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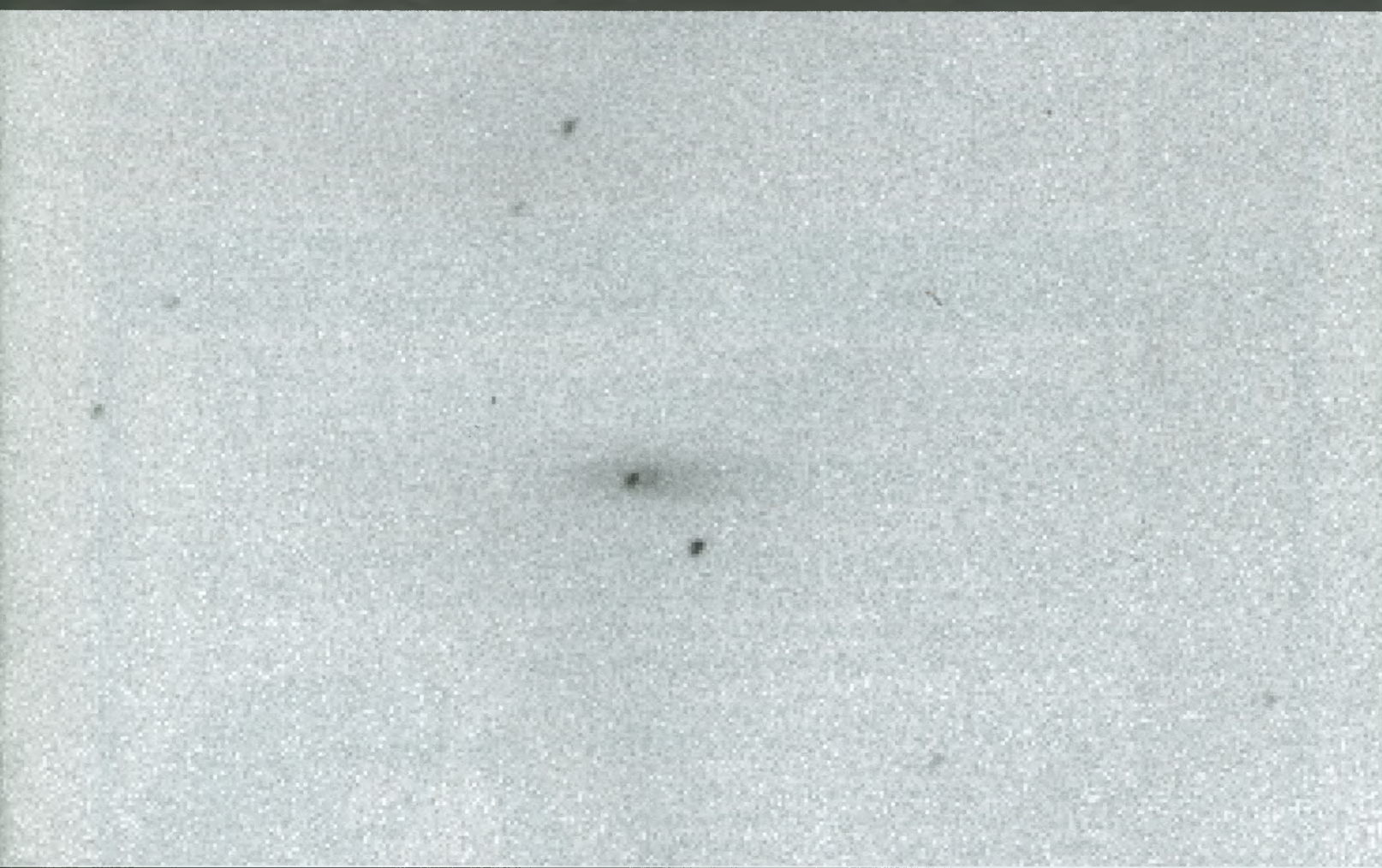
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Number 2

The Royal
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of Canada

BULLETIN

La Société
Royale d'Astronomie
du Canada

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The discovery image of SuperNova Scotia 1995. The supernova was located in NGC2726. This CCD image was taken on February 10th, 1995. The supernova is the bright spot, just off to the side of the galaxy's nucleus.

1995

Annual Report

1995



BULLETIN

is a publication of the Royal Astronomical Society of Canada and is distributed together with the society's *Journal*. It contains articles on current activities of the RASC and its centres across Canada, as well as articles from members and non-members which are of general interest to members of the society. Inquiries about the society should be directed to its national office at 136 Dupont Street, Toronto, Ontario, Canada M5R 1V2 (416) 924-7973.

Cover Picture: Downtown Edmonton, showing the parkland that runs along both sides of the North Saskatchewan River.

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Quotes

I do not mind if you think slowly. But I do object when you publish more quickly than you think.

Wolfgang Pauli
German/American physicist
(1900-1958)

Every student who enters into a scientific pursuit, especially if at a somewhat advanced period of life, will find not only that he has much to learn, but much also to unlearn.

Sir John Herschel
English astronomer
(1792-1871)

The farther an experiment is from theory, the closer it is to the Nobel Prize.

Irene Joliot-Curie
French chemist
(1897-1956)

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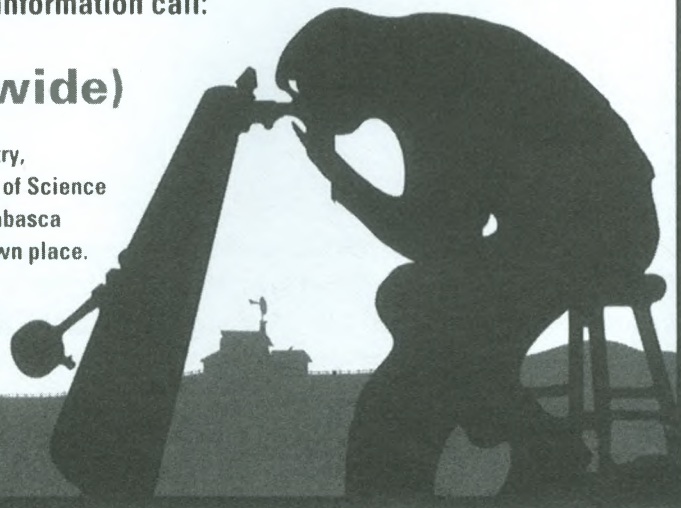
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Dr. Owen Gingerich (United States)	Dr. A. Unsold (Germany)
Prof. H.C. van de Hulst (Netherlands)	

Honorary Members

President's Report

This is my second, and final, report as national president to the members of the society. In many such reports in the past, the retiring president has been able to declare that the society has continued to serve its members and the general public following long-established procedures, and with the expectation that little will change in the immediate future. However, long before I have completed four years as a past-president, several of the most long-lived and firmly established features of the society may have vanished. Those changes which appear certain to occur, or highly probable, include the disappearance of the *Journal* and the *Bulletin*, new procedures for handling the membership fees and records, and revised responsibilities for the staff in the national office.

What is my reaction to these changes? To be honest, some excitement, but also fear and trepidation! (The sound you hear may be my feet dragging.) The intent of the changes is the revitalization of our society. Time alone will tell if that is the end result. What is certain is that the society will survive and benefit from these changes only if there is greater participation by an increasing number of its members in achieving the society's goals, goals which each member must surely share. The changes will be significant in several areas. Firstly, the society will be more clearly defined as an organization which serves the needs and aspirations of amateur astronomers. Secondly, the society will be more dependent on volunteer labour, particularly with respect to the content of the publications. It will not be sufficient for you to passively wait for others to act. It is for you to participate and contribute. What will you gain from that participation? Your reward will include the greater pleasure and satisfaction which come from being a member of a national organization which promotes and supports the science which you love, and which does so successfully thanks to your efforts.

Those who argued for the changes—and those who voted directly or indirectly for the changes—have special responsibilities. They were elected to take the wheel and change direction. They have a responsibility to stay the course. They will deservedly enjoy the rewards of success, and success it will be if everyone works together.

One of the immediate changes that will affect us all is the retirement of Rosemary Freeman after almost a quarter-century of service. During thirty-six-plus years of membership, I have known only two executive secretaries... because that is all there have been over those many years! Marie Fidler was the 'head, heart and soul' of the society when I joined, and I could not imagine ever finding a suitable successor to her. Of course, I did not know Rosemary Freeman back then.

If you have ever wondered what it is that the executive secretary does, the answer is quite simple: just about everything... then a little bit more! Rosemary has been secretary and office manager (handling all correspondence, maintaining records, preparing minutes and agendas, directing queries from the media and general public, etc.), landlord (we do own a valuable piece of property in Toronto, and someone has to collect the rent, call the plumber, etc.), librarian, banker, circulation manager, membership secretary, the person who arranges for the production of medals and certificates, holder-of-hands of members of the national council who would otherwise blindly stumble into corners... and, well, the 'head, heart and soul' of the society. Rosemary, I am going to miss you. The society will miss you.

It has been an honour to hold the office of president of the Royal Astronomical Society of Canada. I thank all of you for your support, and ask that you give as much support and encouragement to my successor.

Doug Hube, National President



The year just past has been a very interesting and successful one for the society. We now have a new centre, the twenty third, in Kelowna and another group has inquired about the possibility of becoming a centre. The benefits of belonging to an organization with the unique structure of the RASC continues to place us in an enviable position—few primarily amateur astronomical organizations are in a position to influence such issues as light pollution or to bring together its members to discuss mutual concerns.

We occasionally receive comments about the administrative strain the society's structure may put on some centres, but the national council has been taking steps to address this by promoting communication via the Internet. Thanks to David Lane, the RASC has an electronic site where members from across the RASC can get copies of council minutes, e-mail addresses, send messages to other members, etc. Try it! Access may be gained by ftp access at husky1.stmarys.ca. At the prompt enter your e-mail address as the password; then enter CD RASC and DIR to see the files that may be accessed. Several centres have also gone electronic and this has provided an opportunity for members to communicate member-to-member as never before.

The General Assembly in Windsor was a great success and is another venue which allows members to communicate about a variety of interests from business related activities to a venue where results of their research and observational activities may be presented. Over the many years that I have attended GAs, the attendance has fallen off slightly. I attribute this to the advent of camping/observing star parties sponsored by centres across the country from those at Mount Kobau in British Columbia to Fundy National Park in New Brunswick. These have become yet another venue to meet other members of the society. As importantly, these star parties often provide opportunities for public education in an environment which is more amenable to impressing people with the beauty of astronomical observing and to give them a real appreciation for the detrimental effects of light pollution.

Building on the efforts of the light pollution committee under Ruth Lewis and successful local efforts such as those by the Ottawa Centre, the national council has recently provided new committee chair, Bill Broderick, with a substantial budget to forward the interests of society members in this respect. Again, the organizational structure allows us to undertake initiatives that other countries would have difficulty duplicating.

Council, through both its publications revitalization and long range planning committees, has this year addressed major issues. By the time you read this report a plan to initiate a new publication will probably have been formulated. This will not be without consequences, but given the evolving interests of our members, will be a positive step for astronomy in Canada. The down side, as is obvious, is that Canadian astronomers will no longer have a Canadian publication in which to publish research results. With the explosion of electronic publishing, a more efficient and less expensive alternative is available for professional astronomers. The national council is convinced that the new publication will be of wider interest and will result in the retention of members while attracting many more new members. This new communication vehicle will better reflect astronomical activities in Canada at the society, amateur and professional levels and to a wider audience.

For the record, here are the membership stats for the centres and the society. We have experienced a slow decline since the dramatic rise associated with Comet Hailey. By this time next year we may well see a substantial jump thanks to Comet Hale-Bopp—too bad we cannot schedule a brilliant comet every three year!

CENTRES	1995	1994	1993	1992	1991						
						Sarnia	14	10	17	11	8
						Saskatoon	58	52	42	35	43
Calgary	215	204	198	197	192	Thunder Bay	28	23	24	38	29
Edmonton	143	151	125	125	121	Toronto	727	805	807	855	921
Halifax	123	131	134	138	160	Vancouver	199	227	190	177	109
Hamilton	48	66	95	99	86	Victoria	125	113	127	129	127
Kingston	63	69	60	50	52	Windsor	49	48	45	41	46
Kitchener-Waterloo	29	25	25	25	24	Winnipeg	69	59	57	45	56
London	44	35	32	46	39						
C.F. de Montréal	7	12	25	36	35	UNATTACHED					
Montréal	109	109	114	110	99	Canada	214	233	243	268	269
Niagara	50	50	53	48	61	U.S.A.	221	234	240	258	291
Ottawa	223	228	235	243	258	Overseas	36	45	52	53	53
Québec	50	44	53	65	36	Honorary	15	15	15	15	14
Regina	15	19	19	21	29						
St. John's	39	36	35	38	34	TOTAL	2913	3043	3062	3165	3192

It is with regret that I must report the deaths of the following members of the society: A.G. Bechard (Que.), Joseph Dickson (Tor.) G. Forest (Que.), A.H. Palmer (Can. unatt.), L. Meyers (USA, unatt.), J.D. Moore (Can. unatt.), Gordon Patterson (Sask.), J.E. Robertson (Tor.), Dr. Albrecht Unsöld (Hon.), Dr. Wm. H. Wehlau (Lon.), R. Wlochowich (Ott.), Mrs. M. I. Yane (Mon.).

On behalf of the executive committee, I would like to extend our sincere thanks to all those who have provided service to the society or to astronomy in general. The success of the organization depends largely on the efforts of members of the centres who give of their time and energy to promote their passion! As members, we all owe a vote of thanks to the editors and the people that assist them—sub-editors, editorial assistants, proof readers and contributors. Finally, my personal thanks to Rosemary Freeman, whose invaluable help and support make everything work!

Randall Brooks, National Secretary

Our general meetings are normally held at the Alberta Science Centre (ASC) on the third Thursday of each month. Meetings are scheduled to begin at 19:30, but patience is often a virtue. Nine general meetings were held in 1995. A brief synopsis of each follows:

- | | |
|--------------|---|
| January 19 | Our new telescope for lend program was announced. A telescope building workshop hosted by Phil (Uncle Phil) Johnson, began collecting participants. Dr. Robert Stewart gave an entertaining and informative talk about planetary impact sites. |
| February 16 | This meeting included a presentation by the observer's group, information about the 1995 eclipse tour, and member's slide shows. |
| March 16 | Jim Himer explained why clear nights do not necessarily mean great observing in his talk about seeing condition and deconvolution. |
| April 20 | Don Hladiuk gave us a brief talk about MIR and a schedule of its Calgary passovers. John Mirtle gave an entertaining talk about spring constellations and showed some more of his excellent deep sky slides. |
| May 18 | Astronomy Day and light pollution reports began this meeting. Roger Bailey gave an interesting and informative talk about his other lifelong hobby, sundials, complete with slides and instruction sheets for any would-be sundial builders. |
| June 17 | Held at the Wilson Coulee Observatory in conjunction with the Observing and Youth Group meetings, our annual BBQ was well-attended and the weather was fully co-operative. Messier and Youth Group Astronomy Course Certificates were presented to members. |
| September 21 | Dr. Magdalen Normandeau from the University of Calgary gave a talk about the chimney matrix that is being ejected from our galaxy. |
| October 19 | Roland Dechesne spoke on the merits of small telescopes, using his own 60mm telescope. Slides and diagrams effectively demonstrated his point. |
| November 16 | Annual elections. Ruth Lewis showed some nice rainbow slides; Glenn Hawley and Don Hladiuk showed some great slides of their eclipse adventures in India. |

Calgary

With the Jupiter/SL9 comet impacts safely behind us, the Calgary Centre turned its attention to improving our club even more in 1995. As in past years, we continue to offer introductory and advanced astronomy courses through the Calgary Board of Education's Continuing Education Division. Our 237-STAR phone line still provides up-to-date astronomy data and upcoming event information for inquiring public minds. In 1995 237-STAR handled 381 requests for information.

In recent years the Calgary Centre has bestowed awards on deserving organizations who practice responsible lighting. In 1995, Melcor Developments, Cartwright Lighting and Canyon Creek Toyota were presented with Responsible Lighting Awards at our annual banquet in January. The light pollution committee is commended for their valiant and continuing efforts on this front.

Zoonival, our annual public star night held in conjunction with the Calgary Zoo, was a great success this February with over 4,000 people peering through twenty-seven telescopes into crisp CLEAR winter skies. A great time was had by all, even those who answered the same rookie questions over and over and over...

