclipsed, as by a shadowy fan.  
They felt the deeper slumber fall;  
On domes of pearl and towers of jade.

-Alfred Noyes

On two occasions the Winnipeg Centre organized large groups of people to travel into the Northlands to observe the eclipse of the sun, once in 1963, and again in 1972. When there is a partial eclipse over Winnipeg, members set up their instruments in various locations around the city; for the benefit of the general public, such as in 1972 when Messrs. Belfield -- Dyer -- Moffat and Mrs Belfield set up telescopes, and projection screens in the City Park.

We have members who have travelled far and wide to witness a solar eclipse. The following articles are by such people who have journeyed great distances to observe this event.

The account of the 1860 Expedition has been taken, in part, from an article by Dr. J. Scatliff, which first appeared in the RASC Journal (Feb. 1965). It is included in this chapter, so you may compare the hardships of yesteryears' travel arrangements with the relative ease of today's mode of travel, to reach a destination where one can view this remarkable phenomena.

#### Eclipse Expedition 1860

The tedious journey is related by a member of that group of astronomers who departed the St. Paul Minnesota area for Cumberland House, a Hudson's Bay Company post located north-west of the Pas.\* The account describes how they travelled by Red River cart, a sternwheeler and later by canoe, suffering unfavourable weather conditions, inadequate food and vicious mosquitoes. It was soon realized that they would not reach their planned destination but they pushed on relentlessly until they

\* "The Winnipeg Country" by A. Rochester Fellow (S.H. Scudder), Boston; Cupples, Upham & Co., 1886

reached the outer limits of the path of Totality where they could make some observations. Alas the clouds would not part as totality approaches. The gloom became so intense that the chronometer is read with difficulty when suddenly a change occurs and we know totality is past. Soon thereafter the clouds lifted and permit the remaining phenomena to be observed.

This then, is our success. Three thousand miles of constant travel occupying five weeks; to reach by heroic endeavour the outer edge of the belt of totality; to sit in a march and view the eclipse through the clouds.

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Wivenhoe 1963. by Dr. John Scatliff

The Winnipeg Centre had been planning this expedition to Northern Manitoba, with the help of the Canadian National Railway, Winnipeg Personnel, for many months. Our train, which we named "The Eclipse Special" was exceedingly comfortable, left Winnipeg on Thursday evening, July 18th. We reached our destination at 3:30am, Saturday, July 20th.

Early Saturday morning, we noticed some clouds overhead as we began to set up our equipment. We were not worried as we had received a telegram from Winnipeg with the weather forecast for July 20th, it read: "Sunny, repeat Sunny!" Generator cars were joined to the train, and cables, with outlets, were run between the assorted telescopes.

By midday it was becoming quite hot and a while later a distant haze became apparent. Then with only 2½ hours to go to totality, all eyes turned fearfully towards the North-West where a gigantic dark cloud could be seen. At 3:00pm, things were getting noticeably darker, sunlight was shining on the tops of distant clouds, above these there was a patch of blue sky and, of course, there was this monstrous dark cloud, with lightning flashing in it, to the left, acting as a barrier between us and the sun.

\* Dr. Scatliff was Chairman of the Centre's Planning Committee for this Expedition to Wivenhoe.

The beauty of the landscape phenomena, which started at 3:05 pm, CST, was remarkable no doubt it was augmented by the presence of the clouds mentioned above. The skylight was now dimming quite fast, suddenly the atmosphere appeared very somber. It was not completely dark, some light was spilling in from parts of the large cloud outside the shadow cone. Towards the horizon the sky became intensely blue, while brilliant orange bathed the distant clouds. Within seconds this horizon brightened, everyone was filled with astonishment at the speed of which the scenes of evening and dawn were re-enacted in the course of a minute and a half. The clouds moved on and we were able to observe the remaining phases of the eclipse.

Before we started on our way home we left a Time capsule set in cement, at the foot of the Wivenhoe sign. Over the cement a lead plaque was placed bearing the words- RASC. Expedition, July 20, 1963.

We did not see the total eclipse it is true, but who amongst us could forget the beauty and magnificence of that day.



Solar Eclipse, Wivenhoe, 1963



Baker Lake 1972. by Jack Newton

Dr. John Scatliff and I had the terrific experience of organizing an eclipse expedition to Baker Lake in 1972--July 10th. For transportation we chartered a Trans-Air DC3, of World War II vintage, of which the doors did not fit to well among other things. Dr. John and I thought we had signed our lives away since we had to guarantee eighty people in order to charter the plane. As it turned out, the aircraft was easily filled and we had to refuse people.

The night prior to the eclipse our group gathered at the Winnipeg airport along with our cameras, telescopes and various paraphernalia. However, the pilot refused to budge until we agreed to leave much of our precious equipment behind to avoid overweight. After some deliberation this problem was settled and we were off.

We arrived in Churchill about 3:00am., in broad daylight. We had forgotten that we were in the land of the midnight sun. While refueling we checked the weather conditions at Baker Lake. The eclipse site was clouded over and the airstrip was enclosed with fog. We had to make a quick decision--Whether to fly to Baker Lake and take a chance that the clouds would break, also if we were unable to land we would have to return to Churchill and miss the total eclipse. Our decision? Baker Lake of course!



Solar Eclipse, 1972

As the plane approached Baker Lake, we could see that the area still had a little cloud cover. The pilot guided the plane over the lake, which still had ice flowing on the open water, and hit the runway. We set up our equipment right there on the gravel airstrip, with muskeg all around us, hoping the clouds would clear. The pilot offered to take some of us up in the plane, the majority of our group jumped at the offer, and we were fortunate because we broke cloud cover only moments before Totality.

This expedition was well worth the anxiety and frustrations involved as we ended up with many fantastic photos as well as many fond memories.

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Prince Edward Island 1972. by B. Franklyn Shinn

Instead of going to Baker Lake, my wife Florence, and I took the opportunity to view the 1972 solar eclipse from Prince Edward Island. The drive to P.E.I., was most enjoyable and the weather perfect. We unexpectedly met Tom Cairns, a member of the Winnipeg Centre, and his family, who were also on their way to view the eclipse. When we arrived in Charlottetown, P.E.I., we encountered Mr and Mrs Newton Mayall and other members of the AAVSO, who had come to Canada for the event.

Tom Cairns and members of the AAVSO elected to observe from the Cavendish Beaches on the northern coast. Florence and I decided to observe from the south side of the island. This decision was made because of past experiences when trying to observe an eclipse, through clouds, from the northern edge of the path of Totality. It was also wise to diversify the locations.

On the location selected, over looking Orwell Bay, we met a group of observers from the Detroit Astronomical Society, and while there was a temptation to unite with people of like interest, the same factors that influenced the decision to separate from the others made choice of a location a mile or so away seem wise. Final location was on a farm of a Mrs. Marie Rooney, which had a fine view to the south-west. Mrs. Rooney was most hospitable, allowing the car to be driven onto the lawn and offering power supply, etc.

The day was partly clear with high overrunning cirrus haze as I set up my planned experiment to detect and measure the passing of the shadow bands. With the presence of cirrus haze the primary purpose of the experiment was defeated, but some lessons were learned from the operation of the equipment. Other observers on the island also reported negative results with their shadow band experiments.

