

**THE
ROYAL ASTRONOMICAL
SOCIETY OF CANADA 1968
ANNUAL REPORT
1969**



**SUPPLEMENT TO THE JOURNAL
May 1970**

REPORT OF THE PRESIDENT
(covering the period May 1969 to May 1970)

The 1969 General Assembly was held in Toronto with many of the events scheduled in the spacious facilities of the McLaughlin Planetarium. Under the chairmanship of Dr. John Percy, assisted by an enthusiastic planning committee of the Toronto Centre, an excellent weekend of varied activities was enjoyed by a large number of members. It was the first time that the Annual Meeting was held as part of the General Assembly program which was made possible under the terms of Letters Patent incorporating the Society. The success of this innovation was evidenced by the active participation of members in this business session.

Late in July, the Society suffered a severe loss in the death of our Editor, Miss Ruth J. Northcott. Her service to the Society in the offices she filled on Council, on the Executive, and on special committees, was one of dedication to the improvement of our organization for the benefit of astronomy. Her friends and associates have established, as a permanent tribute to her memory, the Ruth Northcott Memorial Fund with the income from this designated for special projects of the Society which Ruth would have considered most worthy of support.


The Society appreciated, and indeed was fortunate, that Dr. J. F. Heard, Dr. Helen S. Hogg, Dr. Ian Halliday and Dr. John Percy carried through the onerous tasks of editing the Observer's Handbook for 1970 and Journals issued during the latter half of 1969. It is gratifying to announce the appointment by Council early this year of Dr. Halliday as Chairman of the Editing Committee, and Editor of the Journal, Dr. Percy as Editor of the Observer's Handbook, and Mrs. Marie Fidler as Assistant to the Editor.

I welcomed the opportunity in 1969 of visiting eleven of our Centres in western Canada and Ontario and through these contacts I gained a better understanding of the problems and contributions of the members of each group. It was encouraging to have a new Centre established in Saskatoon, and it is anticipated that the Halifax Centre will soon be re-activated.

At the end of March, government astronomy in Canada was consolidated under the National Research Council and a new Astrophysics Division was established. The Society was capably represented by Dr. Jack Locke, our second Vice-President, at the meetings leading to the formation of SCITEC. This new organization should, in time, influence significantly the development of science policy in Canada, in particular, as it relates to astronomy.

In the past year, the successful achievement of a manned lunar landing was a spectacular event. The Apollo missions, followed by research on the lunar samples by scientists of many laboratories, have added to the detailed knowledge of our satellite. As present and future experiments uncover new information, the origin and evolution of the moon will be better understood.

As we look forward with anticipation to the 1970 General Assembly in Edmonton, members will welcome again this opportunity to review their astronomical activities of the past year and hopefully formulate plans for the year ahead. I thank all members who have served on Council and on the Executive for the support which I have received during my term of office. The assistance of Mrs. Marie Fidler as our efficient Executive Secretary and of Dr. J. F. Heard, who has generously acted on my behalf in the daily operation of the Society, is most gratefully acknowledged.


J. E. Kennedy
President

REPORT OF THE NATIONAL SECRETARY

Throughout the past calendar year the Society has experienced steady growth and increased activity in several ways.

In September we were pleased to welcome a seventeenth Centre when the Saskatoon Astronomical Society applied to join the R.A.S.C.

During 1969 meetings of the Council were held on February 1st, March 29th, May 16th and September 26th. In addition, the Executive Committee met on March 29th, September 3rd, and November 22nd. The Annual Meeting of the Society was held in Toronto on May 17th and was chaired by the President, Professor J. E. Kennedy.

At the end of the membership year, September 30th, the total number of members in good standing was 2,571 including 136 Life Members:

Calgary	49	Ottawa	194
Edmonton	57	Quebec	105
Hamilton	87	St. John's	16
Kingston	7	Toronto	781
London	59	Vancouver	117
Montreal	161	Victoria	97
Centre d'Astronomie	125	Windsor	43
Niagara Falls	24	Winnipeg	93
 Unattached			
Canadian	165	Foreign	27
United States	349	Honorary	15

The General Assembly was held in Toronto from May 16th to 19th with the Toronto Centre members acting as capable hosts. All gatherings were held in the McLaughlin Planetarium and University of Toronto; two programs in the Star Theatre of the Planetarium formed a part of the very successful Assembly. Details of Society meetings and events during the Assembly were recorded in the June issue of the JOURNAL.

During the past year 25 Membership Certificates were presented to members of the Montreal, Toronto, Ottawa and Hamilton Centres. There was no recipient of the Gold Medal and no Service Awards were presented in 1969.

Last year marked the sixtieth anniversary of the Hamilton Centre. Special events included a banquet on January 15th at which Dr. and Mrs. J. F. Heard, Miss R. J. Northcott and Mrs. M. Fidler represented the National Society. In addition, a special issue of "Orbit", the Centre's breezy news booklet, was published and much emphasis was placed on observational activities with gratifying results.

Of great importance to the Society was the Federal Incorporation and the finalization of the Constitution of the Society. Concluding details of these lengthy proceedings were completed at the National Council meeting in February.

A great loss to the Society occurred in the death of Miss Ruth Northcott, Past President and Editor of publications. In her memory a special fund was established to be known as the Ruth Northcott Memorial Fund and throughout the last several months of 1969 contributions were received from many individuals and Centres of the Society. A complete list of members who died during 1969 follows; the sympathy of the Society is extended to the bereaved:

Dr. Jules Aneckstein (Montreal)	G. H. Marcoux (Winnipeg)
Paul W. Bennington (Hamilton)	J. McKenzie (Hamilton)
Mrs. Shirley Dickson (Hamilton)	Miss Ruth J. Northcott (Toronto)
W. S. Mallory (Hamilton)	

It is with grateful thanks that the Society acknowledges the debt owed to the Executive Secretary, Mrs. Marie Fidler, who, with efficiency and despatch carried out the detailed daily functions of the National Office.

All officers and members of the R.A.S.C. have revealed a high degree of cooperation and industry throughout the past year, and the thanks of the Society are expressed to all those who in various ways continued and enhanced the many facets of astronomical endeavour across Canada.

Norman Green, *Secretary.*

REPORT OF SECRETARIES OF CENTRES

CALGARY CENTRE

The Centre held nine regular meetings and nine Council meetings during the past year. The regular meetings except for the dinner and banquet were held in the Calgary Centennial Planetarium. Speakers and subjects were:

January – Dinner and film.

February – Mark Haughan: “Radio Source Spectro.”; Dave Cluett: “Getting Acquainted with Deep Sky Objects”.

March – D.R.B. Coats: “William Proctor, Famous Amateur Astronomer”.