The Calgary Centre hosts tours for cubs, brownies, students and other curious people at our Wilson Coulee Observatory, south of Calgary. In 1995 the club hosted thirty-three tours for 863 people. Many volunteer hours went into these very popular tours. Speaking of tours, the ASC and the Calgary Centre have been putting together solar eclipse tour packages for the past four years. The forty-three second eclipse was best viewed from India this year, and twenty-two shadow hounds made the adventurous journey atop elephants and camels to see the quick but impressive show.

A new public observing program was created this year at the ASC. These free observing and telescope workshops were held on Friday evenings on their observing deck. Although the ASC provided the equipment, these workshops would not have been so successful without the efforts of Roland Dechesne, our vice-president, and other club members who sacrificed their Friday evenings for this program which will continue in 1996.

Nine hundred and fifty one people were in attendance for Astronomy Day 1995. Nine hundred and fifty attended the programs at the ASC, and ONE wet, hardy soul turned out at Fish Creek Park to share umbrellas with our volunteers.

The Calgary Centre started its own telescope-for-lend program under the guidance of Bob Morgan. At its inception, we offered only two telescopes, both of 150 mm aperture. By October, through generous donations and a few wise purchases, the club offered seven telescopes of varying sizes and powers to members in good standing.

Under the tireless and dedicated leadership of Blair Colborne, our youth membership continues to grow by leaps and bounds. Telescope building, astronomy courses, observing sessions, participation in public events and telescope borrowing are all available to our enthusiastic young astronomers.

Calgary boasts three electronic bulletin boards to serve Calgary cyberspacers. Sid Lee hosts Rascal at (403) 686-2550; Jason Nishyama runs Slide Rule at (403) 284-2838, and Observatory West, at (403) 934-2179, is run by reluctant new Albertan

Mark Kaye. We are a three-lane information highway.

The Calgary and Edmonton Centres again jointly hosted this year's Alberta Star Party (ASP) at our deep sky site in Caroline, Alberta. Although the site was not as reclaimed as expected, the ASP was a great success. Eighty-five gazers, their spouses, children, dogs, and an impressive array of equipment enjoyed four nights of incredible clarity and four days of blazing heat on the bald, Alberta prairie. Telescope collimation and barn door platforms were demonstrated by Calgary and Edmonton members.

New equipment, new programs, lots of new members and lots of clear skies graced our club this year. Once again, the Calgary Centre would not be the great club it is without our many volunteers who give their time, skills, equipment, expertise and funds so that we all may share our love of the night skies. Clear skies to you all in 1996. **Susan F. Yeo, Secretary**

Meetings: The Edmonton Centre continues to enjoy healthy turnouts at our monthly meetings. With a current membership of 143, the ten meetings saw an average of eighty attendees, or a 56% membership turnout! The meetings are integrated with both an observers' group segment, and beginners' talks.

Edmonton

The February feature speaker was National President, the Edmonton Centre's own Dr. Doug Hube. He spoke on the topic "Science, Non-Science, and Nonsense".

In March, Alan Dyer treated members to some spectacular slides of mountainscapes and constellations, as well as slides of his usual high quality astrophotography.

The April (Fools') meeting saw Harold Jacobsen handcuffed to his chair to prevent his leaving early!

At the May meeting, Alister Ling was presented with an award from the Webb Society recognizing him for his contribution to writing and observing.

The June meeting was very successful, as twelve members made excellent presentations on what they had been undertaking in the past year. Topics ranged from Ben Gendre's high quality astrophotography; Barry Nonay's dew-proofing of equipment; Howard Spragin's roll-off roof observatory for his 10-inch; Sherry Macleod's deep-sky observing drawings; Richard Vanderberg who spoke in praise of older globulars; David Goldengay's report on observing galaxies; Roger Fells' low-cost observatory; Alister Ling on deep-sky charting anomalies; Bruce McCurdy's report on his 600 observations of the Moon; to Russ Sampson's slide of a grey cloud.

November's meeting featured Father Lucien Kemble, a noted amateur observer who had recently completed observations of all the Herschel objects. He gave an inspiring talk on "My 25 Years' Experience as an Observer."

Additional speakers through the year from the Edmonton Centre included Tyler Foster - Binocular Observing; Larry Wood—Observing Nova Cass 1993; Craig Makarowski—Multi media presentation of an astronomical trip to Arizona; Wally Anhorn—Astronomy Software; David Goldengay—Mount Kobau Star Party; Shirlee Adamson—Aids to Observing; Russ Sampson—Near-sky Phenomena; Alister Ling—Noctilucous Clouds; Ben Gendre—Multi-media astrophotographic presentation; Paul Campbell—Observing Supernovae; Murray Paulson—Mars, Asteroids; Roger Fell—Astrophotos.

Observing: Observers were active this year. Most deep-sky observing was done at Blackfoot, our site east of Elk Island Park. Exceptionally transparent conditions were offered on three memorable nights. At the January club night, the Horsehead Nebula was seen without filters in mid-size scopes. In early April, Larry Wood, using a 20-inch, swept up more than 200 Coma Cluster galaxies in only ten minutes. Later, a few members glimpsed the gravitationally lensed twin quasar in Ursa Major. Three weekend expeditions were made to Buck Mountain, our dark site 105 km from Edmonton. Saturn's ring plane crossings were an ongoing, popular project.

Twenty-one Edmonton observers attended the Mount Kobau Star Party, Canada's premier serious observing event. The Alberta Star Party, which we co-sponsored with the Calgary Centre, was held on Labour Day weekend. It was staged at the Eccles Ranch near Caroline, hometown of figure skating champion, Kurt Browning. Edmonton members and their families exploited the balmy weather, and the clear skies after the Moon set.

Harold Jacobsen, our eclipse chasing veteran, attended a successful solar eclipse trip to Rajasthan, India, on October, 1995. Bruce McCurdy has initiated an observer's e-mail hotline.

Other Highlights or Events: Tyler Foster and Paul Campbell judged astronomical entries at the Regional Science Fair where the centre is one of the perpetual sponsors. Astronomy Day, organized by Tyler Foster and Frank Florian, with help from eight members and their own scopes, was held in the first week of May at Coronation Park. Even with poor weather, almost 1,000 people came through.

The Edmonton Centre "worked" a casino on July 7th and 8th, 1995, which netted \$31,000 for the centre to use on any astronomy project with a public component.

In its 41st year, *Stardust*, our newsletter, has been a success especially because of the artistic efforts of editor, Randy Pakan. The new loaner scope program, administered by Alister Ling, is proving to be a success.

Edmonton continues to maintain its active tradition in constructing telescopes. At least three new scopes were completed during the year with a number still in progress, including Dennis Bouchert's 16-inch. The year ended with the Edmonton Centre getting a web site, thanks to the efforts and skills of Barry Nonay.

Awards: The following awards were presented at the Annual Meeting on January 8th, 1996:

The President's Award for service to the centre went to Bruce McCurdy. The Amateur Telescope Making Award went to Barry

Arnold for his 16-inch Dobsonian. Observer of the Year was awarded to Roger Fell for his asteroid observing program. A new Excellence in Public Education Award, created and funded by the centre, was given to Keith Janke for his many years of service at the ES&SC observation deck. A Messier Certificate was awarded to past president, Sylvia Smith. Randy Pakan received the RASC Finest NGC Certificate.

Bob Drew, General Secretary

The biggest story out of Halifax this year was undoubtedly the discovery of SuperNova Scotia 1995. The two main discoverers, David Lane and Paul Gray were rewarded for this effort with the society's Ken Chilton Prize. The story of their discovery was chronicled in the prototype issue of *Astronomy Canada*.

Halifax

An equally important discovery, although more of local importance, came from the search for a new, permanent location for the centre's observing site. A ten year lease has been signed with the Minas Basin Pulp and Power Company for a small parcel of the land the reservoir for their power dam. How many centres can boast of an observing site that has lakefront on three sides? Located in St. Croix, about 40 km northwest of Halifax, the site has a southern horizon that overlooks water. Continuing south, there is nothing but woods for another 40 km until you reach the province's south shore. A lot of this area is owned by Minas Basin Pulp and Power, and it is unlikely to be developed.

The centre has been accumulating funds for a long time in anticipation of finding a suitable site. A fund-raising campaign has already been started to add to this and construction of a communal roll-off roof structure and a warm room are expected to be completed by the fall of 1996. The main observatory and telescope will be completed next.

We had an excellent series of meetings this year. Attendance has been good, with a wide variety of topics.

January 20	The ASTRID Feature—A Probable Meteor Impact Feature in Nova Scotia on South Mountain by Dr. George R. Stevens, Acadia University
February 17	Solar and Stellar Seismology Through the Ages by Dr. David Guenther
March 17	The Vatican Observatory: Gregory to Gregorian Chance by Dr. Christopher Corbally, Vatican Observatory
April 25	Science, Non-science and Nonsense by Dr. Doug Hube
May 19	How Old is the Universe and How Do We Know? by Dr. Michael West
June 16	Supernova Scotia 1995F by Paul Gray and David Lane
September 15	Decoding Stonehenge Decoded by Patrick Kelly
October 20	Video: So Many Galaxies, So Little Time
November 17	Annual Meeting and Members Night
December 15	The Cow Jumped Over the Moon by Mary Lou Whitehorne

1994-1995 was a tumultuous time for the centre: many things changed. A new foundation for the future of the Hamilton Centre has been laid, and although this future looks good, there still remains a lot of work to be done.

Hamilton

In October, 1994, I entered the meeting room for the annual general meeting and found just a handful of people. It was then that I found out that our board had only two people on it. National office had been contacted, and I was informed by Richard Petrone that the centre could function with only two board members, however, all decisions would have to be voted on by the membership at large. To say this would be cumbersome would be an understatement. Then *Orbit* arrived, and we read an open letter to the membership from two members. They felt that being a member of both the Hamilton Centre board and a member of the Hamilton Amateur Astronomers (HAA) was a conflict of interest. They also stated that they could not, in all conscience, continue to serve the centre under these circumstances. The editor, in his column, agreed with the writers. We were faced with the imminent collapse of the centre. Not enough people seemed to care. This was the centre at its most fractious.

Richard Petrone, the first vice-president at the time, opened the meeting. Mike Jefferson spoke eloquently, and with passion, to the seventeen people who showed. Mike spoke because it was his appointment, effectively sponsored by Richard and I, that had precipitated this debacle. The Reverend Norman Green, our longest standing member, was asked for his counsel. The matter was thrashed around and a consensus was reached. Membership in one organization should not preclude one from offering ones services to the board of the other. Full membership in the Hamilton Centre conferred this right.

That being decided, people began offering their services. In just a few minutes, ten people had joined the board. Along with the two that had stood firm, we had a full complement. Due to the unorthodox manner in which it came about, the assembled members at the November meeting voted on a motion to confirm this board, which they did, unanimously.

Within a few weeks, we had a number of the major positions decided. One of my first major surprises was a call from Grant Dixon, the future chair of the HAA. He offered all the help he could, and if there was anything I needed, all I had to do was ask. Several other members and former members offered assistance as well, and to single them out would mean that inevitably,

Centre Reports

someone would be forgotten, but let me add one more name: Ann Tekatch. Ann is a former editor of *Orbit*. She offered to be editor, until someone could be found from within the centre. Since I believed that *Orbit* is the glue that ties the centre together, this was a most welcome offer. Suddenly, it looked that I would not be presiding over the death of a centre, but over the revitalisation of an old one.

In the meantime, the board had tried a number of things it had never tried before; like having the board meetings before the general meeting, and allowing the membership to observe the board in action. (That is in (space) action not inaction!). Although this worked for a couple of meetings, we had to give it up. We had to have two board meetings a month because we could not get through all the business we needed to, particularly so, once people started to feel more comfortable in the duties of the positions they had taken on. Board meetings are not all business either. One of the functions of these meetings is to allow those people to be able to air their views and ideas. In the limited time available before a general meeting, this was not possible.

One thing that did change was that a feeling of optimism was starting to pervade the centre. Special evenings at the observatory were hugely successful. If you came late, you had to park on the road. There was a sense that the centre was not rebuilding, not trying to bring itself back to its former size, but re-making itself; becoming something it had never been before, and that this thing it was becoming was good. It was obvious that the jewel in the centre's crown is the observatory. A number of measures were taken to attempt to increase its use. Computers arrived, as did the rudiments of a radio telescope, and a microwave oven. Optical assemblies were moved around from mount to mount, the construction of a CCD camera started, even a propane heater arrived. The board also attempted to dispense with some old optical equipment.

During that year, a fair bit of new blood was being injected into the operation of the centre. Our finances and public education programmes found themselves in the more-than-capable hands of John Kezys and Carmen Martino; *Orbit* found a champion in Charles Baetsen who also managed to find the time to be curator; the library was run by Ray Badgerow, who was also pressed into action as the recorder, at least for board meetings, when Bob Cunningham had to step down. Richard Petrone was a mover and shaker in the observing director's position. Dave Coulson has handled the secretary's job with aplomb, and there is nothing more that I could add other than a very heartfelt "Thank You" to Mike Jefferson.

Where is the centre going now? I do not know. The majority of the current board are offering their services for another year, myself among them. At least two additional people, who have never been on the board before, have also put their names forth, so it seems safe to say that the centre is in very capable hands. However, we could not have survived without people like Robin Allen, Bob Botts, Lou Darcie, Hugh Gibson, Colin Haig, Tim Nicholls, Bert Rhebergen and Ann Tekatch. There are other people, too, whose efforts should not go unnoticed. People who contributed as and when they could to the welfare of the centre. People like Ed Bailey, Ev Butterworth, Brian Carr, Bob Cunningham, Mike Joncas, and Bob Speck.

The centre moved further into the electronic age, with radio telescopes, CCD cameras, World Wide Web pages and the like. With so many disparate activities, the centre is becoming a livelier place than perhaps any other time in its history. The next year or two are going to be a wonderful time to be in the Hamilton Centre, yet it is not just the electronic age that beckons. True to its history, the Hamilton Centre and its observatory will still be, first and foremost, a people place. A place where those with a love of the universe around us can gather and contemplate wonders beyond the ken of most people on this planet. This remains true, despite equipment and techniques that would have been considered the purest magic when the centre was founded.

The CCD initiative has borne fruit. First light was seen at the end of January, 1996, and has allowed the Hamilton Centre to become the only amateur organization in Canada to join with NASA's Ames Research Centre, in using a CCD camera to study Comet Hyakutake intensively. This project put the centre on the front page of the Hamilton newspaper. The CCD group is to be congratulated on their achievement. The centre thus becomes one of the few amateur groups in the world to offer the use of a CCD camera to its members.

1995 also saw the visit of the national president of the RASC. This unusual event was well-attended, and Dr. Hube's talk was excellent. It was after the talk, when the assembled members and guests voiced their opinions of events that had taken place in Hamilton and on the national scene, that was most worthwhile. At times, the discussion got very heated, but it was a purging that was needed, and I would like to thank Dr. Hube for attending.

The push is now on to increase members, since the observatory was designed to be supported by seventy-five to eighty members, and we currently have about two-thirds of this. The building of the CCD camera was, we believed, vitally necessary, but it must be admitted that it has punished our finances. All in all, we have had a rough time in Hamilton for the past three years, and we may not be out of the woods yet. With the advances that the centre has made, we believe that a foundation has now been laid for the rejuvenation of the centre. With the advent of the CCD camera, with the establishment of a 'Saskatoon-like' new member initiative, with the Internet activity, and more, the centre is now set to put its troubles behind it and focus on the future.

List of speakers:

November, 1994	Grant Dixon	September, 1995	Members Night
December, 1994	Mike Ricks	October, 1995	Annual meeting, and Ann Tekatch
January, 1995	Richard Petrone	November, 1995 (1)	Tom Bolton
February, 1995	John Kezys	November, 1995(2)	Dr. Doug Hube
March, 1995	Walter MacDonald	December, 1995	Peter Ceravolo
April, 1995	Mike Jefferson	January, 1996	Phil Mozel
May, 1995	Doug Welch	February, 1996	Michael DeRobertis
June, 1995	Ivan Semeniuk	March, 1996	Ralph Chou

Roger Hill, President

The Kingston Centre meets on the second Friday of each month in Room B201 of McIntosh-Cory Hall at Queen's University.

