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

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2000  
annual report  
rapport annuel

# THE ROYAL ASTRONOMICAL SOCIETY OF CANADA – 2000

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Observer's Calendar Editor	Dr. Rajiv Gupta	<a href="mailto:gupta@interchange.ubc.ca">gupta@interchange.ubc.ca</a>
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## Centre Representatives on National Council

Calgary Centre	Susan Yeo	Ottawa Centre	Rick Wagner
Calgary Centre	Shirley Conway	Quebec Centre	René Breton
Charlottetown Centre	Clair Perry	Regina Centre	LeeAnne Beck
Edmonton Centre	Franklin Loehde	Sarnia Centre	Brendan Fleming
Edmonton Centre	Pat Abbott	Saskatoon Centre	Sandy Ferguson
Halifax Centre	David Lane	St. John's Centre	T.B.D.
Hamilton Centre	Blair Batty	Thunder Bay Centre	Ted Bronson
Kingston Centre	Tom Dean	Toronto Centre	Ralph Chou
Kitchener-Waterloo Centre	Bernd Mueller	Toronto Centre	Brian Cheaney
London Centre	David Clark	Toronto Centre	Anthony Horvatin
Moncton	Francis LeBlanc	Toronto Centre	Tim Hunter
Centre Francophone de Montréal	Patrice Scattolin	Vancouver Centre	Bob Parry
Montreal Centre	Mark Bratton	Vancouver Centre	T.B.D.
Niagara Centre	Ron Gasbarini	Victoria Centre	Sandy Barta
Okanagan Centre	Jim Tisdale	Windsor Centre	Frank Shepley
Ottawa Centre	Barry Matthews	Winnipeg Centre	Scott Young

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CONCEPTION ET INFOGRAPHIE

Mark Bratton

COVER PHOTOGRAPH  
PHOTO COUVERTURE

David Shuman

PRINTING  
IMPRESSION

Typoscript Inc.

**On the Cover:** The Sagittarius Milky Way in all its glory. RASC Montreal Centre member David Shuman took this photo from the state recreational area, Bahia Honda Key, Florida on July 20th, 1996. He used a 28mm f/4 lens, mounted on a Losmandy GM-8 mount and a 20 minute exposure on Kodak Royal Gold 1000 film. The bright “star” above the handle of the Teapot is the planet Jupiter.

# PRESIDENT'S MESSAGE

The Third Millennium is upon us, and the RASC is in a state of sound readiness for it. The half dozen or so Centres I've seen so far are fit and the morale is high, thanks to a large number of very talented volunteers, some of whom put more effort into the RASC than into their careers. It is wonderful to see people amateurizing for the love of it.

The National Office of the RASC is in excellent working condition as we enter the twenty-first century, thanks mainly to Past-President Randy Attwood, who led the RASC out of the morass of outsourcing and brought membership tracking back in house. Thanks also to Executive Secretary, Bonnie Bird, and her assistant, Isaac McGillis, our two nominally part-time employees. At least they are supposed to be part time! In fact they have been working full time for much of the year in order to put the new systems and procedures in place. However, the membership tracking database system is now purring along smoothly and since December marks the end of the busiest time of the year, we anticipate that they will soon return to part-time work.

Membership numbers are at an all-time high and climbing. Two new Centres were added during the year 2000 (Charlottetown and Moncton), bringing the total to 25. With the addition of Prince Edward Island, we have a minimum of one Centre in each of the ten provinces. An amateur group from Prince George, B.C. has applied for Centre status. The number of *Observer's Handbook* sales is up. Calendar sales are up, as are *Beginner's Observing Guide* sales. Some copies of *Looking Up* have been recovered from distributors, and there have been several requests for it.

There have been some major changes in the publications. After nineteen years of editing the *Observer's Handbook* and guiding it to preeminence on the world scene, Roy Bishop stepped down, handing the editorship into the very capable and willing hands of Rajiv Gupta. It is clear from the transition edition (*OH 2001*) that the tradition of producing a useful handbook of the highest quality will continue.

The *Journal of the RASC* has also seen a change in editorship. After six years of meticulously editing and handling manuscripts through some turbulent times and major changes in the format and purpose of the *Journal*, David Turner passed on a reconstituted *JRASC* to fellow Halifax astronomer, Wayne Barkhouse. Wayne, as Editor in Chief of the *Journal*, has big plans for a continuation of the revitalization to serve both amateur and professional needs. His new editorial structure is detailed in the joint August/October issue of the *JRASC*.

The joint issue was intended to put back on track the production schedule of the *Journal*, which was lagging seriously behind the cover date. The plan worked and since then the *Journal* has been printed on time or even well ahead of the cover date. Any delays have been caused by unavoidable shipping hold ups.

One of the new publication initiatives is putting the *JRASC* on-line through the Astronomical Data System (ADS). The entire archive has been scanned and new issues will be made available to the public one year after publication. Each new issue will be accessible only to members for one year, after which it will be available to the general public. The advantage to members is that the

archive will be searchable, so the RASC will have a higher profile, especially with libraries and individuals, who do not subscribe at present. As the *Journal* articles increase in quantity and relevance according to Wayne's vision, the profile of the RASC will rise among professional astronomers.

Dave Lane and the Publications Committee have set up an on-line e-store, which has turned out to be remarkably successful in attracting new orders and members. The RASC website also features links to books reviewed in the *Journal* or recommended in the *Observer's Handbook*.

Winnipeg hosted the annual General Assembly for the year 2000. During the Annual Meeting a motion to raise fees for the first time in ten years or so was overwhelmingly approved. The budget forecast, even including the fee increase, was for a large deficit. However, as can be seen in the treasurer's report, the final result is a small deficit. The reduction of the deficit is due to a number of factors: the membership increase, increased publication sales, some donations, the e-store, and some changes in accounting practice recommended by the auditors, as well as a general attempt on the part of the office staff to cut back wherever possible without adversely affecting the services to members. One reform instituted by Randy Attwood, for example, is that Executive Committee meetings are held by conference call, costing under \$30, and thus saving thousands in travel expenses.

Several Centres have or are building observing facilities for their members, and some of them are so well equipped that the professionals are envious. It would be good if the RASC could offer more assistance to Centres in the form of small grants, using some of the income from the *Observer's Handbook* and the Calendar for actually improving facilities.

All of these improvements will allow more growth and enable us to reach more of the general public with our main message, which is that the heavens are glorious and rewarding to observe and to ponder.

**Dr. Robert Garrison**  
*President*

# SECRETARY'S MESSAGE

As the year 2000 rang in over the world, we watched and waited in anticipation to see if all the computers would roll over to the correct date. As we looked at our computer screens at 12:00 midnight, we knew we survived the year 2000 bug and all its media attention.

In the field of Astronomy there were many new discoveries: new extra-solar planets, gamma-ray bursts that strengthened the case for hypernova models, four new Saturnian moons, new brown dwarfs, Comet Linear, the ISS, and the continuing saga of Mir. For a review of 2000's astronomical highlights, visit: [http://home.t-online.de/home/SWeimer/high\\_2000.html](http://home.t-online.de/home/SWeimer/high_2000.html).

A little closer to home, the Society grew with new amateurs joining our membership. At this time, on behalf of everyone in the Society, I would like to extend a welcome to all our new and renewed members. The Society's membership as of December 31st, 2000 was 4230. In addition, at this year's National Council meeting, held on the weekend of the General Assembly in Winnipeg, Manitoba, two new Centres, Charlottetown and Moncton, were voted in and accepted into the Society. This addition means that there are 25 Centres that stretch across all of Canada.

Centre	2000	1999	1998	1997	1996
Calgary	311	270	267	272	256
Charlottetown	26	N/A	N/A	N/A	N/A
Edmonton	222	217	166	152	138
Halifax	172	157	164	135	127
Hamilton	109	79	65	45	50
Kingston	151	176	136	152	142
Kitchener	95	80	51	32	32
London	115	78	65	49	45
Moncton	29	N/A	N/A	N/A	N/A
C.F. de Montréal	38	46	46	33	11
Montreal	102	105	113	108	103
Niagara	91	83	72	60	48
Okanagan	61	53	40	35	16
Ottawa	430	394	298	246	216
Quebec	63	36	50	51	47
Regina	30	27	31	18	23
St. John's	47	36	41	39	35
Sarnia	31	19	10	12	13
Saskatoon	76	77	75	54	54
Thunder Bay	32	37	31	17	20
Toronto	791	723	720	687	682
Vancouver	275	271	229	233	218
Victoria	159	148	144	126	100
Windsor	102	94	71	66	52
Winnipeg	99	106	97	77	64
Unattached	539	476	413	357	365
Honorary	13	14	15	15	15
Total	4209	3783	3419	3071	2862

Along with gaining new members, we seem to lose some of our existing members as well. At this time, on behalf of the Royal Astronomical Society of Canada, I would like to extend our deepest sympathies to the family and friends for the loss of our fellow amateur astronomers: Rev. Anderson Bakewell, Kingston; Mr. Ed Buckerfield, Hamilton; Mr. Howard R. Burke, Toronto; Mr. H. Charlesworth, Victoria; Mr. George Glass, Ottawa; Mr. Al Halyk, Regina; Mr. Gordon L. Hedberg, Calgary; Mr. Huntley Keefe, Ottawa; Mr. Rudy Kunze, Edmonton; Mr. Wilmot Livingston, Toronto; Dr. C. Maunsell, Victoria; Dr. C. Muses, Unattached;

Mr. H.K. Nelson, Okanagan; Mr. N.G. Rogers, Victoria; Mr. W.F. Sauter, Toronto; Martin Schwarzschild (deceased 1997), Honorary Member; Mr. Forston R. Shandler, Victoria; Mr. C.M. Simmons, Unattached; Mr. Max Stuart, Ottawa; Mr. Gordon Taylor, Kingston; Dr. Hendrik C. Van de Hulst, Honorary Member; Dr. Irwin Vanderhoff, Kingston; Mr. D. Wallace, Unattached; Miss Isabel K. Williamson, Montreal; Mr. James Wright, Vancouver.