April – George Cumming, Ph.D.: “Isotopes to Determine the Age of Rocks”.

May – J. Howell: “Astronet” and description of use of standard colour chips to co-ordinate observers’ descriptions of the Mars disk plus a film on Mars.

September – J. Howell: “Report of the General Assembly and Visit to David Dunlap Observatory”; T. Swaddle, Ph.D.: “The Recent Mariner VI and VII Probes of Mars”.

October – The Planetarium staff presented pictures of Mars taken by Mariners VI and VII and Bob Nelson and Larry Gilchrist demonstrated the projection equipment of the theatres.

November – Annual Banquet; J. E. Kennedy, M.Sc., National President: “The History of Solar Eclipses” and film of the 1954 eclipse expedition.

December – G. Hodgson, Ph.D.: “Organic Matter in the Cosmos”.

June 7 and 8 the Centre held observing nights of Mars; this was most successful, attracting over 1300 visitors.

The Observing Group met on Friday nights during the summer, weather permitting.

(Mrs.) G. Cahoon, *Secretary*.

EDMONTON CENTRE

The term of 1968/69 began with the annual banquet at the Bonnaventure Motor Hotel on October 18 and was attended by 39 members and guests. The speaker was Dr. Jacobs of the University of Alberta. The new executive and council were elected at this meeting.

Two awards were presented. The presentation of the McBains trophy for astrophotography was made by Mr. Millar of the McBains Camera Ltd. to David Roles for his excellent entry on the lunar eclipse of April 12, 1968. A ten-dollar award which was offered by the past president, Mr. Allin, was presented by Mrs. Allin to student member Brendon Veilleux for his winning entry in the Messier Object contest.

During the year we held eight regular meetings at the University of Alberta Math-Physics building and Council met on seven occasions at the Queen Elizabeth Planetarium. Instead of a regular June meeting, a picnic was held at the University’s Devon Telescope site.

The revival of the Observers Group could be termed the major accomplishment of the year. Thanks to the cooperation of the Planetarium staff, we were able to start informal meetings there in October 1968. The beginning was modest but by the end of the year participation had risen to about 20 persons. These meetings, combined with the enthusiasm of the junior group, resulted in the planning of Star Nights on April 25 and 26 at the Woodcroft Community Hall and the Queen Elizabeth Planetarium. However, the worst snowstorm of the season arrived on these dates and the turnout was poor.

Our Centre was represented at the 1969 General Assembly in Toronto by the President, Mr. Angus Smith, the Secretary, Mr. Ralph Haeckel and Mr. and Mrs. Franklin Loehde. Our invitation to host the 1970 General Assembly in Edmonton was accepted by the National Council and plans are well under way.

Features at the past year’s regular meetings were:

October 18, 1968 – Annual Banquet; J. A. Jacobs, Ph.D.: “Geomagnetism, Condwannaland and Genetics”.

November 18 – S. Reed: “The Planet Earth”.

December 9 – Barry Brown: “Photoelectric Measurements of Variable and Double Stars”.

January 13, 1969 – W. Cable: “Ten Years in Space”.

Annual Meeting

February 10 – G. Cumming, Ph.D.: “The Age of the Solar System”.

March 10 – E. S. Keeping, B.Sc.: “Quasars and Pulsars”.

April 12 – D. Fry, Ph.D.: “Yardsticks of the Universe”.

May 12 – J. Grant, B.A.: “The Field of Meteor Observations”.

September 8 – David Roles: “Mariner 6 and 7”; Film: “Apollo XI”.

Ralph Haeckel, *Secretary*.

HAMILTON CENTRE

The Centre held eight monthly meetings and four Council meetings during the year. The following is a brief outline of the meetings:

January 9 – A. Freeth: “Pulsars”; R. McCallum: “Quasars”.

February 6 – Junior Night.

March 6 – “Teach-in” on the Observer’s Handbook; Film: “Apollo 8”.

April 3 – R. Clippinger: “Golden Age of Astronomy”.

May 1 – Norman Green, B.A., L.Th.: “Planetariums – Past and Present”.

October 2 – Annual Meeting and election of officers; R. Lang: Slides on the Centre’s Field Night; Film: “America in Space – First Decade”.

November 6 – V. Evanochko: “Report on Stellafane Trip”; A. Freeth: “Celestial Navigation”.

December 4 – R. Lang: “History of the Hamilton Centre in Solar Eclipse Expeditions”.

As well as the above activities, the Centre held a chess tournament over three evenings. A banquet was held on January 15 to celebrate the 60th anniversary of the Centre. The Discussion Group held eight meetings with about 20 members attending. The Telescope Makers met 23 times and have been working on the equipment for the March 7 Solar Eclipse. Again this year, a picnic was held during the summer, this time at Rattlesnake Point Park.

Peter H. Ashenurst, *Secretary*.

LONDON CENTRE

The London Centre is pleased to record an increase in its membership in 1969. Meetings were held in Room 7 of the Natural Sciences Centre of the University of Western Ontario. An observing group, telescope-making group, and Junior group have been formed. The programs for the year were as follows:

January 30 – Movie Night: “The Radio Sky” and “Surveyor I”.

February 27 – W. H. Wehlauf, Ph.D.: “The U.W.O. 48-inch Telescope”; Ron Lyons: “Handbook Study”.

March 22 – Star Night: Occultation of the Pleiades (at the 6-inch dome, Natural Sciences Centre).

March 27 – J. L. Locke, Ph.D.: “The H. R. Kingston Memorial Lecture”.

May 8 – C. Coutts, Ph.D.: “Astronomy in Italy”.

June 26 – Members’ Night: Speakers were B. Hunter: “Astrophotography”; A. Markus: “An Amateur Observatory”; E. Borra: “Neutron Stars”.

August 28 – Movie Night: “Universe” and “To the Edge of the Universe” followed by a Star Night at Fanshawe Park near London.

September 3 – A. H. Batten, Ph.D.: “Stars in Whirlpools”.

October 16 – J. F. Heard, Ph.D.: “Navigation – Applied Astronomy and Hobby”.

November 20 – J. E. Kennedy, M.Sc., National President of the R.A.S.C.: “Some Contributions of Canadian Scientists to Solar Eclipse Expeditions”; Murray Strankay, B.A.: “Handbook Study”.

In addition, Observing Group Meetings were held in April, July and December.

Enrolment at the Centre was 59, consisting of 1 life member, 20 regular members, and 38 student members.

O. Dubas, *Secretary*.

Annual Meeting

MONTREAL CENTRE

The Montreal Centre continued its regular program of monthly public meetings in the fiscal year just ended, a total of eight such meetings being held, either in the Macdonald Physics Building of McGill University or – on two occasions – at the Dow Planetarium.

