



Supplement to the **JOURNAL**
of the **ROYAL ASTRONOMICAL**
SOCIETY of **CANADA**

ANNUAL REPORT 1974

APRIL 1975

PRESIDENTS OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

1890-1894	C. Carpmael	1936-1937	R. E. DeLury
1895	L. W. Smith	1938-1939	W. Findlay
1896-1897	J. A. Paterson	1940	J. A. Pearce
1898-1899	A. Harvey	1941-1942	F. S. Hogg
1900-1901	G. E. Lumsden	1943-1944	A. V. Douglas
1902-1903	R. F. Stupart	1945-1946	A. E. Johns
1904-1907	C. A. Chant	1947-1948	J. W. Campbell
1908-1909	W. B. Musson	1949-1950	A. Thomson
1910-1911	A. T. DeLury	1951-1952	C. S. Beals
1912-1913	L. B. Stewart	1953-1954	J. F. Heard
1914-1915	J. S. Plaskett	1955-1957	R. M. Petrie
1916-1917	A. D. Watson	1957-1959	H. S. Hogg
1918-1919	A. F. Miller	1959-1960	A. McKellar
1920-1921	J. R. Collins	1960-1962	P. M. Millman
1922-1923	W. E. W. Jackson	1962-1964	R. J. Northcott
1924-1925	R. M. Stewart	1964-1966	K. O. Wright
1926-1927	A. F. Hunter	1966-1968	M. M. Thomson
1928-1929	W. E. Harper	1968-1970	J. E. Kennedy
1930-1931	H. R. Kingston	1970-1972	H. Simard
1932-1933	R. K. Young	1972-1974	J. L. Locke
1934-1935	L. Gilchrist	1974-	J. D. Fernie

SECRETARIES OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

Corresponding Secretary 1890-1901; Secretary 1902-1919, General Secretary 1920-1949; National Secretary 1950 onwards.

1890-1899	G. E. Lumsden	1932-1935	R. A. Gray
1900-1901	W. B. Musson	1935-1958	E. J. A. Kennedy
1902-1917	J. R. Collins	1958-1964	J. E. Kennedy
1918-1919	W. E. W. Jackson	1964-1971	N. Green
1920-1923	A. F. Hunter	1971-1974	C. E. Hodgson
1924-1927	F. T. Stanford	1974-	D. J. FitzGerald
1928-1931	L. Gilchrist		

REPORT OF THE NATIONAL PRESIDENT

The highlight of the year for the Society, as in most years, was the Annual General Assembly, held in Winnipeg June 28-30, 1974. The Winnipeg Centre is to be congratulated on an excellently organized and well-conducted meeting. The fact that it was a joint meeting with the American Association of Variable Star Observers made it doubly beneficial for both organizations.

The finances of the Society, which, like so much else, have been hard hit in recent years by increasing inflation, are now in a much healthier situation since the increase in membership fees passed at the General Assembly of 1973. The National Council is only too aware that this increase was, and to some still is, a contentious issue, but there has seemed no escape from the inexorable pressures of rising costs. Indeed, although the Society's financial position now seems quite sound, it is clear that if inflation continues to increase, we shall again face difficulties in only a few short years.

A matter of increasing concern to the Council during 1974 has been the question of whether or not to dispose of the National Headquarters building in Toronto. Because of increasing deterioration due to age, the costs of upkeep of the building are becoming exorbitant, and Council must very soon decide whether or not to sell the property. Fortunately, it presently has considerable value as a commercial site. Concomitant with a decision to sell will be the question of where to re-establish the National Headquarters.

It is with regret that I report the death of two of our Honorary Members during the past year: Dr. G. van Biesbroeck and Dr. Gerald Clemence, both of the United States. Consideration of their replacements is presently before Council.

The Editor of the Society's Journal, Dr. Ian Halliday, after serving for five years in that capacity, has indicated his wish to resign, and a sub-committee of Council is now searching for a successor. We are much indebted to Dr. Halliday for his years of hard work in this post.

Throughout 1974 there was increasing concern on the part of some Society members that the historic Dominion Observatory building in Ottawa might be demolished in the not too distant future. The Council has twice expressed its concern over this possibility in letters to the appropriate authorities.

In conclusion, it is a pleasure to thank the officers of the Society, as well as those consultants who often work hard in an informal capacity, for their help in the running of the Society.

J. D. Fernie, Ph.D., *F.R.S.C.*

REPORT OF THE NATIONAL SECRETARY

1974 has been another year of extensive and varied activity by the Society's Centres across Canada as described in the reports which follow.

During the year Council Meetings were held in Toronto on January 26th, April 20th, and September 28th. The Annual Meeting was held in Winnipeg on June 28th in conjunction with the General Assembly and Council Meetings.

Membership in the Society at September 30th 1974 decreased by 8% compared to 1973. Comparative figures are listed below.

	1973	1974
Calgary	59	61
Edmonton	35	42
Halifax	31	33
Hamilton	74	66
Kingston	16	18
London	47	36
Montreal	127	139
La Societe D/Ast	53	54
Niagara Falls	31	31
Ottawa	186	206
Quebec	93	69
St. John's	15	11
Saskatoon	63	58
Toronto	760	647
Vancouver	99	112
Victoria	88	85
Windsor	29	45
Winnipeg	105	53
Unattached		
Canada	183	173
United States	408	369
Overseas	29	26
Honorary	14	14
TOTAL:	2545	2348

The Society gratefully acknowledges the receipt of annual grants from the National Research Council of Canada and the Ministry of Colleges and Universities of the Province of Ontario.

D. J. FitzGerald, *National Secretary*

REPORT OF THE NATIONAL LIBRARIAN

I am pleased to submit the following report on the activities of your Library committee during 1974.

The committee consisted of Mr. Peter Broughton, Mr. Ralph Chou, Mr. Cyril Clark and Dr. Helen Hogg, and was assisted by Moody Kalbfleisch who has spent many hours over the past years trying to keep our 16 mm film collection in good repair.

The Library's mail service continues to be well used by members, with requests coming from such diverse locations as St. John's; Nfld, Port Colborne; Ont.; Porcupine Plain, Sask; and Victoria, BC.

A number of additions were made to the book collection this year and a supplement to the Library catalogue was published in the early fall. However, the Library committee is concerned about the number of overdue books and would appreciate the membership's cooperation in returning them.

A major project started in the summer was the stencilling of the Dewey classification numbers on each book. Mr. Ralph Chou has completed extensive work on the slide collection and a revised catalogue is in preparation. Plans are presently underway to improve the slide collection and borrowing service during 1975.

Despite a series of strikes, arrangements to duplicate a copy of an excellent film made by Mr. Frank Shinn of the Winnipeg Centre was completed. Mr. Shinn's film describes the fabrication of a 12½-inch Cassegrain Telescope for Jack Newton, President of the Toronto Centre, and formerly of Winnipeg.

I should like to express my gratitude to all those mentioned above for their assistance during the year and particularly to Miss Rosemary Freeman, our hard-working Executive Secretary. I look forward to another year serving you as your librarian.