With a growing Society, such as The Royal Astronomical Society of Canada, it takes our two full-time employees, Bonnie Bird (Executive Secretary) and Isaac McGillis (Membership and Publications Co-ordinator) and many volunteers to run, organise, produce great publications, and promote the Society as a whole. It is because of all these people that we have a great Society that we all can be proud of. I wish to thank everyone who, in his or her own special way, helps to promote and run this Society.

One event that takes many volunteers is the General Assembly, which is hosted by a Centre. The General Assembly consists of two National Council Meetings, and the Annual Meeting, along with activities for everyone, including the tours, the wine and cheese gathering, members' talks and board displays, noted professional speakers and the Awards Banquet to finish out the event.

This year, the General Assembly was held at the University of Manitoba in Winnipeg, Manitoba. Congratulations go out to many members of the Winnipeg Centre, including Jay Anderson, Stan Runge, Scott Young, Andora Jackson and the rest of the committees and volunteers who pulled together a fantastic General Assembly.

This year, at the Banquet, plaques were handed out to Dr. Roy Bishop, who was Editor of the *Observer's Handbook* for 19 years, and to Dr. David Turner, Editor of the *Journal of the RASC*. Both of these men gave a great deal of time, and dedication to produce great publications. The Editorship of the *Observer's Handbook* was handed over to Dr. Rajiv Gupta, who is also the Editor of the award-winning *RASC Calendar*. The Editorship of the *Journal of the RASC* was awarded to Wayne Barkhouse at the University of Toronto.

Other events held in 2000 were International Astronomy Day on April 8, many star parties hosted by RASC Centres and other astronomy groups, spring and fall National Council meetings, and visits to Centres from both National Presidents, Randy Attwood and Bob Garrison.

Events to be held in 2001 include the General Assembly, which will be hosted by the London Centre (<http://www.rasc.ca/ga2001/>). I urge all members to consider this General Assembly as an introduction to the business side of the Society, and to see the fun that amateur astronomers can have when they come together. Make this your summer vacation to the southwestern part of Ontario; I am sure that you will not be disappointed. International Astronomy Day is April 28, 2001 and Star Parties abound. For updated information on the Society and all of its activities at the National level and the Centre level, please check out the RASC website (<http://www.rasc.ca/>)

**Kim Hay**  
National Secretary

# TREASURER'S REPORT

In 1999, for the first time in a decade, the Society experienced a deficit, and what appeared to be a sizeable one (\$35,000). This was attributable mainly to a \$38,000 expenditure on a new membership handling computer system (hardware and software), as I reported last year. In March 2000, the National Council adopted a budget for the year that projected a further deficit for the year 2000 of about \$19,000.

The good news for the year, as can be seen from the Statement of Revenues and Expenditures in the audited financial statements that follow this report, is that the deficit for 2000 was much smaller than was predicted, amounting to \$5,672. Part of this better than anticipated performance is attributable to revenues that were 5.4% higher than projected, while expenses were only 1.2% higher.

As for revenues, the Society's membership fee income increased by 15% over the 1999, which in turn was 16% above the 1998 level. This total increase in membership fee revenue of 33% in two years reflects the continuing increase in the level of membership that the Society has experienced, with no end in sight. While this trend is encouraging in that it indicates that interest in astronomy continues to grow, and that the Society appears to be meeting the needs and expectations of its members, the exploding membership has implications for the future cost of delivery of services, which I discuss at the end of this report. I should remind members that the membership fee revenue figure for 2000 was unaffected by the fee increase that was approved by the membership at the July 2000 annual meeting; under our accrual system of accounting, this fee increase will first make its presence felt in the year 2001 figures.

Publications revenue was ahead almost 10%, with the increase split among the *Observer's Handbook* and *Beginner's Observing Guide* (up 6-7% each) and the *Observer's Calendar*. Last year I noted that the *Calendar* can now be considered as its own profit centre for the Society, and the performance in 2000 certainly confirms this; revenues for the *Calendar* increased by 40% over 1999, while expenses went up by only 33%. Other categories of revenue were in line with both 1999 figures and the 2000 budget.

On the expense side of the Revenue and Expenditure statement, the total cost of the Society's publications was up over the 1999 level by 18.5%, as a result of (i) the printing of a new edition of the *Beginner's Observing Guide*, (ii) an increased print run for the *Observer's Calendar*, and (iii) modest increase in costs for the *Observer's Handbook*.

While office salaries and employee benefits may seem to have increased substantially over 1999, much of this was apparent and not real; before 2000, part of the Executive Secretary's time was allocated to the bookkeeping category (see the "Financial services" expense line); starting in 2000, all of Bonnie Bird's time was moved from financial services to the "Office salaries" category, thus explaining the much lower figure for financial services in 2000, and much of the higher figure for office salaries. As well, the remaining increase in office salaries for 2000 was accompanied by a substantial decrease in expense in the membership services category, as a result of the 1999 figure including the final payment to University of Toronto Press for its membership han-

dling services, which were moved in-house in 1999. Overall, our employees are servicing the Society's membership in an efficient manner.

As for other expenses, the most noteworthy figures are for *Handbook* distribution (down substantially as a result of the *Handbook* being mailed with the *Journal* in 2000); *SkyNews* (up 7.6% because of the increase in the Society's membership); office expenses (down by almost \$25,000 because of the cost of the new computer system in 1999, which was not repeated in 2000), and Council travel expenses (up substantially in 2000 because in 1999 the holding of the General Assembly in Toronto resulted in reduced travel costs; in this connection, I note that travel costs in 1998 were \$23,530, which is in line with the 2000 figure).

The Society's overall financial condition remains healthy. Nonetheless, the National Council, the Executive, the Finance Committee and I as Treasurer have concerns about the future. Currently the Society's two employees are working almost full-time to serve the needs of the membership. As the membership numbers increase, at some point – perhaps soon – we will have to consider hiring another employee for the Society, at least part-time. This may also require us to acquire additional space, because the National Office is almost bursting at the seams. Inevitably, our costs will jump significantly within the next two or three years.

Another matter that bears close scrutiny is revenue from the *Observer's Handbook*. As most members know, this income source accounts for more than one-third of the Society's revenue. More important, it generates a net revenue (income less expenses) of about \$90,000. Without the *Handbook's* contribution to net revenue, membership fees would have to be more than \$20 higher than they are now. The concern is that *Handbook* sales seem to be static, and may in fact be on the downturn. Whether this is an inevitable result of the greater use by amateur astronomers of computer programs, or merely a short-term phenomenon, is unknown at this point. If *Handbook* revenues decline in future, however, the Society may face a major revenue shortfall that we must start to consider now.

**Michael Watson**  
*National Treasurer*

# AUDITORS' REPORT

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## **Tinkham & Associates**

CHARTERED ACCOUNTANTS

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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, 2000 and the statements of revenue and expenditures, and changes in net assets for the year then ended. These financial statements are the responsibility of the organization's management. Our responsibility is to express an opinion on these financial statements based on our audit.

Except as explained in the following paragraph, 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.

As described in note 3 to the financial statements, the Society credits interest earned on unamortized life membership fees and interest earned on internally restricted funds directly to the liability or fund and does not recognize the income in the statement of revenue and expenditures. In this respect, the financial statements are not in accordance with generally accepted accounting principles.

In common with many charitable organizations, the Society derived revenue from donations, the completeness of which is not susceptible of satisfactory audit verification. Accordingly, our verification of these revenues was limited to the amounts recorded in the records of the Society and we were not able to determine whether any adjustments might be necessary to donation revenues, excess of expenditures over revenue, assets or unrestricted net assets.

In our opinion, except for the departure from generally accepted accounting principles as explained in note 3 and except for the effect of adjustments, if any, which we may have determined to be necessary had we been able to satisfy ourselves concerning the completeness of the revenues referred to in the preceding paragraph, these financial statements present fairly, in all material respects, the financial position of the Society as at December 31, 2000 and the results of its operations for the year then ended in accordance with generally accepted accounting principles.

TORONTO, Ontario  
March 19, 2001

**Tinkham & Associates**  
CHARTERED ACCOUNTANTS

# BALANCE SHEET

As at December 31, 2000 with comparative figures for December 31, 1999

	2000	1999
<b>Assets</b>		
Current		
Cash	\$ 120,110	\$ 77,347
Short-term investments (note 4)	156,012	181,146
Accrued interest receivable	14,173	15,312
Accounts receivable	41,288	50,870
Prepaid expenses	9,916	2,188
	<b>341,499</b>	<b>326,863</b>
Long-term		
Investments (note 5)	219,839	209,000
Accrued interest receivable	11,176	8,579
	<b>231,015</b>	<b>217,579</b>
Capital assets		
Office building, furniture, equipment, library (nominal value)	1	1
	<b>\$ 572,515</b>	<b>\$ 544,443</b>
<b>Liabilities</b>		
Current liabilities		
Accounts payable and accrued charges	\$ 23,263	\$ 34,102
Deferred revenue		
Membership fees for ensuing years	84,787	73,782
Journal subscriptions	25,294	4,323
Unamortized life membership fees (notes 3 & 6)	54,516	45,127
	<b>187,860</b>	<b>157,334</b>
<b>Net Assets</b>		
Invested in capital assets	1	1
Unrestricted	85,517	98,625
Internally restricted (notes 3 & 7)	299,137	288,483
	<b>384,655</b>	<b>387,109</b>
	<b>\$ 572,515</b>	<b>\$ 544,443</b>

# STATEMENT OF CHANGES IN NET ASSETS

For the year ended December 31, 2000, with comparative figures for December 31, 1999