The Annual General Meeting was held on Thursday, October 17, 1968. Mr. J. E. Guimond, a founding member of the Montreal Centre, made the generous presentation of a set of astronomical photographs to the Centre's library.

At this general meeting the slate of officers presented by the nominating committee was duly elected and an auditor was appointed for the Centre's finances. Upon completion of the regular business of the Society, the film "The Invisible Planet" was presented, followed by a social hour.

The second meeting of the year was held on November 14 at the Dow Planetarium and featured the annual Townsend Lecture. The distinguished guest speaker on this occasion was Dr. Peter van de Kamp, Director of the Sproul Observatory of Swarthmore College in Pennsylvania. Dr. van de Kamp, discoverer of the planetary system of Barnard's Star, spoke on the subject: "The Search For Extra-Solar Planets".

The December meeting was held on Monday, the ninth, in order that a special showing for our members could be arranged at the Dow Planetarium. The program was the Planetarium's regular Christmas offering, "The Star of Bethlehem."

On January 16, 1969, four films were shown: "The Search For Extra-Terrestrial Life," "New Windows Into Space," "Apollo/Saturn – The Giant Step," and "The Flight of Apollo Seven."

On February 13, T.F. Morris, Ph.D., of the Institute of Theoretical Physics at McGill University, and current president of the Montreal Centre spoke on "A Survey of the Universe."

On March 13 another group of films was presented: "And Of Course You," "The Search For the Tunguska Meteorite," and "Apollo Eight – Journey Around The Moon."

Films were again on the program for the meeting of April 10, when "Our Nearest Star," "Universe On A Scratchpad," and "Project Apollo" were shown.

The final meeting of the season was held on Thursday, May 8. The speaker on this occasion was J.D. Fernie, Ph.D., of the David Dunlap Observatory of the University of Toronto. Dr. Fernie's subject was "Determining Astronomical Distances By Cepheid Variables."

In addition to its formal monthly meetings, the Montreal Centre – with the active cooperation of the City of Westmount – also conducted a successful Star Night in Westmount Park on Friday, September 19. Almost twenty telescopes were in continuous operation from 8:00 to 10:00 p.m., trained on ten different celestial objects. An estimated 700 people attended.

Donald D. Davis, *Secretary*

Report from the Director of the Observatory

The Observatory has seen a very busy year: there were 51 regular public Saturday evening meetings, 50 Wednesday observation meetings, four meetings of the Board of Directors and the Christmas party.

All told, the Observatory was used on 337 occasions by 2292 persons.

For several meteor showers the observers have used the field behind the Observatory, with the building itself serving as a base and shelter.

The photography section has almost finished its darkroom facilities in the downstairs workshop. The radio section has acquired some more equipment and is hardpressed for space; the bookshelves have been expanded.

W. Jutting.

Annual Meeting

Report of the Director of Observational Activities

While all visual observations are dependent on the weather, each field of observation has its own peculiar problems.

In this report I have to confine myself to very brief comments on the activities of the various sections of the Observation Committee.

Transient Lunar Phenomena The Apollo missions added interest and excitement to the Transient Lunar Phenomena program, for observation schedules were arranged to coincide with the dates of the Apollo missions. Co-operating in an international program, Mme. J.P. Jean organized a group of Montreal observers which included members of both the Montreal Centre and le Centre d'astronomie de Montreal. Seven members of our Centre participated. Because of its association with the Apollo missions, the program received considerable publicity in the local press and on radio and television. *Lunar Occultations* The Lunar Occultation Section had another highly successful year, with 20 observers reporting a total of 346 successful timings. Dr. George Fortier and Karl McNamara were outstanding contributors. In his annual report, Chairman Charles Good says the highlights of the past year were undoubtedly three passages of the moon over the Pleiades. Two of these were successfully observed – December 30, 1968 and March 22, 1969. *Planetary Observations* There was an encouraging increase in the number of reports received on planetary observations last year, due in part to the introduction of a "checklist" type of report form for Jupiter and Saturn, to be used as a supplement to or a substitute for the regular form which requires a drawing. The most regularly observed planet was Jupiter. Nine observers contributed a total of 61 reports. Ten observers submitted a total of 25 reports on Saturn. Keith Hebil made a series of 14 drawings of Mars, and four other observers contributed. In all, thirteen observers contributed a total of 106 reports on the three planets. *Telescopic Solar Observations* According to Chairman Keith Hebil, ten observers made a total of 629 telescopic observations of the sun during the past year. Four observers, namely Tom Byrne, Keith Hebil, Walter Jutting and Vic Williams, were again responsible for the bulk of the observations. The Chairman has done some analysis of the reports received from our members and is also cooperating with solar observers of the Ottawa Centre in establishing a national solar patrol within our Society. *Naked-Eye Solar Observations* Seven members observed the sun for sunspots large enough to be seen without optical magnification. Robert Venor, Chairman of this Section, advises that reports submitted during the past year totalled 620 sunspots on 498 days. *Aurora Borealis* The aurora program is essentially a patrol program, the observers keeping a watch on the sky and reporting any auroral display that occur. Ron Harvey, Chairman of the Section, reports that during the past year, 18 observers submitted a total of 2076 reports. Of these, however, 1998 reports were negative, the other 78 being descriptive reports of 13 displays observed in this area. *Comet and Nova Search* Chairman Vic Williams reports that during the past year seven members made a total of 557 observations with the aid of binoculars of 21 assigned areas of the sky in the search for comets and novae. A monthly summary of the observations of this Section is sent to the AAVSO. *Comet and Nova Observations* With no bright comets or novae during the past year, Chairman Karl McNamara had little to report. *Variable Stars* There was no organized activity in the Centre in this field of observation during the past year. Several members of the Centre are also members of the AAVSO and take an active part in its affairs. *Double Stars* Early in the year, Alfred Capper, Chairman of the Double Star Section, introduced an intriguing project which was intended as a preliminary exercise to more sophisticated work in this field. The response was a little disappointing, with only seven members submitting reports. *Meteor Showers* Chairman Si Brown reports that all-night observing sessions were planned for five showers – the Orionids, Leonids, Geminids, Eta Aquarids and Perseids. 101 Orionids, 79 Eta Aquarids and 69 Perseids were recorded for a total of 249 meteors. In the past year 27 members participated in meteor observations, eleven of whom were newly introduced to this type of observation. Individual meteor observations accounted for another 62 meteors which brings the total to 311. In addition, David Levy organized four nights of observation of the Perseids in which his full team of observers recorded 2397 meteors in 26 hours of observation. *Messier Club* Three members joined the Messier Club during the past year, and several other members have added to their Messier scores and made drawings of Messier objects. Observing conditions at the Centre's observatory are not conducive in this field. *Artificial*