Harlan Creighton, *Librarian*

REPORT OF THE EDITOR OF THE NATIONAL NEWSLETTER

During 1974, a total of thirty-two pages of material was published by the Editorial Committee. The first half of the year, the Committee consisted of Mr. Norman Green as Editor; with Mrs. Marie Litchinsky, Dr. Ernest Seaquist and the writer as Assistant Editor.

At the General Assembly in Winnipeg, the resignation of Mr. Green as Editor was accepted by your Council with deep regret, as was that of Dr. Seaquist who was leaving the country for a year's sabbatical in Australia. A new Committee was then formed consisting of Mr. and Mrs. William Peters, Mrs. Marie Litchinsky, Dr. J. F. Heard and Mr. Norman Green as assistant editors, and the undersigned as Editor.

A major goal of the new committee was to increase the quality and quantity of the Newsletter and at the same time spread the work around more evenly. In the past, Mr. Green had borne the lion's share. As a result, Dr. Heard undertook to arrange for feature articles from distinguished Canadian astronomers; Mr. Peters accepted principal responsibility for obtaining material from the Centres and their newsletters; and Celeste Peters became our "layout editor", which includes typing the copy in a format acceptable to the printer. Finally, Mr. Green and I share general editorial duties. The result, we hope, has been a better *Newsletter*.

As Editor, I have been greatly impressed with the hard work of the committee and feel that all members of the Society owe them a sincere vote of thanks for their painstaking devotion. It has been a real pleasure to work with them.

To our many contributors, without whom the Newsletter would not exist, I am deeply grateful for their efforts. The Editorial Committee of the National Newsletter looks forward to serving you in the coming year.

Harlan Creighton, *Editor*

CALGARY CENTRE

The nine regular meetings of the Calgary Centre during 1974 were well attended. Four of these were held at the Centennial Planetarium, two at the University of Calgary and two at the Rothney Astrophysical Observatory at Priddis. We are indebted to the University of Calgary for the use of the facilities for the latter four meetings.

Speakers and topics were:

January	Annual Meeting and Election of Officers. Mr. Noel Lingford and Mr. Hank Langstaff: "Telescope Making Demonstration".
February	Brian Brookwell, Craig Dunbar and David Smith: "Student Forum".
March	Dr. Ross Lein, Biology Dept., University of Calgary: "Bird Navigation".
April	Mr. Paul Deans, exchange speaker from the Edmonton Centre: "Things You Were Never Told About Eclipse Chasing".
May	Astrophotography and Observing Night at the Rothney Astrophysical Observatory.
September	Mr. R. A. Nelson: "The Inner Planets".
October	Stargazing Night at the Rothney Astrophysical Observatory.
November	Dr. D. H. Kelley, Professor of Archaeology at the University of Calgary: "Mayan Astronomy".
December	Annual Banquet at the Blackfoot Motor Inn. Dr. Alan Clark gave an illustrated talk on "Ballooning, Ancient and Modern"; there was a Crazy Quiz by Marie Litchinsky, a Musical Quiz by Dr. D. J. I. Fry and a hilarious skit — "Trigor Mortis — Frontier Mortician", with idea and props by John Howell.

During the year, nine meetings of the Council of the Centre were also held.

Marie Litchinsky, *Secretary*

EDMONTON CENTRE

The Edmonton Centre held its regular meetings in the Queen Elizabeth Planetarium during the 1973-74 season. The first meeting was on October 15 at which time the new executive and council were elected. The Centre's Annual Banquet, in November, saw the presentation of the President's Award and the McBain Astrophotography Award. Seven council and seven regular meetings were held; the speakers and their topics for the regular meetings were as follows:

October	Paul Deans: "An Account of the June, 1973 Total Solar Eclipse Observed From the <i>S.S. Canberra</i> " — illustrated with slides. And Anthony Whyte: "An Account of the 1973 Eclipse Observed From the <i>M.S. Monte Umbe</i> " — illustrated with a color film and music.
November	Annual Banquet; Dr. Milton: "On Velikovsky and <i>Worlds in Collision</i> ".
December	Dr. Douglas Hube: "Comet Kohoutek"
January	(Cancelled due to inclement weather).
February	Dr. William Baker: "Development of the Lunar Excursion Module (LEM)".
March	Dr. David Crampton: "The Canada-France-Hawaii Telescope".
April	Barry Arnold: "The Design and Construction of Refractor and Reflector Optical Systems".
May	Bob Nelson, exchange speaker from the Calgary Centre: "An

Account of a Visit to the Jet Propulsion Laboratory (JPL)
During the Flight of Mariner 10".

In June the annual picnic and observing session were held at the Devon Observatory. The council of the Edmonton Centre held several meetings to plan the revival of *Star Night* after a hiatus of six years. *Star Night*, an annual joint R.A.S.C. — Queen Elizabeth Planetarium presentation, is a two day public program of displays, lectures, films and telescope observing. It was held in September, 1974.

Two Edmonton Centre members, Paul Deans and Anthony Whyte, travelled to Africa to observe the total solar eclipse in June, 1973. Mr. Deans also observed the 1974 eclipse in Australia.

Anthony J. Whyte, *Secretary*

HALIFAX CENTRE

1974 proved a busy year for the Halifax Centre. Membership held steady and the activity of individual members increased substantially. Our regular monthly meetings are characterized as follows:

January	Everyone, "Kohoutek Roundup"
February	Dr. E. W. Guptill, "Celestial Lighthouses"
March	Dr. David DuPuy, "Spectral Classification"
April	Dr. R. M. Cunningham, "The Early Days At D.D.O."
May	Dr. R. L. Bishop, "Observations on Unearthly Observations"
June	Dr. P. H. Reynolds, "On the Origin and Age of the Elements"
July	Mr. & Mrs. Beveridge host an observing session.
August	More observing
September	Dr. R. L. Bishop, "General Assembly and Stellafane"
October	Mr. W. Zukauskas, "The AAVSO"
November	Dr. G. A. Welch, "Observing Galaxies from the Southern Hemisphere"
December	Mr. Randall Brooks, "Multiple-Mirror Telescopes"

Dr. Bishop represented our Centre at the General Assembly, and, as President for 1975, will help the Halifax Centre host the 1975 General Assembly. The Junior Astronomy Society continues to flourish under the guidance of Randall Brooks. Monthly meetings and observing sessions were held throughout the school year.

W. P. Zukauskas, *Secretary*

HAMILTON CENTRE

This past year has been very active for the Hamilton Centre especially in the observatory project "Project Starlab". To this date the fund raising campaign has been moving slowly and the funds are at a low amount. However the prospects do look good and there may be a breakthrough by the time you read this report. We have two large corporations very interested in the project, and subject to economic situations there may be sufficient funds to carry on with the construction of the main building. To this date we have built a temporary housing for Centre activities and it is proving to be quite adequate.

The years activities have included the usual monthly meetings, held at the amphitheatre of the Physical Sciences Building of McMaster University the first Thursday of the month. These have been well attended mainly due to the quality of the lecturers. The Centre's other activities have also been well supported and the Discussion group has taken the lead in membership participation.

It used to be the ATM's, however it has fallen on poor times. (Maybe everyone has a telescope now). The observers group are now meeting on regularly planned dates, usually the end of the month and this has usually, of late, been clouded out.