	Invested in Capital Assets	Internally Restricted	Unrestricted (notes 3 & 7)	2000	1999
Balance, beginning of year	\$ 1	\$ 288,483	\$ 98,625	\$ 387,109	\$ 419,600
Excess (deficiency) of revenue over expenditures for the year	—	—	(5,672)	(5,672)	(34,933)
Net interest earned on Ruth Northcott fund	—	3,218	—	3,218	2,442
Transfers	—	7,436	(7,436)	—	—
Balance, end of year	\$ 1	\$ 299,137	\$ 85,517	\$ 384,655	\$ 387,109

On Behalf of the Board:



President



Treasurer

*See accompanying notes to financial statements*



# STATEMENT OF REVENUE AND EXPENDITURES

For the year ended December 31, 2000, with comparative figures for December 31, 1999

	2000	1999
<b>Revenue</b>		
Membership fees	\$ 96,278	\$ 83,769
Publication revenue		
Journal	35,719	37,456
Observer's Handbook	130,200	122,219
Beginner's Observing Guide	15,011	14,061
Observer's Calendar	48,049	34,367
Other	(95)	899
	<b>228,884</b>	209,002
Miscellaneous income		
Interest on investment (note 3)	15,262	14,841
Rent	13,482	13,832
Other income	2,109	4,173
	<b>30,853</b>	32,846
	<b>356,015</b>	325,617
<b>Expenditures</b>		
Publication costs		
Journal	57,465	60,178
Annual report	10,919	8,292
Distribution costs	13,349	10,186
Observer's Handbook	41,498	36,336
Beginner's Observing Guide	12,339	2,004
Observer's Calendar	28,396	21,352
Operating costs		
Office salaries and employee benefits	54,654	45,834
Membership services	19,021	24,576
Handbook distribution to members	3,794	10,221
Grants to centres	3,000	5,600
Life membership allotment to centres	3,931	3,773
SkyNews expense	33,262	30,924
Office expenses	33,834	58,458
Advertising	963	1,700
Financial services	6,902	11,957
Insurance	4,152	4,015
Committees/Promotion	921	4,374
Travel expenses	22,951	12,718
Building	10,336	8,052
	<b>361,687</b>	360,550
<b>Excess (deficiency) of revenue over expenditures</b>	<b>\$ (5,672)</b>	<b>\$ (34,933)</b>

*See accompanying notes to financial statements*

# NOTES TO THE FINANCIAL STATEMENTS

December 31, 2000

## 1. 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 in and promoting astronomy and related sciences. The organization is not subject to income taxes pursuant to exemptions accorded to registered charities in the income tax legislation.

## 2. Significant Accounting Policies

These financial statements have been prepared by management in accordance with generally accepted accounting principles. The preparation of the Royal Astronomical Society of Canada financial statements in conformance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the balance sheet date and the reported amounts of revenue and expense during the reporting period. Actual results could differ from such estimates.

### (a) Basis of accounting

These financial statements were prepared using the accrual basis of accounting. The accrual basis recognizes revenues as they become available and measurable; expenses are recognized as they are incurred and measurable as a result of receipts of goods or services and the creation of a legal obligation to pay.

### (b) Investments

Short-term investments are carried at the lower of cost (including accrued interest) and market on an individual basis. Long-term investments are carried at cost.

### (c) Capital assets

The office building, furniture, equipment and library of the Society are carried in the accounts at a nominal value. The cost of additions to and replacements of capital assets are expensed as they are incurred. Subscription module software was acquired in the current year costing \$5,865 (1999 – computer system and hardware costing \$38,250) and is included in office expense in the statement of revenue and expenditures.

### (d) Membership fees

Members' fees are recognized as revenue for the fiscal year in which the membership primarily falls. Accordingly, fees received for ensuing years are recorded as deferred revenue. Life memberships are credited to deferred revenue when received. Five percent of the life membership fund is transferred at the beginning of each year to membership fees revenue.

### (e) Revenue recognition

The organization follows the deferral method of accounting for contributions. Unrestricted contributions are recognized as revenue when received or receivable, if the amount to be received can be reasonably estimated and collection is reasonably assured.

### (f) Publications

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

### (g) Contributed materials and services

The organization is dependant on the voluntary services of many individuals. Since these services are not normally purchased and because of the difficulty in estimating their fair market value, these services are not recorded in these financial statements.

## 3. Departure from Generally Accepted Accounting Principles

In accordance with its past practice, the Society has recorded interest earned on unamortized life memberships as a direct increase in the liability recorded on the balance sheet. The effect of this policy as at December 31, 2000 is liabilities are overstated by \$12,999 (1999 – \$8,582), interest on investment is understated and excess of expenditures over revenue is overstated by \$4,417 (1999 – \$4,173), and opening unrestricted net assets are understated by \$8,582 (1999 – \$4,409).

In accordance with its past practice, the Society has recorded interest earned on certain internally restricted net assets as a direct increase in the fund balance in the statement of changes in net assets. The effect of this policy as at December 31, 2000 is interest on investment is understated and excess of expenditures over revenue is overstated by \$3,218 (1999 – net \$2,442).

## 4. Short-term Investments

Short-term investments are comprised of guaranteed investment certificates with rates of interest from 4.20% to 5.05% (1999 – 4.15% to 5.75%) with maturities ranging from January 21 to February 22, 2001 (1999 – February 11 to November 20, 2000).

## 5. Long-term Investments

Long-term investments are comprised of a Canada Savings Bond and guaranteed investment certificates with rates of interest from 5.625% to 7.00% (1999 – 5.05% to 7.00%) with maturities ranging from March 2002 to November 2004 (1999 – February 2001 to November 2004).

## 6. Unamortized life membership fees

	2000	1999
Life membership fees as of January 1	\$ 45,127	\$ 41,362
Add: Life membership fees received in the year	6,800	1,440
Interest earned	4,845	4,393
Deduct: Amortization	2,256	2,068
Balance, December 31	\$ 54,516	\$ 45,127

## 7. Internally Restricted Net Assets

The Board of Directors has internally restricted certain funds. The Ruth Northcott Fund was established in 1969 and funds are used for a variety of specified purposes as approved by the Board of Directors. An amount representing interest earned on this fund is transferred from unrestricted net assets annually. The P.J. Millman Endowment Fund was established for the purpose of providing for the long-term growth of the Society. An amount calculated using the rate of inflation for the previous year is transferred to this fund annually. All disbursements from either fund must be approved by the Board of Directors.

The transfers to the funds are as follows:

			2000	1999
	Ruth Northcott Fund	P.J. Millman Endowment Fund	Total	Total
Fund balance, January 1	\$ 56,099	\$ 232,384	\$ 288,483	\$ 282,157
Transferred from Unrestricted net assets:				
Interest	3,218	—	3,218	2,679
Expenses	—	—	—	(237)
Inflation adjustment	—	7,436	7,436	3,884
Balance, December 31	\$ 59,317	\$ 239,820	\$ 299,137	\$ 288,483

## 8. Financial Instruments

The organization's financial instruments consist of cash, investments, accrued interest receivable, accounts receivable and accounts payable and accrued charges. It is management's opinion that the organization is not exposed to significant interest, currency or credit risks arising from these financial instruments.

## 9. Statement of Cash Flows

A statement of Cash Flows is not presented because it would not provide any additional useful information.

## 10. Comparative Figures

Certain comparative figures for 1999 have been reclassified to conform with the financial statement presentation adopted in the current year.

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

### Minutes of the Annual Meeting held 2000 07 02 in Drake Hall

#### University of Manitoba, Winnipeg, Manitoba.

The meeting was called to order at 13h13 cdt by the chair, the RASC National President, Mr. Randy Attwood. Mr. Attwood welcomed delegates to the 2000 General Assembly.

Mr. Attwood called the roll of Centres. Twenty-one Centres were represented (Calgary, Charlottetown, Edmonton, Halifax, Hamilton, Kingston, London, Moncton, Centre Francophone de Montréal, Montreal, Niagara, Okanagan, Ottawa, Regina, Saskatchewan, Thunder Bay, Toronto, Vancouver, Victoria, Windsor, Winnipeg) and there were also several unattached members present. Approximately 80 members were in attendance.

#### 1. APPROVAL OF AGENDA

No changes to the agenda, as it was distributed, were requested.

#### 2. ADOPTION OF MINUTES OF THE 1999 ANNUAL MEETING MOTION AM200001

It was moved by Mr. Bennett and seconded by Dr. Pihack to adopt the minutes of the 1999 Annual Meeting as published in the 1999 Annual Report.

The motion was **CARRIED**.

#### 3. REPORTS

##### 3.1 PRESIDENT

Mr. Attwood explained that reports presented at this annual meeting refer to the calendar year 1999, but that much activity had taken place in the early months of 2000. Mr. Attwood referred to his report in the 1999 Annual Report. Mr. Attwood reported that changes in the Society's operations had had a positive effect. Mr. Attwood showed a graph which described the growth of the Society's membership since 1960.

Mr. Attwood reported that the Society had sponsored a prize at the Canada Wide Science Fair, which had been held in May.

Mr. Attwood reported that the Society had investigated closer co-operation with the Canadian Astronomical Society (CASCA), and that proposals from the federal government for support of astronomy had been among the matters discussed. Mr. Attwood encouraged Centres and individual members to support these initiatives from the federal government at the local level. Mr. Attwood reported that the Society would be involved in public outreach related to the upcoming MOST satellite, which was planned for launch about 2003.

Mr. Attwood thanked Ms. Bird for her work in preparing the 1999 Annual Report and her dedication to the Society in gener-

al. A round of applause followed.

Mr. Attwood thanked all the members of the Society and particularly the members of the Executive Committee for their support and hard work during his term of office. Mr. Attwood wished the subsequent Executive Committee well in the upcoming term. A round of applause followed.