There was a passage of cloud before second contact, which cleared just in time for Totality. The wisdom of diverse observing sites is thus proven, because the group of observers from Detroit, located a mile or so away, reported that they had lost second contact, though the cloud cleared before third contact.

On the evening of the eclipse, members of the AAVSO and the Winnipeg Centre gathered at the McLaughlan Motel for a banquet and post-mortem of the eclipse. Everyone agreed that a most enjoyable expedition had been experienced by all the visitors to Prince Edward Island.

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#### African Eclipse Cruise 1973. by Paul Moffat

In June, 1973 an expedition from all across North America set forth to New York. The reason for this trek was to participate in a "Voyage into Darkness" -- observing a total solar eclipse while on board a liner in the middle of the Atlantic Ocean. The P. & O. Lines and Cunard Line Ltd., sponsored this African Eclipse Cruise.

Mr. Willard Elliott and I were the two fortunate members of the Winnipeg Centre, RASC., who were able to participate in this adventure. We left by car on June 20th for New York, to board the SS Canberra. Of course we took some equipment with us, which weighed almost a ton. There were telescopes, various types of cameras and a complete colour TV studio, in all, almost \$40,000.00 worth--just to view five and one-half minutes of totality! However, our conscience was appeased by the fact that this was to be the longest solar eclipse until the year 2150.

We arrived in New York four hours before sailing--at the peak of rush hour! With the hope that this was the



last of our problems we quickly got onboard and settled in comfortably only to be awakened at 2:00 a.m. to explain our presence on board to the purser! It seemed that we had gone up the wrong gangplank and so were not counted.

This Eclipse Cruise was a unique opportunity to intermingle with astronomers from all over the world, over 1800 scientists and passengers. We had the privilege of listening to lectures given by such eminent people as Mr. Neil Armstrong, Dr. Isaac Asimov, Dr. Verchuc, and Dr. Alan Hynech.

By Thursday, June 28th, we were at the Island of Teneriff in the Canary Islands, where an interesting day of sightseeing was planned. All went well as everyone waited with great anticipation for the main event on June 30th. We reached the eclipse site on the night of June 29th, but we had to settle further from land than expected due to the haze from a dust storm on the Sahara. The path of totality was approximately 30 miles off the coast of Mauretania,  $19^{\circ} 30'$  N. latitude and  $17^{\circ}$  W. longitude.

The morning of the eclipse was perfect, a clear sky and no wind. There was only a gentle rocking to the ship. The liner was stopped on the high sea during the eclipse. This was an unusual event in itself, but in addition extra stabilizers were also set up to ensure a steady base for the observers. By 10:00 a.m. the deck appeared to be sprouting a forest of telescopes according to Dr. Asimov. The eclipse began at 10:27 a.m. (Icelandic Standard Time). Willard and I had all our equipment ready and encountered no problems, but others were not as fortunate. One person went to his cabin to get more film, unfortunately he became lost amid the maze of passageways and could not find his way back to the top deck in time. Another person decided to have a nap before the event began. I hope he was dreaming about the eclipse because he missed the live performance.

We videotaped the whole phenomena including the placement of the Time capsule into the sea, off the bridge of the ship. The eclipse ended all too soon, but the memory was burned into the souls of everyone on board.

After the eclipse a side trip to Dakar, Senegal was planned. A running shuttle service was conducted from ship to shore with the four motor launches that the liner carried.

Finally on July 3rd, at 4:00 p.m. we left Africa for home. Despite a small medical emergency on another ship to divert us, we arrived back in New York at 9:00 p.m.,

July 8th. Total distance covered during cruise: 7,309 nautical miles.



On board the Canberra

To us, the trip was well worth the expense. We gathered a great treasury of photographs: 500 - 35 mm. slides, 4 hours of video tape, 1 hour on super-8 film, and memories that will last a life-time.

Excerpt from Log-Book of the Eclipse Cruise:

Saturday, June 30, 1973.

10:27 - 10:32:30 - Total Eclipse of Sun Observed  
10:30 - Position 18.48° N. 21.12° W.  
Noon - Fine and clear  
12:17 - Departed Eclipse Area.

## CHAPTER 13

### PERSONAL ANECDOTES

Of these shall my songs be fashioned  
May tales be told.

John Masefield

Much can be obtained from the record books, but the heart of a Centre is in its members, both long time and new. A cross section of members were asked to contribute to this chapter, in the hope that the atmosphere of the Winnipeg Centre may be captured for you.

Let us begin these reminiscences with the Centre's longest standing member...

R. A. Storch...

General astronomy and astronomy using higher mathematics, was on the engineering course I was taking in the 1920's. I found one gets a feeling of great satisfaction in being able to recognize many planets and stars, without the aid of a telescope. In the 1930's, I was obliged to change my profession to that of a high school teacher, but my interest in the stars continued.

I recall that my acquaintance with the Society and the Winnipeg Centre dates from the early 1940's. I noticed announcements of lectures, given by the Centre in the local newspaper. I attended several of them before being elected as a member in March 1940.

Some of the Meetings come vividly before my mind such as Prof. Warren's talk on "Comets" and Mr. V.C. Jones showing us the Planetarium model he had constructed. Another fascinating talk was given by Mr. Harold Rasmussen in 1947, on the 200-inch Hale Telescope on Mount Polomar. One gentleman I will always remember is Rev. Morton. Whenever Father Morton was on the programme it meant an hour of great pleasure. His detailed knowledge of astronomy was astounding. One meeting that

stands out in my mind is the one where I was the guest speaker. Through my knowledge of engineering, I was prevailed upon to give a talk on the subject "Problems Involved In Travelling Through Outer Space". It was well received judging by the number of questions asked of me at its close.

During my active involvement with the Centre, I was elected to council from 1943-45 and to the vice-presidency in 1947-48. I find that the RASC attracts many fine individuals to its membership, to name but a few: Messrs. L. Koser, L.T.S. Norris-Elye, The Card Bros., Miss O.A. Armstronge, Rev. T.W. Morton and Mr.D.R. P. Coats who started the Centre's first little bulletin, it came out once a month. To have worked side by side with some of these marvelous people has been the highlight of my life. My wife, Evelyn, who accompanied me to all astronomical functions feels the same way.

Many years has gone by since first I joined the RASC Winnipeg Centre, and I am proud to say I am still a member.

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T. D. Cairns...

I became a member of the Winnipeg Centre of the RASC., in 1952 after attending an interesting, slide illustrated, lecture on "The Moon", given by Dr. Norris-Elye. Some of the members whom I met at this time were: Clayton Punshon, Roy Stanger and Harold Rasmussen. A series of home movies were shown by Mr. Rasmussen of the national parks of the USA., which my wife, who often accompanied me to these meetings, and I thoroughly enjoyed. Our meetings were held in the University of Manitoba's building on Broadway Ave., until Mr. Victor Martens became President in 1954. Mr. Martens then arranged for us to hold our meetings in the Grain Exchange Building.