Continued participation in the Niagara Frontier Council of Amateur Astronomical Associations (NFCAAA) has allowed the Centre to enjoy an exchange programme of speakers and periodicals. This has been excellent as a resource group to learn of new ways and means of disseminating the various pieces of astronomical information. Because of this association there has been excellent participation by members in various symposiums in the USA such as GLAS (Great Lakes Astronomical Symposium) and the Syracuse summer meeting. Such things as these help to make new friends and meet old ones, and learn new activities to engage in.

The big upcoming event for the Hamilton Centre is the Triannual Congress of the IUAA, which will be held at McMaster University at the same facilities as were used for the General Assembly. The only differences are, that the accommodations will be held in the mens residence and not the womens residence and that the Congress meets for a whole week and not a weekend. The date of this is July 27 to August 3, 1975. It will be attended by a host of members of the IUAA from around the world and as the Society is a member of the IUAA it is hoped that individual members will come out and meet the various celebrities of this international body. For those who went on various solar eclipse expeditions this will be a chance to meet some of the overseas persons that they met before. Further information will be appearing in the Green Pages of the Journal as the details become further developed. The current price estimate for the 8 days and 7 nights of activities is about \$190 which includes everything, from soups to nuts and the necessities.

P. Ashenhurst, *Secretary*

LONDON CENTRE

During nineteen seventy four we held eleven regular meetings at the University of Western Ontario and eight executive meetings.

Our fifty second year commenced with the second annual banquet early in January. Walter Kammrath received the first London Centre Merit Award for his contribution to amateur telescope making in the Centre.

Executive meetings were held monthly at which time our recording secretary-treasurer gave his humorous rendition of the previous meeting. The 1922 constitution of the Centre and the revised bylaws of 1955 were again updated and improved, being accepted at the September meeting of the executive of the London Centre and the council of the society.

Again this year the annual picnic and observer's meeting (executive meeting on the side) held in June at Gibbon's Park was a rare total success considering the numerous cloud formations that plague our area.

The Connors and Sharpe Astronomical Pilgrimage pedalled short of its mark when these enthusiastic cyclists had pedalled over 450 miles north from London to the National Assembly in Winnepeg. A pulled ligament stopped treasurer S. Sharpe at Sault Ste Marie and he returned.

The telescope makers were ambitious this year, the new 'Andreae' 16 inch f/13.5 Cassegrain Reflector with 10 inch guide scope was unveiled during the summer months for immediate use.

The "Astronomy London" Newsletter, while still going through extensive improvements by editor, Mr. M. Wallis, continued to print many pages of informative reading for the membership.

The program for the year was as follows:

- January 26 Second Annual London Centre Banquet; Dr. H. N. Plotkin, Dept. of History of Medicine and Science, U.W.O., "Conservatism of Copernicus."
- February 8 Michael Wallis, "E.E.I. Costa Rica Expedition – Comet Kohoutek."
- March 8 Dr. H. R. Kingston Memorial Lecture: Ron Lyons, U.W.O. Astro. Dept. "U Gem Stars – Dwarf Nova".
- April 12 Bryan Dragon, "Ancient Astrology and its Association with Astronomy."
- May 10 Martin Connors, "Planetary Exploration in the last decade."
- June 14 Dr. C. Sturch, "RR Lyrae Stars."
- July 12 Film Night "Evolution", "What on Earth", "Stranger than Science Fiction".
- August 9 Member's Night. Steven Sharpe. "Variable Star Observations", Michael Wallis." Observing Techniques."
- September 13 Gray Simons, UWO. Astro. Dept. "Scientific Applications of Televisions."
- October 11 Robert Hawkes, UWO Physics Dept. "Observation of Meteors with Television."
- November 8 Lindsey Davis, UWO Astro. Dept. "Dominion Radio Astrophysical Observatory."
- December 13 Peter Andrae, President. "Maksutov Telescopes and more of the same."

Eric J. Clinton, *Secretary*

LA SOCIETE D'ASTRONOMIE DE MONTREAL

Le Centre d'Astronomie de Montreal was very much disturbed by the death of the President Mr. Henri Simard. He was the heart of our Centre, his leadership, and experience are still missed by everyone.

The Board of Directors met 10 times during the year. Some of the decisions taken were: the amelioration of our magazine "Le Québec Astronomique"; project of an observatory in the south east part of Montreal – a piece of land has been bought for this purpose –; a movement to unite all French astronomy clubs in the Province of Quebec, our magazine to be the official journal for all clubs.

The membership of the Société d'Astronomie de Montreal for the year is 3 Life Members, 230 Senior and 138 Junior – a total of 372 a decrease since last year; of this 54 joined the R.A.S.C. and 25 La Société Astronomique de France. There are 60 amateurs who subscribe to our magazine "Le Québec Astronomie"

Our "Annuaire Astronomique de L'Amateur" (the Handbook) of 1000 copies were sold or distributed so we figure on printing 1500 next year.

A meeting was held every Tuesday night at the Botanical Gardens of Montreal, the average attendance being 60, these meetings consisting of lectures, films and sessions on polishing mirrors. About 65 mirrors were polished during the year so that now about one third of the members own's his telescope.

The Centre has been advised that due to illness in my family I am forced to resign as Secretary and that Rev. Maurice Provencher is now the new Secretary.

Rolland Noel de Tilly, *Secretary*

NIAGARA CENTRE

During 1974, the Niagara Centre continued its efforts to construct a Centre Observatory. Planning for this project progressed during the year and the neces-

sary incorporation of the Centre was nearing completion at the end of 1974.

During the year, we presented a number of public and membership Star Nights. Newspaper publicity of the public events produced excellent attendance.

Our regular Centre meetings were held at the Drummond Hill Library in Niagara Falls and were as follows:

- January 10 Election of Officers. Dr. John Percy, "Some Recent Discoveries Among Naked Eye Stars."
- February 14 Ken Chilton – "Some Unusual Astronomical Theories."
- March 18 Robert Pike – "Sunspots and Solar Observations."
- April 11 Film Night
- May 31 Field Trip to McLaughlin Planetarium.
- October 10 Robert Winder – Slides of the Moon, Planets and Star Fields.
- November 14 Dr. Rene Racine – "Importance of Globular Clusters in Astronomical Cosmology."
- December 12 Film Night

Robert C. Doran, *Secretary*

OTTAWA CENTRE

For the Ottawa Centre the year 1974 was a year of both progress and change. In the area of progress, the Council of the Centre was pleased to note that, for the first time in the Centre's history, the membership passed the 200 mark. This enlarged membership was reflected in increased attendances at both lecture meetings and the Observers' Group programs.

The major change in the Ottawa Centre in 1974 was in the site for our meetings. For many years the Ottawa Centre had enjoyed the hospitality of the Geophysical Building of the federal Department of Energy, Mines and Resources. With the transfer of the federal government's astronomical activities completely to the National Research Council and changes in the government's use of the old Dominion Observatory site, where the Geophysical Building was located, a change in meeting place was necessary. After examination of several alternatives, it was decided, in effect, to follow the government astronomers and, from September 1974, all meetings have been held at the Sussex Drive building of the National Research Council. After some temporary disruption in services such as the library, the new meeting locale has proven to be a very comfortable and convenient one.