Mr. Attwood read a letter from Dr. Jack Locke, Honorary President.

##### 3.2 FIRST VICE-PRESIDENT

Prof. Garrison pointed out that the smooth operation of the Society in the past two years had been largely due to Mr. Attwood's efforts. Prof. Garrison reported that other matters related to his office would be considered under separate agenda items.

##### 3.3 SECOND VICE-PRESIDENT

Dr. Gupta reported that the membership tracking and accounting system had been operating smoothly.

##### 3.4 NATIONAL SECRETARY

Ms. Hay reported on her activities during the first year of her term in office. Ms. Hay read the roll of the members who were reported as deceased in 1999 and in the first six months of 2000. A moment of silence was observed in their honour.

##### 3.5 EXECUTIVE SECRETARY

Ms. Bird described the operation of national office. Ms. Bird reported that distribution of the *Observer's Handbook* from national office had been an improvement over the previous system. Ms. Bird reported on the contribution of Mr. McGillis, the assistant at national office, and particularly on the enthusiasm of Mr. McGillis in selling the Society's publications to new members and other persons who contacted the national office. Ms. Bird reported that the number of hours worked at national office had been reduced in recent months because operations were proceeding smoothly. Ms. Bird thanked Mr. George, Mr. Attwood and Ms. Hay for their support during her time at the national office. Ms. Bird reported that Ms. Hay had prepared revisions to the Society's administrative manual. Ms. Bird expressed her enthusiasm for working with Centre members who contacted national office.

##### 3.6 TREASURER

Mr. Watson described the financial state of the Society and referred to the financial statements for 1999, which were presented in the Annual Report. Mr. Watson explained that a deficit of \$35,000 had resulted from operations in 1999, and that this deficit was largely due to the costs involved in implementing a new computer system at national office. Mr. Watson explained the relationship of this deficit to the Society's base of assets. Mr. Watson projected a much smaller deficit for the year 2000.

Mr. Watson presented a summary of recent membership statistics. Mr. Watson pointed out that his most recent analysis included a comparison of membership statistics of Centres between 1995 and 1999.

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### **MOTION AM200002**

It was moved by Mr. Watson and seconded by Mr. Steve Gauthier to adopt the audited financial statements as published in the 1999 Annual Report.

The motion was **CARRIED**.

Mr. Andreas Gada asked for more details about the expense item labelled "Membership Services." Mr. Watson explained that this item included both the fees paid for the final year of the contract for membership services with University of Toronto Press (UTP) and a portion of the wages paid to Mr. McGillis. Mr. Gada asked for more details about distribution costs. Mr. Watson explained that this item included mailing costs for the *Journal*. Mr. Watson explained that mailing costs for the *Observer's Handbook* were included under publication costs. Dr. Gupta explained that distribution of the *Observer's Handbook* to members was a separate item from distribution of the *Observer's Handbook* to customers. Mr. Gada suggested that these items be more clearly labelled in the financial reports.

Ms. Dennis Goodman asked if there were any outstanding bad debts owed to the Society. Ms. Bird explained that most of the outstanding bad debts had been written off some time ago. Mr. Watson explained that the Society's former tenant still owed the Society some money and that this matter was being pursued.

Mr. Gada asked about the endowment fund, and Mr. Watson explained that the income from the endowment fund was returned to general revenue.

Ms. Goodman pointed out that the publication costs of the *Journal* were greater than the revenue generated by the *Journal*, and Mr. Watson responded that the *Journal* was a service to members. Mr. Munro asked if there had been a balance between publication costs of the *Journal* and revenue generated by the *Journal* in the past, and Mr. Watson responded that these items had never been balanced.

Ms. Susan Yeo asked if the 1999 Annual Report was available the public and Ms. Bird reported that it was distributed only to members. Ms. Yeo suggested that the cost of producing the 1999 Annual Report could be reduced in the future.

### **3.7 NATIONAL RECORDER**

There was no report.

### **3.8 AWARDS COMMITTEE**

Mr. George reported that appropriate recognition for members had been arranged.

### **3.9 CONSTITUTION COMMITTEE**

Mr. Watson reported that the Constitution Committee would be investigating the model by-laws for a Centre.

### **3.10 FINANCE COMMITTEE**

Mr. Watson reported that matters related to the Finance Committee had already been presented as part of the Treasurer's report.

### **3.11 HISTORICAL COMMITTEE**

There was no report.

### **3.12 LIBRARY COMMITTEE**

There was no report.

### **3.13 MEMBERSHIP AND PROMOTION COMMITTEE**

Ms. Hay reported on the activities of the Committee. Ms. Hay reported that the main activity of the Committee involved preparing the advertisements which appeared in *SkyNews*.

### **3.14 NOMINATING COMMITTEE**

Mr. George reported that a new Editor, *Journal*, had been appointed, and that a new Editor, *Observer's Handbook*, had been appointed.

### **3.15 PROPERTY COMMITTEE**

Mr. May thanked Ms. Bird and Mr. McGillis for their efforts at the national office. Mr. May noted that a new washing machine would soon be required at the apartment above the Society's national office. Mr. Collier asked how the former tenant had departed from the apartment, and Mr. Attwood explained that the former tenant had departed at their own wishes. Mr. Scattolin asked if the rent owing from the former tenant was a concern and Mr. May responded that the matter was being treated with concern. Ms. Goodman asked if the revenue generated by the apartment exceeded the costs related to the apartment, and Mr. Watson replied that they would.

### **3.16 PUBLICATIONS COMMITTEE**

Prof. Garrison reported that Dr. Bishop had stepped down as Editor, *Observer's Handbook*, and that Dr. Gupta had been appointed as Editor, *Observer's Handbook*.

Prof. Garrison reported that Dr. Turner stepped down as Editor, *Journal*, and that Mr. Wayne Barkhouse had been appointed as Editor, *Journal*.

Prof. Garrison reported that changes to the editorial structure had been implemented and had resulted in improvements in the flow of work. Prof. Garrison described the new editorial structure and invited members to volunteer to become involved in the editorial process.

### **3.17 EDITOR OF THE JOURNAL**

Dr. Turner summarized the report he had presented to Council. Dr. Turner reported that he would continue to be involved with the *Journal* as book review editor. Dr. Turner thanked all those who had worked with him during his time as editor. A round of applause followed.

### **3.18 EDITOR OF THE OBSERVER'S HANDBOOK**

Prof. Garrison summarized the contribution made by Dr. Bishop to the Society and thanked Dr. Bishop for his many years as Editor. A round of applause followed.

Dr. Gupta expressed his enthusiasm for his position as Editor. Dr. Gupta thanked Dr. Bishop for his continuing assistance in the transition. Dr. Gupta reported on progress in preparing the *2001 Observer's Handbook*. Dr. Gupta reviewed the sales figures for the *Observer's Handbook* in recent years and expressed the view that the impact of new technology on sales of the *Observer's Handbook* had not been serious.

### **3.19 EDITOR OF THE BEGINNER'S OBSERVING GUIDE**

There was no report.

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### 3.20 OBSERVER'S CALENDAR

Dr. Gupta reported on progress in preparing the *2001 Observer's Calendar*.

### 3.21 ASTRONOMY DAY CO-ORDINATOR

There was no report.

### 3.22 COMPUTER USE COMMITTEE

There was no report.

### 3.23 LIGHT POLLUTION ABATEMENT

Mr. Dick reported on recent activities of the Committee. Mr. Dick invited Centres to form local light pollution abatement committees and to become active on a local basis.

### 3.24 NEW OBSERVING CERTIFICATES

Mr. Fleming reported that the Committee was involved in preparing a comprehensive sequence of observing plans for all levels of observing expertise.

### 3.25 PUBLIC EDUCATION

Mr. Orenstein reported on recent activities of the Committee. Mr. Orenstein reported that extensive material for educators had been made available on the Society's website.

## 4. ELECTION OF OFFICERS OF THE SOCIETY

Ms. Hay thanked Dr. Bishop and Ms. Bird, who served as scrutineers for the election for Second Vice-President.

Ms. Hay announced that, as announced in the agenda, Prof. Garrison was acclaimed to the office of President.

Ms. Hay announced that, as announced in the agenda, Dr. Gupta was acclaimed to the office of First Vice-President.

Ms. Hay announced that Mr. Jedicke had won the election as the Society's Second Vice-President. A round of applause followed.

### MOTION AM200003

It was moved by Ms. Hay and seconded by Mr. David McCarter that, subject to a request for a recount of the ballots, the ballots be destroyed 24 hours after the end of the meeting.

The motion was **CARRIED**.

## 5. MEMBERSHIP FEES

Mr. Attwood reviewed the procedure for proxy voting.

### MOTION AM200004

It was moved by Mr. Watson and seconded by Dr. Gupta that the Society's membership fees be set as follows:

Annual fee for ordinary members: \$40

Annual fee for youth members: \$25

Life membership fee: \$800

Mr. Bennett reported that members of the Windsor Centre had expressed support for the motion, and that members of the Windsor Centre had asked that a larger increase be considered.

Mr. Kaye suggested that an increase in the membership fee for ordinary members be accompanied by a reduction in the membership fee for youth members.

### MOTION AM200005

It was moved by Mr. Kaye and seconded by Ms. Yeo to amend MOTION AM200004 to set the annual fee for youth members to \$20.

The motion to amend **MOTION AM200004** was **DEFEATED**.

**MOTION AM200004** was **CARRIED** by special resolution.

Mr. Attwood noted that, including proxies, there were 257 votes for and 23 votes against.

Dr. Gupta noted that the new fee would apply to new members after the end of August and to renewing members whose membership would expire after the end of August and to current members who wished to change their status to life membership after the end of August, but that the old fee would apply to new members before the end of August and to renewing members whose membership would expire before the end of August and to current members who wished to change their status to life membership before the end of August.