Several years later, a friend of mine; the son of Dr. Norris-Elye; told me that since his father's demise, the telescope belonging to him was gathering dust in the attic and if I wanted to I was welcome to take it. After having the mirror silvered, purchasing a finderscope and eyepieces I have an excellent six-inch Reflector. I believe it was another member, a Mr. Edmond Bridges, who had made this telescope for the Doctor.

My most memorable times associated with the Centre was the times I, and my family, took our vacations to coincide with a total eclipse of the sun. In 1963 the Centre organized a party, via the Canadian National Railway, to view the eclipse from Wivenhoe, Manitoba. I remember the strange light, which resulted from the diffusion through the clouds and the advancing shadows as the sun was eclipsed. To have shared this experience with many people made the trip an unforgettable occasion. We viewed the 1970 solar eclipse from Maihuatlan, Mexico with Jack Newton, Dr. Scatliff and Paul Moffat. We enjoyed ourselves immensely. In 1972 we travelled to Prince Edward Island to see the eclipse. We met Mr. Frank Shinn and his wife who were also on their way to the island to see the event.

I was Secretary-Treasurer from 1956 to 1964 and during that time knew all of the members by name. I will mention some of them, although my memory may overlook many; George Welbanks, D.A. Patterson, Bob Lockhart, Danny Banera, Peter Abel, Jack Green, John Mohler, and Ada Staples.

I have not been participating very frequently during the past number of years, therefore I am not as familiar with today's membership as years ago. But it is obvious to me that the standards are still very high in the Winnipeg Centre.

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D. R. Stevens...

During my two-year term as president of the Winnipeg Centre in 1973 and 1974, a few exciting events took place.

To join with the Polish Canadian Community in celebrating the 500th anniversary of the birth of Nikolaus Copernicus, we were honoured to have the famous European Astronomer, Dr. Wilhemina Iwanowska, as our guest speaker at the January 15, 1973 meeting. Dr. Iwanowska is the Director of the Copernicus Observatory in Torun, Poland. On this occasion, the Centre also participated in the formal presentation of a Solar Telescope to the Museum of Man and Nature. The year 1973 also saw the formation of a committee to raise funds for the building of an observatory.

Winnipeg was the site of the General Assembly in June

1974 and a very efficient planning committee produced one of the most successful assemblies in many years. The Assembly was held jointly with the AAVSO. The City of Winnipeg hosted the Polish dinner and entertainment on the Friday evening, while the Saturday night banquet was hosted by the Province of Manitoba. This was made especially enjoyable by the guest speaker, U.S. Astronomer, Dr. Paul Hodge, of the University of Washington, and was made possible through the proceeds of the Ruth Northcott Memorial Fund.

During these two years we were called on many times by the Winnipeg School Division, Girl Guides and Boy Scouts to show the stars and planets through our telescopes. Round trips of 300 miles in one evening to various summer camps were not unusual. Our reward was always enthusiasm shown by the students in getting a close-up view of heavenly objects.

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A. Butterworth...

As a relative newcomer to the Winnipeg Centre, RASC. I feel I must explain some of my feelings towards, and impressions of, this group.

Towards the end of 1974, I attended my first meeting, with some trepidation (having met none of the members previously). I was welcomed and introduced to others and found immediately that I was among kindred spirits. Previously I had been quite alone when **observing** or when trying to gather any information pertaining to observational astronomy.

Many enjoyable evenings were spent with fellow members either on observing sessions or at the regular meetings or simply having a chat on the telephone. There is a definite camaraderie evident in the Centre and plenty of opportunities to share in the experience and knowledge of others. When any member make known a need for help, guidance or companionship, there is a quick positive response. For this I am always most grateful.

I only wish that I had become involved with the RASC years earlier-- ah so much wasted time.



B. F. Shinn...

The period between the mid-fifties and the mid-sixties might be called a time of constant change--The Centre's meeting places were changed so frequently that Mr. Dennis Gallagher once asked "Where is that floating crap-game of yours this month"? Some meetings were held at the University of Manitoba, the Norquay Building and the hall of the Shinn Conservatory of Music. When the Planetarium Auditorium became available the Centre made its home there until rising costs made this impractical.

Telescope-making classes were conducted under Dr. Scatliff's guidance, many schools as well as members acquired various size instruments during this time. I also became interested in telescope-making and progressed from early 6-inch plate glass mirror to a 12 $\frac{1}{2}$ -inch Newtonian, then back to a 6-inch which has the advantage of portability.

During the International Geodetic Year the Centre became quite active in Auroral observing. Aurora report cards were filled out and some of them were even mailed to NRC., Ottawa. Around this time Alfred Falk organized an active Meteor observing group. They would spend many long hours lying on the ground monitoring the sky.

My own interest changed to that of graze observation and groups of members would track all over the prairies, after this phenomena. Some of these trips had amusing results, not all astronomical. It was during the presidency of Miss Shelia Nixon that we went on a graze expedition to the Sandilands area. This particular graze had been classified under the Geodetic category and we had been asked to send our timing results to Dr. David Durham, who was interested in the Continental Drift Theory. The site for the observation was carefully chosen, but when we arrived at the location we found the only gas station within a hundred miles in either direction, flooded with mercury vapor lights. The owner, after listening to our tale of woe, extinguished the lights for our convenience, but at the crucial moment Sunny Manitoba clouded over. We may never know how far Canada has drifted since that night because the basic information was unobtainable. On another graze expedition we arrived at our destination three minutes after the event. We had lost our way at the town of Riverton, we kept driving over the wrong set of railroad crossings when looking for the road that went north. However, not all our graze expeditions turned out like these two. There have been many successful

ones which more than make up for ones that have failed.

As the years roll by, the Centre continues to grow and experiment in various activities to keep up with a changing world, but this is as it should be!

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J. B. Newton....

I joined the Winnipeg Centre in the fall of 1958 at the age of sixteen, when my interest became aroused with the first launching of the Soviet Satellites. At this time I met Richard Bendell, who was involved with the Moonwatch programme. Moonwatch was an evaluation of the Smithsonian Institute to co-ordinate observing data on satellites. We did a lot of fantastic reporting also Richard took some excellent photographs of the Delta 1 satellite. These were published in Russia and he received a QSO card for his work. During 1962, I left Winnipeg for a year, but on my return I immediately rejoined the Centre and became involved once again with the Moonwatch programme.

Around 1969, when some of the members were making their own telescopes, I decided to make one for myself. The tedious task of mirror-grinding was started and subsequently my 12½-inch telescope became a reality, with the help of Frank Shinn.

The first eclipse expedition I organized for the Centre was the one in Mexico, 1970. We talked a good deal and finally, Dr. Scatliff, Tom Cairns and Family, Paul Moffat and a Mr. Steffenson from Denmark, got into our cars and were away to Mexico. We headed for Maihuatlan, an extremely interesting town, situated about dead center of the path of totality. It was super successful, probably the best in the world, because of the unbelievably blue skies.

There were many observational nights to be remembered but one in particular stands out in my mind. It was the lunar eclipse on a very cold night, -35°C, in January 1973. Willard Elliott and I attached a TV camera to the 12½-inch telescope and the whole eclipse was viewed on closed circuit TV. in the dining room. Some of us braver members dashed outside to photograph the

event.