Our centre enjoyed many interesting speakers during the year: A list of their speakers and their topics follows:

Kingston

- (1) **Origin of Comets**
by Dr. Martin Duncan, Queen's University
- (2) **All About Comets and How to Observe Them** by Leo Enright
- (3) **Globular Clusters** by Dr. David Hanes, Queen's University
- (4) April Meeting, a workshop with telescopes and computers.
- (5) **The Boltwood Observatory** by Paul Boltwood, Ottawa Centre
- (6) **Through the Glass Clearly: Getting the Most Out of Your Telescope**
by Peter Ceravolo, National Second Vice-President
- (7) **Atmospheric Phenomenon** by John Gauvreau, Hamilton Centre
- (8) **Skies Over Parinacota: Eclipse Trip November, 1994** by Rob Dick,
President, Ottawa Centre
- (9) September Meeting was members' night with illustrated talks and slides
by Cathy Hall; **Summer Star Parties** by David Stokes; **New Moon
Visibilities** by Leo Enright; slides including some of the 1995 G.A.
- (10) **How to Observe Meteors** by Cathy Hall
- (11) **Mithraic Mysteries** by Denise Sabatini
- (12) Annual Banquet; **What Caused the Ice Ages?** by Steve Manders

Cathy Hall convened Astronomy Day displays at Quinte Mall, Belleville, with Peggy Torney supervising the Kingston Display at the Cataraqi Town Centre. A public star party was held on a playing field at Queen's University.

We very much enjoyed hosting a special evening with Terry Dickenson on June 16th.

The national General Assembly was held at Windsor, Ontario, and nine members of our centre attended. It was confirmed that our centre is to host the 1997 G.A.

Many of our members enjoyed the various star parties and shared their slides and experiences with our society. Some were speakers at other events: Leo Enright, at Huronia Star Party; Terry Hicks at Saskatoon Centre; Peggy Torney and Denise Sabatini conducted a session at Brookvalley School; Judith Irwin, at an SAS meeting in Syracuse, New York.

The Kingston Centre has enjoyed an active and informative year.

Ruth E. Hicks, Secretary

The Kitchener-Waterloo Centre again experienced a year full of activities in 1995. Our monthly meetings were full of a variety of topics

Kitchener-Waterloo

and made for an exciting twelve months. The year got off to a fun start with our annual year-end dinner at Angies Kitchen in St. Agatha on January 14th. It was an opportunity to meet the friends and partners of our various members. As always, the event was well attended. A special thanks goes to fellow member Jim Graham and his wife who arranged the whole evening.

For the first meeting of the year in January, our guest speaker was Dr. Ralph Chou from the School of Optometry at the University of Waterloo. He spoke on one of our most important observing tools, our eyes, and the effect the Sun's rays are having on them. An explanation was given of the damaging effects UVA and UVB can have on your personal optics and how ozone depletion is increasing these effects. Clark MacDonald brought out some pictures he had taken of various nebulas as well as the telescope grinding workshop he has in his basement.

In the winter months, there was not a lot of opportunity to do much observing but Oscar Cole Arnal reported he could still spot some smudges on the surface of Jupiter from that famous collision. As well, there were a few opportunities to participate in Oscar's variable star contest.

For our April meeting Bernd Mueller showed a number of pictures he had taken including some crescent Moon shots and star trails. John Beingessner displayed a very accurate poster of the galaxy he had purchased. The main talk for the evening was by our president, Jeff Collinson, who gave a presentation on weird telescopes. These included designs that one did not come across every day. Many of the types described, such as yolo reflectors, shiefspleglers, and scopes sitting on Springfield mounts have many advantages over the common commercial scopes in certain applications. Construction of any of the models described would make for an interesting project.

During the week surrounding Astronomy Day on Saturday May 6th, the centre was involved in a number of public events. There was a display set up in the Waterloo Public Library consisting of a number of astronomical photographs, posters and information on the astronomy club. Evening observing sessions were held on Friday and Saturday nights. A chance to observe

the Sun through filters and projection was held on Saturday afternoon. Thanks go to John Molson, Paul Bigelow, Kim and Larry Mitchell, Mark Robb, Jeff Collinson and everyone else who helped in the observing sessions.

At our monthly meeting in May, the main talk was by Oscar Cole Arnal and Jonathan Schmidt. They gave a talk on Mars that covered everything from its earliest observations to its role in science fiction. Oscar concentrated on historical observations and present viewing techniques while Jonathan spoke on how Mars has influenced our culture from literature and movies to how we may view aliens. Darryl Archer showed a CCD video camera he picked up at a flea market. It had a video output line that he could connect to a VCR or television and he presented a short movie he had made of the Moon.

John Molson and other members were busy in May and June giving star talks to various groups. Talks were given to Kiwanis kids, Scouts and local schools.

The final official meeting before the summer had Ray Koenig as the main speaker. He presented one of his cosmology talks examining certain aspects of the Big Bang and the expansion of the universe. Olber's Paradox was examined and explained using the concept of the expanding universe presented by Einstein, and later Hubble.

Summer is a time for star parties in Ontario and many members of our group attended events such as the North Bay Star Party, Huronia and Starfest. One of our members, Jeff Collinson, was lucky enough to observe one of the brightest fireballs seen in the area for many years on August 24th while at Starfest in Mount Forest. Perhaps luck is the wrong term as it takes more than luck to be outside at 1:00 A.M.

A return to our regular meetings in September gave people a chance to describe what they had been up to for the past couple of months. Oscar Cole Arnal spoke about his observations of Saturn and how the rings were now edge on. Clark MacDonald described an idea he had for making adaptive optics by adjusting his secondary mirror. Jeff Collinson is now working on an 18.5-inch f/5 mirror that he estimates will take about eighteen months to finish. Jeff also announced that he would be going to India for the solar eclipse in October.

In October, Larry and Kim Mitchell spoke on their trip to the Connecticut Star Party. They had some photos of the event as well as stories about their trip though Corning, New York, where the 200-inch mirror for Mount Palomar was cast. Peter Daniel talked about the observatory tours he frequently makes. These include trips to California, Arizona and many other states to see famous sites such as Yerkes, Lowell, Palomar and the VLA. He always makes the trips most people only dream about.

Oscar Cole Arnal and Jonathan Schmidt gave the main talk at the November meeting. They gave a presentation on the planet Jupiter and its moons. They covered its early observations by the original Galileo to the recent missions by the probe of the same name. Techniques on observing the planet were given along with examples of their personal Jupiter sketches.

For the final meeting of the year, in December, elections were held for the 1996 executive. At this meeting, Peter Daniel brought a photograph he had taken twenty years ago at one of our meetings. It was interesting trying to pick out the familiar faces. Bernd Mueller gave a talk on using certain sections of the *Observers Handbook* concentrating on sky transparency. Ray Koenig gave the main talk on the topic of the Christmas Star and possible astronomical explanations for its observation based on historical records and calculated astronomical events.

Best wishes go out to our new president, John Beingessner, and thanks to our departing leader, Jeff Collinson. John Molson is working hard at putting out our newsletter, *The Pulsar*, and is always looking for members to submit some articles.

We look forward to 1996 for what it might bring and hope for clear skies.

Jeff Brunton, Secretary

London Centre has had a very active year and several notable speakers at our monthly meetings, including Dr. Paul Chodas of JPL Pasadena who spoke about his orbital computations for Comet Shoemaker-Levy 9 prior to Jupiter impact, and Dr. Robert Jedicke of Kitt Peak's Spacewatch program, who told of tracking near-Earth asteroids. Dr. Chodas, originally from London, Ontario, has recently been published in the journal *Science* and Dr. Jedicke has had an asteroid named after him, and yes, he is our own Peter Jedicke's brother.

In addition, Dr. Phil Stooke of the University of Western Ontario's (UWO) geography department addressed members at our annual banquet on his mapping of Phobos, while Peter Ceravolo of the Ottawa Centre enthralled us with his talk on telescope image quality and optics. Closer to home, Peter Brown of UWO's astronomy department told us about his unique team of meteorite chasers and his field work on the St. Robert meteorite, while Peter Jedicke walked us through a few of Kepler's easier proofs of elliptical planetary orbits in *Astronomica Nova*, a book only very recently translated into English.

Education is a big part of the London Centre's mandate (next to having fun). Members Dave McCarter, Mark St. George, and Dave Clark mounted a mall display for Astronomy Day, and members mounted observing sessions at local schools, parks, and scout meetings. Members also set up their telescopes/displays every Saturday night during the summer at UWO's astronomy department's public "Star Nights" at the Cronyn Observatory. These regularly draw crowds of up to 300 persons, keeping everyone very busy.

Strictly on the fun side, thirty-eight members attended Starfest this August, taking in the lectures, renewing friendships, and thanks to Joe O'Neil, who is always ready to get silly, having a lot of fun despite getting clouded out, twice. It was also good to see Dave Toth, a former London Centre president, who came up from North Carolina to attend those CCD sessions.

On a more sober note, Dr. William Wehlau, associated with the London Centre since 1955 and our honorary president, passed away as the result of a stroke in Cape Town, South Africa on February 24th, 1995. His full obituary appears on the last

London

page of the prototype issue of *Astronomy Canada*. He is greatly missed but I think he would be pleased with the enthusiasm and activity that exist today in the London Centre.

Five members attended the General Assembly this year and two, Dave McCarter and Dave Nopper, were awarded Messier Certificates. More members are getting out regularly to observe, thanks to Dave McCarter, our observer's group chair, and many are grinding and pitch-lapping their own mirror blanks with the help of Mike Hanes. In addition, a new group, starring the inventive Dave Rubenhagen, has formed to build a CCD camera for the centre. Dave has developed his own cooling coil prototype for this project. Mark St. George deserves a big vote of thanks for providing us with a very high quality newsletter, *Astronomy London*. Jan Wisniewski is a tireless astrophotographer and has shared his fabulous colour slides with members at observer's group meetings. He can often be found up all night at Sharon Creek with his 200 mm Schmidt-Cassegrain taking those 80 minute exposures. Mike Hanes built his own Dobsonian mount and 150 mm telescope which has an excellent focuser. Bob Duff catalogued our library collection and both he and Peter Jedicke provided computer format catalogues of the centre's and the national library's holdings.

The London Centre hosted its first regional star party, "Under the Celestial Tent", this past May at member Derek Hitchens' farm near Alvinston, Ontario for a weekend of exceptionally stable air and (mostly) clear skies. Mark St. George and Peter Dawes provided everyone with hot coffee and terrific telescope views; Peter Jedicke sported his 400 mm "water heater" Dobsonian mounted Starfinder; Derek gave us a tour of his dome observatory; and Dave McCarter and Derek located the Garnet Star. Observers came from as far away as Windsor and Ottawa.

Thanks to astronomy student Steve Arenburg, who made the arrangements, members of the centre were treated to a tour of the University of Western Ontario's Elginfield Observatory and 1.2-metre telescope. The tour was led by Dr. David Gray and assisted by graduate student Gregg Wade. Light collected by the telescope is piped to a garage-sized Coudé spectrograph. Members were blown away at one point in the tour to find themselves actually standing **inside** the spectrograph, which is used in the study of stellar magnetic fields.

With this much activity, our membership is naturally on the upswing (forty-one paid members as of October 30th); some as young as ten! Meetings have been so well-attended lately (thirty-five to forty members on average) that we frequently run out of chairs, even at the Pizza Hut afterwards. So far, no one is complaining! Members remain enthusiastic and excitement is mounting as we look forward to celebrating our 75th anniversary in January, 1997.

Sue Vonesh, Secretary

This has been an active year for the Montreal Centre under the new leadership of president Gary Angers. *Skyward* was given a new look by editor Mark Bratton (ably assisted by son Kristopher), and this year many members have become first-time contributors. (Maybe we are gearing up for *Astronomy Canada*.)

The talks by invited speakers were well-attended starting with a lecture, **Creation, Redshifts and Cosmology** by Dr. Halton Arp, hosted jointly with McGill University. Some of the other speakers were:

- (1) **Is ET Phoning Home?** by Dr. Robert Lamontagne
- (2) **Nouveau Developements d'Astronomie IR** by Dr. Daniel Nadeau
- (3) **Tracking Down the Oldest Old Nova N1670** by Dr. Tony Moffat
- (4) **Listening to Dark Matter** by Dr. Claude Carrignan
- (5) **New Way of Looking at Relativity** by M. Adolphe Martin
- (6) **Seeing the Wind Around Distant Stars** by M. Sebastien Lepine
- (7) **Is the Universe Getting Younger?** by Dr. Pierre Bergeron
- (8) **Dust in the Interstellar Medium** by M. Roger Hajjar

Our members greatly appreciate astronomers giving up an evening to fill amateurs in on the latest developments. In April Dr. Doug Hube visited Montreal and described the Edmonton Centre's lunar occultation expedition. At the talk in September, vice-president George Ascroft accidentally lost the speaker. A restless audience waited and after a frantic phone call, honorary president David Levy arrived and filled in. On the spot, a new member joined, impressed at the club which had David Levy as its back-up speaker!

In March, librarian Cathy Palmer-Lister hosted a wine and cheese party to celebrate the 60th anniversary of the centre library. The evening was a great success with over fifty people attending including several former librarians. Twenty-eight books were donated to the library that night.

On May 6th, Astronomy Day, we set up exhibits in three shopping centres. As a result, about seven new members joined. In the evening, a standing-room only audience watched space artist Jean-Pierre Normand create art with an air brush. We followed up this event with an open house on May 20th.

Director of observations, Marc Ricard, has led an enthusiastic observers group this year. In February, he and Frank Tomaras organized three public viewings of the Mars opposition through the C-14 at our observatory. Unfortunately, the weather was not cooperative. In August, Marc organized another public night, this time at Cooper Marsh on Lake Ontario. Over sixty people attended the lecture and then looked through the ten or so scopes which Montreal Centre members had set up.

Many members have taken advantage of our RAScope (rental) programme. Also the computer has been in demand.

Montreal

Director Daniel Biron obtained an Internet address for the Montreal Centre and set up a computer message base for members.

The Montreal Centre was in the media this year. A cable-TV company videoed events at our May open house. The September-October issue of *Astronomie Quebec* featured the centre and on September 1st, three centre members discussed amateur astronomy on CBC's Homerun show. One of David Shuman's astrophotos was chosen for the 1996 RASC calendar and another was printed in *Astronomie Quebec*.

Star parties, organized by Bill Strople in conjunction with Bernie Schirdewahn of Parc Sutton, continue to be among the most popular events at the Montreal Centre. The ski chalet at Mont Sutton is by far the favourite dark-sky site. Many new members, including our younger contingent, practised finding their way around the night sky at Sutton, and other members added to their Messier lists. Johanne Gamache gave first light to her 13-inch "Doob" at Sutton as well.

A priority this year for the board of directors has been a new set of by-laws. The old by-laws dated from 1964 and were in need of revision. The by-law committee, chaired by Chuck Johnston, was greatly aided in its task by the sample centre by-laws developed by Michael Watson and the RASC's constitution committee. The job may not be glamorous, but it is necessary, and now the Montreal Centre has an updated set of by-laws.

It was the end of an era at the Montreal Centre as Bob Venor resigned from the position of auditor. This is a service which Bob has provided for the Montreal Centre, free of charge, since the 1930's.

We look forward to another good year and will be watching closely the fortunes of Comet Hale-Bopp.

Carole Talbot, Secretary

The Niagara Centre had an eventful year. A wide variety of public and member activities were held, most of which were well-attended. The monthly meetings of the centre were held in the LaMarsh Room of the Niagara Falls Public Library on the fourth Thursday of the month, except for July, August, and December. The following is a list of the speakers and topics for our regular meetings in 1995:



- January 26 **Night-time Migration of Birds** by Dr. John Black, Brock University
- February 23 Members' Night
- March 23 **CCD Systems** by Bob Dony; astronomical software demonstrations
- April 27 **Meteoroid Impacts on Satellite Platforms: Nature's Kinetic Energy Weapons** by Peter Brown, London Centre
- May 27 Members' Night
- June 22 **Through The Glass Clearly: An Overview of Telescope Development** by Peter Ceravolo, Ottawa Centre
- September 28 **Starfest '95** by John Fishleigh
- October 26 Members' Night; loaner telescopes on display; short talks
- November 23 **History of the Cosmos** by Dr. John Black, Brock University

The highlight of the year for the centre was the discovery of a comet by long-time centre member Robert Jedicke. On January 8th, Robert made his discovery at the Kitt Peak Observatory in Arizona. The comet was designated 1995 A1, and was at magnitude 19.0 at the time of discovery. Robert is on staff at the Lunar and Planetary Laboratory of the University of Arizona.

In an effort to attract young people to astronomy and the RASC, the centre conducted a two hour "Introduction to Astronomy for Teenagers" seminar for grades 7-12 students. There was a large turnout for this event, and as a result the centre's youth membership increased significantly.

The annual banquet of the centre was held April 22nd at the Skylon Tower in Niagara Falls. Our guest speaker was Ivan Semeniuk, staff astronomer at the Ontario Science Centre. Ivan's talk was entitled "The New Universe: Hubble One Year Later" and included spectacular images made by the orbiting telescope.