The lecture program for 1974 was as follows:

- January 15 Annual Dinner Meeting, Dr. T. R. Hartz, Communications Research Centre, "Some Personal Impressions of the IAU Meetings and of Australia and New Zealand."
- February 20 Dr. G. A. H. Walker, Institute of Astronomy and Space Science University of British Columbia, "Television Sensors in Observational Astronomy."
- March 14 Dr. J. Popelar and Mr. J. Kouba, Dept. of Energy, Mines and Resources, "Application of Artificial Satellites in Geodesy and Geodynamics."
- April 5 Observers' Group Presentation, Karl Poirier on "U.F.O's – Improbable or Inscrutable."
- September 5 Dr. D. Sida, Carleton University, "Time, Relativity, and the Expanding Universe."
- October 21 Dr. P. B. Robertson, Dept. of Energy, Mines and Resources, "Giant Meteorite Impact Sites in Canada – A Pocket Guide to Their Identification."

November 20 Mr. M. R. Dence, Dept. of Energy, Mines and Resources, "Worlds in Collision — or Why Velikovsky Was Born Four Billion Years Too Late."

December 10 Film Night, "Horizon: Black Holes of Gravity."

In June the Centre participated in the official opening of the new central Ottawa Public Library with a display of amateur telescope equipment and astronomical literature which was well received by the public visiting the library.

The Observers' Group held regular, very well attended monthly meetings under the Chairmanship of T. E. D. Bean. Star parties at the Quiet Site and our North Mountain Observatory were popular activities and the 16-inch telescope at the latter site continued to be a centre for much photographic activity. Ten issues of the Centre's newsletter "Astronotes" were printed. Under the effective editorship of Rolf Meier, this publication has continued to attract an enthusiastic readership far beyond our own Centre as well as providing an expressive outlet for new ideas and reports of observational activities by our many amateur observers and telescope makers. The development of a new program aimed at helping young, new members of the Society was started and will ensure that the busy observational and constructional activities of the Observers' Group will be continued in the future.

Cathy Hall was the Centre's most active observer, winning both the Observer of the Year award and the Merit Award. Robert McCallum was given the Variable Star award for the most observations of variable stars. At Stellafane, Dave Penchuk continued the Observers' Group's reputation of success by winning the First Prize for a Compound Telescope with his 6-inch Cassegrain.

It was with great shock and regret that members of the Ottawa Centre learned of the sudden death, near the end of the year, of Hans Klinkenberg, a member of the Ottawa Centre for many years. Hans had served in various roles on Council and was acting president for several months in 1972. At the time of his death Hans was living in Oakville, Ontario. He will be missed by his many friends in the Ottawa Centre of the RASC.

E. H. Dudgeon, *Secretary*

ST. JOHN'S, NFLD. CENTRE

Officers for the year were as follows: R. Dodge, President; D. Russell, Vice-President; W. Hurley, Secretary; and P. Lockwood, Treasurer.

From the month of October 1973 to about February 1974 the greatest interest of the members was probably the Comet Kohoutek (1973f). During this time several members appeared on television and radio. Our President managed to take several pictures of this somewhat disappointing comet.

In May and August, N. Murray, described the successful conclusion of the Provincial Parks Astronomy Pamphlet project in which the Centre was involved. We were happy to hear that a project we had previously thought to be something of a failure had become a success. The pamphlet is called "The Newfoundland Sky in Summer".

There was only one sky session this summer. This must be improved.

A new six-inch Newtonian reflecting telescope was donated by S.J.S. Woods, which is a most welcomed addition to our others.

Mr. G. Dymond was chosen to attend the General Assembly in Winnipeg in 1974.

William Hurley, *Secretary*

SASKATOON CENTRE

The Saskatoon Centre has been busy during 1974, General Meetings are held once a month, and executive meetings are held once a month. Minutes are published in the newsletter.

Activities during the year included the General Assembly in Winnipeg. There our centre was awarded a plaque and gift certificate for the "Best Centre Display". Our display included the Astro-camera, photographs, exams of the astrophotography and theory class and their certificates of achievement as well as Gordon Patterson's book *Astrophotography*, and Doug Beck's telescope for which he was awarded the "Best Telescope made by a Junior".

Our second Annual Wiener Roast and Picnic was held in July in Diefenbaker Park. The evening started cloudy but the clouds soon disappeared, and some observing was done. August 10th was the night of the Meteor Shower Outing just outside the city. Members were having so much fun, very little observing was done.

An observing site three miles south of Saskatoon was secured for our use. Members are doing observing Saturday evenings, weather permitting.

Open house on Sundays and Wednesdays are bringing large crowds to see the Observatory. Group tours have been given on Friday but with the large number of interested people tours are now being given on Thursdays.

Classes in theory are held on Tuesdays. Astrophotography is held on Saturdays at the home of Gordon Patterson. A new class practical observing has just been started, and we look forward to a good year in '75.

Melodie Andrews, *Secretary*

TORONTO CENTRE

The year 1974 was a momentous one for the Toronto Centres of the society. I use the plural form centres deliberately because in 1974 we were, in a legal sense, two centres – the one that existed up to October 1, and the second that was born on that date when the 18 members of the council met to bring to fruition the lengthy processes involved in applying for and finally realizing the reorganization of the Toronto portion of the society as the Toronto Centre incorporated. As of October 1 all of the members of the unincorporated centre became (or had the right upon payment of the proper dues to become) members of the incorporated centre, and the assets, liabilities, and we trust the good will, of the old centre.

Our membership at the end of the 1974 fiscal year, on 30 September, stood at 684, comprising 448 ordinary members, 165 student members, 36 life members (a total of 649 members of the national society attached to our centre), plus an additional 35 persons as associate members of the centre.

During the fall the council held six meetings and the executive committee met on several additional occasions, mainly to iron out some of the complex and often troublesome details involved with our incorporation. Eighteen regular meetings of the membership were held, including an open house at the David Dunlap Observatory and a joint meeting with the Royal Canadian Institute. The programme follows:

January 11 Members' Night, Discussion on Comet Kohoutek, followed by special presentation of McLaughlin Planetarium Show, the Comet Connection.

January 25 Annual meeting, followed by showing of a portion of a CBC television programme, a Comet's Tale, featuring Dr. Helen Hogg; and a film about the construction of Jack Newton's Cassegrain telescope.

- February 8 Prof. Roger Leclaire, Laurentian University, Sudbury, "Distance in Astronomy".
- February 22 Members' Night. Richard Berry spoke on construction of his observatory. Also film, Skies of the Andes.
- March 8 Prof. Stillman Drake. "Galileo's Place in Astronomy".
- March 22 Meeting at Ontario Place. Talk by Ian McLennan, "How to Sell the Universe."
- April 5 Members' Night. Chris Smith. "Photographing the Southern Milky Way".
- April 26 Prof. Derek Sida, Carleton University. "Time, Relativity and the Expanding Universe".
- May 10 Members' Night. Film, About Time.
- May 24 Bill Herbst and Barry Madore. "The Spiral Arms in the Milky Way: Two Views.
- June 7 Members' Night, Martine and Richard Normandin. An audio-visual presentation on the construction of an amateur telescope. Also a planetarium show, Stars, Bears and Dragons.
- September 13 Dr. Donald A. MacRae. "The Canada-France-Hawaii Telescope."
- September 27 Open House at the David Dunlap Observatory.
- October 25 Dr. John Percy. "Ancient Astronomy: Fact and Fantasy."
- November 15 Dr. Tom Bolton. "Black Holes and Other Stars that Go Bump in the Night."
- November 22 Members' Night. Robert Pike, Richard Berry and Herb J. Koller reported on observing activities.
- November 30 Joint Saturday night meeting with the Royal Canadian Institute. Dr. Peter Millman, Ottawa. "The Environment on Other Worlds."
- December 13 Members' Night. Audio-visual presentation on the Winnipeg General Assembly by Vern Ramsay and D. J. FitzGerald. Also planetarium show, The Bethlehem Star.