The observatory I had built in Winnipeg had a 10 -ft dome which housed my 12 $\frac{1}{2}$ -inch telescope. It sat on the bottom of the garden which had a complete south-eastern exposure. (Janet, my wife, would never agree that the property was purchased for this reason). The time I was building the observatory there was some new construction work in the area. I would go out to the men in charge of the cement truck and invite them in for a beer, they in turn would drop some cement in my back yard. The observatory had a lovely cement floor!

When the light illuminations started to be a problem I made a trailer for the back of the car in which to carry my telescope out into the country. There was many memorable nights photographing the sky, in the company of Roy Belfield, out in the area of Sanford. One night while Roy and I were driving to Sanford, the mirror of my telescope worked itself loose and-- you guessed it. What a horrible feeling I experienced. Many weeks were spent grinding a new mirror to refit the tube of the telescope.

I have many fond memories of the Winnipeg Centre and its members, far to many to mention here. May-be one day a longer book will be written.

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Wm. Krosney...

My association with the RASC began in the summer of 1970. At that time the Winnipeg Centre was holding public observing sessions around the concourse of the Planetarium of the Manitoba Museum of Man and Nature. It was through a radio promotion that I first learned of this local organization of amateur astronomers, and that summertime observing session was my first taste of telescopes and astronomy. I became a junior member of the Winnipeg Centre shortly after where I enjoyed all the privileges of the older members without their responsibilities and duties.

It is perhaps inevitable that sooner or later anyone with an interest in astronomy desires a telescope of sorts, and I was no exception. I soon found myself a member of the Centre's telescope-making class and involved in a project that would be part of me in some

way or another for the next five years.

What I remember the most of these past few years is the gratification of showing the splendours of the heavens to the many school children. Being involved with the building of our observatory. The many enjoyable hours spent with friends like John Wunderlich, Don Hladiuk, and Hans Thater who share a common bond. After all, this is what the Winnipeg Centre of the RASC., is all about, the bringing together of people with a common interest.

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G. E. Bailey...

A fascination with the heavens and things astronomical can provide an interesting basis on which to meet people. As a member of the Society's Toronto Centre for the past ten years and a member of the Star Night Committee for three, I frequently had the opportunity to meet with interested groups to help nurture their newfound interest. Upon graduation from college, pressures of time and work reduced these opportunities, and I became content to spend evenings at home with my observatory and variable stars. Notice of an impending company transfer to Winnipeg in June 1976 shattered the tranquility of my observational activities, and I arrived here with mixed feelings of apprehension and anticipation.

It would seem that my fears were unfounded. I discovered a very friendly and open Centre. Just two days after my arrival, I was invited to sit in on one of the Belfield's famous informal basement chats. and met a half-dozen of the Centre's more enthusiastic members. The topic of discussion that evening was primarily about the new observatory project, and having experience with observatory construction, I was invited to participate.

The next two months passed with a flurry of activity. Many happy evenings and weekends were spent helping on the dome and at the site. These were punctuated with informal gatherings at the Belfield's and elsewhere. The sheer amount of activity that summer quelled any feelings of homesickness and helped me to settle in at my new home almost without realizing it. With the Autumn came the return of the regular monthly meetings

and my application for membership in the Winnipeg Centre.

There is much to be done in and about the Centre. Our regular meetings serve as the focal point for the exchange of knowledge while providing a relaxing atmosphere afterwards in which to compare notes and anecdotes. A pleasant choice of activities is available for participation, including organized observational expeditions, the production of Winnicentrics, public education, etc. The Observatory is expected to advance the Centre's position as a serious observational group. Indeed, it would seem that our activities are now limited only by the scope of our collective imagination.

Winnipeg Centre has been good to me. As a "new" member, I have received much encouragement from the membership to participate in a way that perhaps isn't possible in a larger Centre. I feel, moreover, that my case is not unique. The interest and encouragement shown to me is available to any member, new or old. Long may this be a function of our Centre.

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F. L. Richardson...

The concept of owning an astronomical telescope first came to light when I was thirteen years old. Consequently I ordered my first 'Do it yourself kit' after reading an advertisement in a Magazine. I was somewhat disappointed when the parcel arrived, either the publication was misleading or I was expecting too much, but all that I received was a small box filled with lenses and a set of inadequate instructions. Being young and in a financial dilemma, I started to scrouge all the necessary components, to add to my newly acquired lenses, and started to make a Reflecting telescope. I remember "borrowing" the downspout off my father's house for the main tube, fortunately, for me, the weather was quite dry that year.

As the years went by, my knowledge of telescope-making increased to such an extent that the decision to build a second instrument was made. I must admit that the second one is far more professionally constructed than the first.

It was through my interest in telescope-making that I became a member of the Winnipeg Centre of the RASC. There are many members in the Centre who, like myself, enjoy making astronomical instruments.

My next project was the building of an observatory. First the pier went in to a depth of 8-ft below ground and 3-ft above, we then mixed and poured the circular cement floor. The wall structure, which is all metal, supports the 12-ft aluminum dome. During rainy weather various parts of the dome was built in my basement workshop. After many trials and tribulations the observatory was completed to my satisfaction, the 8-inch Reflecting telescope was mounted on the pier and some observing sessions were planned. On one occasion members of the Centre held a wiener roast/observing night in my garden, we all had a most enjoyable evening.

Before I was able to utilize the observatory to any degree-- yes you guessed it-- we decided to move. The observatory was dismantled and reassembled at our new place of residence. It has taken a year to put the building into operation again. The joys of amateur astronomy!

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Editor's note:

On the following few pages are the recollections of Miss Ada Staples. These reminiscences are from the log book that she kept for many years.

We regret not being able to publish our little book before the lady passed away in May 1977.



Miss Ada Staples...

My interest in the stars dates as far back as I can remember. I was born on the prairies. My father was among the first land seekers who filed for a homestead south-east of where Oxbow now is and a few miles north of the U.S.A. border. In those early days, there were no roads, not even a trail. The north star guided any night travellers. When I was old enough I enjoyed the night skies with my mother, as did the older children and my younger brother, Robert. After some years, we (my parents and their eight children) moved to a farm ten miles north-east of where, it was expected, Oxbow would be built.

The years went on. I attended Saskatchewan University registered for one class in astronomy -- expecting there would be a few nights of sky observing. There was not one night. In the early Thirties, I accepted the principalship of the Carnduff School, twenty miles south-east of the Staples farm, teaching largely English Literature and Mathematics to Grades XI and XII. The work was heavy but I wanted to be near the Staples farm where, weather permitting, I went on weekends and holidays. A hobby and special delight was star-gazing where neither street lights, buildings or trees interfered. Then, too, at the farm I had a screened balcony room with a full view of the skies east and south and not seldom did I become as one of Chaucer's

"....smale fowles.....

That slepen al the night with open ye".

and our tall five-bedroom house (three stories) gave good viewing of the skies in every direction.