## 6. SELECTION OF AUDITOR

### MOTION AM200006

It was moved by Mr. Watson and seconded by Mr. Bronson that C.J. Tinkham and Associates be reappointed as auditors for the Society.

The motion was **CARRIED**.

## 7. OTHER BUSINESS

There was no other business.

## 8. ADJOURNMENT

Mr. Attwood announced that the next annual meeting would take place on 2001 07 01 in London, Ontario, in room G1020 at Fanshawe College.

### MOTION AM200007

It was moved by Mr. May that the meeting adjourn.

The motion was **CARRIED** at 14h56.

Respectfully submitted,

**Peter Jedicke**

*National Recorder*

# ANNUAL REPORTS FROM THE CENTRES

## CALGARY CENTRE

Calgary Centre had another active year. The Centre held many public education activities with the Centre display and with members volunteering their time and telescopes to show the public the night sky. Events such as the Calgary Home Show gave the Centre a large audience to forward astronomy to a wide segment of the public. Astronomy day and our public star nights in Fish Creek Provincial Park also allowed Centre members to introduce people to the stars.

The Centre provided volunteers to operate the Calgary Science Centre's Friday observing deck program throughout the year. Calgary Centre itself operates an active tour program at our observatory and this year has been as successful as previous years, thanks again to the large number of Centre members that are willing to volunteer at these events.

Within Calgary Centre itself, a successful 'telescope for lend' program has allowed members to borrow a telescope for a month. This has given many members a chance to use a wide variety of telescopes without the large financial outlay that purchasing such instruments would entail. There is an active observers' group that meets monthly at the Centre's Wilson Coulee Observatory. As well, the Centre has a very active youth group. This youth group runs three programs for beginner, intermediate and advanced youth members throughout the whole year. The Centre has members that run an active photometry program, and a group has been formed to start a radio astronomy program. The Centre is also working with the University of Calgary's Rothney Astrophysical Observatory to interpret years of sky-brightness data over Calgary.

Two youth members distinguished themselves in the year 2000. Jonathan Sick took top honours in the Canada Wide Science Fair with his sunspot project. Eric Lund earned a scholarship from Microsoft Corporation. Dr. Thomas Swaddle, a University of Calgary chemistry professor, was honoured with an award from the Alexander von Humboldt Foundation. At the General Assembly, Phil Johnson was the recipient of the Service Award.

The Centre held nine general meetings in 2000. The main topics were:

- January:** "Lunar Eclipses" by Roland Dechesne  
**February:** "Canadian Galactic Plane Survey" by Russ Taylor  
**March:** Peter Sim Lecture: "How Can the Sun be this Cold?" by Dr. Alan Clarke  
**April:** "University of Calgary's Rothney Astrophysical Observatory" by Tom Cameron  
**May:** "Lunar Excursion Module" by Randy Attwood  
**June:** Annual BBQ at the Wilson Coulee Observatory  
**September:** "Amateur Asteroid Observations" by Gary Billings  
**October:** "Tagish Lake Meteor" by Dr. Alan Hildebrand  
**November:** Annual general meeting and elections.

**Jason Nishiyama**  
*Secretary, Calgary Centre*

## CHARLOTTETOWN CENTRE

By far, the highlight of our year was becoming the Charlottetown Centre of the RASC! Following a lecture by Randy Attwood the previous year, Clair Perry and Mike Landry got the wheels spinning to become an RASC Centre. In April, Clair Perry and Brian Roche met with Michael Watson and members of what is now the Moncton Centre. Clair attended the GA 2000 in Winnipeg, where both Charlottetown and Moncton became new Centres. Brian Roche attended the council meeting in Toronto in October where Charlottetown was welcomed with open arms.

A permanent observing site was established early in the year, providing a common dark site for members to gather on pre-arranged dates each month. In March, as part of the Shapley Public Colloquium on Astronomy at UPEI, Dr. Christine Jones of the Harvard Smithsonian Institute gave two lectures on the Chandra X-Ray telescope. Both were well attended and enjoyed by all. In August, our second annual observing night at Greenwich National Park was well attended in spite of the pouring rain! Observers stayed dry and enjoyed an indoor presentation by Dr. Earl Wonnacott. Also in August, a large astronomy display was installed in the Confederation Centre Library by the Charlottetown Centre and ran until November. The display was seen and enjoyed by thousands of people! Dr. Roy Bishop had planned a lecture on "Tidal Forces" in Charlottetown in November but had to postpone his visit until early in 2001.

The Charlottetown Centre of the RASC has forty members and is a key player in promoting astronomy on Prince Edward Island. The new Centre continues in the tradition of the Charlottetown Astronomy Club as the prime source for CBC radio/television, Island Radio, and other media for information on upcoming astronomical events.

Lectures and presentations throughout the year included:

- January:** "Solar Eclipse" by Dr. Earl Wonnacott and "Astronomy Out-Takes" by Brian Roche.  
The 2000 executive was elected.  
**February:** "A Permanent Observing Site" by Clair Perry  
**March:** "History of Mars Exploration" by Ken Fall; "The Cosmos According to Chandra" and "Chandra Observations of Clusters of Galaxies" by Dr. Christine Jones  
**April:** "An Astrophotography and Music Presentation" by Dr. Earl Wonnacott and Walter Lane  
**May:** "The Trojan Planetoids" by Joe Buist  
**June:** "Aurora Borealis" by Dr. Earl Wonnacott  
**September:** "The Messier Objects" by Brian Gorveatt  
**October:** "The Carr Observatory" by Dave Cunningham  
**November:** "Astronomy in the Public School System" by Walter Lane  
**December:** Annual Christmas dinner

**Brian Roche**  
*Secretary, Charlottetown Centre*

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## EDMONTON CENTRE

The year 2000 – the beginning of the new millennium or not – saw continued growth in membership of Edmonton Centre, to well over 200. Although we have the “Big Sky” here in the west, it wasn’t always the preferred “Clear Sky”, the lament of astronomers and sky lovers everywhere. The July sunset solar eclipse was quite lovely, despite some bands of cloud, but only those who had been very good during the year enjoyed the Christmas sunrise eclipse. The clouds provided some apparently random openings for some to see a bit of it, while others were completely clouded out.

There was the frustrating tendency for clear skies to come on the evenings of our ten general meetings during the year; still, the membership values the information sharing and opportunity to talk with others who share their interest. On average, over 100 members and guests attend the general meetings. In addition, there is an Observers’ Group, which meets with the specific aim of sharing experiences, photos, and videos.

This year saw some wonderful presentations by guest speakers, which included: Dr. Ben Kutz, who entertained us with a philosophical perspective on general systems; Dr. Sharon Morsink, University of Alberta, who provided a very entertaining, informative, and humorous talk on neutron stars; Dr. Doug Hube, University of Alberta, who talked about “Stars that go Kablooi;” National President, Randy Attwood, who talked on the evolution of the Lunar Excursion Module (LEM), complete with many never-before shown pictures of the LEM; Dr. Alan Hildebrand, University of Calgary, who gave an interesting insight into the search for meteorites from the Tagish Lake fireball in January; and Dr. Bill Scott, University of Calgary, who talked on radio astronomy and the use of the Japanese satellite, Halka. This wonderful range of topics was augmented by many members’ presentations, covering a wide range of astronomical topics. Presentations were even made by two youth members, seven-year-old Steven Portillo and 13-year-old Athena Bush.

Our love of the night sky and all it has to offer is not limited to our meetings. Members of the Edmonton Centre spend countless hours at the Public Observatory of the Edmonton Space and Science Centre. Bruce McCurdy, recent Past President, reported a 20% increase in visitors over the previous year, up to 8200. Among the most popular targets are the sun, the moon and the planets, as well as the Andromeda Galaxy, M13, the Ring Nebula, the Wild Duck Cluster, and double stars.

Astronomy Days, another opportunity for members to share their passion with the public, were mostly weathered out this year, but Gary Solonynko, Public Education Coordinator, had many members participate in various events for schools and other organized youth groups to share the heavens with future astronomers, or at least to instill in them a love of the dark sky.

This year also saw the winding down of the Kidscopes project, which has made available six-inch, f5.5 scopes for schools, to add a practical element to the teaching of astronomy. Another public education activity was an agreement with the University of Alberta, which has allowed the informal Radio Astronomy Group to mount some receiver dishes on the roof of the Physics Building. This has been a goal for some time, and has now come to fruition. One of its main proponents is the new Secretary for Edmonton

Centre, Dave Cleary.

The big event this year was the George Moores Astronomy Workshop, held at the end of October, just before Halloween, at a most appropriate site – Skeleton Lake, not far from Boyle, Alberta. Well, maybe not so appropriate when you consider what a lake and cool air can do to seeing. The skies were far from perfect, but those who attended were treated to a most awesome auroral display, as well as the entertaining talks of Ken Hewitt-White. Special thanks from all go to Sharon Tansey and her team who did a fabulous job in arranging a great program.

The 2000 Alberta Star Party, like many predecessors, fell to poor weather, but Alberta is blessed by having nearby both the Mount Kobau Star Party in B.C., and the Saskatchewan Summer Star Party. Both of these events are well attended by Albertan lovers of astronomy.

As mentioned last year, Edmonton Centre has renamed our library ‘Lamplighter’ Lucian Kemble Memorial Library, a dedication to the late Father Lucian J. Kemble, our first Honourary Member. The official renaming ceremony was commemorated this year. Also, in memory of one of our fellow astronomers who died suddenly last year, Edmonton Centre will now be calling its Astrophotography Award the Bryce Heartwell Astrophotography Award.