In addition to these regular meetings, a Centre picnic was held on 24 August at the Albion Hill Conservation Area with some 40 members and friends in attendance followed by an evening of observing with eight telescopes.

The Centre again sponsored an Astronomy Club Day, on November 16, in which nearly 100 students from Toronto area high schools participated. The program included several seminars at the McLaughlin Planetarium, an illustrated talk on astro-photography by Jack Newton, a presentation of the planetarium show, Probing the Planets, and a visit to York University to view astronomical research facilities there. Mrs Ann Scott convened the event with assistance from several Centre members and the C.A. Chant Astronomy Club of Don Mills Collegiate. They reported 57 programmes were held from June to August in which more than 4,000 persons participated.

The Observational Activities Committee was rather inactive in the early part of the year when Mr. Raymond Thompson found it impossible to find sufficient time to continue as group director, but activity was reactivated in the autumn when Robert Pike was appointed chairman. Three programmes in particular are being stressed: A study of Jupiter's "surface" features, observations of three variable stars (delta Cephei, RX Leporis and W Orionis), and a survey of light pollution by means of hand-held sky-brightness photometers. An observer's manual has been prepared to cover each of these fields. Other observations included Comet Kohoutek, meteors, solar flares, grazing occultations, an occultation of Venus, Messier and deep-sky objects. Reports on these and on plans for current observing activities appear regularly in 'SCOPE.

The Study Group under chairman Ian McGregor held 17 two-hour Saturday sessions during the year which were attended by both advanced and new members.

Five of the sessions in the spring were held in co-operation with the Toronto Board of Education with more than 40 Grade 6 to 9 students and a number of Boy Scouts taking part in addition to our members.

The Optical Workshop in the McLaughlin Planetarium operated at maximum capacity during the year with an average of one mirror being completed each week. These ranged from 4 to 10-inch diameter and a 12½-inch Newtonian has been started. Assistance has been given to two Toronto high-school groups and one from Sudbury in completing optics for school projects. A small blast furnace has been built to produce aluminum castings. New grinding and polishing benches are to be added, and it is expected the workshop will be in use one evening a week, in addition to Saturdays, in the new year.

The Public Education Committee under Ralph Chou arranged several events early in the year in connection with Comet Kohoutek including lectures at various libraries and similar locations. The Centre shared a booth with the Youth Science Foundation at the Canadian National Sportsmen's Show in March and our exhibit included posters, telescopes and a demonstration of mirror grinding. Only one public star night was held, in Huron Park, Mississauga.

In conclusion, we regretfully record the deaths during the year of Dr. Andrew Thompson, a Past President of the Society and former Councillor of the Centre; of W. V. Wilkins, an active member for many years who had returned to his native England, and of Jim Kemp, for several years one of the most active members of the Centre, who passed away in Vancouver.

Frederic L. Troyer, *Secretary*

VANCOUVER CENTRE

In 1974, seven regular meetings of the Vancouver Centre were held in the Centennial Auditorium at the H. R. MacMillan Planetarium. In addition to these, two meetings were held out of town, in Victoria and Seattle, and a third was organized as a joint meeting of six nearby astronomical societies and groups.

The meeting in Victoria on March 8th was through the kind invitation of the Victoria Centre. A full busload of Vancouverites took in a tour of the Dominion Astrophysical Observatory before assembling at the University of Victoria to hear Dr. Tatum and Mr. Stillbourne's address "Condors and Comets".

In June, the Centre travelled to Seattle for a joint meeting with the Seattle Astronomical Society. After numerous talks were exchanged, the Centre was treated to a tour of the Pacific Science Centre.

Four members of the group were successful in taking in the annual Riverside Telescope Makers Convention in California on May 24/25th. Their experiences with the many telescope enthusiasts prompted them to begin construction on a lightweight and economical 15" telescope, now nearing completion.

The annual General Assembly in July attracted a good attendance from Vancouver this year. Many members took the opportunity to incorporate the Assembly into their regular holiday plans and visit many Planetariums and Observatories between Vancouver and Winnipeg.

On October 6th, the Centre was privileged to host a joint meeting of the Seattle, Tacoma, Portland, Victoria and Spokane astronomical Centres and Societies. In addition to an exchange of talks from representatives of the groups, we had as our guest speaker, Mr. Terrence Dickinson, Editor of Astronomy Magazine. Mr. Dickinson spoke on recent Jupiter information and results in amateur astrophotography. Following this extremely enlightening talk, the 178 delegates were treated to the H. R. MacMillan presentation "Paradox of Infinity".

Throughout 1974, the Centre newsletter NOVA has continually improved to become an entertaining and informative monthly bulletin. We find observational

AUDITOR'S REPORT

MORRIS ALTMAN

CHARTERED ACCOUNTANT

95 KING STREET EAST

TORONTO 1

CANADA

To the Members and Council of
The Royal Astronomical Society of Canada.

I have examined the statement of financial position of The Royal Astronomical Society of Canada as at December 31, 1974 and the statements of revenue and expense and equity for the year ended on that date. My examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as I considered necessary in the circumstances, except as hereinafter noted.

The receipts of the Society, because of their nature, are not susceptible to complete verification by audit procedure and are therefore shown in the accompanying statement as they have been recorded in the books of the Society. My verification of these items was limited to a comparison of recorded receipts with bank deposits.

In my opinion, subject to the limitation in the scope of my examination as noted in the preceding paragraph, the accompanying financial statements present fairly the financial position of the Society as at December 31, 1974 and the results of its operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Morris Altman

Chartered Accountant.

Toronto, Canada,
May 5, 1975.