In the early Fifties, retired from teaching, I was at the farm and free to view the skies at my pleasure. I was anxious to become better acquainted with the well-known constellations and their governing stars, other stars and the naked-eye planets and know just where each would be at any hour of the night during each month of the year. Reading a copy of National Geographic, I noticed a foot-note advising persons interested in the night skies to refer to "The Heavens Above", by Donald H. Menzel. A friend gave me this July 1943 issue of the Geographic. I read "The Heavens Above" (more than twenty-five pages and copiously illustrated) with much pleasure and no little profit. I also contacted the Public Information Library of Regina and was rewarded with several books about the skies. Before many months, I was familiar with 43 constellations, as

many stars or more and the naked-eye planets. I soon became desirous of securing better binoculars than I had. The Winnipeg daily newspapers frequently gave information about the night skies. I noticed a star column by Dr. Robert J. Lockhart, Department of Mathematics and Astronomy, University of Manitoba. I wrote to Mr. Lockhart. He answered my letter at once, telling me of different types of binoculars, commenting on several sky wonders and listing important publications of the Royal Astronomical Society Of Canada. He also gave me information about the Winnipeg Centre of the RASC. I made further inquiries and received several letters from Dr. Lockhart. I quote from his letter of May 4, 1954:

"I must hasten to inform you of a liberty which I took at the last meeting of the RASC. Since you had inquired about membership, I went ahead and proposed your name."

As a result of Dr. Lockhart's proposal, I became a member of the Winnipeg Centre, I believe in May, 1954, or soon after. The binoculars which I purchased on the advice of Dr. Lockhart gave me my first view of the Andromeda Galaxy. I enjoy Winnicentric's, the Journal's information (if within my grasp), and the Observer's Handbook is with my bedside reading.

In 1965 it became necessary for my brother Arnold, a widower, to give up farming our six sections and we took up residence in Oxbow, where street lights, buildings and trees greatly spoiled night sky viewing. Unless we drove out of town on clear nights, we were no longer in tune with Shakespeare's line,

"This majestical roof fretted with golden fire."

I now live alone...Arnold died in 1969.... and do no night-driving by myself but, nevertheless, do some star gazing---none to the north from my own windows or yard because of street lights. Vega is still Queen of the summer skies. Morning and Evening stars, and some other stars, are not lost track of if they are in the night skies, and not to close to the horizon. Venus, an evening star in 1973, was a beautiful sight in the south-west. A line in my log book on October 28, 1973, Sunday at 9:45 p.m., says "Between 6 and 7 o'clock saw red Mars in the east, Jupiter in the south and Venus south-west. Lovely."

Some remarks through the years in my log books on what to me were unusual sights are:

"Monday, February 19, 1940. The radio has just told me that tomorrow night early, Jupiter and Venus will

be seen together in the east. On Friday night, February 16th, just at dusk, I saw the five naked-eye planets, strung like magic lanterns close to the western horizon and paralled with it. A wonderful sight." A few days later, I read that these five planets would not be seen again in the same position for 100 years.

"Sunday, November 20, 1955, 10 o'clock p.m. I came downstairs this morning at 5:45, stepped outside, the sky was quite and a little cloudy. I came in, breakfasted alone, put on my fur coat and went out again. The sky was changed, specially from the north-west to the north-east. Starting about 30 degrees from the horizon, great belches of what looked like impenetrable whitish smoke would shoot vertically upwards almost to the zenith, then for the infinitesimal fraction of a second the sky would clear and the performance would be repeated again and again. The phenomenon resembled the exploding of smoke from myriads of smoke-filled stoves on a tremendous, gigantic and awe-inspiring scale. I watched the spectacle, from both in-doors and out of doors, until it subsided -- about an hour. Often and often I have seen the Aurora Borealis in gorgeous and beautiful colours -- green, white, yellow, purple and rose, roll and shift in the northern sky even to the zenith or beyond and I was charmed and thrilled, but this display was different and more than a little disturbing." I expected to read something in the newspapers about the display but did not.

"Saturday, November 17, 1956 (Sunday at 2:30 a.m.): We've been watching the eclipse of the moon since 10 o'clock -- a wonderful sight. It is almost complete now. Stars are beautiful -- Orion, Sirius, the twinkling Pleiades -- everything."

"Saturday, April 20, 1957, 10:30 p.m. Beautiful clear night, have been out to view the comet -- went early when brilliant Jupiter was the only object to be seen in the sky -- remained out until the sky was full of stars -- saw no comet."

"September 22, 1957, after midnight. Looking from my bedroom windows, south and west, at 10 o'clock, the sky was most unusal. I went downstairs, calling Arnold on the way to come outside with me. We gazed in wonderment; we walked about; we stood in silence; we talked of displays of Northern Lights; but never had we seen anything like we were now witnessing." I expected to read of this Sunday evening sky in the newspapers and did. Dr. Lockhart wrote of it in the Winnipeg Free Press and Mr. Hodges in the Regina Leader. We agreed with their descriptions. On Monday, I tried to describe

the sky as we had seen it. I wrote on a loose leaf and put the leaf in my log book -- somehow it became mislaid or lost.

"Tuesday, August 12, 1958, 9:30 p.m. Had a beautiful sleep last night in my chairbed at the foot of the garden. The sky was magnificent; the perfume from the flowers delicious; the night sounds, far away and near, a delight."

Many fine passages in English Literature owe their charm or enchantment to star imagery or description of the beauty of the night. Though my choice of such writing is that of certain poets, I am going to close with a prose paragraph and a verse from the Bible:

"I went up to the window and stood a long while watching the Queen of the Night treading her path among the stars. I knew them well from many a sleepless night and one by one I called them by their names: The flaming Sirius, Pollux and Castor, beloved by the ancient mariners, Vega Arcturus, Aldebaran, Capella, Cassiopeia! What was the name of that luminous star just over my head beckoning to me with its steady, true light? I knew it well. Many a night had I steered my boat over angry seas, guided by its light, many a day had it shown me the way across snowfields and forests in the land of my birth -- Stella Polaris, the Pole Star! This is the way, follow my light and you will be safe!"

from the Story of San Michele by Axel Munthe.

"Canst thou bind the sweet influence of the Pleiades or loose the bands of Orion?"

Job 38. Verse 31

## CHAPTER 14

### A CENTRE IN THE MAKING

by Phyllis Belfield

Late in the Fall of 1975; the sound of the telephone ringing broke the tranquility of the evening. It was Mr. Paul Klassen, a member of the Winnipeg Centre, asking for my husband; Roy Belfield. It seems that Paul wanted us to go to Gretna, Manitoba on the following Sunday; and talk to a few people who were interested in the formation of an astronomical group there. Arrangements were made to meet on the Sunday, November 2, 1975, in a cafe outside the town; at 3:00pm.

It was a glorious day as we started on our 75 mile drive. As the miles slipped away; we spoke of Paul and the distance he travels to attend a meeting of the Centre. It can be a nice trip if the weather co-operate but winter time can be very treacherous; as Paul found out. On January 10, 1975; while attending a meeting of the Winnipeg Centre; a snow storm arose. We tried to persuade Paul to stay in the city for the night, but he wanted to try for home. Paul was found next morning, in the car by the R.C.M.P., who took him to the hospital where it was found that the body temperature had dropped to a dangerously low level. He was very lucky as " The Great Whiteout " that hit southern Manitoba that night, was one of the worst storms in many a year.