Annual Meeting

Satellites With the loss of Echo I in May of 1968 and the unexpected reentry of Echo II in June of this year, this Section was left with only one of the large balloon satellites, Pageos I, and although it is the same size as the Echo satellites it is in a much higher orbit and therefore a fainter object to observe at only 2nd magnitude. Chairman Vic Williams reports that during the year 25 observations of Echo II were reported, the last one being made on May 13th, just three weeks before the satellite reentered the atmosphere, and that 59 observations of Pageos I were made. **Astrophotography** It is difficult to measure the work done in astrophotography, for not many prints have actually reached the Centre's albums. Co-chairman John Allcock has experimented in practically every field of astrophotography, and with the experience he has gained is giving helpful advice to others. **Radio and Electronics** It was good to see life breathed into the Radio and Electronics Section by Co-chairmen Leo Nikkinen and Bert Widdop. Their principal project during the past year has been the radio detection of meteors, with equipment which they have constructed or assembled. They have also done some experimental work in radio astronomy, being successful in bringing in solar noise. Special equipment for a solar eclipse project is now being designed and constructed, and cable equipment for recording the observation of grazing occultations is next on their list of projects. **Telescope Making** Because of the lack of facilities, there were no organized classes in telescope making last year. Chairman Robert Venor nevertheless gave considerable help and advice to individual members. Through the kindness of Mr. Percy Posternak, who has again made his premises available, classes are now being resumed.

I would like to thank the Chairmen of the various sections of the Observation Committee for all their efforts and, through them, all the members who have participated in observational work.

Isabel K. Williamson, *Director of Observational Activities*

NIAGARA FALLS CENTRE

Again this year, the Niagara Falls Centre continued their program of presenting talks and demonstrations to various organizations in the Niagara Falls area. We have had very excellent success and response to these programs which are planned and presented by various members of the centre.

All of our regular meetings were again held at the Drummond Hill Library in Niagara Falls and 8 meetings were held there. In addition, 3 Executive meetings and 5 star nights were held during the year. Attendance was very good at all star nights and at the one held on July 25, just after man's first walk on the moon, we had over 200 people in attendance.

Our programs and speakers for the year were as follows:

January 9 – William Keating: "Grinding Lenses".

February 13 – Ken Chilton: "Astronomy in Britain".

March 11 – Public Movie: "Radio View of the Universe"

April 10 – Public Movie: "Radio Sky".

May 8 – Hugh Maclean: Slide program on the Lunar Orbiter series.

October 9 – Annual Election of Officers. Robert Winder: "Grazing Occultations".

November 21 – Annual Banquet. President J. E. Kennedy was the guest of the Centre and presented an illustrated talk on: "The Role of Canadian Astronomers in the Study of Solar Eclipses".

December 11 – Joseph Hauzer: "Pulsars".

Star nights were held on: May 23, June 20, July 25, August 22 and September 19.

Robert C. Doran *Secretary*

OTTAWA CENTRE

The year 1969 was a very active and exciting one for the Ottawa Centre. It started with a very enjoyable Annual Dinner meeting on January 15th, where we had as guest speaker Dr. Roy M. Pritchard of McMaster University. Dr. Pritchard gave an unusual talk on the psychological aspects of vision, and their effect on astronomical observations.

Annual Meeting

The following lecture meetings were subsequently held:

- February 20th – C.D. Anger, University of Calgary: "Scanning the Aurora from Above and Below."
March 27th – L.R. McNarry, National Research Council: "Solar Radio Emission and Its Polarization."
April 28th – R.E. McCrosky, Ph.D., Smithsonian Astrophysical Observatory: "The Smithsonian Prairie Network for Meteorites."
May 13th – Meeting hosted by the Observers' Group of the Ottawa Centre, including a preview of a paper on solar activity for the General Assembly by Steve Craig and Ken Hewitt-White.
October 23rd – Film night.
November 20th – Peter M. Millman, Ph.D., National Research Council: "Our Moon."
December 17th – R.W. Nicholls, Ph.D., York University: "Space Spectroscopy in the Vacuum Ultra Violet."

The most important development of the year was the decision to start construction of a large telescope for the Centre. A 16" glass blank was purchased by the Centre and placed in the care of a Telescope Committee, whose members, with the aid of a large number of enthusiastic volunteer helpers, have almost finished the polishing and figuring. Construction of the mechanical parts for the telescope is now being planned, and a "Telescope Fund" to cover the cost of mounting and shelter is being built up from the contributions of members.

The Observers' Group had another active year. During the summer telescopic observations were made from the DRB "Quiet Site" at Shirley's Bay on a total of 40 nights by a total of 42 persons. A good Star Night was held at the Quiet Site on May 23rd; about 12 telescopes and 50 people were present to view Jupiter, Mars and various Deep Sky objects.

Four expeditions of various kinds were made by Group members: a visit to the Dow Planetarium and Montreal Centre in February; attendance of 20 members at the General Assembly in May; a visit by seven members to the Stellafane convention of telescope makers at Springfield, Vermont; and participation by three members in the Montreal Centre's annual Deep Sky Night in August, which was held in northern Vermont.

H. M. Harris, *Secretary*.

LE CENTRE DE QUEBEC

Liste des Activités Que les Membres du Centre:

- 12 janv. – M. Paul-Henri Fortin: "Les ordinateurs et les astronomes". Projection de diapositives et d'un film.
2 fév. – Yvan Chassé: "Orbites de satellites artifi Démonstrations de transferts d'orbites et de rendez-vous à l'aide d'un ordinateur
9 mars – Gilles Fontaine: "L'Astrophysique à l'observatoire Victoria. Projection de diapositives et d'un film.
13 avril – Cameron Cumming, Ph.D.: "La spectroscopie infrarouge des atmosphères planétaires. Projection de diapositives et d'un film tourné au Centre canadien pour la recherche et le perfectionnement des armes.
mai – Paul Darisse: "Les âges glaciaires et l'astronomie". Projection d'un film.
1 juin – Assemblée générale annuelle de la Société. Election des membres du nouveau conseil. Projection d'un film.
juil.
août
sept. – observations régulières à la Tour Martello par les membres intéressés et d'autres groupes sur rendez-vous.
5 oct. – Céline Tremblay: "La construction d'un télescope Maksutov". L'Instrument a été présenté à l'assistance. Projection de diapositives et d'un film.
2 nov. – Benoit Drolet: "La photométrie." Projection de diapositives et d'un film.
7 déc. – Jean-Paul Boudreault: "La construction d'une station astronomique par l'Université Laval. Projection de diapositives et des films d'Apollo 11 et 12. Exposition de photographies en couleur de la N.A.S.A. prises par les astronautes de la série Apollo.