THE ROYAL ASTOR
LA SOCIETE ROYALE

STATEMENT

AS AT

(With comparative figures)

	<u>1 9 7 4</u>	<u>1 9 7 3</u>
<u>A S S E T S</u>		
<u>Current Assets</u>		
Cash	\$19,490	\$ 8,863
Term deposit	2,000	2,000
Accounts receivable	\$ 8,209	13,994
Less: Allowance for doubtful accounts	<u>200</u> 8,009	-
Marketable securities (at cost)	3,019	3,019
Accrued bond interest	197	190
Prepaid expenses	<u>30</u>	<u>257</u>
	\$32,745	\$28,323
<u>Special Funds</u>		
Ruth Northcott Memorial Fund (per statement)	8,647	\$ 7,861
<u>Fixed Assets (at cost)</u>		
Land	\$17,000	\$17,000
Building	17,500	17,500
Office furniture and equipment	5,465	5,190
Apartment equipment	<u>1,378</u>	<u>1,213</u>
	\$41,343	\$40,903
<u>Less: Accumulated depreciation</u>	<u>12,821</u>	<u>11,995</u>
	28,522	\$28,908
<u>Library (nominal value)</u>	100	\$ 100
	\$70,014	\$65,192

APPROVED ON BEHALF OF THE COUNCIL

J. D. FERNIE **PRESIDENT**

C. G. CLARK **TREASURER**

ROYAL ASTRONOMICAL SOCIETY OF CANADA
 SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA

STATEMENT OF FINANCIAL POSITION

AS AT DECEMBER 31, 1974

(Comparative figures as at December 31, 1973)

	<u>1 9 7 4</u>	<u>1 9 7 3</u>
<u>LIABILITIES AND SURPLUS</u>		
<u>Current Liabilities</u>		
\$ 8,863	Accounts payable and accrued charges	\$ 5,058
2,000		\$ 5,801
13,994		
-	<u>Deferred Revenue</u>	
3,019	Membership fees for ensuing year	\$ 6,428
190	Advance subscriptions for Journal and Handbook	19,560
257	Prepaid advertising	2,320
\$28,323	Unappropriated life membership fees (per statement)	<u>5,050</u>
		33,358
\$ 7,861		<u>\$33,556</u>
	<u>TOTAL LIABILITIES</u>	\$38,416
		<u>\$39,357</u>
\$17,000	<u>Ruth Northcott Memorial Fund Reserve</u>	8,647
17,500		\$ 7,861
5,190		
1,213	<u>Equity</u> (per statement)	22,951
\$40,903		17,974
11,995		
\$28,908		
\$ 100		
\$65,192		<u>\$70,014</u>
		<u>\$65,192</u>

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA

STATEMENT OF GENERAL REVENUE AND EXPENSE

FOR YEAR ENDED DECEMBER 31, 1974

(With comparative figures for 1973)

<u>REVENUE</u>	<u>1974</u>	<u>1973</u>	
Membership fees			
R.A.S.C. Centres	\$11,285	\$ 8,854	<u>REVENUE</u>
Individual members	6,349	4,787	Rentals for
Life membership reserve - annual appropriation	491	416	
	\$18,125	\$14,057	
Grants and Donations			<u>EXPENSE</u>
Government of Canada - annual grant	\$ 5,000	\$ 5,000	Property tax
Province of Ontario - annual grant	1,000	1,000	Heating
Miscellaneous donations	46	510	Light, gas and
	6,046	\$ 6,510	Maintenance
Publications			Insurance
Journal of the R.A.S.C.	\$ 6,039	\$ 5,714	Depreciation
Observer's Handbook	30,691	20,910	Depreciation
Reprints and publication fees	8,651	3,930	
Advertising	1,870	1,725	
	\$47,251	\$32,279	
Less: Agents' discounts	5,106	3,068	
	42,145	\$29,211	
R.A.S.C. Building (per statement)			
Excess of revenue over expense	633	\$ 1,187	
Miscellaneous Revenue			<u>EXCESS OF REVENUE</u>
Interest earned	\$ 469	\$ 419	
Insignia sales	21	36	
	490	\$ 455	
<u>TOTAL REVENUE</u>	<u>\$67,439</u>	<u>\$51,420</u>	
<u>EXPENSE</u>			
Publications	\$42,575	\$39,511	
Office salaries	10,503	8,906	
Postage and shipping	2,347	1,651	
Stationery, printing and supplies	1,533	892	
General and office expenses	1,325	885	
Telephone	332	300	
Canada pension plan and unemployment insurance	242	163	
Library accessions	247	321	
Annual life membership allotment to Centres	492	456	
General assembly and travelling expenses	1,265	656	
Supplementary incorporation costs	-	300	
Medals and awards	122	78	
Bank charges and exchange	996	443	
Depreciation of office furniture and equipment	250	223	
Bad debts	233	326	
<u>TOTAL EXPENSE</u>	<u>62,462</u>	<u>\$55,111</u>	
<u>EXCESS OF REVENUE OVER EXPENSE (EXPENSE OVER REVENUE)</u>	<u>\$ 4,977</u>	<u>(\$ 3,691)</u>	

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA

STATEMENT OF BUILDING REVENUE AND EXPENSE

FOR YEAR ENDED DECEMBER 31, 1974

(With comparative figures for 1973)

		<u>1 9 7 4</u>	<u>1 9 7 3</u>
1 9 7 3			
\$ 8,854	REVENUE		
4,787			
416	Rentals for space not occupied by the Society	\$ 4,563	\$ 4,324
<u>\$14,057</u>			
\$ 5,000	EXPENSE		
1,000	Property taxes	\$ 1,102	\$ 1,005
510	Heating	1,011	770
<u>\$ 6,510</u>	Light, gas and water	265	216
\$ 5,714	Maintenance and repairs	870	481
20,910	Insurance	106	106
3,930	Depreciation of building	438	438
1,725	Depreciation of equipment	<u>138</u>	<u>121</u>
<u>\$32,279</u>			
3,068	TOTAL EXPENSE	3,930	\$ 3,137
<u>\$29,211</u>			
\$ 1,187	EXCESS OF REVENUE OVER EXPENSE	<u>\$ 633</u>	<u>\$ 1,187</u>
\$ 419			
36			
<u>\$ 455</u>			
<u>\$51,420</u>			

STATEMENT OF FIXED ASSETS AND ACCUMULATED DEPRECIATION

AS AT DECEMBER 31, 1974

		<u>ACCUMULATED DEPRECIATION</u>		
		<u>COST</u>	<u>Balance Dec. 31/73</u>	<u>Depreciat'n For Year</u>
\$39,511				
8,906				
1,651				
892				
885				
300				
163				
321				
456	Land	\$17,000	\$ -	\$ -
656				
300	Building	17,500	7,313	438
78				
443	Office furniture and equipment	5,465	3,566	250
223				
326	Department equipment	<u>1,378</u>	<u>1,116</u>	<u>138</u>
<u>\$55,111</u>		<u>\$41,343</u>	<u>\$ 11,995</u>	<u>\$ 12,821</u>
7 (\$ 3,691)				

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA

STATEMENT OF EQUITY

FOR YEAR ENDED DECEMBER 31, 1974

(With comparative figures for 1973)

	<u>1 9 7 4</u>	<u>1 9 7 3</u>
Balance at beginning of the year	\$17,974	\$21,600
Excess of revenue over expense (expense over revenue) for the year	<u>4,977</u>	<u>(3,600)</u>
Net equity at end of the year	<u>\$22,951</u>	<u>\$17,974</u>

STATEMENT OF UNAPPROPRIATED LIFE MEMBERSHIP FEES

Balance at beginning of the year	\$ 4,041	\$ 3,900
<u>Add</u> : Life membership fees received during the year	<u>1,500</u>	<u>1,500</u>
	\$ 5,541	\$ 4,400
<u>Deduct</u> : Appropriation to general revenue for the year	<u>491</u>	<u>400</u>
Balance at end of the year	<u>\$ 5,050</u>	<u>\$ 4,000</u>