When we arrived at the cafe, which looked like something out of a movie set, Paul introduced us to a group of people from Gretna, and Nichi, North Dakota. There were many questions asked of Roy, the majority of which he was able to answer. The others were answered by his contacting the secretary at National Office, Toronto.

Questions, answers and still more questions went flying through the telephone wires; between the Belfield residence and National Office. Ms. Rosemary Freeman, as always, was extremely helpful. Paul Klassen was notified and brought up to date in regards to the inquiries that had been made, at the same time arrangements were made for Roy to give a talk, on Sunday, Nov. 9, 1975 at the Gretna Community Hall. If everyone uses the telephone, the way my husband does, I pity the historians of the future; when they try to piece the fragments of this era together.

Gretna is not a large place but when we arrived there



on Sunday, (Nov. 9th); we could not find the Community Hall. After a while some people took pity on us and directed us to the Ice Rink, where we found quite a number of people from both sides of the International Border. Roy gave a talk on the history of the Royal Astronomical Society of Canada after we had been introduced to everyone. When the lecture was over a lively discussion ensued with regards to the formation of a new RASC. Centre. They were advised of the procedure they would have to take, namely the electing of executive offices; after which, the elective president will write a formal request to National Office. During the discussions Roy was approached to stand for the office of president, which he declined because of the office he held in the Winnipeg Centre. Also with the distance involved; he felt he would not do justice to the group in Gretna, nor would we take part in the voting. By a unanimous decision Paul Klassen was voted to the office of President. The first act of the new President was to promptly close the meeting for coffee.

As the weeks went by; the weather brought a halt to our trips to Gretna but we kept in touch by telephone. Finally we received word that there were not enough members to constitute a new Centre in Gretna. At first there was disappointment, but they soon decided to continue as an international group, known as the Gretna and Nichi International Astronomical Association.

This small group of enthusiastic people are continuing to further themselves in their hobby of astronomy, with the help of people like Professor Robert Miller, who kindly gave a few weeks' course in basic astronomy, Various science teachers of North Dakota have also given lectures. Perhaps in the future, as their membership grows, we shall see them become a new Centre of -The Royal Astronomical Society of Canada.

## CHAPTER 15

### THE CENTRE'S MOSAIC

by Ella Dack

We come to the final chapter of our little history and there are still many aspects of the Centres' activities not yet told. There are many humorous incidents to relate, unfortunately not all can be included in one small volume, but do you remember:

- When the R.C.M.P. wanted to know what Alfred Falk and his group of meteor hunters were doing in the middle of nowhere at 2:00 a.m. "We are counting shooting stars, sir, honestly."
- When Frank Shinn went on a graze expedition and nearly missed it because he had to "bail" out his telescope from the local Cop shop, after he had temporarily left it unattended. "Telescope arrested for loitering!"
- The night Roy Belfield went observing in the country by himself, -- at least, he thought he was alone until he realized there were a few wild deer observing him. "Yes, I am sure they were the four-legged kind."

The Centres' participation in public or school programmes has grown considerable over the years. In the minute books there are references to members giving talks or observing sessions to various groups. It is unfortunate that there is no complete record of names of these individuals who gave so freely of their time and knowledge. To these people we are most grateful.

On occasions the Centre has been able to supply information to the R.C.M.P., such as when they wanted to know whether the brightness of the moonlight on August 28/29, 1964 was sufficient for surface visibility. We never did find out why they wanted this information.

Many members have constructed their own telescopes ranging in various sizes. Messrs. F. Richardson and P. Moffat are but two. There are also frustrating times for our telescope-maker. Mr. W. W. Wright tells us that he will never forget: "The day when the 12½-inch mirror I was polishing came up from the barrel full of scatches! When the mirror was first received it was noted that it had some bubbles. Apparently, one

of these bubbles had burst and became imbedded in the lap. While I was merrily polishing in the last stages the small particle was scratching away for all it was worth. That was the finish of the 12½-inch activity."

Before the opening of the Manitoba Planetarium the Winnipeg Centre was one source of astronomical information such as eclipses, grazes, etc., for the local newspapers. With the advent of Radio and Television, series of talks have been given from time to time, by various members using this media.

The Centre's meeting nights have always been varied and stimulating with numerous guest speakers. On one occasion Mr. Belfield auctioned off two telescopes that Mr. Shinn had donated for this purpose. We raised \$200.00 that evening. Astronomical movies have been another attraction for the members and their guests. The first time a movie was to be shown, (Nov 12, 1936), the projector broke down and --"Several perplexing moments were spent in trying to solve the laws of motions thereof, but all available astronomers were nonplussed when it came to solving the difficulties of such an inconsequential body." It was not recorded whether the problem was solved and the movie shown.

There are certain members in the Centre who take great delight in looking for telescopes of the past. While visiting the Taché Museum we found a 3-inch telescope with a 24-inch brass tube, made in 1899 and still in good condition. Another treasure belongs to a Mrs. Kreger. This telescope is all brass weighing about a hundred pounds and was made by the firm: Negretti and Zambra, The telescope belonged to the lady's late father, Mr. A. B. Anderson who had been a member of the Winnipeg Centre during the 1920's. Dr. Scatliff has a beautiful Gregorian telescope made in the late 18th century. The Centre owns a 4-inch brass telescope, it was purchased in 1923, and still gives excellent service.

The Centre has never enjoyed the privilege of a permanent mailing address or telephone listing. The both universities in the city, and the Planetarium has always been most helpful whenever interested parties made inquiries, at their establishments, about our organization.

With having no permanent address over the years, the Centre's records and library were moved from place to place until they ended up, in deplorable state, at the University of Manitoba. It was through the dedicated work of Phyllis Belfield, our librarian, who restored order out of chaos. This, of course, made the research work and the compiling of our history so much easier.

It was found that many of the years have incomplete records of the various meetings, and numerous small items, which were purchased by the Centre, have also been misplaced.

The Centre enjoys the close association with the two universities within our community. We owe much to the encouragement of professional astronomers such as Dr. Martin Clutton-Brock, Dr. Richard Bochonko and Prof. Robert Miller who are from the University of Manitoba, and to Dr. Don. Kydon and Dr. Don. Kerr from the University of Winnipeg, (Physics Dept.).

The Centre's Observatory at the Glenlea site is proving to be quite successful, judging by the number of inquiries that are received from the various schools around the city. We also know that the 5-inch Refractor, on loan from the University of Manitoba, has good Resolving power; even when cloudy. Seems our Observatory Director, Mr. Art Butterworth and Mr. Ronald Fonden, a member from Moorhead, Minn., were using the telescope to study the markings on some Canada geese while waiting for the clouds to disperse. Studying UFOs perhaps?

Thus we concluded our review of past events with some of today's happenings. As the Winnipeg Centre progresses, there is no telling what the morrow may bring but we cannot doubt that we are destined to travel far into the future.