Raymond Roberge, *Secrétaire*

Annual Meeting

ST. JOHN'S CENTRE

Regular monthly meetings were held throughout the year with the exception of July and August.

Programs were as follows:

January: – Films on the moon.

February: – David Furlong: "Extraterrestrial Life."

March: – Capt. A.J. Provan and S.J.S. Woods: "Star-finding and Identification."

April: – Inspection of possible new club room and social gathering.

May: – David Furlong: "Extraterrestrial Life."

June: – Visit to Satellite Station at Pouch Cove.

September: – Visit to Planetarium.

October: – October's meeting was purely business and largely given over to a discussion on the state of the Society. With the increased fees in mind, as well as problems generated by small membership, it was debated whether to join the Natural History Society as a group or remain with the R.A.S.C. The latter course was decided upon, and the matter of increased fees left for further consideration at year's end. Two meetings were held before this decision was reached.

November: – Annual Meeting.

(Mrs.) Dora Russell, *Acting Secretary*

SASKATOON CENTRE

The first meeting of the Saskatoon Centre was held 17 November 1969 with twenty-one people attending. Purpose of the meeting was the election of officers for the new Centre and general discussion for the benefit of possible new members. Dr. F.A. Holden and Mr. Linton Smith presided as Chairman and Secretary respectively for this meeting.

TORONTO CENTRE

1969, our one hundred and first year, has been a very busy year for the Toronto Centre. Fifteen general meetings were held, all but two of them in the lecture hall of the McLaughlin Planetarium. Seven of these were lectured meetings, at which members were privileged to be addressed by some of today's foremost scientists on various aspects of astronomy and related sciences. Six meetings took the form of "Members' Nights", at which a selection of fine astronomical films were screened and at which were featured many of our own members describing their astronomical activities through talks, slides and demonstrations.

Of the two meetings held outside the Planetarium, one was the annual visit to the David Dunlap Observatory at Richmond Hill. This visit is always a highlight of the program, and the Toronto Centre appreciates the warm hospitality of the Director, Dr. Donald MacRae, and of his staff. The other "outside" meeting was a members' star night, held near Claremont, Ontario, on July 5th.

Speakers, and their subject were as follows:

J. F. Heard, Ph.D., "Navigation".

P. P. Kronberg, Ph.D., "Radio Astronomy at Jodrell Bank".

R. F. Garrison, Ph.D., "The Spectra of Long Period Variables".

David Goodenough: "A trip to Chile and the Cerro Tololo Observatory".

Donald MacRae, Ph.D., "Astronomy of the Future".

Members' Night: "From the Most Ancient to the Most Modern", featuring a talk by L. P. Sauve on "Egyptian Astronomy" and a film, "Apollo 11".

Members' Night: Film: "Radio View of the Universe" and a talk by John Kormendy: "Astrophotography".

Harry Schacter: "The Origin and Development of Life".

Members' Night: featuring a talk by Norman Green, B.A.: "The McLaughlin Planetarium: First Year".

J. L. Yen: "The Long Baseline Interferometer Project", illustrated by the film: "To The Edge of the Universe".

Annual Meeting

The telescope makers group continued to be very active, meeting for twenty-five sessions in the Optical Workshop of the McLaughlin Planetarium. Four Public Star Nights, arranged in co-operation with the parks and recreation departments of the various municipalities in Metropolitan Toronto, attracted very large crowds, indicating the widespread public interest in astronomy.

The highlight of this year was undoubtedly the General Assembly of the R.A.S.C., held at the McLaughlin Planetarium during the weekend of May 16 to 19 inclusive. In attendance were some 125 R.A.S.C. members, representing thirteen of the Society's 16 Centres. The General Assembly Planning Committee, under Dr. John Percy, presented all who attended with a truly memorable weekend.

The Centre was saddened on July 29 by the passing of Miss Ruth J. Northcott. Miss Northcott, in addition to her outstanding service to the National Society, was an enthusiastic participant in Toronto Centre activities.

C.E. Hodgson, *Secretary*.

VANCOUVER CENTRE

During 1969 there were eight regular meetings of the Society and an annual dinner meeting. Five meetings of the Council have been held.

A successful series of four summer lectures was organized, for which an admission fee of 50 cents per lecture for non-members was made. Special thanks are expressed to the following for their help with these lectures: Terry Taylor, Michael Ovenden, Dave Rodger and Jim Wright.

The Centre has continued its affiliation with the Vancouver Museums Association, by payment of a fee of \$1.00 per member. We have continued to have a coffee hour in the Members' Lounge following our regular meetings, thanks to the efforts and generosity of Mrs. Sally Baker and other women members.

Some 10 to 20 inquiries are received and dealt with by the Secretary each month, principally concerning membership.

The *Nova*, with editor Bob Allin and printer Sam Riddell, now includes notices of regular meetings and is mailed each month by the Secretary to between 100 and 150 members, and other interested individuals and groups.

The membership of the Centre for 1969 is 119 (8 life, 53 regular and 58 student members).

Jean K. Petrie, *Secretary*.

VICTORIA CENTRE

The Victoria Centre held seven regular meetings during 1969. The Council met on several occasions to plan the programs and other business of the Centre.

All meetings were held at the University of Victoria, and the Centre is very grateful to the University authorities for providing this accommodation.

Speakers and topics during the year were:

January 8 – E. Lee: "Stars and Seamen."

February 12 – Mrs. O. Phoebe Noble: "Astronomy in Russia."

March 12 – John L. Climenhaga, Ph.D., "The Carbon Stars and the c12/c13 Abundance Ratio."

April 9 – Activities Night.

October 8 – G. Hill, Ph.D., “The Distance Scale of the Universe.”

November 12 – R. G. Napier: “Radio Astronomy.”

December 12 – Annual Dinner and Annual Meeting – films.

Enrollment at the Centre was 94, consisting of 7 local life members, 56 adult members, and 38 student members.

N. B. Manson, *Secretary*.

WINDSOR CENTRE

During 1969, three Executive meetings and eight regular meetings plus one Viewing Night were held with the following programs:

January 21 – Andrew Taylor: “The Apollo Moon Orbit Trip”; Film: “The Birth of the Sun”.

February 18 – James M. Meredith: “Current Events on the Handbook for the Coming Month”; Michael Hastings-Trew: “New Faces for an Old Moon”.

April 15 – Cyril Hallam: “Cosmic Rays”; Film: “Cosmic Rays”

April 22 – Peter Sonnenseld, Ph.D.: “Modern Theories in Geology”.