STATEMENT OF RUTH NORTHCOTT MEMORIAL FUND

Balance at beginning of the year	\$ 7,861	\$ 6,000
<u>Add</u> : Proceeds from Estate of Ruth J. Northcott	-	-
Public contributions	-	-
Interest earned	<u>786</u>	<u>786</u>
Balance at end of the year	<u>\$ 8,647</u>	<u>\$ 7,786</u>
Composition of fund: Cash	\$ 1,384	\$ 1,384
Securities	7,000	7,000
Accrued interest	<u>263</u>	<u>263</u>
	<u>\$ 8,647</u>	<u>\$ 7,786</u>

REPORTS OF TREASURERS OF CENTRES

	Calgary	Edmonton	Halifax	Hamilton	Kingston	London	Montreal	Centre d'Astronomie Montreal	Niagara Falls
REVENUE									
Membership Fees	\$ 597.50	\$617.50	\$240.00	\$ 605.00	N	\$393.50	N	N	\$252.50
Life Member Grants	36.00	4.00	12.00	12.00	O		O	O	
Donations				10.00	T	4.00	T	T	
Educational Activities		56.00		5.13	R		R	R	
Interest & Dividends	165.52	19.98	2.19		E	12.13	E	E	5.69
Sales of Handbooks Net	42.00	18.00	21.00	12.00	P	6.20	P	P	9.00
Advertising					O		O	O	
General Assembly	59.00		64.00	140.00	R		R	R	
Miscellaneous	57.50	200.00		122.80	T	50.82	T	T	
Total Revenue	\$ 957.52	\$914.48	\$339.19	\$ 906.93	T E D	466.65	T E D	E E D	267.19
EXPENDITURES									
Fees Remitted to N.O.	355.50	381.30	160.50	363.00	D				
Library	6.00					\$228.00			\$208.50
Meetings & Newsletters	124.27	31.38	89.62			25.00			
Annual Dinner-net	50.00	184.50				251.60			74.60
General Assembly	59.00		100.00	220.00		38.91			
Equipment & Supplies		1.25	28.76						
Office Administration		14.32							
General Expense & Audit		7.00	1.20						
Educational Activities									
Insurance									
Awards & Donations	20.00								
Operating Expense-Observatory									
Miscellaneous	74.58	43.62		315.68		47.57			9.81
Total Expenditures	\$ 689.35	\$663.37	\$380.08	\$1472.74		591.08			204.54
Surplus or (Deficit on Operations)	268.17	251.11	40.89 D)	565.81 D)		\$124.43 D)			\$230.26 D)
Balance from 1973	\$ 475.18	\$586.36	\$117.51	\$ 686.33		236.49			437.76
Balance to 1974	\$1745.46	\$837.47	\$ 76.62	\$ 120.52		\$112.06			\$207.50
Other Assets									

REPORTS OF TREASURERS OF CENTRES

	Ottawa	Quebec	St. John's	Saskatoon	Toronto	Vancouver	Victoria	Windsor	Winnipeg
REVENUE									
Membership Fees	\$ 267.50		\$ 117.50	\$ 571.25	\$ 2033.50	\$ 1352.50	\$ 892.50	\$ 575.15	\$ 650.00
Life Member Grants				4.00		56.00	120.00		8.00
Donations				1.00				4.00	
Educational Activities	155.00			131.25			314.11	84.00	
Interest & Dividends	240.22				362.69	90.58	204.36		9.03
Sales of Handbooks Net	21.77			138.65		23.50	33.00	5.25	8.00
Advertising	27.00								
General Assembly				42.00	99.40	160.00	290.25		12228.43
Miscellaneous	510.77					734.24			114.00
Total Revenue	\$1222.26		\$ 117.50	\$ 888.15	\$ 2495.59	\$ 2416.82	\$ 1854.22	\$ 668.40	\$ 2017.46
EXPENDITURES									
Fees Remitted to N.O.	\$ 160.50		\$ 70.50	342.75	888.00	454.50	556.30	322.50	390.00
Library	149.47		9.98		1026.86	423.10	14.76	52.07	72.36
Meetings & Newsletters							281.92		
Annual Dinner-net									
General Assembly				57.00	384.00	166.00			
Equipment & Supplies	43.24			288.10			105.99		
Office Administration	151.50					44.60	134.48		
General Expense & Audit	46.00					300.00			
Educational Activities	.82					215.62	164.50	93.10	
Insurance									
Awards & Donations									
Operating Expense-Observatory			10.25		302.38	7.80	27.00	54.73	
Miscellaneous								35.20	160.73
Total Expenditures	551.53			\$ 689.85	\$ 601.24	\$ 1611.62	\$ 1284.95	\$ 557.60	\$ 623.09
Surplus or (Deficit on Operations)	\$ 670.73		26.77	200.30	105.65 D)	805.20	569.27	110.80	1394.37
Balance from 1973	\$ 1717.56		\$ 54.02	\$ 75.09	\$ 14329.74	\$ 1299.83	\$ 3274.45	\$ 176.58	\$ 158.67
Balance to 1974	\$ 2888.29		\$ 80.79	\$ 275.39	\$ 14224.09	\$ 2105.03	\$ 3843.32	\$ 287.38	\$ 1553.04

astronomy being more keenly pursued by several members of the Centre despite a considerable corroding of the weather at untimely points throughout the year. We look to 1975 with hope and expectation for a prosperous observing year.

David Hurd, *Secretary*

VICTORIA CENTRE

The regular meetings of the Victoria Centre were held at The University of Victoria through the kindness of the University Authorities. A total of seven meetings were held in 1974 and the Council held eight meetings to plan the lectures and to conduct the business of the Centre.

The speakers and topics at the regular meetings were:

- January 11 Annual Meeting and Dinner – Dr. J. L. Climenhaga showed slides of his recent trip to Poland and Japan.
- February 13 Dr. A. C. Gower, “Radio Galaxies”
- March 10 Joint Meeting in Victoria with Vancouver Centre, which included a visit to the Dominion Astrophysical Observatory. Dr. J. B. Tatum – “Of Comets and Condors”.
- April 10 Activities Night. Exhibits and Films.
- October 6 Joint Meeting with Vancouver Centre at the H. R. McMillan Planetarium. Mr. T. Dickinson, Editor of Astronomy Magazine – “A New Look at Jupiter”.
- November 13 Dr. A. P. Cowley, “Are there Black Holes in Binary Systems?”
- December 11 Panel Discussion. Members – Dr. F. I. Cooperstock, Dr. B. Harris, Mr. E. E. Bridgen, and Mr. F. Younger.

In addition, a series of lectures in July and August made up this year’s “Summer Evenings under the Stars”.

Again this year, the Centre maintained a booth at the Hobby Show held in the Spring by the Victoria Lapidary Society and also looked after a booth at the Dominion Astrophysical Observatory on Saturday evenings when the Observatory has been open to the public.

Mr. George Ball was on duty at the University of Victoria each Saturday evening, weather permitting, for observing sessions. Also, through his leadership, several members have completed mirrors during 1974.

Membership of this Centre for 1974 consisted of 11 life members and 71 regular members.