The membership thanks the dedication of our outgoing President Paul Campbell for two years of hard work for the Centre. He now passes the challenge of maintaining the Centre’s momentum to in-coming President Dr. Richard Vanderberg. Also, Edmonton Centre thanks Mel Rankin for 21 years of service as our Centre Treasurer. We had learned to count on you, Mel. May we all, wherever we are in 2001, have clear skies and the true sense of awe that our heavens inspire in us.

### **Dr. David Prud’homme**

*Secretary, Edmonton Centre*

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## HALIFAX CENTRE

The Halifax Centre has had another busy year since we have been going through a lot of changes.

The first was the “big move”! Our centre changed its meeting location to the Loyola building of Saint Mary’s University, as of the September 2000 meeting. The new location allows for computer audio-visual presentations and much more.

The second or the “big move part 2”: we moved the home of Nova East, our annual star party, to Smiley’s Provincial Park, Nova Scotia and invited two other local astronomy clubs, the Minas Astronomy Group and the Nova Central Astronomy Club, to join us. It was a great success with the attendance growing from 36 in 1999 to over 80 this year. A great job was done by the organizers, Paul Evans (R.A.S.C.), Daryl Dewolfe (M.A.G.), and John Jarvo (N.C.A.C.).

The Observatory at St. Croix also gained building # 3, a new storage and washroom building. Building #4 designs are in the dream stage and our Centre’s new 17.5" telescope is under construction!

Is observing coming to life? Paul Evans, observing chair, aimed the near new moon sessions to getting more members out to the observatory. The sessions have caught on and may become



a permanent thing.

The year started with a storm causing the cancellation of the January meeting. The meetings that had no poor weather factors were as follows.

- February:** "Members' Night" organized by Doug Pitcairn  
**March:** "Tidbits from Textbooks" by Walter Zukauskas  
**April:** "Astronomy with computers (using ECU and Red Shift)" by Michael Watson  
**May:** "Amateur Telescope Making" by Tom Clark  
**June:** "Observing from Hawaii and the CFHT on Mauna Kea" by Dave Lane  
**September:** "Members' Night and Nova East Reports"  
**October:** "Observational Astronomy without a Telescope" by Dr. David Turner  
**November:** "AAVSO, Variable stars and observing them" by Walter Zukauskas  
**December:** "The Star of Bethlehem: new ideas on an old problem" by Dr. David Turner

### **Stephen Tancock**

*Secretary, Halifax Centre R.A.S.C.*

## **HAMILTON CENTRE**

### **Membership**

Hamilton Centre had a very productive year. We held a number of public events in Burlington, and at our observing site, the Leslie V. Powis Observatory in Flamborough, Ontario. Hamilton Centre has a very strong, enthusiastic and dedicated membership. Our members come from all age groups and walks of life. We are at an all-time high for membership numbers again this year.

Two members have joined our Board of Directors for the first time this year. Tina Coppolino is our new Treasurer, and we're very happy to have her on our team. Serving Hamilton Centre in the capacity of first Vice President is Victor Grimble.

Harry Pulley was elected as our new President at the Annual General Meeting of the Centre in October. Harry is a past editor of our monthly newsletter, *Orbit*. In his most recent position on the board, Harry served as our Treasurer.

Hamilton Centre would like to thank Colin Haig for his dedication, guidance and able leadership as our President over the last three years. Colin, you are truly an inspiration to us all. Colin has graciously taken a Board position for this coming year as Past President.

### **Public Education and Outreach**

We were approached by a manager of the AMC Theatre 24 in Oakville about putting up a display and handing out information during the opening weekend of Mission to Mars in early March. This provided a good opportunity for public outreach and education, especially considering the poor state of scientific accuracy in modern Hollywood films.

Astronomy Day was a great success again this year. We set up a display in Burlington's Maplevue Centre mall, by the downstairs Food Court. We have always found Astronomy Day to be a great way of raising our public profile. On display were some of the Centre's members' telescopes, as well as the venerable old

Marsh refractor. Plenty of flyers about the RASC and our Centre were distributed to an eager and enthusiastic public. It was a very exciting and fun day. The Hamilton Centre benefits greatly by staging these kinds of presentations.

Repeating the success of last year, we held several Public Observing nights at Spencer Smith Memorial Park on Burlington's lakefront again this year, drawing from 200 to 400-plus visitors each night, on the nearest Friday of each month's first quarter moon. These public presentations were very successful, as always. Some scopes had as many as fifty people standing in line for a peek through them. The weather was not as good in 2000 as it was in 1999 but we made the best of the situation, viewing the Moon, planets and double stars through or between clouds when necessary.

Some of our members set up their scopes on Halloween again this year, enabling children and parents to have a look at some of the mysterious treats in the Halloween sky. Perennial favourites Saturn and Jupiter were, as always, a big draw. Venus and the moon also put in a spectacular, if brief, appearance this year. Halloween observing sessions are becoming a regular event.

Public Education Director Carmen Martino, Colin Haig, Mike Jefferson, and Bert Rhebergen, among others, have hosted many Public Education nights in the last twelve months, for our customary children's groups of Guides, Scouts, Brownies, Cubs etc. We have had a few adult groups attend as well. We also have been doing some beginners' nights for our new members.

### **The L.V. Powis Observatory**

Our observatory has again seen a lot more use over the past year, owing to our increase in membership.

Some of our handier members have given much of their time maintaining our roll-off and dome buildings and the telescopes within them. Work on our five-inch refractor, which is housed in the dome, is nearing completion. It's been a long haul, but when it is completed, it will have been well worth the wait. There is talk of converting our 17.5" Newtonian (affectionately known as "The Big One") into a truss-tube Dobsonian, to improve the scope's user-friendliness and portability. Mark Kaye has replaced our 10" Dobsonian's heavy metal tube with a wooden tube and better base. As usual, maintenance is ongoing.

As was reported in our Centre's Annual Report published last January, the Centre was donated a small observatory dome. When not working in the library, Scott Donaldson has been working diligently to refurbish the structure. A power supply will be connected to the dome to run scopes, lights, and possibly a computer system.

In addition to work parties at the observatory, our summer barbecue in July was a great success. Members came out with their families to enjoy food prepared by Mark Kaye and others. Scott Donaldson brought out his Uncle Angus puppet show to entertain the kids. We have plans for another BBQ or perhaps two in the summer of 2001.

### **Celestial Highlights**

The past year has been a very exciting one for Hamilton Centre, starting with the January 20th total lunar eclipse. Although the night was an exceptionally bitter one, we had a very good turnout at the Observatory. Many of our members took this opportunity

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to take some images and photos of this beautiful and most shadowy apparition, including a few that were published in magazines. Our spring Messier Marathon was clouded out again. Hopefully next year will be better. Some occultation expeditions, including a graze, were also clouded out.

The Comet Linear (C/1999 S4) put on a good show from spring until summer when it broke up in late July. CCD images and photographs were taken by members, several ending up in magazines. Members also enjoyed viewing this comet in telescopes and binoculars. Unfortunately, it never reached a bright enough magnitude to be seen with the naked eye.

Many observers spent a lot of time viewing the Sun as it approached solar maximum. Sketches, slides, prints, CCD images and videotapes were made. Members at meetings showed the effects of increased solar activity by presenting many aurora slides.

### **Looking to the future**

The Hamilton Centre looks to keep increasing its membership, doing more club outings, promoting more observing activities, public education and outreach in the coming year. Work will continue on the maintenance of the observatory and its telescopes. The board and members of the centre anticipate another great year of work to advance astronomy around the Hamilton region and beyond.

### **Harry Pulley**

*President, Hamilton Centre*

## **KINGSTON CENTRE**

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The year 2000 activities of the Kingston Centre were many and varied. In addition to the regular meetings, monthly activities included two youth observing group sessions, a public observing night and two types of members-only observing sessions. One member-observing night is new this year, a CCD imaging night at the home of Jan Wisniewski. The other is hosted by members with darker than average backyards. This year's hosts were Tessa Clarke, Mark Kaye, John and Peggy Hurley, Kim Hay, Doug Angle, David Pianosi, and Steve Manders (who also put a pre-observing BBQ together).

Special events this year included our mall display for Astronomy Day, preceded by a full week of public solar and evening observing sessions. In July we attended the March of Dimes fundraiser, and The Sky is the Limit Festival. Solar and planetary observing, an information table, and mirror grinding attracted many visitors.

A party atmosphere dominated August with the Annual Markfest. Surprise speaker Marc Castel introduced us to his remote/robotic observatory set-up. Later that month a major delegation headed off to Starfest to continue to build the Kingston Centre reputation in the astronomical community. Also in August, Terry Dickinson's public observing night at Charleston Lake got many members out to assist with their scopes. It was a wonderful night for observing.

In September, Kingston Centre and the Belleville Astronomy Club joined forces to put on a Dark Sky Observing weekend at Presqu'île Provincial Park. A new tent and entertaining wildlife took the edge off bad weather. There is much support for this to

become an annual event. Several special observing sessions were also held at Royal Military College.

The regular meetings held at Queen's were also no-snooze zones. A great line up of speakers was guaranteed to hold members' interest. Judith Irwin began the year with a talk about her sabbatical to India, working at the Giant Metre-Wave Radio Telescope Array and a visit to the Ooty Radio Telescope at Ootacamund. Judith spoke with great optimism about the quality of research these installations could achieve. In February Walter MacDonald showed us some amazing CCD images shot through snow, cloud, and Oshawa light pollution. He and Doug Clapp were tied up for some time with questions. In March we came back to earth briefly with Roger Hill and explored building a backyard observatory for very little money and a lot of mooching. April brought our then President, Randy Attwood, with a detailed engineering breakdown of a lunar mission. In June, Ray Berg came to visit from Indiana to tell us about his observing tour of Australia and New Zealand. Closer to home Kathy Perrett updated us on the refurbishing of the Queen's Observatory including a tour of the new dome and plans for continuing renovations. J.J. Kavellaars brought us new information from his research, which may lead to new methods of finding extra-solar planets. In October, we left the solar system and reality in general with Bill Broderick for a look into the murky world of Astrology – always an invitation to lively discussion.