The centre conducted a mall display on May 6th to celebrate Astronomy Day. On display were a variety of telescopes, posters, books, and telescope accessories. Slides and videos were also shown.

In July, the centre held its annual Canada Day BBQ at the centre observatory. Fireworks and an observing session concluded this event. At the General Assembly held in Windsor, Ontario, centre member Ron Gasbarini was present at the awards ceremony to receive the Service Award in recognition of his achievements and service to the Niagara Centre.

Guy Road Park in St. Catharines, Ontario, was the new venue for our Saturday evening public star nights. Several star nights were held throughout the year for local organizations, including the Niagara Peninsula Conservation Authority and Rock Point Provincial Park. As well, several members attended Starfest '95 and the Huronia Star Party.

The Niagara Centre became a member of the International Dark-Sky Association (IDA). Randy Vant, the centre's public relations director, used materials supplied by the IDA to prepare a light pollution prevention programme for presentation to local municipal governments and industries.

Ken Nunnenmacher set up a web page for the centre on the Niagara Peninsula freenet. Late in the year the centre acquired a new account on this system.

On December 2nd, the Brock Philosophical Society, in conjunction with the Niagara Centre, presented a one-day seminar entitled "Astronomy, Humanity and the Cosmos". The programme consisted of a number of short papers and discussions

presented by centre members, and concluded with two full length papers by university professors (Brock and Guelph). Sylvia Baago and Keith Sudds organized this event.

Late in the year, the centre learned of the sale of the property on which the centre's observatory was located. Unfortunately, the building can no longer be used by the centre. Members removed items which could be incorporated into a new facility. The centre is presently consulting with the Niagara Peninsula Conservation Authority to build a new observatory at the Chippawa Creek Conservation Area which is located in one of the darkest areas of the Niagara Peninsula. It is hoped that in 1996 the centre will have a new observatory ready for use by the public and members alike.

Ron Gasbarini, Secretary

The Ottawa Centre membership for 1995 was 230 members, consisting of 189 regular, seven junior, and thirty-four life members. This number shows an increase over 1994 membership by one person.

At the October centre meeting, a talk was given by Dr. Halton Arp, an astronomer with the Max Planck Institute in Germany, who is noted for his different views on the redshift of quasars.

At our annual dinner meeting, held November 18th, 1994, Peter Brown of the International Meteor Organization was our guest speaker. His presentation on meteors rekindled our interest in this fascinating subject by pointing out how useful the efforts of amateurs have become. Not only is meteor observing a great way to get to know the sky, he told us, but large numbers of observations are now being used to study the evolution of meteor streams. The Observer of the Year was awarded to Paul Boltwood for his internationally acclaimed observation program of the blazar OJ287. Glenn LeDrew received the *AstroNotes* Article of the Year Award for capturing the excitement surrounding an astronomical discovery in his article "A Nova in Cassiopeia" (Jan/94 issue). Gary Boyle received honourable mention for his article, "The Night of the Living Coffins" which had also appeared in the January issue.

In March, the Herzberg Institute of Astrophysics, through Dr. Watson, invited members of the Ottawa Centre to hear a talk given by David Schramm (University of Chicago) entitled "Probing Creation: Testing the Big Bang".

Due to the hard work of two Ottawa Centre members, Rob Dick and Arnie Weeks, our light pollution abatement committee has been extremely active in having meetings with city, regional and provincial engineers in charge of lighting. They have also handed out several Certificates of Merit to local politicians and businesses for their efforts to reduce the pollution of the night skies with wasteful and inappropriate lighting.

At the Windsor General Assembly, Paul Boltwood was awarded the Chant Medal for "outstanding contributions to amateur astronomy in Canada". Paul has been a member of an international observation team studying the light output of blazar OJ287 and has contributed about half of the total data acquired by the team.

The Ottawa Centre lost a dedicated member with the passing of Romeo Wlochowicz in May this year. Romeo served for several years as president and treasurer of the Ottawa Centre and also as the centre's auditor.

Ottawa Centre council held three meetings during 1995: January 13th, March 10th and June 9th.

Jane Lund, Secretary

Following the hosting of the national GA in 1994, a major concern of the St. John's Centre was to avoid falling into the doldrums. We needed to turn our efforts back to astronomy! Happily, this has happened...

A major undertaking since the '94 GA has been to run a beginning astronomy course through Memorial University's Division of Continuing Studies. This non-credit course is voluntarily presented by different centre members over six weeks, along with some observing nights. We have, so far, had three offerings of the astronomy course, involving some ninety participants in all, some of whom have since become members of the centre. Proceeds from instructing the course have done much to bolster the centre's coffers for other projects, and the *Beginner's Observing Guide* has proven to be an excellent, popular text for the course! Many thanks to Fred Smith, Randy Dodge, Garry Dymond, Brian Payton, Chris Stevenson, Malcolm Simpson, and David Rendell for making the course possible.

Over the last year astronomy has become more prevalent on the airwaves in Newfoundland due to the efforts of centre members to share astronomy with the listening and viewing public. Phil McCausland and Chris Stevenson have become regular fixtures on the CBC Radio Noon's "Crosstalk," an hour-long phone show. Every two months or so astronomy becomes the topic of choice and the two field calls on all sorts of astronomical (and not so astronomical) topics as well as discuss what is coming up in the skies. This has proven to give us much spin-off astronomy coverage as well, as the various news agencies have someone to contact when something exciting comes up, like the discovery of new planets, or Comet Hyakutake. Garry Dymond, Fred Smith and Randy Dodge have also fielded media inquiries about various celestial events and discoveries. Most recently, Garry's backyard observatory was the scene of CBC TV weatherman Karl Wells' live on-location report during the approach of Comet Hyakutake. Garry's photos of the comet and other objects were featured on the nights following the comet's closest approach, and many mentions of where to find the comet (and the local centre) were made.

Ottawa

St. John's

Centre Reports

Many members, notably Garry Dymond and Ian Gorner, volunteer their effort to present astronomy talks to schools, Boy Scouts, Brownies, and summer camps. Ian Gorner was recently recognized by the Boy Scouts for his contributions (in part, enthusiastically astronomical) to the program, and Garry has had to ask for help, he has had so many requests from schools for constellations and solar system talks!

Some of the events and St. John's Centre meetings which have occurred in the past year include:

The acquisition over the last summer of a tenm-foot satellite dish (!) on a steerable quarter-ton alt-azimuth mount (!!), both originally made to military specs. We are currently considering what to do with this functioning hardware, with our plans centring around finding a permanent site and tooling up to build or refurbish a cm-band receiver for radio astronomy involving brighter radio objects. Obviously this is a long-term project, but already several members are interested...

At our November meeting, ninth grader Scott Gammon impressed everyone with a presentation of his software which models gravitational interactions between asteroids of various shapes and sizes. It was his grade eight science fair project which won the regional fair (and the centre's newly established \$100 prize for best astronomy project), and went on to do well at the Canada-wide science fair. He is an excellent presenter and held our interest and questions long after our meetings usually end.

Our December meeting was a party of sorts, with members speaking of their astronomical Christmas wish list. January brought member Dr. John Lewis of the physics department of MUN to speak on the structure of galaxies, especially the investigation of our own Milky Way Galaxy. February's meeting featured presentations by member Brian Payton and Prof. Bob Bishop of the MUN physics department on astronomy software and multimedia for sky chart production as well as for CD-ROM and on-line astronomy teaching aids.

February also saw the St. John's Centre's involvement in a Newfoundland Symphony Orchestra (NSO) performance with a space theme, mainly involving Holst's "The Planets." Centre member Chris Stevenson put a major effort into producing a detailed hanging scale model of the solar system for the concert hall upper concourse, including an orange backlit weather balloon Sun complete with authentic looking sunspots! This model and the NSO performance featured in another Karl Wells CBC TV report, and on the night of the performance many members came out to help at the RASC table and display. The NSO was very pleased with the coverage, help and turnout, saying that there were at least twice as many people there as there would normally have been! The scale model stayed up for several weeks after, visited by schoolchildren and other interested viewers, and is expected to be moved for permanent display in the children's library in the same building.

Most recently, the centre co-sponsored with the MUN physics department an evening public seminar by Dr. Gretchen Harris of the physics department of the University of Waterloo. Thirty-eight people enjoyed her talk, which was entitled "Highlights of Science with the Repaired Hubble Space Telescope." Two nights later our centre's March monthly meeting involved a presentation by member Phil McCausland about the impending close approach of Comet Hyakutake—where to look, what had been seen already (a gallery of images drawn from comet websites lined one wall); as well as many questions. The comet really did seem to capture peoples' imaginations; this was our most well-attended meeting in the year with over forty people present.

On the whole, centre meetings have been well-attended by members and public alike, and the new, less formal format of less business and a dedicated speaker at every meeting seems to be popular. Membership of the St. John's Centre has stabilized at about thirty-five, although turnover continues to be a problem, with newcomers taking the place of those who have left, largely for economic reasons (unfortunately a lot of people—especially young people—are leaving Newfoundland these days). Still, we hope to help members involve themselves in the centre through new activities such as an "observing group" which meets every Full Moon to plan future observing and other activities, and more public events such as sidewalk astronomy during the April 3rd lunar eclipse as well as our annual August "Star-B-Q" star party in Terra Nova National Park.

The St. John's Centre's public profile (and hopefully that of astronomy) has grown substantially in the past year, and we hope that we can grow to better promote the interest of astronomy in coming years!

Phil McCausland, Treasurer

The Saskatoon Centre was involved in many activities this year. To get the maximum benefit out of our search for a new observatory site, we teamed up with the University of Saskatchewan physics department and astronomy club to pool resources for the search and to amortize development costs. We have not found a suitable site yet despite the persistent efforts of

Yannis Pahatouraglou. David Cornish also spent much effort in developing a temporary membership program which resulted in the attraction of about fifteen new members, and the continual growth of the centre. This year was also graced by the visits of the national president, Dr. Doug Hube and also by past treasurer, Terry Hicks.

We also sent our members out in all directions to promote the centre, and the Saskatoon Centre was represented at no fewer than five star parties from British Columbia to North Dakota. In addition, Jim Young and Dr. Ed Kennedy attended the General Assembly in Windsor. We also gave three major local star parties and numerous small star parties and lectures for school kids. Sandy Ferguson again put on a successful Beginning Binocular Observing Program this fall. Erich Keser ran the observer's group observing sessions monthly and had a good turnout at most of these, despite this summer being one of the smokiest summers ever and this fall being among the cloudiest on record. Our newsletter, *Saskatoon Skies*, took a turn for the better under the direction of Garry Brett. Also, our forever-in-process 16-inch telescope project got off the ground this year and is now well into construction as Bill Hydomako scribbled out new fabrication drawings barely minutes ahead of the machinists. Despite all this,

Saskatoon

a lot of members managed to do a bit of observing here and there! All in all, we have had a very successful year and my only regret is that I do not have the space here to name every member and tell everyone what a wonderful job they did!

January 16	Intensified Meteor Show Video Taping by Koji Meada; Photos from November 1994's Total Solar Eclipse by Don MacKinnon
February 22	Edmonton Centre's Grazing Occultation Expedition by Dr. Doug Hube
March 20	Construction of a John Dobson Solar Telescope by Rick Huziak; Photographing the Centre's Star Atlas by Jim Young
April 17	Binocular Astronomy and the Constellation Leo by Sandy Ferguson; Magazine and My Telescope by Garry Brett
April 25	Public Star Night - Martensville, Saskatchewan
May 6	Astronomy Display at Market Mall, Saskatoon
May 17	The Construction of the Sudbury Observatory by Erich Keser
June 19	Summer Observing Opportunities: Asteroids, d'Arrest and MIR by Rick Huziak; The Moon's a Balloon: 3D Astronomy by Mark Moore
July 28-29	Annual Public Star Night in Diefenbaker Park, Saskatoon
September 17	The Gregorian Calendar by Terry Hicks; The Mount Kobau Star Party by David Cornish; The Northern Prairie Fest Star Party by Eric Keser; Recent RZ Cassiopeiae Results by Rick Huziak
September 22-23	Annual Fall Public Star Night, Saskatoon
October 16	The Alberta Star Party by Bob Christie; Observing from Mauna Kea by Winston Quan
October 27	Public Star Night in Martensville, Saskatchewan
November 20	Annual Election; Photos of the India Solar Eclipse by Don MacKinnon; The Brazilian 'Tunguska' Event by Dr. Ed Kennedy
December 11	SED Systems and the Launch of Canada's Radarsat by Terry Rohrke

Rick Huziak, President

1995 was an unusual year in North-western Ontario. Due to lovely beach weather, we experienced one of the worst forest fire seasons on record. Temperatures were hot and rain was scarce, leaving the forests blazing. This made for orange sunsets and very hazy skies so viewing was difficult. Despite the smoky intruder, observing did take place. The threat of evacuation from campsites did not dissuade some members from travelling to sites on days when the wind was expected to change direction. Thunder Bay is relatively small and there are no cities within hundreds of kilometres. The skies, on good nights, offer spectacular viewing conditions, well worth the effort to get to.

Thunder Bay

Bob Bishop, who has held every executive position and has long been the liaison with the national office, and an instructor at special public events too numerous to mention, retired from the executive at the end of the 1995 season. Bob was responsible for founding the Thunder Bay Astronomy Club and for the club joining the RASC in 1988. Bob is no stranger at the national level, as he has been responsible for more than one improvement in the operations of the society. Bob's involvement and participation in the Thunder Bay executive enhanced the club's exposure through the many astronomy courses he initiated and instructed and through the events at which he arranged for media coverage. For years both Bob and his wife Beverley graciously hosted out-of-town guests and made all new members welcome. I am pleased to say that both Bob and Bev are still very active in the club. Many thanks for your years of service and hospitality.

Throughout the summer there were special events hosted by Ted Bronson, the centre's president, and Bob Bishop. Ted had a talk and star party at Quetico Provincial Park, 160 kilometres west of Thunder Bay. Park attendees and some club members were treated to perfect skies while Ted pointed out the major constellations and described what was being viewed through the telescopes that were present. Bob Bishop went east to Sleeping Giant Provincial Park for a well-attended day of crafts. There were movies for the children and in the evening, a slide show followed by a star party. Provincial parks are popular spots, offering great viewing sights and captive audiences.

The club had twenty-six members, ranging in age from the early teens through to early retirement. There was good participation from all age groups as different members would give presentations at each meeting.

September 22	Telescope Design by Dave Galley; On-line Services and Astronomy by Doug Stuart; Slides of the Summer Sky by Dave Galley
November 7	A Lunar Graze Expedition by Dr. Doug Hube (National President)
November 24	Eyepiece Design and Performance by Doug Stuart; The Telrad by Bob Bishop; telescope demonstration by Dave Galley

- January 26 **Slides of the South American Eclipse and Observatories** by Dave Galley; **Upcoming Astronomical Events** by Dave Galley
- February 23 **How the Eye Works** by Dr. McDonald; **How to Prove That the Earth is Round** by Dave Galley; **Time Zones** by Doug Stuart; **Slides of Celestial Objects** by John Bakkelund
- March 23 **How to Build a Telescope and Grind a Mirror for Under \$200** by John Stewart; **Does the Earth Act Like a Magnet?** by Dave Galley; **How Do You Find North?** by Doug Stuart; a preview of the upcoming Moon-Spica occultation and lunar eclipse
- April 27 **Astrophotography** by John Nistico; **Volcanism in the Solar System** by Dave Galley; **Various Motions of Earth** by Doug Stuart; a preview of the upcoming elongation of Mercury and ring transits of Saturn
- April 28-29 Observer's Workshop held at Northwood Playfield by Dave Galley
- May 25 **Light Pollution from a Designer's Point of View** by Don Welsh, a lighting engineer; a preview of the upcoming Moon-Spica occultation and ring transits of Saturn
- July 21-23 Star Party at Sleeping Giant Provincial Park
- August 18-20 Star Party at Quetico Provincial Park

Dave Galley, Secretary

After the grand annular eclipse of last year, 1994-95 might have become sort of a "recovery year" for centre members, sticking to the core programs which have become a staple of the Toronto Centre. Instead, the eclipse year seems to have injected our members with a new-found enthusiasm resulting in a whole slew of new activities. Indeed the public education committee, chaired by John Ginder, was quite active organizing a host of established and new programs which were realized thanks to the efforts of many energetic volunteers.

Toronto

Astronomy Week ran eight days from April 29th to May 6th where about fifty volunteers from the Toronto Centre, the McLaughlin Planetarium, the Ontario Science Centre, the University of Toronto and York University combined their efforts to bring astronomy to the people of Toronto via ten mutually hosted events.