June 17 – Kevin Kolodzy and Henry Lee: “Reports on the General Assembly”; Dan Rahn: “U.F.O.s”; Lambert Huneault: “Weather Reports, Weather Maps and Weather Forecasting”.

July 17 – Viewing Night with several telescopes set up at the Maidstone Observatory at Len Staffin’s residence.

September 15 – Andrew Taylor: “Rocks on the Moon”; Film: “Universe”.

October 21 – Michael Hastings-Trew: “Mutations, Perturbations and All That”.

November 18 – Annual election of officers and Council. The speaker of the evening was the President of the Society, Professor J.E. Kennedy on “Canadian Astronomers’ Contributions of Eclipse Knowledge”. A social hour followed.

James M. Meredith, *Recorder*.

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA 1968

NATIONAL OFFICERS AND COUNCIL FOR 1969

Honorary President – C. S. Beals, D.I.C., Ph.D., Sc.D., F.R.S., F.R.S.C.

President – J. E. Kennedy, M.Sc., Saskatoon

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Second Vice-President – J. L. Locke, Ph.D., Ottawa

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Treasurer – John F. Heard, Ph.D., F.R.S.C., 252 College Street, Toronto 130

Recorder – Leslie V. Powis, Hamilton

Librarian – R. Peter Broughton, B.Sc., Toronto

Editor – *Miss Ruth J. Northcott, M.A., 252 College Street, Toronto 130

Assistant Editors – Ian Halliday, Ph.D., Ottawa and John R. Percy, Ph.D., Toronto

Executive Secretary – Mrs. Marie Fidler.

Council –

Elective Members: A.M. Crooker, Ph.D., Vancouver; E. R. V. Milton, Ph.D.,
Ph.D., Lethbridge; F. L. Troyer, Toronto

Past Presidents: K. O. Wright, Ph.D., Victoria; M. M. Thomson, M.Sc., Ottawa

Representatives from Centres:

Calgary Centre: S. Litchinsky; J. Howell (President)

Edmonton Centre: Mrs. J. Rusch; Angus Smith (President)

Hamilton Centre: W. A. Fautley; G. Thede (President)

Kingston Centre: Miss C. Orr; Robert Mills (President)

London Centre: Dr. W. Wehlau; J. L. Livingstone (President)

Montreal Centre: C. Papacosmas; Dr. T. F. Morris (President)

Centre d'Astronomie de Montréal: Mme R. Matteau; André Aird (President)

Niagara Falls Centre: H.N.A. Maclean; J. Hauzer (President)

Ottawa Centre: Dr. Ian Halliday; F. R. Park (President)

Centre de Québec: Dr. P. Marmet; G. Y. Dufour (President)

St. John's Centre: Miss A. Stone; David Furlong (President)

Saskatoon Centre: G. N. Patterson; Dr. F. A. Holden, (President)

Toronto Centre: R. V. Ramsay; D. J. FitzGerald (President)

Vancouver Centre: Jas. Wright; Dr. M. W. Ovenden (President)

Victoria Centre: G. Ball; E. E. Bridgen (President)

Windsor Centre: C. Montrose; Henry Lee (President)

Winnipeg Centre: B. F. Shinn; Miss Sheila Nixon (President)

*Deceased

HONORARY MEMBERS OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

Dr. V. A. Ambartsumian (U.S.S.R.)

Dr. Bart J. Bok (Australia)

Dr. I. S. Bowen (U.S.A.)

Dr. Gerald M. Clemence (U.S.A.)

Prof. H. C. van de Hulst (Netherlands)

Dr. A. H. Joy (U.S.A.)

Dr. J. H. Oort (Netherlands)

Professor H. H. Plaskett (England)

Dr. Martin Schwarzschild (U.S.A.)

Dr. Harlow Shapley (U.S.A.)

Dr. Iosif S. Shklovsky (U.S.S.R.)

Prof. Bengt G. Strömgren (Denmark)

Dr. A. Unsold (Germany)

Dr. G. Van Biesbroeck (U.S.A.)

Dr. R. v. d. R. Woolley (England)

MORRIS ALTMAN

CHARTERED ACCOUNTANT

95 KING STREET EAST

TORONTO 1

CANADA

To the Members of
The Royal Astronomical Society of Canada 1968.

I have examined the balance sheet of The Royal Astronomical Society of Canada 1968 as at December 31, 1969 and the statements of revenue and expense and surplus 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 Society was incorporated under the provisions of the Canada Corporations Act on the 19th day of October, 1968, whereupon it acquired the assets and members in good standing of the Royal Astronomical Society of Canada which had been incorporated in the Province of Ontario. Continuity of accounting records has been maintained as between the newly incorporated Society and its predecessor and the accompanying financial statements include comparative figures of the former Royal Astronomical Society of Canada for the year 1968.

The receipts of the Society, by their nature, are not susceptible to customary audit procedures. I have therefore accepted the receipts as recorded in the books of the Society, without further verification.

In my opinion, subject to the foregoing explanations and 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, 1969 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 former Royal Astronomical Society of Canada for the preceding year.

Morris Altman

Chartered Accountant.

Toronto, Canada,
April 6, 1970.

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA 1968
 LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA 1968

B A L A N C E S H E E T

AS AT DECEMBER 31, 1969

	<u>1969</u>	<u>1968*</u>
<u>A S S E T S</u>		
<u>Current Assets</u>		
Cash on hand and in bank	\$ 8,221.04	\$ 1,633.14
Accounts receivable	4,949.60	6,491.16
Grants receivable	1,000.00	5,000.00
Accrued debenture interest	81.25	81.25
Prepaid expenses	346.97	210.70
	<u>\$14,598.86</u>	<u>\$13,416.25</u>
 <u>Investment</u>		
Canada Permanent Trust Corporation 6½% debenture, maturing February 1, 1970	<u>\$ 3,000.00</u>	<u>\$ 3,000.00</u>
 <u>Fixed Assets (at cost)</u>		
Land	\$17,000.00	\$17,000.00
Building	17,500.00	17,500.00
Office furniture and equipment	3,630.78	3,630.78
Apartment equipment	1,127.80	1,127.80
	<u>\$39,258.58</u>	<u>\$39,258.58</u>
<u>Less:</u> Accumulated depreciation	<u>9,212.02</u>	<u>8,594.54</u>
	<u>\$30,046.56</u>	<u>\$30,664.04</u>
 <u>Library (nominal value)</u>		
	<u>\$ 100.00</u>	<u>\$ 100.00</u>
	<u>\$47,745.42</u>	<u>\$47,180.29</u>