APPENDIX 1

OFFICERS OF THE WINNIPEG CENTRE

1911 - 1977

HONORARY PRESIDENTS

1919-22	F. Powell	1961-69	Mayor S. Juba
1933-37	Dr.J.S. Plaskett	1969-70	Dr.F.A.L. Mathewson
1937-46	Mgr.T.W. Morton	1970-71	J.D. Herbert
1946-49	Dr.L.A.H. Warren	1972-74	Mayor S. Juba
1950-56	Dr.L.T.S. Norris-Elye	1974-76	Dr.H.E. Duckworth
1956-61	Dr.H.H. Saunderson	1976-77	G.T. Richardson

PRESIDENTS

1911-14	Dr.N.B. McLean	1941-43	L.W. Koser
1914-15	Dr.L.A.H. Warren	1943-44	V.C. Jones
1915-17	C.E. Bastin	1944-46	Dr.L.T.S. Norris-Elye
1917-18	F. Powell	1946-47	Miss O.A. Armstronge
1918-20	Dr.H.R. Kingston	1947-48	D.R.P. Coats
1920-21	Dr.L.A.H. Warren	1948-49	L.W. Koser
1921-22	N.R. Wilson	1949-50	H.E. Rasmussen
1922-24	Dr.H.B. Allen	1950-52	E.R. Gardner
1924-27	Rev.T.W. Morton	1952-54	D.R.P. Coats
1927-29	Mrs.E.L. Taylor	1954-55	V.G. Martens
1929-31	Dr.L.A.H. Warren	1955-57	Dr.R.J. Lockhart
1931-33	Dr.N.J. MacLean	1957-60	Dr.J.N.R. Scatliff
1933-34	A.W. Megget	1960-62	W.W. Wright
1934-35	D.R.P. Coats	1962-66	B.F. Shinn
1935-36	Dr.L.T.S. Norris-Elye	1966-69	Miss S. Nixon
1936-37	A.V. Pigott	1969-70	D.H. Gallagher
1937-38	W.H. Darracott	1970-72	J.B. Newton
1938-40	R.D. Colquette	1972-74	D.R. Stevens
1940-41	L.J. Crocker	1974-77	R.R. Belfield

VICE-PRESIDENTS

1911-12	C.E. Bastin	1915-20	J.H. Kolb
1912-13	Mrs.L.B. Ireland	1921-22	Dr.H.B. Allen
1913-14	Dr.L.A.H. Warren	1922-27	Mrs.E.L. Taylor
1914-15	H.C. Howard	1927-28	Dr.L.A.H. Warren

## OFFICERS OF THE WINNIPEG CENTRE

1911 - 1977

### VICE-PRESIDENTS

Cont...

1929-30	Dr.N.J. MacLean	1951-52	Miss O.A. Armstronge
1931-32	A.W. Megget	1952-53	V.G. Martens
1933-34	D.R.P. Coats	1953-55	Dr.R.J. Lockhart
1934-35	Dr.L.T.S. Norris-Elye	1955-57	G. Wiseman
1935-36	A.V. Pigott	1957-58	N.W. Wilde
1936-37	W.H. Darracott	1958-60	W.W. Wright
1937-38	W.H. Kolb	1960-62	B.F. Shinn
1938-39	W.R. Junkin	1962-64	J. Stewart
1939-40	L.J. Crocker	1964-66	P.M. Abel
1940-41	C.A.E. Hensley	1966-69	B.M. Rotoff
1941-42	V.C. Jones	1969-70	J.B. Newton
1943-45	Miss O.A. Armstronge	1970-72	J.W. Elliot
1946-47	A.P. Morse	1972-74	R.R. Belfield
1947-48	R.A. Storch	1974-75	A. Dyer
1948-49	H. Rasmussen	1975-76	H. Davis
1949-50	C.G. Card	1976-77	W. Krosney
1950-51	H.E. Rasmussen		

### 2nd VICE-PRESIDENTS

1933-34	V.W. Jackson	1960-62	J. Stewart
1934-35	J. Houston	1962-63	R.W. Stanger
1935-36	A.R. McCauley	1963-64	Dr.J.N.R. Scatliff
1936-37	J.H. Kolb	1964-66	B.M. Rotoff
1937-38	W.R. Junkin	1966-68	T.D. Cairns
1938-39	Miss O.A. Armstronge	1968-69	D.H. Gallagher
1939-40	G.P. Morse	1969-70	J.W. Elliot
1940-42	Miss O.A. Armstronge	1970-73	P. Moffat
1943-45	W.P. Johnson	1973-74	A. Dyer
1956-57	Dr.J.N.R. Scatliff	1974-75	P. Moffat
1957-59	J.L. Green	1975-76	J. Anderson
1959-60	B.F. Shinn	1976-77	D. Hladiuk

### Secretary-Treasurer

1912-15	C.E. Bastin	1924-26	H.B. Allen
1915-17	H.R. Kingston	1952-54	Miss M.E. Watterson
1917-18	Dr.J.W. Campbell	1955-56	G. Marcy
1918-20	D.T. Anderson	1956-65	T.D. Cairns
1920-21	H.R. Kingston	1965-67	R. Donner
1921-24	C.D. Miller		



OFFICERS OF THE WINNIPEG CENTRE  
1911-1977

Assistant Secretary-Treasurer

1955-56 Miss A.P. Rosenblat

Secretary

1911-12 C.V. Stout  
1926-28 Mrs.S.C. Norris  
1928-35 Mrs. J. Norris  
1935-36 W.H. Darracott  
1936-37 Miss K. St. John  
1937-38 C.P. Morse  
1938-45 Miss M.E. Watterson  
1945-46 C.G. Card  
1946-48 Miss B. Sharman  
1949-50 Miss P. Fox  
1950-51 J. A. White  
1951-52 A.J. Vincent  
1954-55 N. Lennox  
1968-69 J. Mohler  
1969-72 A. Luchik  
1972-73 Miss E. Dack  
1973-75 L. McQueen  
1975-77 Miss E. Dack

Treasurer

1911-12 F. Powell  
1926-28 H.B. Allen  
1928-29 D Saunders  
1929-36 J.H. Kolb  
1936-37 R.D. Colquette  
1938-39 L.W. Moser  
1939-44 R.S. Evans  
1944-45 Miss S Colquette  
1945-47 C.D. Dorsett  
1947-52 Miss M.E. Watterson  
1954-55 H.C. Greenberg  
1967-70 W.W. Wright  
1970-72 T.D. Cairns  
1972-76 F. Richardson  
1976-77 T.D. Cairns

Assistant Secretary

1926-28 C.F. Ellis  
1933-34 Mrs.J.C. Howey

Recording Secretary

1934-35 Mrs.J.C. Howey  
1948-49 Miss B. Sharman  
1954-56 A. Hill  
1956-58 Miss T. Tweedie  
1958-62 Miss I. Christie  
1962-63 Dr.J.N.R. Scatliff  
1963-68 J. Mohler

Press Secretary

1946-47 L.W. Koser  
1947-48 C.G. Card

Librarian

1966-70 Miss S. Nixon  
1971-72 Mrs.D. Robertson  
1972-74 L. Frostiak  
1974-75 Mrs.M. Richardson  
1975-77 Mrs.P. Belfield