Our monthly summer public star nights continue to be one of the best ways for Toronto urbanites to get a look at the night sky through a telescope. There were four star nights this year, at our usual east and west city locations. These events took place a few days before each month's Quarter Moon, and some experienced the highest attendances in recent memory. In fact, more than 200 people attended the July 31st event at Humber Bay Park West and our July 3rd event at Morningside Park received live coverage by CityTV. These events demonstrated the benefit of effective media relations and thanks go to Mario Carr in this regard. School and group talks as well as special request star parties have kept our speakers hopping with more than twenty presentations made during the past year. Thanks go to Steven Spinney, John Ginder and Kirsten Vanstone for very capably organizing this program.

Three shopping mall displays were organized under the direction of Robert Taylor. These were at Cloverdale Mall, Dufferin Mall and Erin Mills Town Centre where the centre's new Dell computer was employed in demonstrating astronomy software. The tradition of lending a helping hand to the staff of the David Dunlap Observatory with their Saturday night public tours continued as members brought out their scopes on favourable nights from April 22nd to September 30th.

The centre participated in the SPACE 1994 Conference at York University which took place on October 1st, 1994, as it had in the first such conference in 1990. The Scouts Canada Beaveree, which was held at Skydome on November 26th in honour of twenty years of the Beaver Section in Ontario, provided the opportunity for our public education volunteers to really test their mettle. More than 5,000 "eager Beavers" assembled for this sleepover and many lined up for a chance to peer through the scopes and check out the astronomy software running at our display.

1995 marked the return of the RASC to the Canadian National Exhibition after an absence of thirty years. Coordinated by Kirsten Vanstone, this was a scaled down version of previous appearances and consisted primarily of solar observing on the weekends of August 19th-20th and September 2nd-3rd. Special thanks go to Science North for helping to sponsor our participation. A series of optics and mirror grinding demonstrations were conducted by John Ginder and Issac Kravec at the Ontario Science Centre from January through March. The last special event was a public star party at the Ontario Science Centre on September 27th.

This year's programme of quite excellent speakers was arranged jointly by Dr. John Percy and Dr. Marshall McCall:

- October 28/94: **Variable Stars in Globular Clusters: Current Developments** by Dr. Christine Clement
- November 25/95: **Solar and Stellar Magnetic Cycles** by Prof. David F. Gray
- January 27/95: **The Collision of Comet Shoemaker-Levy with Jupiter: Recent Results** by Dr. Christopher Barnet

- February 17/95: **The Edmonton Centre's Eclipse/Graze Expedition to Fort Nelson, B.C.** by Prof. Douglas Hube
 March 17/95: **The Least Massive Stars** by Prof. Peter Dawson
 April 21/95: **Astronomy on the Internet** by Mr. Benoit Turgeon
 May 26/95: **Black Holes in the Galaxy and Beyond** by Prof. Mauri Valtonen
 September 29/95 **Astronomy in China** by Prof. John R. Percy

The observational activities committee, chaired by Guy Nason, organized eleven members' nights where a total of twenty-four different individuals gave fifty-one members' night presentations. Subjects included: the November 1994 solar eclipse; STARFEST, the Winter Star Party and other North American astronomical conventions; Las Campanas Observatory; lunar occultations; variable stars; mirror testing; innovative cold camera and autoguider designs; and a series on "The Sky This Month". An extra treat this past year was a demonstration of the spring sky, conducted by Ian McGregor, which was held in the Star Theatre of the McLaughlin Planetarium.

Steven Spinney and Martin Bonert coordinated sixteen members' observing workshops between locations of Morningside Park, Bayview Village Park and Humber Bay West Park. Robert Chapman conducted a series of twelve deep-sky workshops at Camp Robin Hood northeast of Toronto and Ken Davey and Brian Cheaney organized nine similar sessions at the Forks of the Credit Provincial Park for west end observers.

As of September 30th, 1995, membership included 654 regular, twenty-eight youth and eighty-two life for a total of 764. It is with regret that I report the deaths of two of our members over the past year; Mr. Joseph C. Dickson and Mr. H. G. Robertson.

The eleventh annual awards banquet was held at the Toronto Marriot Eaton Centre Hotel on Saturday, April 8, 1995, where the guest speaker was Mr. Owen Maynard. Mr. Maynard was the chief of the systems engineering division for the Apollo program and his topic was "Landing on the Moon: From Engineering Conception to Results." His talk proved to be an amazing look behind the scenes at NASA during that historic period of the Moon landing. Two Toronto Centre awards were then presented. The Andrew Elvins Award for promotion of interest in astronomy was awarded to Mr. John Ginder and the Bert Winnearls Award for efforts in supporting the centre's activities was awarded to Mr. Ian G. McGregor. Thanks go to MaryAnne Harrington for organizing a very enjoyable banquet evening.

Thanks go to David Hanson, the editor of our newsletter *SCOPE* and his assistant Gord Skerratt, for producing their first excellent year of issues. As a result of changes to postal rate structures, a number of measures were undertaken to stem the rising distribution cost. These included a reduction in weight to allow *SCOPE* to be mailed as a standard class letter and the distribution of the newsletter at centre meetings whenever possible. Thanks also must go to the many members who have volunteered to stay after some meetings to stuff and stamp *SCOPE* envelopes.

Thanks go to Issac Kravec and Kim Sprague for organizing the optical workshop during the first half of the past year and to Michael Nunns who assumed its direction for the remainder. The workshop has again become very popular with our members as it is currently operating to capacity. This year, five primary mirrors were completed with eleven others well on their way. Sizes range from 15 cm to 20 cm with f ratios from f/10 down to f/4.

Congratulations go to Mr. Jefferey Joel Bezzaire who was the winner of the 1995 RASC-Toronto Centre Gold Medal. This award is presented to the highest ranking student in the undergraduate astronomy programme at the University of Toronto.

A fund-raising barbeque was held at a Loblaws SuperCentre on Saturday August 12th, where centre volunteers served up hamburgers and hot dogs as well as treating the public to a side dish of solar observing. Thanks go to Brian Cheaney for setting up this event, and also to those who helped out to make it a success. Thanks must also go to Brian for organizing the refreshments after every meeting.

Our annual open house at the David Dunlap Observatory was held on September 16th. We extend grateful thanks to Dr. Ernest Seaquist, Dr. Tom Bolton and their staff for the hospitality shown a full house of centre members.

On behalf of the Toronto Centre, I offer thanks to all those members whose volunteering of their time and talents, made possible the success and enjoyment of the activities reported herein. I would also like to extend a special vote of thanks to those members who have volunteered their assistance for the first time during this year. Further, I would encourage others to do so as well and so contribute to the continued vitality of membership in the Toronto Centre.

Thanks also go to the Ontario Ministry of Natural Resources and Camp Robin Hood for their permission to use their grounds for our observing activities. Finally, I offer thanks to the McLaughlin Planetarium for their hospitality and for very kindly allowing us to use their facilities.

Tony Horvatin, Secretary

1995 was another year of superb lectures, trips and friendship forming for the Vancouver Centre.

January started with two meetings for membership. The first was our regular second Tuesday meeting when our guest speaker was Mr. David Halliday, a special project engineer at Coast Steel Fabricators in neighbouring Port Coquitlam. Mr. Halliday's talk was on

the design, fabrication and erection of the Keck domes and the Keck II Telescope which were constructed by this local firm. Our second meeting was held on the 20th where we were lucky enough to have Dr. Clark Chapman, Deputy Project Scientist for the

Vancouver

Centre Reports

Galileo mission. This lecture was held in partnership with the astronomy department of the University of British Columbia (UBC) and was on the topic of the Shoemaker-Levy crash as seen from Galileo.

February brought us an excellent lecture by Dr. Peter Stetson of the Dominion Astrophysical Observatory (DAO) who was a member of both the Canada-France-Hawaii Telescope and Hubble Space Telescope teams that recently found Cepheid variables in the Virgo Cluster. We also held an extraordinary meeting of the executive in order to put together a proposal to the Pacific Space Centre to expand the Gordon Southam Observatory facilities. This proposal was not accepted by the PSC.

In March we were able to have Dr. Paul Hickson of the UBC astronomy department give us his lecture "Cosmology Through A Liquid Telescope". Dr. Hickson gave us a progress report on the construction of his five metre mercury mirror telescope that is being built in Maple Ridge, about one and a half hours from Vancouver. We were also invited to a lecture given by Terence Dickinson entitled "A Galactic Odyssey".

April really got off with a bang for the centre as Dr. Eugene Shoemaker gave a lecture on the Shoemaker-Levy crash and the effects of such an impact on Earth. This lecture was held in conjunction with UBC's astronomy and physics departments. We also held our first sidewalk astronomy event for the year, and a new star party was held at Whistler.

May 6th brought us a well-attended Astronomy Day. Crowds were present all day and well into the night as we were blessed with moderately clear skies for the first time in a couple of years. We also held the first of our "Dr. Lee Johnson's Original Amateur Hour" evenings at which several of our members told us of their activities of late.

June entered with another appearance at Fraser River Days on June 4th, and a planetarium show followed on our regular meeting night. "To The Century's End" was written and presented by one of our members; Gary Seronik. June 23rd to 26th there was a star party at Pine Mountain, Oregon, to which several of our members journeyed.

In July we were honoured by a lecture from Ray Villard, the public relations chief of the Space Telescope Science Institute. "Hubble's Discoveries" was co-sponsored by John Nemy's Pacific Observatory at Blackcomb in Whistler, B.C. July also entailed a trek to Manning Park for the first of our star parties there.

Our August lecture was given by local photographer extraordinaire, John Nemy. John's talk was appropriately titled "Countdown to Kobau". The second part of the evening was an informative presentation by Dr. Lee Johnson's 'hand-picked' members on telescope types and viewing techniques. Of course, the Kobau Star party, held from August 23rd to 27th in Osoooyos, was well-attended.

In September, Dr. Jaymie Matthews of UBC gave us a lecture on "The ABC's Of UV Astronomy". Dr. Matthews also explained the importance of ultraviolet astronomy. We held the second sidewalk astronomy event and our second Manning Park star party was held that month as well.

October brought our annual member's night at which several of our members entertained us with their trials and tribulations of amateur astronomy.

On November 14th, Dr. Sidney Vandenberg from the DAO in Saanich lectured on "Dinosaurs and the Asteroids". Dr. Vandenberg's lecture was quite informative on the sizes and velocities required for mass extinctions. We moved our annual 'Astro Swap' to Astronomy Day as most of us were reluctant to bring equipment out in our usually inclement November weather.

In December we held our annual general meeting at which the new executive was presented to the membership. After this we had a presentation by our newly-formed "Supernova-Comet Search Observatory Committee". This committee will start construction of our new observatory in March 1996. The facility will be located about 150 metres from UBC's five metre Liquid Mirror Telescope in Maple Ridge and will commence a circumpolar supernova search soon afterwards.

Dark skies from the Vancouver Centre.

Many years pass by without any notable changes in most centres' histories, and this is also true of Victoria. Despite this, 1995 proved to be a memorable year and one that will be recalled by members for many years to come.

For the most part we enjoyed all the usual things: the monthly meetings, the beginner's and advanced observers' groups, the library and telescope borrowing arrangements, observing sessions, mirror grinding... the list goes on.

What set 1995 apart from the other years was something special and has to do with one of the basic reasons why the RASC exists: community involvement and public relations which together help to extend our love of the night sky to those who have had no opportunity to see its splendid wonders for themselves. Last year provided us with one of those special occasions to help young people, not from Victoria, but from around the world.

Some RASC members might not be aware of the eight United World Colleges that are located in various nations around the globe. They exist to provide a full scholarship for selected gifted students in every country. Victoria is the home of one of the world colleges, the Lester B. Pearson College of the Pacific, set in forested surroundings on the southern tip of Vancouver Island.

Pearson College is a dynamic international college where 200 young people from over seventy countries live, study and serve together. Students learn about themselves and our world, allowing them to transcend nationalism, respect diversity and promote international understanding. The two-year baccalaureate academic curriculum and the college's intense community service program help to develop outstanding students who are socially committed and will return home with a global vision.

Victoria

Two years ago, centre members Jack and Alice Newton heard that one of the college's Chinese students had approached the acting director, Jean Godin, with the idea of setting up an astronomy program. After talking to Jean Godin, who is also a centre member, Jack approached the Victoria Centre with an idea: would we be interested in permanently loaning our 500 mm telescope to Pearson College as the basis for a new observatory. This particular telescope had been mounted in a closed trailer for hauling with a truck but had been little used over the years.

The idea was enthusiastically adopted by the centre and the subsequent ripple effect quickly brought aboard a number of college patrons and foundations to provide funding for an observatory to house it. An architect drew up the plans and work soon began on the observatory's construction on college grounds, on the side of a mountain overlooking the ocean. Centre members Jack Newton, John Pazder and other members provided the necessary expertise to install the telescope and upgrade its ancient electronics. By early April, 1995 everything was ready. A 16 foot dome sat above a splendid office and warm room. The telescope had been equipped with an ST6 CCD which, in turn, was connected to two computers. A winding connecting road, appropriately named The Milky Way, had been built up the steep hillside.

Invitations to the official opening of the Lester B. Pearson College Observatory were sent out for the big day, which was to be held on April 7th, 1995. Victoria Centre council members, representing the centre membership, were among the fifty patrons and foundation representatives that were present. After a dinner, speeches and ribbon cutting, everyone inspected the facility and expressed their deep satisfaction that the effort to build the observatory had been well worthwhile.

The winners, when all is said and done, are the students. So popular did the new astronomy program prove to be that Jean Godin had to limit their number to 40, though many more expressed their desire to join in.

We Victoria Centre members are very proud that we have been able to contribute something of educational value to the young men and women who attend the college. Many students come from third-world nations. Most have never had an introduction to the wonders of the night sky, or looked through a telescope, much less had an opportunity to use one. Much of their astronomical background is rudimentary and it is pleasing to see their interest as they devour their new-found knowledge.

Centre members have been given an open-arms welcome to share the facility with the students, which has turned out to be mutually beneficial for everyone. Jack Newton has made himself available at any time (even when he is in bed in the early hours) to assist the students with answers to questions. Other members have made up small groups to work with the students and the interest level has remained high.

We look forward to sharing the skies with our Pearson College friends for a long time to come.

"How can there be peace without people understanding each other, and how can this be if they don't know each other."

Lester B. Pearson, Nobel Peace Prize Lecture, 1957.

Monthly meetings and speakers:

October 94	The Fate of the Universe: Measuring the Mean Mass Density of the Universe Using Clusters of Galaxies by Dr. Simon Morris, DAO
November 94	Progress on the Gemini 8-m Telescope by Dr. Andrew Woodsworth, DAO
December 94	Galaxies Nearby and Far Away by Dr. Ron Marzke, DAO
January 95	Members' Night
February 95	The Aurora Explained , A video-tape from the Astronomical Society of the Pacific
March 95	Hubble Space Telescope: Servicing Mission Plus One Year by Dr. John Hutchings, DAO
April 95	Recent Developments Concerning the Size and Age of the Universe by Dr. Peter Stetson, DAO
May 95	The Constellation Figures: When, Where and Why? by Dr. Robert McClure, DAO
June 95	Members' Night
September 95	Astronomy from the Southern Hemisphere by Dr. Nicholas B. Suntzeff, Cerro Tololo Inter-American Observatory

Bill Almond, Secretary

1995 was indeed definitive as the 50th anniversary golden year for the Windsor Centre. Tim Bennett, our centre's president, fulfilled quite adequately his second year in that office. On the 14th of January, we held a special 50th anniversary banquet at Willistead Manor, where the Windsor Centre meetings were held in some of its early years. Henry Lee, one of the founding members of the centre, gave a thorough and well thought out presentation on the half century history of our group. We had another successfully run display at the Devonshire Mall on May 6th, Astronomy Day. From June 29th to July 3rd, the Windsor Centre hosted the 1995 General Assembly of the society.

Windsor

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Frank Shepley, who headed this event, did a splendid job in organizing and officiating over this annual national meeting, along with the rest of the members of the General Assembly committee. At the banquet, Frank was presented with a special gift of appreciation from Dr. Douglas Hube, president of our society, for managing the G.A. Also, at that time, Bert Huneault, a long time member and twice having served as president of our centre, received a Membership Certificate for his many years of work, therein.