All of these great events kept going all year, and in the background were the Amateur Telescope Makers group, Education producing a new book and slide set, the newsletter, school and brownie/scout visits, publicity and many other activities geared to promote the Society in general, and the Centre in particular, as valuable resources in the field of amateur astronomy.

### **Susan Gagnon**

*Secretary, Kingston Centre*

## **KITCHENER-WATERLOO CENTRE**

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(No report available at time of printing)

## **LONDON CENTRE**

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The London Centre membership continued to climb throughout 2000, passing the 115 mark thanks to exuberant leadership and public presence. The decision to host the meetings at Fanshawe College has been met with great acceptance due in part to our burgeoning attendance at our monthly meetings.

A large part of the Centre's activities were, and still are, involved in planning for the upcoming 2001 General Assembly. The planning committee meets every month to discuss in detail the issues associated with hosting this event. Implementation plans are well underway, and some of the promotional items for this event have been distributed in pamphlet and advertisement form. Many members from the London Centre attended the 2000 General Assembly in Winnipeg to enjoy this annual function. In addition, many members were also "recruited" to perform our special 2001 GA invitation. Those lucky individuals in attendance after the banquet received a little indication of some of the monkey business to come.

A mall display was set up at Cherry Hill mall in co-operation with a local photo-video merchant, and provided advice to many parents prior to the Christmas telescope-buying spree. Public star nights and slide shows were also provided to schools, cubs, scouts, and guide groups. Owing to the difficulty in picking a suitable night with our changeable weather, we use sliding date windows to increase the possibility of clear skies for the actual night.

The summer Saturday public star nights at the Hume Cronyn Observatory were held with mixed results. The weather didn't co-operate much and many evenings were clouded out. Attendance was great on those infrequent nights when the weather was clear. Again, members handed out London Centre pamphlets along with RASC brochures to anyone expressing an interest about our club or society.

In August, again by request of the Pinery Provincial Park, the London Centre presented slides and scopes on the Sunday evening astronomy talk and star party.

In November, the London Centre invited Terence Dickinson to do a special public presentation at Fanshawe College. The event was extremely well attended, nearly filling the 350-seat amphitheatre. Members from many Centres attended, including Kitchener-Waterloo, Hamilton, and Sarnia, but the majority of the attendees were being introduced to the RASC for the first time.

Throughout the year, many members gathered at the prime "dark-sky" site located at the Fingal Wildlife Management Area. Dark skies allow those observers to hunt for objects on the finest-NGC and Messier lists, watch meteor showers punctuated by incredible aurora displays, and generally partake in the social aspects of astronomy. During the spring, many members tried to observe Omega Centauri from Hawk Cliff near Port Stanley, but to no avail. Conditions on Lake Erie were not conducive to seeing this object so low on the southern horizon. Members will no doubt try again in the future as the weather permits.

The London Centre meets on the third Friday of each month at 19:00h in Room B1027 at Fanshawe College, on Oxford St. East in London. Last year's meetings included the following speakers and topics:

- January:** "Final Frontiers: the New Cosmology"  
by Ivan Semeniuk
- February:** "Observing, Sketching and Photographing  
the Moon and Planets" by Harry Pulley
- March:** "Observing the recent lunar eclipse"  
by Steve Barnes, Sky Optics
- April** "Chaos in the Outer Solar System"
- Banquet:** by Martin Duncan
- April:** "Astronomy and Observing Expressed  
in Literature" by Dr. David H. Levy
- May:** "CCD Observing at the Glenlea Observatory"  
by Scott Young, Winnipeg Centre
- June:** "The Fall of the Tagish Lake Meteorite"  
by Dr. Peter Brown, University of  
Western Ontario Meteor Physics Laboratory
- July:** Members' Night
- August:** Again, a rather large contingent of  
Centre members attended Starfest 2000
- September:** "Deep Space Sunday, Workplace Monday"  
by John Nemy and Carol Legate,

Pacific Observatory & RASC Niagara Centre  
"Vacuum Primordial" by Heather Hughson,  
Waterloo Collegiate Institute

**November:** Public Meeting: Terence Dickinson

**November:** "Interacting Galaxies" by Dr. Dave Patton,  
University of Toronto

**December:** "The Messier Marathon" by Michael Watson,  
RASC National Treasurer

After reflecting on last year's annual report, this report sounds remarkably similar. It should. The London Centre is reaping the rewards of our past successes resulting in increased membership and presence in the community. Armed with this newfound energy, the Centre is focusing on the upcoming General Assembly plans to help ensure that it will be memorable for all attendees. We look forward to being your hosts for this event.

**Steve Gauthier**

*Secretary, London Centre*

## MONCTON CENTRE / CENTRE DE MONCTON

Le Centre de Moncton a tenu sa réunion inaugurale le 23 septembre 2000. Plus de 25 personnes, membres de la SRAC ou intéressées à le devenir, ont assisté à cette réunion. Durant celle-ci, on a assermenté le conseil d'administration pour ensuite élire l'exécutif du Centre. Nous avons également formé plusieurs comités: le comité des membres, le comité du feuillet d'information et le comité du site internet. Nous avons également décidé de nous affilier à la NBANB (New Brunswick Astronomy – Astronomie Nouveau-Brunswick Inc.).

Depuis leur formation, les comités du Centre ont été très actifs. Le comité des membres a envoyé des communiqués de presse qui ont engendré de la publicité dans les médias. De plus nous avons rendu disponibles des pamphlets de la SRAC dans plusieurs endroits publiques. Ces actions nous ont permis de recruter plusieurs nouveaux membres.

Le comité du feuillet d'information a publié le premier numéro du feuillet d'information de notre Centre en novembre 2000. Dans celui-ci on retrouve plusieurs articles reliés à l'astronomie ainsi que de l'information quant aux activités du Centre.

Le comité du site internet a pour sa part créé un site internet pour le Centre qui fut officiellement lancé à notre réunion annuelle du 25 novembre 2000. Il est à noter que puisque notre Centre est officiellement bilingue, ce site est présenté dans les deux langues officielles.

Nos membres ont également organisé plusieurs séances d'observations un peu partout dans la province. De plus, les membres du Centre qui sont également affiliés au département de physique et d'astronomie de l'Université de Moncton ont organisé des séances publiques à l'observatoire de l'Université. Un de nos membres a également envoyé des lettres à certaines autorités de la province afin de les sensibiliser au problème de la pollution lumineuse. Ces démarches ont connu un certain succès et nous prévoyons les poursuivre dans le futur.

Durant la prochaine année, nous allons consolider le fonctionnement du Centre ainsi que de continuer nos efforts de recrutement. Nous prévoyons également, en collaboration avec

l'Institut National Canadien pour les Aveugles (INCA), une campagne de sensibilisation aux risques associés à l'observation de l'éclipse du 25 décembre 2000. Durant cette première année complète de l'existence de notre Centre, nous allons continuer d'organiser des séances d'observations ainsi que des séminaires d'astronomie.



The Moncton Centre held its inaugural meeting on September 23, 2000. Over 25 persons, RASC members or those interested in becoming one, were present. During this meeting the board of directors was sworn in and the members of the executive were elected. We also created several committees: the membership committee, the newsletter committee and the web site committee. We also decided to affiliate ourselves with NBANB (New Brunswick Astronomy – Astronomie Nouveau-Brunswick Inc.).

Since their creation, the Centre's committees have been very active. The membership committee sent press releases, which generated publicity in the media. RASC pamphlets were also placed at several locations. These actions have already brought several new members to our Centre.

The newsletter committee has published the first number of our Centre's newsletter in November 2000. In this newsletter we find several articles related to astronomy and news concerning our Centre's activities.

The web site committee has for its part created a web site for our Centre, which was officially launched at our annual meeting on November 25, 2000. It should be noted that since our Centre is officially bilingual, this web site is presented in both official languages.

Our members have also organized several observing sessions throughout the province. Moreover, the Centre's members who are also affiliated with the Département de physique et d'astronomie de l'Université de Moncton organized public observing sessions at the university's observatory. One of our members has also sent letters to several authorities in our province to make them aware of the light pollution problem. These actions have met with some success and we plan to pursue this campaign in the future.

During the coming year, we will consolidate the functioning of our Centre and will continue our recruitment activities. We also plan, in collaboration with the Canadian National Institute for the Blind (CNIB), an awareness campaign surrounding the risks associated with observing the December 25, 2000 eclipse. During this first full year of our Centre's existence, we will continue to organize observing sessions as well as astronomical seminars.

**Francis LeBlanc**

*President, Moncton Centre*

## CENTRE FRANCOPHONE DE MONTRÉAL

Les soirées mensuelles d'observation au terrain de St-Valérien ont eu lieu comme par les années passées. Malheureusement cette année la météo a été particulièrement cruelle les fins de semaine de nouvelles lunes et finalement peu de soirées furent fructueuses. L'entrée du terrain d'observation est maintenant fermée par un

câble et nous n'avons pas été victimes d'acte de vandalisme depuis.

Nous avons organisé des soirées d'observations au Vieux Port de Montréal comme l'an passé. La météo n'a pas coopéré au grand dam des passants de l'esplanade du Vieux Port qui auraient aimé voir autre chose que les phares de sécurité de l'antenne de la tour de la bourse. L'activité sera répétée en l'an 2001 et on espère un ciel plus dégagé. Le Concours Annuel des Fabricants de Télescopes Amateurs est la principale activité de l'été. Avec près de quarante télescopes, plusieurs inscriptions aux diverses catégories en compétitions et une soirée d'observation du samedi fort agréable, le CAFTA 2000 fut un succès. N'oublions pas la participation de plusieurs membres au festival populaire du mont Megantic qui a joui d'une belle soirée d'observation.