Martin Shepherd, *Secretary*

WINDSOR CENTRE

The Windsor Centre held 8 regular meetings, 2 Council meetings and 1 field trip in 1974. A brief resumé of each monthly session follows:

- January 15 In order to operate more successfully, the Windsor Centre divided itself into 3 major work groups: (1) Observational Activities (2) Publicity and Publications, and (3) Meeting Organization.
- February 19 Gary Drouin presented a slide and tape show on “The History of the Telescope”.
- March 19 An interesting speech on the “Spectrograph” was given by Bert Huneault and Jim McTavish presented a film on “Electromagnetic Waves”.
- April 16 Buying a sunfilter for the St. Clair College telescope was discussed and Cameron McEwan gave a talk entitled “Time on Mars”,

- as well as Mario Fabris' excellent Tour of the Solar System, a talk which dealt mainly with Saturn.
- May 11 A field trip to the radio telescope at Stinchfield Woods, Michigan.
- June 18 Questions were raised about viewing the occultation of Venus by the Moon, July 17, 1974, and Brian Dorrepaal led a discussion on Bode's Law.
- September 16 The new observing schedule was explained by Gary Drouin and Heather Hurst presented a talk on Galaxies along with slides.
- October 15 Henry Lee gave an interesting talk on Space Colonization followed by Bert Huneault's fascinating presentation on the Sun.
- November 19 Election of officers for 1975. Mario Fabris presented an education talk on "Artificial Satellites" followed by a "Journey through the Universe" by Gary Drouin.

Heather Hurst, *Secretary*

WINNIPEG CENTRE

The Winnipeg Centre held seven general monthly meetings, one secondary, and three Executive Council Meetings from January to October, 1974. The general and secondary meetings were held at the Fletcher – Argue Building, University of Manitoba, chaired by Mr. Del Stevens, President, and on two occasions by Mr. Roy Belfield, Vice President. Winnipeg's Centennial Year kept the membership occupied with the project of hosting the General Assembly. Most of the membership were involved in one or more of the various planning committees. The Local Planning Committee, chaired by Professor Richard Bochonko, and later by Mr. Frank Shinn and Mr. Robert Miller, are to be congratulated for their efforts, which produced the successful convention. Mr. Frank Shinn's idea, 'Centrascope '74', proved to be beneficial to all in attendance. It is hoped that 'Centrascope' will be included in future assembly programmes.

Other active groups are, the Winnipeg Centennial Observatory Committee, the Observing Committees, and the Programming Committee.

Activity concerning manned and unmanned space flight is of special interest to Mr. Don Hladiuk and Mr. Hans Thater. They have kept the membership informed on present and past space programmes through the pages of our newsletter Winnicentrics.

The general meeting guest speakers were secured by Mr. Herb Davis. The Programme Committee of Mr. William Krosney, Hans Thater, and Don Hladiuk have supplied continuity starting in October.

The programmes for the year were:

- January 11 Mr. Willard Elliot – video tape presentation of the African Solar Eclipse of June 30, 1973.
- February 8 Dr. Ian Cooke – Science on Less Than a Shoestring, Occultation and Graze Reports by Mr. Frank Shinn and Professor Richard Bochonko.
- February 15 Mr. Jim Gould – Planetarium Show
- February 28 Public observing session of the Mars occultation.
- March 8 Dr. John B. Rice – Politics of Canadian Astronomy. Reports of the Mars Occultation and the Joint Meeting of the RASC and AAVSO by Mr. Frank Shinn. Mr. Roy Belfield – Membership participation for the General Assembly.
- April 19 Professor Robert J. Lockhart – Geometria Universalis (flat or curved). Mr. Alan Dyer – observing report of Comet Bradfield.

- May 10 Mr. B. F. Shinn – Boy Scouts, the President of the BAA, Polaris and All That. Film – The Search for the Tunguska Meteorite.
- June 28 to
- July 1 The Royal Astronomical Society of Canada 1974 General Assembly held Jointly with the American Association of Variable Star Observers.
- July and
- August summer observing
- September 13 Dr. John N. R. Scatliff – Solar Discussion. Summer observing reports. Slide show of the General Assembly – contributors were Mr. E. W. Dyer, Alan Dyer, Mrs. Phyllis Belfield and Dr. John Scatliff. Mr. Paul Moffat – Observatory Fund report.
- September 20 Wiener roast held at the residence of Mr. Frank Richardson.
- October 11 Dr. Richard Bochonko – Dust to Dust – The Evolution of a Star. Annual reports of Chairmen. Annual Elections. The junior membership proposal.

Lewis J. McQueen, *Secretary*

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA OFFICERS AND COUNCIL OF THE CENTRES FOR 1975

CALGARY CENTRE

Honorary President – Dr. T. A. Link

President – Glen Reed, 1118 Ninea Rd., N.W. T2K 2P1

Vice-President – Ulrich Haasdyk, 3123 - 48 St., SW, T3E 3X6

Secretary – Mrs. Marie Litchinsky, 314 - 12th St., N.W. T2N 1Y5

Treasurer – G. Lee Robertson, 3112 - 5th St., NW, T2M 3C9

Recorder – J. Brian Clarke, 2085 - 19 Ave. NW, T2M 1C1

Librarian – Fran Muir, 1718 - 27 Ave. SW, T2T 1G8

Editor – F. John Howell

Council – C. Treleven, Ruth Guengerich, Dr. D.J.I. Fry, Dr. Alan Clark,
Dr. T. Swaddle, E. Ellis, J. Findley, Noel Lingford, R. A. Nelson

National Council Representative – John Findlay

EDMONTON CENTRE

Honorary President – Prof. E. S. Keeping, A.R.C.S. 8703 Saskatchewan Dr.

Past-President – Dave Bruner, 9401 - 154 Street

President – Gary Prideaux, 5435 - 113A Street

Vice-President – Barry Arnold, 9624 - 85 Avenue

Secretary – Anthony Whyte, 7103 - 112 Street

Treasurer – Christine Kulyk, 15407 - 80 Avenue

Editor – Paul Deans, 9263 - 148 Street

Director, Educational Activities – Franklin Loehde, 11107 - 63 Street

Social Committee Chairman – Audrey Loehde, 11107 - 63 Street

Librarian – Tom Morrison, 9210 - 159 Street

Member-at-Large – John Hault, c/o Queen Elizabeth Planetarium

Observers' Group Representative – Eric Peterson, 5307 - 90A Avenue

National Council Representative – Franklin Loehde

HALIFAX CENTRE

President – Dr. Roy Bishop, Acadia University, Wolfville, N.S.

Vice-President – Mr. Peter Edwards, 8 Sullivans Hill, Bedford, NS.

Secretary – Dr. P. Reynolds, Dept. Physics, Dalhousie University, Halifax

Treasurer – Mr. Bill Sheppard, 1122 Tower Rd, Halifax

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The Chant Medal of the Society was established in 1940 in appreciation of the great work of the late Professor C. A. Chant in furthering the interests of astronomy in Canada. This medal is awarded, not oftener than once a year, to an amateur astronomer resident in Canada on the basis of the value of the work

which he has carried out in astronomy and closely allied fields of original investigation. Awards have been made to the following:

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