A number of Windsor Centre members also attended the Winter Star Party, Starfest and Astrofest conventions. At our annual membership meeting last November, several people received awards: Lorison A. Durocher, who has done a great deal of work within our centre and is a life member of the society, had lost various awards therefrom, in a fire a few years ago. Tim Bennett presented him with new replicas of the following: the Membership Certificate, the Windsor Centre Plaque and the Life Membership Certificate. At this same membership meeting, Frank Shepley was awarded, by Tim Bennett, a Special Award Plaque for his sincere and diligent efforts in chairing the General Assembly committee, for the past few years.

A short number of months previous, the Windsor Centre members presented a copy of Peter Broughton's new book, *Looking Up*, which is a well-chronicled history of the society and its centres, to Dorothy Hallam, who had been the wife of the late Cyril Hallam. Cyril had been the man who had given the main motivation for founding the Windsor Centre back in 1945.

This year was a very active one for public education activities from various members in our centre. The following persons were involved in presenting astronomical programs to the public: Randy Groundwater, Susan Sawyer-Beaulieu, Tim Bennett, Henry and Mamie Lee, Steve Pellarin and Martha Pinch. One good effort as an example, was involvement by Randy Groundwater and two other members in staffing a display at the Science and Technology Fair, last summer, in Leamington, Ontario. Randy Groundwater reported at our membership meeting, last November, that for 1995 he gave ten public presentations, had written twelve articles on astronomy for the *Windsor Star* and had given five radio interviews on CBC Radio. Rod Clark has continued to write a number of articles this year on astronomical subjects for the *Tecumseh Tribune*.

Special thanks goes to Dr. Carolyn Shoemaker, who gave the Ruth Northcott Lecture, titled, "Comet Impact - Lessons Learned", during the G.A. on the 2nd of July, at the University of Windsor. Also, special thanks are expressed to David Levy, who introduced Dr. Shoemaker, prior to her giving this excellent presentation. Genuine appreciation is given to our guest speakers and the Windsor Centre members who spoke at our membership meetings. As well, sincere thanks are expressed to Susan Sawyer-Beaulieu for her work on our Astronomy Day display. Also, a warm "Thank you," to each person involved in other aspects of operating the Windsor Centre and/or having worked on the G.A. committee; and too, to those individuals who participated in public education efforts.

As well as hosting the society's General Assembly during the year, the Windsor Centre held nine membership meetings, four council meetings, one special banquet, one social and one observing session. The membership meetings were as follows:

January 17	Members' Night: Using the <i>Observer's Handbook</i> by John McDermott, Planning an Observing Night by Frank J. Shepley; Planning an Observing Session for Omega Centauri by Dan Taylor; Polar Alignment 101 by Susan Sawyer-Beaulieu
February 21	Asteroids by Steve Pellarin
March 21	The Winter Star Party '95 by David Marchand
April 18	Astronomy in Literature by C. Joady Ulrich, with Randy Groundwater
May 16	Using Astronomy Programs by Joe Cambala
June 20	Observing at the Limit by Tony Ward, North York Astronomical Society
September 19	Astronomy and Religion by Joe Cambala
October 17	Understanding the Sun by Dr. William Baylis, University of Windsor
November 21	The Sun and a New/Old Observatory by Marty Kunz, Warren Astronomical Society

C. Joady Ulrich, Secretary

Winnipeg Centre continues to enjoy modest gains in attendance, if not in membership. Listening to snippets of conversation at the meetings, one could conclude that most of the die-hard observers did much less viewing than they would have liked in '95.

Once again, the ever-restless Jay Andeson travelled to a solar eclipse, this time to India, in October. His subsequent slide presentation was well executed and well received. The Sun was vicariously enjoyed as we had been slammed into winter on November 1st. Jay's slide show occurred in mid-November when it was -37°.

Astronomy Day 95 was a modest success during the day, but clouds ruined the spectacular evenings that we have come to enjoy in recent years. There were computer interactive displays, scopes set up for solar views, and Jorge Cerritos displayed a wonderful mural of the solar system which he had painted.

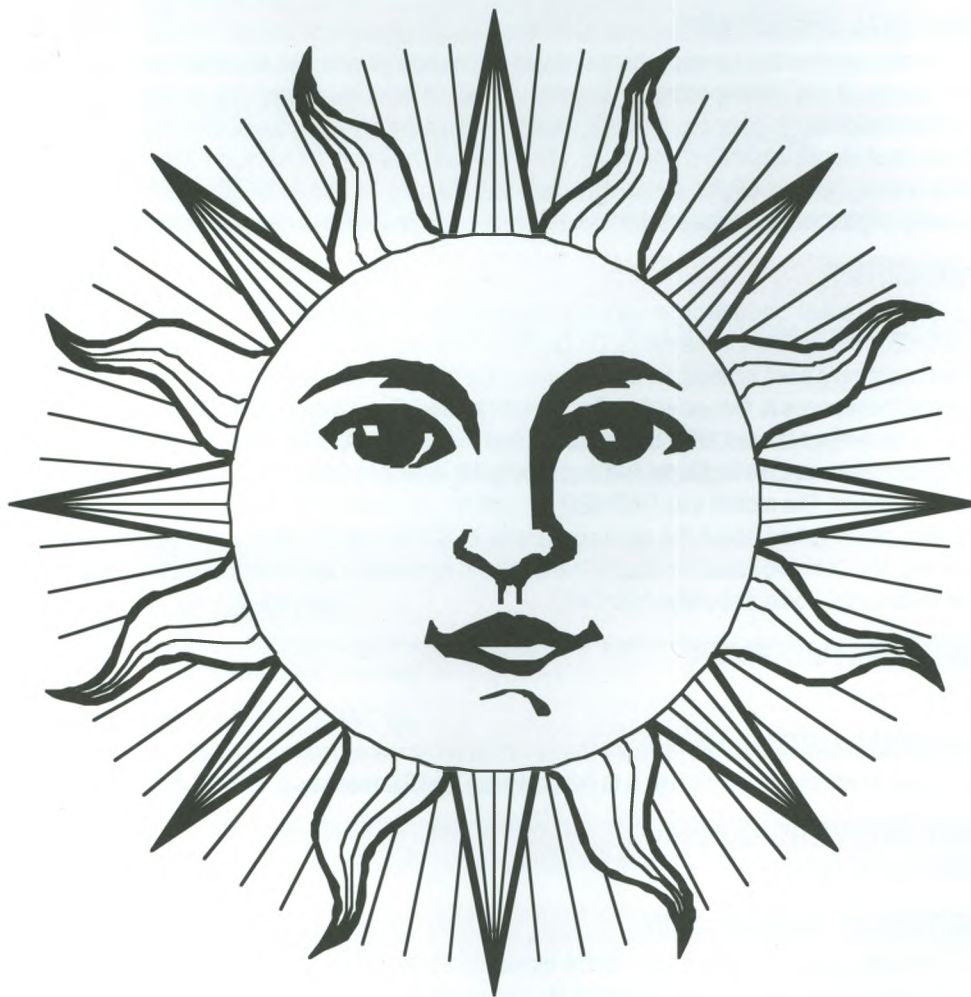
One of our eminent scope makers, Ken Noesgaard, was briefly featured in *Sky and Telescope* for his mirror grinding machine. It is always a bonus to have skills and talent available in one's local area.

Winnipeg

Winnipeg Centre meets, as a rule, every second Friday of the month, commencing in September and ending in June. The venue is the Jensen Theatre at St Paul's College, the University of Manitoba. The feature presentations for 1995 were as follows:

January	Quantum Mechanics by Dr. Raj Vatsya
February	Lunar Grazing Occultation by Doug Hube
March	Observing Tips
April	Bringing Astronomy to the Public
May	Astrophotography
June	Annual Bar-B-Que
September	Messier Certificates
October	Annual Meeting and Elections
November	The Leonid Meteor Storm
December	The Lockhart Planetarium with Ian Cameron

Crandel Overton, Secretary



Centre Reports

Hiram Walker Auditorium, Odette Building
University of Windsor, Windsor, Ontario.
July 2nd, 1995

The meeting was called to order at 10h07 EDT by the chair, RASC National President Dr. Hube. Dr. Hube welcomed delegates to the 1995 General Assembly. Dr. Hube called the roll of centres. Seventeen centres were represented and there were also several unattached members present. Approximately seventy members were in attendance. Dr. Hube expressed thanks to the local organizers in the Windsor Centre.

1. APPROVAL OF AGENDA

MOTION AM9501 It was moved by Mr. Auclair and seconded by Mr. Howell to approve the agenda. The motion was CARRIED.

2. ADOPTION OF MINUTES OF THE 1994 ANNUAL MEETING

MOTION AM9502 It was moved by Mr. Lane and seconded by Mr. Runge to adopt the minutes of the 1994 Annual Meeting. The motion was CARRIED.

3. REPORTS

3.1 PRESIDENT

Dr. Hube referred to his report in the 1994 Annual Report. Dr. Hube described his visits to Centres during the past year and described his other activities in promoting the society. Dr. Hube commented on the state of the society and the use of the internet for communication among centres.

3.2 NATIONAL SECRETARY

Dr. Brooks reported that correspondence related to the society's activities has been very brisk in recent months, and described some of this correspondence. In particular, Dr. Brooks mentioned the society's role in donating surplus astronomical equipment to other countries. Dr. Brooks read out the list of members who had passed away during the past year. A minute of silence was then observed. Dr. Hube thanked Dr. Brooks for his report. Ms. Hall asked if members making donations of equipment are eligible for tax-deductible receipts, and Dr. Brooks said that members making such donations are generally eligible for such receipts. Mr. Howell commented on the life of deceased member Mr. Gordon Patterson.

3.3 TREASURER

Dr. Gupta said that the state of the society's finances is good, and referred to the statements in the annual report. Dr. Gupta described the society's investments. Dr. Gupta commented that the society's publications have cost less in recent times than might have been anticipated, and commented on the potential impact of rising paper costs. Dr. Gupta reminded delegates of the changes in the society's policy regarding travel of national representatives to national council meetings, which would take effect later in 1995. Dr. Gupta thanked the society's auditors for their assistance.

MOTION AM9503 It was moved by Dr. Gupta and seconded by Mr. Attwood to adopt the audited financial statement as published in the 1994 annual report. The motion was CARRIED.

Mr. Broughton asked about the planned transfer of \$7000 and Dr. Gupta replied that this directive has been implemented. Mr. Ceravolo asked Dr. Gupta to describe in more detail the influence of the society's publications on the financial statements. Some discussion followed.

3.4 NATIONAL RECORDER

There was no report.

3.5 NATIONAL LIBRARIAN

Mr. MacDonald referred to his report to national council at the meeting of 1995 06 30.

3.6 EDITOR OF THE JOURNAL

There was no report.

3.7 EDITOR OF THE BULLETIN

Mr. Kelly expressed his appreciation for the increased number of photographs which have been submitted recently. A round of applause followed in appreciation of Mr. Kelly's efforts.

3.8 EDITOR OF THE OBSERVER'S HANDBOOK

Dr. Bishop reported that distribution has declined slowly over the past five years from about 12,000 to about 10,000, and commented on the impact that astronomical computer software may have on sales. Dr. Bishop announced the price structure for the 1996 and 1997 editions. Dr. Bishop commented that rising paper costs, rising mailing costs, and the lack of further opportunities for savings due to submission of material in a form ready for the press may have a negative impact on expenses related to the Observer's Handbook. A round of applause followed in appreciation of Dr. Bishop's efforts.

3.9 EDITOR OF THE BEGINNER'S OBSERVING GUIDE

Mr. Enright said that he had submitted a report to national council at the meeting on 1995 06 30, and described some of the details of that report. Dr. Hube thanked Mr. Enright for his efforts. A round of applause followed.

MOTION AM9504 It was moved by Mr. Hicks and seconded by Mr. McCarter to express the thanks of the society to all the editors of the society's publications. The motion was CARRIED.

3.10 STANDING COMMITTEES

3.10.1 AWARDS COMMITTEE

Mr. Lemay reported that three of the four award winners will receive their awards after the banquet during the General Assembly.

3.10.2 CONSTITUTION COMMITTEE

Mr. Watson said that the work of the constitution committee will come to the attention of the annual meeting under a separate item.

3.10.3 HISTORICAL COMMITTEE

Dr. Brooks described the work of the committee and, in particular, co-operation with the heritage committee of the Canadian Astronomical Society. Dr. Brooks called for greater informal participation of members in the activities of the committee. Dr. Brooks informed the delegates that the committee has once again published a bibliographical list of publications related to the committee's interest. Prof. Kennedy expressed thanks to Dr. Brooks for Dr. Brook's assistance in Prof. Kennedy's activities related to International Astronomical Union Commission 42.

3.10.4 MEMBERSHIP AND PROMOTION COMMITTEE

Mr. Jedicke said that he had submitted a report to national council at the meeting on 1995 06 30, and that a document by Mr. Hladiuk entitled "Promoting Your Centre" was available. Ms. Hay said promotional items were available for purchase at the General Assembly.

3.10.5 NOMINATING COMMITTEE

Mr. Broughton reported that no matters had required the attention of the committee.

3.10.6 PROPERTY COMMITTEE

Dr. Hube said that matters relating to the society's property had been discussed at the meeting of national council on 1995 06 30.

3.10.7 PUBLICATION COMMITTEE

Mr. George said that the activities of the committee would come to the attention of the delegates under other items.

3.10.8 ASTRONOMY DAY CO-ORDINATOR

Dr. Hube reported that Ms. Ferguson had submitted a report to national council at the meeting on 1995 06 30. Dr. Brooks said that Astronomy Day will next be celebrated on 1996 04 20 and that Astronomy Day will run from 1996 04 14 to 1996 04 20. There was some discussion regarding the suitability of this date for Canadian activities. Mr. Runge suggested the theme "Canadian Discoverers" for Astronomy Day 1996.

3.11 SPECIAL COMMITTEES

3.11.1 COMPUTER USE COMMITTEE

Mr. Shepley and Mr. Lane reported on the society's use of the internet for communications within the society and promotion of the society on the world wide web.

3.11.2 ELECTION GUIDELINES COMMITTEE

Mr. George reported that election guidelines had been adopted by the national council at the meeting of 1995 06 30, and that the activity of the committee is now complete.

3.11.3 GENERAL ASSEMBLY GUIDELINES COMMITTEE

Mr. Auclair reported that General Assembly guidelines are now available. The current edition was written by Ms. Mary Lou Whitehorne.

3.11.4 LIGHT POLLUTION COMMITTEE

Mr. Broderick read a report from Ms. Lewis.

MOTION AM9505 It was moved by Dr. Bishop and seconded by Mr. Lane to express the thanks of the Society to Ms. Lewis for her efforts. The motion was CARRIED.

3.11.5 LONG-RANGE PLANNING COMMITTEE

Mr. Ceravolo said that the committee had submitted a report to national council at the meeting on 1995 06 30. Mr. Ceravolo commented on the highlights of the report.

MOTION AM9506 It was moved by Mr. Broughton and seconded by Mr. Hicks to direct National Council to consider removing the provisions in the constitution that permit proxy voting.

Mr. Watson provided some background regarding proxy voting. There was some discussion. Mr. Auclair asked if this matter is itself subject to proxy votes. Dr. Hube suggested that this motion is non-binding and should not require a count of proxy votes. There was further discussion regarding the proper procedure for voting on this motion. Mr. Ceravolo proposed changing the motion to read "to direct national council to consider alternatives to the provisions in the constitution that permit proxy voting, including the elimination of proxy voting." This change was accepted by Mr. Broughton and Mr. Hicks. Dr. Hube declared that proxy votes would not be called on this motion.

The motion was CARRIED as changed.

It was 11h59 at this point. Dr. Hube polled the delegates and declared that the meeting would consider the report of the publications revitalization committee and then break for lunch.

3.11.6 PUBLICATIONS REVITALIZATION COMMITTEE

Mr. Lane reviewed the activities of the committee. A preliminary version of the prototype issue of "Astronomy Canada" is now available. Mr. Lane described some of the features of the report presented by the committee to the meeting of national council on 1995 06 30.

At 12h06, Dr. Hube declared that the meeting would break for lunch until 13h. The meeting reconvened at 13h11.

4. BY-LAW AMENDMENTS

Dr. Hube explained that the proposed amendments as presented in the agenda divide naturally in groups as follows: amendments A through G, amendments H through K and amendment L. Mr. Lane explained that the publications revitalization committee had reached an informal consensus regarding the intent of amendments A through G, that the committee recommended rejection of amendments A through G, and that the committee recommended that the society hire an editorial assistant under the provisions of the current by-laws. Dr. Hube said that a job description for this position did not yet exist.

MOTION AM9507 Motions "A" through "G" as presented in the agenda.