APPROVED ON BEHALF OF THE COUNCIL:

J.E. Kennedy President
J.F. Heard Treasurer

	<u>1969</u>	<u>1968*</u>
<u>LIABILITIES AND SURPLUS</u>		
<u>Current Liabilities</u>		
Accounts payable and accrued charges	\$ 48.19	\$ 204.02
<u>Deferred Revenue</u>		
Membership fees for ensuing year	\$ 5,317.75	\$ 3,127.30
Advance subscriptions to Journal and Handbook	7,346.11	6,982.46
Advertising for future publications	85.00	430.00
Unappropriated life membership fees (per statement)	<u>3,867.07</u>	<u>3,550.59</u>
	\$16,615.93	\$14,090.35
<u>TOTAL LIABILITIES</u>	<u>\$16,664.12</u>	<u>\$14,294.37</u>
<u>Surplus</u> (per statement)	\$29,893.64	\$31,495.80
<u>Library Fund Reserve</u> (per statement)	<u>1,187.66</u>	<u>1,390.12</u>
	\$31,081.30	\$32,885.92
	<u>\$47,745.42</u>	<u>\$47,180.29</u>

*The comparative figures for the year 1968 are those of the former Royal Astronomical Society of Canada.

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA 1968
 LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA 1968

STATEMENT OF GENERAL REVENUE AND EXPENSE

FOR YEAR ENDED DECEMBER 31, 1969

	<u>1 9 6 9</u>		<u>1 9 6 8*</u>	
<u>R E V E N U E</u>				
Membership fees				
R.A.S.C. Centres	\$ 6,686.60		\$ 6,579.05	
Individual members	3,077.60		3,039.85	
Life membership reserve - annual appropriation	<u>333.52</u>	\$10,097.72	<u>301.02</u>	\$ 9,919.92
Grants and Donations				
Government of Canada - annual grant	\$ 5,000.00		\$ 5,000.00	
Province of Ontario - annual grant	1,000.00		1,000.00	
Members' contributions	<u>10.00</u>	6,010.00	<u>120.00</u>	6,120.00
Publications				
Journal of the R.A.S.C. (including centennial issue)	\$ 5,099.05		\$ 5,271.29	
Observer's Handbook	10,284.42		9,629.91	
Reprints and publication fees	<u>4,924.48</u>		<u>4,177.28</u>	
Add: Foreign exchange premiums	\$20,307.95		\$19,078.48	
	<u>729.77</u>		<u>530.94</u>	
Deduct: Agents' discounts	\$21,037.72		\$19,609.42	
	<u>1,302.97</u>	19,734.75	<u>1,464.00</u>	18,145.42
Advertising	1,740.00			1,710.00
Sale of insignia	117.00			62.00
Interest earned	<u>433.16</u>		<u>189.97</u>	
<u>TOTAL REVENUE</u>		\$38,132.63		\$36,147.31
<u>E X P E N S E</u>				
Publications	\$28,388.37		\$27,668.00	
Staff salaries	6,708.00		6,191.96	
Contributions to staff pension fund	463.96		463.96	
Stationery, printing and supplies	930.78		1,257.73	
Postage and shipping costs (less amounts charged)	1,432.65		1,247.40	
General and office expenses	486.45		529.96	
Telephone	176.58		171.50	
Library expense	51.31		61.09	
Annual life membership grants to R.A.S.C. Centres	300.00		190.00	
Subsidies to centres of the R.A.S.C.	50.00		100.00	
General assembly and travelling expenses	711.23		683.13	
Medals and awards	315.46		216.16	
Legal fees for incorporation of Society	300.00		150.00	
Depreciation of office furniture and equipment	<u>67.20</u>		<u>67.20</u>	
<u>TOTAL EXPENSES</u>		40,381.99		38,998.09
<u>EXCESS OF EXPENSE OVER REVENUE</u>		\$ 2,249.36		\$ 2,850.78

*The comparative figures for the year 1968 are those of the former Royal Astronomical Society of Canada.

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA 1968
 LA SOCIETE ROYALE D'ASTRONOMIE DU CANADA 1968
 STATEMENT OF BUILDING REVENUE AND EXPENSE
 FOR YEAR ENDED DECEMBER 31, 1969

	1969	1968*
REVENUE		
Rentals for space not occupied by Society	\$ 3,110.00	\$ 2,880.00
EXPENSE		
Property taxes	\$ 866.37	\$ 821.15
Heating.....	419.00	597.50
Light, gas and water	296.05	296.31
Maintenance and repairs	262.96	142.67
Insurance	68.14	68.14
Depreciation of building	437.50	437.50
Depreciation of equipment	112.78	112.78
TOTAL EXPENSE	\$ 2,462.80	\$ 2,476.05
EXCESS OF REVENUE OVER EXPENSE	\$ 647.20	\$ 403.95

STATEMENT OF SURPLUS

Surplus at the beginning of the year	\$31,495.80	\$33,942.63
Deduct: Excess of expense over revenue –		
General account	2,249.36	2,850.78
	\$29,246.44	\$31,091.85
Add: Excess of revenue over expense –		
Building account	647.20	403.95
Net surplus at the end of the year	\$29,893.64	\$31,495.80

STATEMENT OF UNAPPROPRIATED LIFE MEMBERSHIP FEES

Balance at the beginning of the year	\$ 3,550.59	\$ 3,251.61
Add: Life membership fees received during the year	650.00	600.00
	\$ 4,200.59	\$ 3,851.61
Deduct: Appropriation for the year to General Account	333.52	301.02
Balance at the end of the year	\$ 3,867.07	\$ 3,550.59

STATEMENT OF LIBRARY FUND RESERVE

Balance at the beginning of the year	\$ 1,390.12	\$ 1,729.70
Add: Contributions received during the year	–	42.08
	\$ 1,390.12	\$ 1,771.78
Deduct: Appropriation for new acquisitions	202.46	381.66
Balance at the end of the year	\$ 1,187.66	\$ 1,390.12

**SCHEDULE OF FIXED ASSETS AND ACCUMULATED DEPRECIATION
 AS AT DECEMBER 31, 1969**

	Cost	Accumulated Depreciation		
		Balance Jan. 1 1969	Dep'n. charged for Year	Balance Dec. 31 1969
Land	\$17,000.00	\$ –	\$ –	\$ –
Building	17,500.00	5,125.00	437.50	5,562.50
Furniture and office equipment	3,630.78	2,925.98	67.20	2,993.18
Apartment equipment	1,127.80	543.56	112.78	656.34
	\$39,258.58	\$8,594.54	\$ 617.48	\$9,212.02

*The comparative figures for the year 1968 are those of the former Royal Astronomical Society of Canada.