OFFICERS OF THE WINNIPEG CENTRE  
1911 - 1977

Council Members

1911-12	Mrs.L.B. Ireland	1931-33	V.W. Jackson
1911-12	Mrs. Kemp	1931-32	R. McCalman
1911-12	R.C. Collins	1931-35	Dr.L.A.H. Warren
1911-19	Rev. J. Blain	1932-34	Mrs.H.M. Sweet
1911-14	H.C. Howard	1932-33	A.V. Thomas
1912-13	A. Findlay	1933-35	Dr.N.J. MacLean
1912-13	F. Powell	1933-35	C.E. Bastin
1912-13	J.G. Johnsson	1933-34	Dr.L.T.S. Norris-Elye
1913-14	Mr. Hugg	1933-35	A.V. Pigott
1913-15	H.W. Malpass	1933-35	F. Pugh
1913-15	J.H. Kolb	1934-35	A.R. McCauley
1914-17	F. Powell	1935-36	D.R.P. Coats
1914-17	N.B. McLean	1935-36	R.D. Colquette
1915-20	Dr.L.A.H. Warren	1935-36	Mrs.S.C. Norris
1916-20	J.W. Harris	1935-36	Miss O.A. Armstronge
1917-23	C.E. Bastin	1935-36	Mrs.J.C. Howey
1917-21	Mrs.J.C. Howey	1936-37	Dr.L.T.S. Norris-Elye
1917-18	Dr.H.R. Kingston	1936-39	M.F. Bennett
1918-19	F. Powell	1936-37	G.P. Morse
1920-21	H.B. Allen	1936-37	W.R. Junkin
1920-22	N.B. McLean	1936-38	P.H. Stokes
1920-21	H.E. Ritter	1936-37	Mrs.A.S. Willis
1921-22	C. Roy	1937-38	Miss M.E. Watterson
1921-22	S. Lowry	1937-38	Miss O.A. Armstronge
1921-22	E.J. Skajel	1937-38	C.D. Dorsett
1922-23	Dr.L.A.H. Warren	1938-39	A.V. Thomas
1922-29	J.H. Kolb	1938-39	Mrs. J.C. Howey
1922-23	G.K. Johnson	1938-39	L.J. Crocker
1922-23	A.W. Meggett	1938-39	G.P. Morse
1923-24	Rev. T.W. Morton	1939-41	Mrs. J. Norris
1923-28	C. Roy	1939-40	Miss O.A. Armstronge
1923-27	D.R.P. Coats	1939-46	Dr.L.A.H. Warren
1923-27	N.R. Wilson	1939-41	L.W. Moser
1924-27	Dr. N.B. McLean	1939-41	W.R. Junkin
1924-26	Mrs.S.C. Norris	1939-40	C.A.E. Hensley
1927-33	Rev. T.W. Morton	1939-40	L. McAllister
1927-31	A.W. Meggett	1940-41	Rev. Burke-Gaffney
1927-28	D.R.P. Coats	1940-41	V.C. Jones
1927-28	D. Saunders	1940-46	H.E. Riter
1928-31	C.E. Bastin	1940-43	A.W. Smith
1928-29	Dr.N.J. MacLean	1941-46	R.D. Colquette
1929-33	D.R.P. Coats	1941-47	L.J. Crocker
1929-31	Mrs.J.C. Howey	1941-43	C.A.E. Hensley
1929-36	Mrs.E.L. Taylor	1941-43	W.P. Johnson
1931-33	J. Houston	1941-43	A.V. Thomson

OFFICERS OF THE WINNIPEG CENTRE  
1911 - 1977

Council Members

Cont...

1941-43	P.G. Watts	1958-59	Mrs.E. Cranstone
1942-43	G.P. Morse	1958-59	G. Wiseman
1943-44	Miss M. Buckman	1958-59	B.F. Shinn
1943-44	D.R.P. Coats	1959-60	D. Lackie
1943-44	J.C. Mark	1959-60	B Pasicov
1943-47	R.A. Storch	1959-63	Dr.R.J. Lockhart
1943-44	L.W. Moser	1959-62	N.W. Wilde
1944-45	C.D. Dorsett	1959-60	J. Stewart
1944-53	V.C. Jones	1960-62	R.D. Bendall
1944-49	Mrs. J. Norris	1960-63	J. Mohler
1946-47	D.R.P. Coats	1961-63	R.W. Stanger
1946-50	Dr.L.T.S. Norris-Elye	1961-64	B.M. Rotoff
1947-49	Miss O.A. Armstronge	1962-64	F. Stimson
1947-48	L.W. Koser	1962-66	G. Welbanks
1947-48	H.E. Ritter	1963-66	Miss J. Anderson
1948-52	D.R.P. Coats	1963-65	P.M. Abel
1948-49	P.G. Morse	1963-65	J. Newton
1948-50	A.V. Thomas	1964-65	I.H. Dunlop
1948-49	E.R. Gardner	1964-67	R.J. Lockhart
1949-50	H.C. Fairfield	1964-66	Miss S. Nixon
1949-50	C.L. Card	1964-67	J.N.R. Scatliff
1950-52	C.G. Card	1965-67	T.D. Cairns
1950-52	Miss O.A. Armstronge	1966-69	H. Burgoyne
1950-51	Mrs. J. Norris	1966-69	R. Ellis
1951-54	F. Shanks	1967-68	W.W. Wright
1952-55	C.L. Card	1967-69	P.M. Abel
1952-53	A. Hill	1967-70	A. Falk
1952-56	H.E. Rasmussen	1968-69	D.H. Gallagher
1952-55	D.E. Sweeney	1968-71	D. Watts
1953-56	Miss O.A. Armstronge	1968-71	J. Mohler
1953-55	C.G. Card	1968-71	J.N.R. Scatliff
1953-54	T.R. McIntosh	1969-70	R. Bishop
1954-56	D.R.P. Coats	1969-70	K. Hatherly
1954-55	E. Frazer	1969-70	P. Moffat
1954-55	G. Wiseman	1970-72	B.M. Rotoff
1955-56	R.G. Lafleche	1970-71	H. Burgoyne
1955-56	E.W. McGreevy	1970-72	B. Dentry
1955-58	C.R. Punshon	1970-72	D. Stevens
1955-57	J.L. Green	1971-72	A. Lindsay
1955-56	J.N.R. Scatliff	1971-72	R.R. Belfield
1955-58	W.W. Wright	1971-74	J. Gould
1956-59	G.L. Sadler	1972-75	B.F. Shinn
1956-58	V.G. Martens	1972-75	J.N.R. Scatliff
1957-58	W. Johnsson	1972-74	Dr.R. Bochonko
1958-61	D.R.P. Coats	1972-73	A. Luchik

OFFICERS OF THE WINNIPEG CENTRE  
1911 - 1977

Council Members

Cont...

1972-73	C. Ried	1975-77	A. Butterworth
1973-75	H. Davis	1975-77	Mrs. P. Belfield
1974-76	W. Krosney	1976-77	F. Richardson
1974-76	H. Thater	1976-77	Ed. Dyer
1974-76	D. Hladiuk	1976-77	F. Dawson
1975-76	P. Moffat	1976-77	J. Wunderlich



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