Dr. Brooks called the names of proxy holders and the numbers of proxies held by each and Dr. Brooks ascertained how these proxies wished to vote on this motion.

The motion was DEFEATED.

MOTION AM9508 Motions "H" through "K" as presented in the agenda.

Mr. Boltwood asked if temporary members would be covered under the provisions of the society's insurance coverage. Dr. Hube replied that the policy applied to any person participating in centre activities. Dr. Brooks read the roll of proxy holders.

The motion was CARRIED by a two-thirds majority.

MOTION AM9509 Motion "L" as presented in the agenda.

Mr. Hicks and Ms. Hall spoke against the motion. Dr. Levy expressed concern with the complexity of By-Law #1 in general, and expressed the concern that this amendment will further complicate By-Law #1. Mr. Boltwood asked if a mechanism exists by which elected officers can be removed from office, and Dr. Hube read Article 6.19 of By-Law #1. There was further discussion. Dr. Brooks read the roll of proxy holders.

The motion did not receive the required two-thirds majority and was DEFEATED.

5. ELECTION OF OFFICERS OF THE SOCIETY

As announced in the agenda, Dr. Gupta was acclaimed to the office of treasurer. A round of applause followed.

6. SELECTION OF AUDITOR

MOTION AM9510 It was moved by Dr. Gupta and seconded by Ms. Sabatini that the auditors be reappointed. The motion was CARRIED.

7. OTHER BUSINESS

MOTION AM9511 It was moved by Dr. Levy and seconded by Mr. Hicks that proposed changes to by-laws be made as clear as possible to members, that a by-law amendment be prepared to change the status of the constitution committee from that of a standing committee to that of a special committee, and that the national council investigate modern electronic means, such as tele-conferencing, of involving the membership in the affairs of the society. The motion was CARRIED.

Dr. Hube announced that there is a committee of the International Astronomical Union which has issued a call for suggestions for the names of women whose names could be used to name the features of Venus.

MOTION AM9512 It was moved by Ms. Sabatini and seconded by Ms. Palmer-Lister that national council compile a list of names of suitable Canadian women to submit to the International Astronomical Union. The motion was CARRIED.

MOTION AM9513 It was moved by Mr. Lane to adjourn the meeting. The meeting was adjourned at 14h09 EDT.

Respectfully submitted,

Peter Jedicke,
National Recorder

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- Librarian • Eric Young, 4A Park Place, St. John's, Nfld. A1C 6B2 (709) 753-4918
- Observing Chairman • Gary Dymond, 29 Woodwynd Street, St. John's, Nfld. A1A 3C9 (709) 722-4391
- National Council Representative • Phil McCausland, 51 Prince of Wales Street, St. John's, Nfld. A1C 4N1 (709) 574-7300

Sarnia (1995)

- Centre Address • c/o Alice Lester, 1091 Emily Street, Mooretown, Ont. N0N 1M0
- President • Alice Lester, 1091 Emily Street, Mooretown, Ont. N0N 1M0 (519) 867-5379
- Vice-President • Zdenko Saroch, 371 Cameron Street, Sarnia, Ont. N7T 4B7 (519) 336-3082
- Secretary • Jim Selinger, 160 George Street, Sarnia, Ont. N7T 7V4 (519) 337-6815
- Treasurer • Brendan Flemming, 203-1/2 Water Street, Sarnia, Ont., N7T 5T4 (519) 336-7106
- Director of Observations • Jim Selinger, 160 George Street, Sarnia, Ont. N7T 7V4 (519) 337-6815
- National Council Representative •

Saskatoon

- Centre Address • P.O. Box 317, RPO University, Saskatoon, Sask. S7N 4J8
- Electronic Mail • huziak@sedsystems.ca
- Web Site • <http://erato.usask.ca/~sarty/rasc/rasc.html>
- Honorary President • Dr. J.E. Kennedy, 1003 - 730 Spadina Crescent East, Saskatoon, Sask. S7H 3A1 (306) 374-4614
- President • Richard Huziak, #1-709-6th Avenue North, Saskatoon, Sask. S7L 2S8 (306) 665-3392
- Vice-President • Eric Keser, 405 Albert Avenue, Saskatoon, Sask. S7N 1G2 (306) 374-4262
- Secretary • Al Hartridge, 10 Poplar Road, Saskatoon, Sask. S7T 1A1 (306) 373-0034
- Treasurer • Mike Williams, 1514 Laura Avenue, Saskatoon, Sask. S7N 2S3, (306) 668-4365
- Newsletter Editor • Garry Brett, 522 Devonshire Crescent, Saskatoon, Sask. S7H 5W1 (306) 384-1807
- Librarian • Jim Young, 1422-11th Street East, Saskatoon, Sask. S7H 0G6 (306) 343-0971
- Activities Coordinator • Brian Friesen, 314 Johnson Crescent, Saskatoon, Sask. S7L 5P9 (306) 384-2963
- Councillors • Scott Alexander, Sandy Ferguson, Bill Hydromako, Merlyn Melby, Gordon Sarty
- National Council Representative • Jim Young, 1422 - 11th Street East, Saskatoon, Sask. S7H 0G6 (306) 343-0971

Thunder Bay

- Centre Address • c/o 286 Trinity Crescent, Thunder Bay, Ont. P7C 5V6
- President • Ted Bronson, 286 Trinity Crescent, Thunder Bay, Ont. P7C 5V6 (807) 475-3406
- Vice-President • Terence McDonald, RR#5 144 Melbourne Road, Thunder Bay, Ont. P7B 5N1 (807) 767-1847
- Secretary • Dave Galley, 214 Dennis Street, Thunder Bay, Ont. P7B 5H8 (807) 767-8388
- Treasurer • Dave Galley, 214 Dennis Street, Thunder Bay, Ont. P7B 5H8 (807) 767-8388
- Media • Doug Stuart, 403 Agate Bay, Thunder Bay, Ont. P7C 1T6 (807) 577-3943
- National Council Representative • Robert C. Bishop, 135 Hogarth Street, Thunder Bay, Ont. P7A 7H1 (807) 767-5689

Toronto

- Centre Address • c/o Ontario Science Centre, 770 Don Mills Road, Don Mills, Ont. M3C 1T3 (416) 724-STAR
- Electronic Mail • bchou@sciborg.uwaterloo.ca
- Web Site • <http://durham.durhamc.on.ca/ras/centre1.html>
- Honorary President • Dr. Ernest Seaquist, P.O. Box 360, Richmond Hill, Ont. L4C 4Y6 (905) 884-2112 (b)
- Past Presidents • Randy Attwood, 4348 Dallas Court, Mississauga, Ont. L4W 4G7 (905) 624-4629 (r)
(905) 624-0723 (FAX)
• Steven Spinney, 154 John Tabor Trail, Scarborough, Ont. M1B 2P8 (416) 281-2392
- President • MaryAnne Harrington, 118 Wolfrey Avenue, Toronto, Ont. M4K 1L3 (416) 340-3619 (b)
- First Vice-President • Gordon Skerratt, 49 Amherst Avenue, Toronto, Ont. M6E 1Z2 (416) 658-7027 (r)
- Second Vice-President • Marshall McCall, Dept. of Physics & Astronomy, York University, North York, Ont. M3J 1P3
- Secretary • Tony Horvatin, 8 Mountview Avenue, Toronto, Ont. M6P 2L3 (416) 763-4339 (416) 653-9524 (FAX)
- Treasurer • Dr. B. Ralph Chou, 5190 Mississauga Road North, Mississauga, Ont. L5M 4Z2 (416) 567-8694
- Recorder • Tim Mullins, #403 2070 Camilla Road, Mississauga, Ont. L5A 2J7 (905) 896-8303

- Honorary Councillor • Frederic Troyer, 1703-2330 Bridletowne Circle, Scarborough, Ont. M1W 3P6
- Councillors • Robert Chapman, Brian Cheaney, John Ginder, David Hanson, Robert May, Guy Nason, Michael Nunns, Robert Taylor, Kirsten Vanstone
- National Council Representatives • Robert May, Ian McGregor, Gordon Skerratt, Frederic Troyer

Vancouver

- Centre Address • c/o Gordon Southam Observatory, 1100 Chestnut Street, Vancouver, B.C. V6J 3J9
- Electronic Mail • khenriksson@daf.bbs.com
- Web Site • <http://pacific-space-centre.bc.ca/rasc.html>
- Honorary President • Dr. John S. MacDonald, 6237 Marguerite Street, Vancouver, B.C. V6M 1E5
- Past President • Frank Marino, 20199 Hampton, Maple Ridge, B.C. (604) 465-9124
- President • Ken Henriksson, 23996 Fern Crescent, Maple Ridge, B.C. V2X 7E7 (604) 463-5320
- Vice-President • Clare Turcott, 302-9151 Saturna Drive, Burnaby, B.C. V3J 7K1 (604) 444-4528
- Secretary • Craig Breckenridge, 3705 Rupert Street, Vancouver, B.C. V5M 3W2 (604) 437-3103
- Treasurer • Klaus Michel, M2003-1600 Beach Avenue, Vancouver, B.C. V6G 1Y7 (604) 682-1562
- Librarian • Usman Majeed, 4125 Blenheim Street, Vancouver, B.C. V6L 2Z3 (604) 739-9729
- Director of Telescopes • Steve Whitehouse, 123 - 217 Begin Street, Coquitlam, B.C. V3K 4V4 (604) 526-4528
- Councillors • Giovanni Andreis, Dan Collier, Nico Iormetti, Ken Nelson, Mike Pedelton, Tim Pieht, David Savelieff, Nelson Tesky

Victoria

- Electronic Mail • rasc@uvvm.uvic.ca
- Web Site • <http://freenet.victoria.bc.ca/rasc/rascvic.html>
- Honorary President • Dr. John Climenhaga, 2450 Sutton Road, Victoria, B.C. V8N 1J2 (604) 477-1403
- Past President • Gareth Shearman, 1216 Clovelly Terrace, Victoria, B.C. V8P 1V6 (604) 385-4302
- President • Don Moffatt, 303-1010 McKenzie Avenue, Victoria, B.C. V8X 4B2 (604) 363-0012
- Vice-President • Bill Almond, 354 Benhomer Drive, Victoria, B.C. V9C 2C6 (604) 478-6718
- Secretary • Bill Almond, 354 Benhomer Drive, Victoria, B.C. V9C 2C6 (604) 478-6718
- Treasurer • Margaret Ulitzka, 2968 Charlotte Drive, Victoria, B.C. V9B 4N6 (604) 478-5965
- Skynews* Editor • Betty Hesser, 1874 Ventura Way, Victoria, B.C. V8N 1R3 (604) 721-3803
- Librarian • Sid Sidhu, 1642 Davies Road, Victoria, B.C. V9B 5T9 (604) 391-0540
- Director of Telescopes • Sid Sidhu, 1642 Davies Road, Victoria, B.C. V9B 5T9 (604) 391-0540
- Recorder • Sandy Barta, 277 Plowright Road, Victoria, B.C. V9B 1P4 (604) 479-0259
- Councillors • George Ball, Don Dundee, Dr. James Hesser, John Howell, Frank Jones, Frank Ogonski, John Pazder, Keith Rawcliffe, Mae Shearman
- National Council Representative • Gareth Shearman, 1216 Clovelly Terrace, Victoria, B.C. V8P 1V6 (604) 385-4302

Windsor

- Electronic Mail • fshepley@wincom.net; jhurley@netmore.ca
- Honorary President • Dr. William Baylis, University of Windsor, Windsor, Ont. N9B 3P4
- Past President • Dan Taylor, RR#1, Essex, Ont. N8M 2X5 (519) 776-4493
- President • Tim Bennett, RR#2, Essex, Ont. N8M 2X6 (519) 776-8901
- Vice-President • Susan Sawyer-Beaulieu, 1112 Coachwood Place, Windsor, Ont. N9H 2G3 (519) 972-5516
- Secretary • Frank J. Shepley, RR#2 344 South Middle Road, Maidstone, Ont. N0R 1K0 (519) 723-2389
- Treasurer • John Hurley, RR#1 427 County Road 34, Essex, Ont. N8M 2X5 (519) 839-5565
- Aurora* Editor • Dave Marchand, 1460 Westminster Boulevard, Windsor, Ont. N8P 1W9 (519) 948-5930
- Director of Observing • Steve Pellerine, 3140 Parkwood Avenue, Windsor, Ont. N9H 2G3 (519) 966-0713
- Director of Public Education • Randy Groundwater, 3400 Askin Avenue, Windsor, Ont. N9E 3J7 (519) 969-8552
- Librarian • Rob Hastings-Trew, 1704 Chilver Road, Windsor, Ont. N8W 2T6 (519) 252-0847
- Recorder • John McDermott, 1758 Marentette Avenue, Windsor, Ont. N8X 4E6 (519) 253-0407
- Councillors • Joan Bennett, Joseph Cambala, Randy Groundwater, Robert Hastings-Trew, Henry Lee, Dave Marchand, John McDermott, Jim Meredith, Steve Pellarin, Tom Sharron, Dan Taylor, Joady Ulrich
- National Council Representative • John Hurley, RR#1 427 County Road 34, Essex, Ont. N8M 2X5 (519) 839-5565

Winnipeg

- Centre Address • Room 110, St. Paul's College, 430 Dysart Road, Winnipeg, Man. R3T 2M6
- Electronic Mail • cbrown@ccm.umanitoba.ca
- Web Site • <http://www.mbnet.mb.ca/~syoungrasc.html>
- Past President • Stan Runge, 35 Cunard Place, Winnipeg, Man. R3T 5M1 (204) 261-9984
- President • Scott Young, 6 Bruce Avenue, Winnipeg, Man.
- First Vice-President • Jay Anderson, 189 Kingsway Avenue, Winnipeg, Man. R3M 0G4 (204) 474-1485
- Second Vice-President • Gil Raineault, 12 Greenmount Road, Winnipeg, Man. R2J 1T4 (204) 253-4989
- Secretary • Crandel Overton, 466 Sharp Boulevard, Winnipeg, Man. R3J 2L1 (204) 832-6639
- Treasurer • Chris Brown, 183 Canora Street, Winnipeg, Man. R3G 1T1 (204) 253-6392
- Editor • Andora Jackson, 595 Arlington Street, Winnipeg, Man. R3G 1Z6
- Librarian • Chris Rutkowski, P.O. Box 1918, Winnipeg, Man. R3C 3R2
- Councillors • Kevin Black, Andora Jackson, Ken Noesgaard, John Smith, Marianne Tschmier, Mike Wegner
- National Council Representative • Stan Runge, 35 Cunard Place, Winnipeg, Man. R3T 5M1 (204) 261-9984