REPORTS OF

RECEIPTS	Edmonton	Hamilton	London
Balance from 1968	807.92	841.71	215.23
Membership Fees	351.00	623.50	388.00
Donations			
Educational Activities	104.35	459.50	
Annual Dinner		310.50	
Sales of Handbooks, etc.	2.00	27.65	38.75
Bank Interest and Exchange	15.00	14.22	2.25
Income from Investments			22.50
Life Member Grants	4.00	9.00	3.00
General Assembly			
Telescope Supplies			
Miscellaneous	2.77		27.30
TOTAL	\$1287.04	\$2286.08	\$697.03

DISBURSEMENTS	Edmonton	Hamilton	London
Fees remitted to N.O.	162.90	298.80	256.05
Library			95.11
Meetings and Newsletters	445.33	87.72	108.64
Annual Dinner		320.73	
General Assembly			
Equipment and Supplies		221.79	27.77
Office and Administration		76.00	76.09
General Expense	89.26	55.30	8.00
Handbooks, etc.			
Telescope, Equipment & Sp. Fund			
Educational Activities		37.02	
Balance carried to 1970	589.55	1188.72	125.37
TOTAL	\$1287.04	\$2286.08	\$697.03

RS OF CENTRES

Ottawa	St. John's	Toronto	Vancouver	Victoria	Windsor
713.91	86.50	2430.66	522.54	2198.61	99.12
1047.00	108.00	5834.49	694.00	562.75	264.00
437.86					6.00
		68.80	225.25	162.62	
207.25			118.85	297.25	
162.90			6.00	13.50	2.20
21.67	4.27	496.69	12.95	111.97	4.21
57.00		90.00	27.00	55.00	
15.00		731.06			
		684.25			
				17.50	.11
\$2662.59	\$198.77	\$10,335.95	\$1606.59	\$3419.20	\$375.64
630.60	64.80	3456.00	367.50	393.40	162.90
101.26					
139.65	18.40	1627.35	232.48	140.57	
190.00			125.40	367.50	
37.04					
26.02	15.00	430.35		38.25	
122.07			2.55	38.81	31.84
24.49	.40		130.00		70.00
129.60					1.80
636.12		682.50			
625.74	100.17	4139.75	748.66	2440.67	109.10
\$2662.59	\$198.77	\$10335.95	\$1606.59	\$3419.20	\$375.64

TORONTO CENTRE SPECIAL PURPOSE FUND

Balance as at December 31, 1968	\$4,885.13
Bank and Investment Interest	496.69
Balance as at December 31, 1969	\$5,381.82

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA 1968
OFFICERS AND COUNCIL OF THE CENTRES FOR 1970

CALGARY CENTRE

Honorary President—T.A. Link, Ph.D. *Vice-President*—T.W. Swaddle
President—D.J.I. Fry, Ph.D., 4903 Vienna Dr. N.W. (49) *Recorder*—J.B. Clarke
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Treasurer—J.H. Cooper *Editor*—B. Hval
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Secretary—R. Haeckel, 13323-140 St. (44) *Editor*—D. Roles
Treasurer—B. Veilleux *Observers Representative*—R. Newman
Educational Activities—G. Cumming, Ph.D.

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Trésorier—Mme R. Matteau *Rapporteur*—Marcel Seguin
Editeur—Rolland Noel de Tilly *Bibliothécaire*—Gaetan Cholette
Directeur des Conférences—Philippe Mailloux *Directeur des observations*—Lucien Coallier
Directeur d'Observatoire—Henri Simard *Directeur section d'optique*—Pierre Beauchamp
Directeur section d'optique (la mécanique)—Adelard Rousseau
Directeurs—Vianney Houle; Jean Vallieres; Mlle Irene Gauthier; Huberte Palardy; Lise Beauchamp.

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2nd Vice-President—T.H. Legg, Ph.D.

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Recorder—R. Lavery

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Secrétaire—Raymond Roberge, C.P. 396, 2635 Chemin Gomin, Ste-Foy (10)

Trésorier—Jean-Denis Carette

Vice-Président—Paul Marmet, Ph.D.

Directeur des Observations—Andre Roy

Rapporteur—Josaphat Bernard

Directeur des Conférences—Claude Fremont

Bibliothécaire—Benoit Drolet

Conseillers—Paul Darisse; Claude Hamel; Jean-Louis Thibault.

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Secretary—S.J.S. Woods, 68 LeMarchant Rd.

Treasurer—Mrs. Dora Russell

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Secretary—G.N. Patterson, P.O. Box 800, Sub. 6

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President—J.R. Percy, Ph.D., 1 Humbercrest Blvd. (9)

1st Vice-President—E.R. Seaquist, Ph.D.

Secretary—C.E. Hodgson, 100 Queen Anne Rd. (590)

2nd Vice-President—C.G. Clark

Treasurer—J. Bode

Recorder—H. Creighton

Editor—H. Creighton

Director of Telescope Making—R. Bredberg

Editorial Committee—E. Fedorenko; D.J. FitzGerald; W. Hingston; J.R. Percy, Ph.D.; Miss K. Milles; R.V. Ramsay; R. Simon

Council—A. Blinoff; L.A. Chester, B.L.S.; R. Simon; Mrs. E. Lauton; D.S. Mitchell; K.A. Bragg; R. Bredberg; J. Low

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The Gold Medal of the Society was established in 1905 as an encouragement to the study of astronomy. It is awarded to the student standing first in first class honours in the graduating year of the Astronomy Division of the Mathematics and Physics course at the University of Toronto. Awards have been made to the following:

1906 – W.E. Harper	1929 – P. M. Millman	1956 – D. C. Morton
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1926 – F. S. Hogg	1949 – I. Halliday	1967 – R. H. Chambers
		1968 – P. Martin

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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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1941 – H. Boyd Brydon (Victoria)	
1942 – W. G. Colgrove (London)	1953 – Jean Naubert (Centre d'Astronomie de Montréal)
1943 – Cyril G. Wates (Edmonton)	
1945 – Paul-H. Nadeau (Quebec)	1955 – Frank J. DeKinder (Montreal)
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1950 – F. Keith Dalton (Toronto)	1967 – R. R. Thompson (Toronto)

SERVICE AWARD MEDAL OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

The Service Award was established in 1959 and, on recommendation of a special committee of the National Council, this small bronze plaque is presented to members who have performed outstanding service to a Centre or to the National Society.

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1961 – *Robert Peters (Victoria)	1966 – P. Lemieux (Montréal)
1962 – Jean Asselin (Montréal)	S. Litchinsky (Calgary)
Robert J. Clark (Vancouver)	W.J. McCallion (Hamilton)
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