Centre Finances

	Calgary	Edmonton	Halifax	Hamilton	Kingston	Kitchener Waterloo	London	Montreal	C.F. de Montréal	Niagara	Ottawa
REVENUE											
Membership Fees (Regular)	\$6,669	\$4,559	\$3,269	\$1,806	\$4,460	\$850	\$1,390	\$3,263	\$108	\$1,017	\$66,961
Membership Fees (Basic Surcharge)	\$1,690	\$487	-	\$640	\$617	\$92	\$152	\$1,793	-	-	-
Membership Fees (Special Surcharge)	\$420	-	-	-	\$34	-	-	-	-	-	-
Life Member Grants	\$259	\$144	\$446	\$29	\$130	-	\$86	\$334	-	-	\$475
Donations	\$2,900	\$27	\$131	\$833	\$229	-	\$29	\$131	-	\$215	\$478
Fundraising	-	\$31,219	\$347	\$17	-	-	\$71	-	-	\$114	-
Educational Activities	\$2,714	-	-	\$634	\$553	-	-	-	-	\$600	-
Interest & Dividends	\$688	\$765	\$594	\$18	\$2	\$3	\$484	\$3,703	-	\$10	\$806
Sale Of Handbooks (Net)	\$209	-	\$323	-	\$119	-	\$17	\$71	-	(\$37)	\$55
Sale Of Calendars (Net)	\$243	\$225	\$172	\$11	\$52	\$20	\$34	\$70	-	(\$49)	\$85
Sale Of Beg. Observing Guides (Net)	\$208	\$162	\$91	-	\$43	-	\$31	\$29	-	(\$87)	-
Advertising	\$20	-	-	\$144	-	-	-	-	-	-	-
G. A. (inc. Travel Grants)	-	-	-	-	\$166	-	-	-	-	-	-
Miscellaneous	\$3,004	\$1,719	\$77	\$584	\$692	\$152	\$92	\$324	-	\$2,037	\$1,527
Total Revenue	\$19,053	\$39,307	\$5,450	\$4,716	\$7,095	\$1,117	\$2,386	\$9,718	\$108	\$3,827	\$10,387
EXPENDITURES											
Fees to National Office	\$3,974	\$2,702	\$1,952	\$1,099	\$3,286	\$511	\$834	\$1,958	\$65	\$1,372	\$4,185
Library	\$28	\$13	-	\$198	\$27	\$53	-	\$651	-	-	\$288
Meetings	-	\$701	\$227	\$64	-	-	-	\$763	-	\$201	\$408
Newsletter	\$2,078	\$1,369	\$791	\$813	\$679	\$64	\$270	\$1,236	-	\$604	\$2,155
Annual Dinner (Net)	\$177	(\$159)	(\$31)	-	-	-	(\$4)	-	-	\$1,964	(\$30)
G. A. (inc. Travel Grants)	-	\$931	\$226	-	\$166	-	-	-	-	-	-
Equipment & Supplies	\$3,520	\$295	\$30	\$1,039	\$536	-	\$194	-	-	\$145	-
Office Administration	-	\$175	\$430	\$590	\$36	-	\$145	\$588	\$40	-	\$884
General Expense & Audit	\$1,769	\$67	\$359	\$107	\$336	-	\$73	\$413	-	-	-
Educational Activities	\$346	-	\$36	-	\$336	-	-	\$1,050	-	\$47	-
Insurance	\$1,274	\$63	-	\$691	-	-	-	-	-	-	\$577
Awards & Donations	\$44	\$26	\$238	-	\$423	-	\$100	-	-	-	-
Observatory	\$1,296	-	\$1	\$735	-	\$60	-	\$1,347	-	-	\$424
Miscellaneous	-	-	\$413	\$70	\$634	\$39	\$111	\$64	-	-	\$877
Total Expenditures	\$14,506	\$6,183	\$4,672	\$5,406	\$6,123	\$727	\$1,723	\$8,070	\$105	\$4,333	\$9,768
Surplus (Deficit)	\$4,548	\$33,124	\$778	(\$690)	\$972	\$390	\$663	\$1,648	\$3	(\$513)	\$619
Balance from 1994	\$16,634	\$20,181	\$16,191	\$5,163	\$737	\$738	\$3,534	-	-	\$1,760	\$31,598
Balance to 1995	\$21,182	\$53,305	\$16,969	\$4,473	\$1,709	\$1,128	\$4,197	-	\$3	\$1,247	\$32,217

	Québec	Regina	St. John's	Sarnia	Saskatoon	Thunder Bay	Toronto	Vancouver	Victoria	Windsor	Winnipeg
REVENUE											
Membership Fees (Regular)	\$2,227	\$778	\$1,283	\$330	\$1,854	\$1,008	\$24,371	\$7,146	\$3,820	\$1,629	\$2,178
Membership Fees (Basic Surcharge)	-	-	\$155	-	\$251	-	-	\$1,764	-	-	\$753
Membership Fees (Special Surcharge)	-	\$86	-	-	\$30	-	-	\$271	-	-	-
Life Member Grants	\$20	-	\$58	\$14	\$72	-	\$1,210	\$216	\$486	\$43	\$14
Donations	\$35	\$1,012	-	-	\$279	-	\$2,722	\$310	\$11	\$1,468	\$16
Fundraising	\$638	-	\$70	-	-	-	-	-	-	\$1,873	-
Educational Activities	-	-	\$840	-	-	-	-	-	-	\$100	\$10
Interest & Dividends	\$62	\$2	\$141	\$3	\$13	-	\$3,024	\$753	\$481	\$3	\$64
Sale Of Handbooks (Net)	\$40	\$34	\$55	-	-	-	-	\$29	(\$122)	\$136	\$81
Sale Of Calendars (Net)	\$40	\$40	\$18	-	\$31	\$6	\$91	(\$961)	\$3	\$144	(\$24)
Sale Of Beg. Observing Guides (Net)	-	-	(\$100)	\$15	\$22	-	-	\$52	\$10	\$161	\$3
Advertising	\$150	-	-	-	\$35	-	\$200	\$150	-	-	-
G. A. (inc. Travel Grants)	-	-	\$708	-	-	-	-	-	\$486	-	-
Miscellaneous	\$15	\$30	\$20	-	\$79	\$46	\$3,767	\$1,018	\$3,418	\$702	-
Total Revenue	\$3,227	\$1,982	\$3,248	\$362	\$2,666	\$1,060	\$35,835	\$10,748	\$8,593	\$7,627	\$3,096
EXPENDITURES											
Fees remitted to National Office	\$640	\$376	\$770	\$238	\$1,134	\$605	\$14,620	\$3,445	\$2,184	\$977	\$1,307
Library	\$715	\$92	\$331	-	-	-	-	\$170	\$132	-	-
Meetings	-	-	\$195	\$100	-	\$30	\$1,103	\$1,147	-	\$368	\$128
Newsletters	-	\$55	-	-	\$933	-	\$6,674	\$2,406	\$1,310	\$475	\$534
Annual Dinner (Net)	-	-	-	-	-	\$32	\$487	-	(\$95)	\$93	-
G. A. (inc. Travel Grants)	-	-	\$430	\$65	-	-	-	\$272	\$744	-	-
Equipment & Supplies	\$110	\$1,000	\$175	-	-	-	-	\$2,155	-	\$594	\$22
Office Administration	\$220	-	\$140	-	\$123	\$55	\$3,524	\$773	-	-	-
General Expense & Audit	-	-	-	\$19	-	\$28	\$722	\$246	\$656	\$1,397	\$27
Educational Activities	\$120	-	-	-	\$269	-	\$1,662	\$192	-	\$15	\$38
Insurance	-	-	-	-	\$274	-	-	-	-	-	\$567
Awards & Donations	-	-	\$100	-	\$125	\$53	-	-	-	\$72	\$200
Observatory	\$414	\$435	\$697	-	\$75	-	\$63	\$73	\$3,856	-	\$328
Miscellaneous	\$1,176	\$129	-	-	-	-	\$2,589	\$220	\$34	\$783	\$10
Total Expenditures	\$3,395	\$2,087	\$2,838	\$422	\$2,933	\$803	\$31,444	\$11,099	\$8,823	\$6,142	\$3,161
Surplus (Deficit)	(\$168)	(\$105)	\$410	(\$60)	(\$267)	\$257	\$3,941	(\$351)	(\$230)	\$1,485	(\$65)
Balance from 1993	\$1,442	(\$821)	\$840	\$611	\$15,871	\$1,011	\$48,111	\$24,832	\$1,871	\$2,504	\$2,346
Balance to 1994	\$1,274	(\$926)	\$1,250	\$551	\$15,604	\$1,268	\$52,052	\$24,481	\$1,641	\$3,989	\$2,281

Centre Finances

Activities



A special dinner was held at Willstead Hall to mark the 50th anniversary of the Windsor Centre. Henry Lee is presenting a copy of Peter Broughton's book, *Looking Up*, to Mrs. Dorothy Hallam. Her late husband, Cyril, was one of the centre's founding members.



At the Windsor G.A, Bill Broderick (left) presented the society's national good lighting award to a council member from the town of Richmond Hill, this year's recipient. Photo by Leo Enright.



Paul Gray (left) and David Lane (centre) shared the Ken Chilton Prize for their discovery of SuperNova Scotia 1995. Dr. Doug Hube presented the award at the G.A. Photo by Leo Enright.



The Kingston Centre's mall display included telescopes, computers, posters and a display on the effects of light pollution.



Cathy Hall was one of the Kingston Centre members who was on hand for a mall display as part of Astronomy Day celebrations.

Tinkham & Associates
 CHARTERED ACCOUNTANTS

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AUDITORS' REPORT

To the Members
 of
 THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
 LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA

We have audited the balance sheet of The Royal Astronomical Society of Canada as at December 31, 1995 and the statements of revenue and expense, and equity for the year then ended. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Society as at December 31, 1995 and the results of its operations for the year then ended in accordance with generally accepted accounting principles.

Tinkham & Associates
 CHARTERED ACCOUNTANTS

TORONTO, Ontario
 February 7, 1996

**THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
 LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA
 BALANCE SHEET
 AS AT DECEMBER 31, 1995**

A S S E T S

	1995	1994
CURRENT		
Cash and short term investments	\$ 141,240	\$ 189,098
Accounts receivable	19,531	13,483
Prepaid expenses	2,097	2,000
Accrued interest receivable	<u>8,603</u>	<u>3,887</u>
	<u>171,471</u>	<u>208,468</u>
SPECIAL PURPOSE FUNDS (Schedule A)		
Cash and short term deposits	79,851	64,093
(including accrued interest)	185,000	110,000
Guaranteed investment certificate	<u>264,851</u>	<u>174,093</u>
CAPITAL ASSETS		
Office building, furniture, equipment, library (nominal value)	<u>1</u>	<u>1</u>
	<u>\$ 436,323</u>	<u>\$ 382,562</u>

L I A B I L I T I E S

CURRENT		
Payables and accrued charges	\$ 24,632	\$ 23,287
Deferred revenue	28,424	32,768
Membership fees for ensuing year	21,465	24,618
Journal subscriptions	<u>32,297</u>	<u>32,692</u>
Unamortized life membership fees (Note 1)	<u>106,818</u>	<u>113,365</u>
	<u>264,851</u>	<u>174,093</u>
SPECIAL PURPOSE FUNDS (Schedule A)		

E Q U I T Y

EQUITY		
	<u>64,654</u>	<u>95,104</u>
	<u>\$ 436,323</u>	<u>\$ 382,562</u>

On behalf of the Council of the Society

David J. H. ... President

... Treasurer

Accounting principles - Note 1

National Finances

National Finances

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
 LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA
 STATEMENT OF REVENUE AND EXPENDITURE AND EQUITY
 FOR THE YEAR ENDED DECEMBER 31, 1995

	1995	1994
REVENUES		
Membership fees	\$ 47,438	\$ 45,145
R.A.S.C. Centres	18,116	18,297
Individual members	<u>1,655</u>	<u>1,720</u>
Life membership: annual appropriation	67,209	65,162
Grants and Donations	3,000	3,000
Government of Canada-annual grant	<u>767</u>	<u>698</u>
Miscellaneous donations	3,767	3,698
Publication revenue	37,873	38,341
R.A.S.C. Journal	82,299	89,962
Observer's Handbook	<u>9,758</u>	<u>128,303</u>
Observers Calendar		
Miscellaneous income	21,235	12,649
Interest on investment	13,535	13,467
Rent	<u>1,537</u>	<u>445</u>
Other income	36,307	26,561
	<u>237,213</u>	<u>223,724</u>
EXPENDITURES		
Publication costs	27,853	42,145
R.A.S.C. Journals	14,887	17,186
Printing of Journal	10,167	-
Printing of Bulletin	11,736	9,388
Printing of Astronomy Canada		
Distribution costs	21,049	20,379
Observer's Handbook	5,891	6,411
Printing	8,303	-
Distribution costs	44,484	45,223
Observer's Calendar	6,892	8,637
Operating costs	3,377	2,044
Office salaries and employee benefits	6,897	6,968
Postage and shipping expense	3,902	4,132
Advertising expense	9,297	14,876
General and office expense	5,350	4,475
Life membership allotment to Centres	3,665	3,550
General assembly and travel expense	(225)	851
Professional fees	6,954	6,565
Insurance	<u>6,954</u>	<u>6,565</u>
Provision (recovery) for bad debts	46,734	30,894
Building expenses	190,479	192,830
EXCESS OF REVENUES OVER EXPENDITURES	46,734	30,894
EQUITY, January 1	95,104	73,460
Less: Transfer to Endowment Fund	<u>(77,184)</u>	<u>(9,250)</u>
EQUITY, December 31	<u>\$ 64,654</u>	<u>\$ 95,104</u>

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
 LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA
 NOTES TO THE FINANCIAL STATEMENTS
 DECEMBER 31, 1995

NOTE 1 ACCOUNTING POLICIES

The significant accounting policies are summarized below.

(a) Membership fees:

Members' fees are recognized as revenue in the related membership year. Accordingly, fees received at the end of the year for the ensuing year are recorded as deferred revenue. Life membership fees are credited to deferred revenue when received. Five percent of the life membership fund is transferred annually to membership fees revenue.

	1995	1994
BALANCE, January 1	\$ 32,692	\$ 33,512
Add: Life membership fees received in the year	<u>1,260</u>	<u>900</u>
	33,952	34,412
Deduct: Amortization	<u>1,655</u>	<u>1,720</u>
BALANCE, December 31	<u>\$ 32,297</u>	<u>\$ 32,692</u>

(b) Publications:

R.A.S.C. Journal subscription revenues are amortized into income over the subscription period.

(c) Investments:

Investments are stated at cost. Investment income is recorded on the accrual basis.

(d) Special purpose funds:

The special funds of the Society are classified in accordance with the objectives specified by the donors or in accordance with directives issued by Council. The income of the various funds is recorded on the accrual basis.

(e) Fixed assets:

The office furniture, equipment and the library of the Society are carried in the accounts at a nominal value. The cost of additions to and replacements of fixed assets are expensed as they are incurred.

NOTE 2 ORGANIZATION

The Royal Astronomical Society of Canada is a Canadian corporation without share capital and a registered charitable organization, incorporated for the purpose of stimulating interest and promoting astronomy and related sciences.

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
 LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA
 SCHEDULE A
 COMPOSITION OF SPECIAL PURPOSE FUNDS
 AS AT DECEMBER 31, 1995

	P.M.MILLMAN ENDOWMENT FUND	RUTH NORTHCOTT FUND	FUNDS CLOSED IN YEAR	1995 TOTAL	1994 TOTAL
Funds derived from	\$ 1,528	\$ -	\$ -	\$ 1,528	\$ 952
: donations	-	3,055	-	3,055	2,283
: interest on investments	75,000	-	-	75,000	7,000
: transfer from general account	12,544	-	-	12,544	-
: transferred from closed funds	-	-	9,638	9,638	-
: net publication revenue	2,184	-	-	2,184	2,250
: inflation adjustment	-	-	-	-	-
	<u>91,256</u>	<u>3,055</u>	<u>9,638</u>	<u>103,949</u>	<u>12,485</u>
Funds applied to	-	-	-	-	(20,509)
: publication costs (net)	-	(647)	-	(647)	-
: lectures and grants	-	-	(12,544)	(12,544)	-
: transfers to Endowment Fund	-	(647)	(12,544)	(13,191)	(20,509)
				<u>(13,191)</u>	
Net increase (decrease) in funds	91,256	2,408	(2,906)	90,758	(8,024)
Funds, January 1	<u>127,702</u>	<u>43,485</u>	<u>2,906</u>	<u>174,093</u>	<u>182,117</u>
Funds, December 31	<u>218,958</u>	<u>45,893</u>	<u>-</u>	<u>264,851</u>	<u>174,093</u>
Funds, comprised of					
: cash	\$ 19,958	\$ 3,112	\$ -	\$ 23,070	\$ 9,443
: term deposits	199,000	39,000	238,000	163,191	163,191
: accrued interest	-	3,781	-	3,781	1,459
	<u>\$ 218,958</u>	<u>\$ 45,893</u>	<u>\$ -</u>	<u>\$ 264,851</u>	<u>\$ 174,093</u>

Chant Medal

Paul Boltwood (Ottawa)

Service Award Medal

Ron Gasbarini (Niagara) Patrick Kelly (Halifax)

Simon Newcomb Award

Michael Watson (Unattached)

Ken Chilton Prize

Paul Gray (Halifax) David Lane (Halifax)

Membership Certificate

Bert Huneault (Windsor)

Messier Certificate

Richard I. Adduci (Unattached)	Dave McCarter (London)
Raymond Auclair (Unattached)	Dave Nopper (London)
Cathy Hall (Kingston)	Sylvia Smith (Edmonton)
Richard Keppler (Calgary)	Douglas Stuart (Thunder Bay)
Dr. Chris Malicki (Toronto)	Carole Talbot (Montreal)

Finest NGC Certificate

Randy Pakan (Edmonton)	Mr. Tom Cameron (Calgary)
Walter MacDonald (Kingston)	Mr. Douglas Sheldrake (Toronto)

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Edmonton	5	Kingston	26
Halifax	7	Kitchener-Waterloo	26
Hamilton	7	London (1994)	26
Kingston	9	C. F. de Montréal	26
Kitchener-Waterloo	9	Montreal	27
London	10	Niagara	27
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Montreal	11	Québec (1995)	27
Niagara	12	Regina (1994)	28
Ottawa	13	St. John's	28
Québec	no report received	Sarnia (1995)	28
Regina	no report received	Saskatoon	28
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