Les réunions d'été ont pris la forme de visites mensuelles au club de Dorval pour le ciel du mois. Ils nous ont offert un gîte bien apprécié pour l'été. Le ciel du mois est maintenant présenté par trois membres. Chacun présente une partie différente, la lune et les planètes, le ciel profond, les étoiles doubles et variables ainsi que les astéroïdes. Le travail étant partagé entre plusieurs membres, la tâche est plus agréable pour tous. L'horaire des conférences du mardi fut particulièrement bien rempli. Les astronomes du département de physique de l'Université de Montréal ont présenté les sujets suivants en l'an 2000:

<b>Titre</b>	<b>Conférencier</b>
S'il-vous-plaît, dessine-moi une étoile	Cédric Foëllmi
Les planètes extra-solaires: à la recherche d'autres mondes	Prof. René Racine
La masse sombre de l'univers, à travers une lentille à infra-rouge	Loïc Albert
Les nuages denses et les molécules interstellaires	Prof. François Wesemael
Le potentiel de l'interférométrie optique à longue base	M. Olivier Chesneau

Cette année fut marquée par trois nouvelles activités. La première fut l'observation de la lune au parc de l'île de la visitation sur la rive nord de l'île de Montréal. Nous en profitons aussi pour observer les objets les plus brillants du ciel profond et les planètes. L'activité est idéale pour le débutant ou celui qui n'a pas toujours le temps de passer de longues nuits sous un ciel de campagne. De plus cette activité comble un vide en été et ce en changeant la programmation de façon agréable. Aussi ouverte au public, cette activité s'est avérée populaire avec les usagers du parc. L'activité aura de nouveau lieu en 2001.

Le souper de Noël fut notre deuxième nouvelle activité. Organisé quelques semaines avant l'événement, ce fut plutôt une décision de dernière minute. Les membres assidus des réunions furent donc les principaux participants. Le souper de Noël a eu lieu à la Cage au Sport sur Pie IX et près de vingt personnes ce sont présentées. La soirée fut un succès et nous nous devons de récidiver en 2001. Finalement une activité de polissage de miroir entreprise récemment dans le but de doter le club d'un télescope qui pourrait être prêté aux membres a débuté. C'est une longue entreprise mais le progrès est constant.

L'année 2000 fut probablement la meilleure des cinq dernières années en matière de participations et de contribution des membres. Les membres peuvent être fiers de la diversité des

activités qu'ils offrent et dont ils bénéficient par l'entremise du centre. Cette diversité devrait être le présage de bonnes années à venir.

### **Patrice Scattolin**

*Président, Centre Francophone de Montréal*

## **MONTREAL CENTRE**

Two key events that largely characterized 2000 for the Montreal Centre were tied to one person – Isabel K. Williamson. In February, a decision was made to go ahead with fundraising to relocate the observatory named after her, and in June, Isabel K. Williamson herself passed away at the age of 92. Her long history with the RASC's Montreal Centre was commemorated in the July/August issue of *Skyward*, the magazine she established over fifty years ago in 1948, and which saw its 500th issue published in January 2001. In addition to being remembered for starting the Messier Club in 1943, an activity that became so successful it was copied around the world, she is rightly recognized as the most influential and effective leader, mentor and facilitator that the Montreal Centre has ever had.

### **Observational Activities**

Since its inauguration in September 1999, the Centre's out-of-town observatory, Woolly Woods on Johanne Gamache's property in St. Chrysostome, has become our primary gathering place for observational activities. Other secondary "dark sites" that were used less often included Walter Cartwright's property in Williamstown, the Morgan Arboretum west of the city, Cathy Palmer-Lister's cottage near Lachute, northwest of Montreal, and smaller park areas in West Island municipalities. A location that has acquired increasing importance is the Morgan Arboretum in Ste.-Anne-de-Bellevue. It was decided last February that because of continued operating difficulties in the downtown Montreal area, the Centre should pursue relocation of the I. K. Williamson Observatory to the Arboretum. In connection with this, several public viewing sessions were held there to increase the public's awareness of the Centre and its activities. The viewing sessions were preceded by short talks on basic amateur astronomy that were well attended and very well received. The Binocular Viewing Challenge created by Marc Ricard and Janine Lavalée also continued to be a key component of observational activities.

### **Membership**

Membership levels throughout the year tended to be static as about twenty new members signed up to replace those whose memberships lapsed. While the increase in number of new members is a positive development, there was concern that too many were leaving. In addition to attracting new members, then, the Centre needs to begin seriously considering ways to retain them and keep them interested and active for more than just a year or two.

### **Lectures**

In addition to observers' group meetings, the Centre organized and held close to a dozen talks during 2000. Our most prolific speaker was member David Shuman, with three appearances.

- January 15:** "Volcanism in the Solar System"  
by Dimitri Photiades
- January 29:** "What's new with the Hubble Space Telescope"  
by David Shuman
- February 12:** "The Quest for Extrasolar Planets"  
by Sergey Marchenko
- April 15:** "New Millennium Missions"  
by David Shuman
- May 20:** "The way it was: The Montreal Centre's Golden Years of Activity"  
by Mark Bratton
- June 17:** "Sending a Spider to the Moon"  
by J. R. Attwood
- August 5:** "A Lifetime of Astrophotography"  
by Klaus Brasch
- September 16:** "A Look at the Latest Launch Vehicles"  
by David Shuman
- November 18:** "The X-Ray Universe"  
by Sergey Marchenko
- December 2:** "Massive Stars: the Main Furnaces of the Universe" by Dr. Anthony Moffat

### **Special Events**

The Centre hosted two public viewing nights at the Morgan Arboretum, one in April and one in September. Both were preceded by brief talks on amateur astronomer activities and things to look for on those particular evenings. Also in April, a representative group attended the 9th annual Northeast Astronomy Forum in Suffern, New York.

In May, a field trip was taken to the Mont Megantic Astrolab. In addition to seeing the several telescopes in use, Centre members wanted to have a close look at the display room and show room facilities to look for ideas for the planned new building at the Morgan Arboretum.

Throughout the summer a handful of dedicated members lugged their telescopes to various parks in and around Montreal Island to take part in radio stations CJAD/Mix96's "Movies-in-the-Park" nights, held every Wednesday for 13 weeks. This was done primarily to boost the public's awareness of the Centre and its objectives, but at the same time begin its public fund raising campaign for the main observatory relocation. The movies usually attracted between about 500 to 1000 people each week and Montreal Centre was able to raise a significant amount of money as start-up cash for its relocation plans.

The annual Stellafane Telescope Makers' Convention was held the last week of July this year and was well attended as usual by Montreal Centre members. Inclement weather kept the event at a somewhat lower key than in previous years.

In October, a one-man public night was hosted by President Mark Bratton on very short notice in Cap St. Jacques for the very appreciative students of MacDonald High School.

Montreal Centre members accepted an invitation in November to set up a display booth at an "Expo-Science" exhibit in Pointe-Claire's Stewart Hall, a well-known estate in Montreal's west end. The weekend affair was very successful and counted over 2,000 visitors passing through. Besides the indoor exhibits, the Centre also had available for brief periods of time an 8" telescope and solar filter for outdoor viewing of the sun.

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## Awards

At the 1999 Annual Meeting, George Ascroft was presented with the Charles Good Award, while Chuck Johnston and Johanne Gamache received their Messier Certificates. John Langlais received the Centre's very first Binocular Observing Certificate in June 2000.

## Future

The Centre is gearing up for continued efforts aimed at increasing visibility of the Centre, improving membership and raising funds for the relocation project. It is too early to predict if and when relocation will ever take place, but board members are expecting the years 2001 and 2002 to be unusually busy, as the Centre works on both its relocation program, and makes plans to host the 2002 General Assembly at McGill University.

## Denis Legacey

*Treasurer, Montreal Centre*

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## NIAGARA CENTRE

The Niagara Centre in 2000 has continued its growth in membership, which is always good news. For the first time in our history we have broken the 100-member mark. It is certainly apparent that astronomy is a growing interest. This is welcome as more members translate to an active and interesting club overall. The Niagara Centre elected a new executive in 2000. Some of the names are familiar but we have a new President and some new board members. Congratulations to our new President Brian Pihack, and our new board members Darlene Marano, Chris Duller, and Glen Pidsadnick.

The Niagara Centre's observatory in Chippawa Creek Conservation Area has seen continued improvement the past year. This fall we spent a fair bit of time and money laying down a new gravel parking area and driveway back to the observatory from the road. This was sorely needed as the previous driveway had settled into the marshy area where the observatory is built, and vehicles were getting stuck in wet weather. Our Meade 16" telescope housed within the observatory also received a new secondary mirror and spider this past summer. The main mirror was also recoated in the fall. Hopefully in the future we can build a second observatory to expand our facilities at Chippawa. The skies there are the darkest available in the Niagara Region.

The Niagara Centre has had a full year of public presentations and star nights. Unfortunately many were clouded out and Mother Nature made a mockery of many of our plans for public observing. Our annual fall public star nights were held at Guy Road Park in St. Catharines. Our annual Brock University star night for their astronomy class was held in September. Three star nights were also held for the campers of Chippawa Creek Conservation Area during the summer months. An informational mall show was held in Niagara Falls at the Niagara Square Mall to spread the word and encourage new members, with plenty of public interest. Members of our centre have also been involved in giving astronomy talks, slide shows, and star nights to local school classes, cub troops, and nature clubs in the Niagara Region.

We had a good turnout for Starfest 2000 – at least ten members making the annual trip to Mount Forest. A good time was

had by all as usual. The observing was decent but marked by ground fog on a couple of evenings. Some of our members also attended the Powasson, Manitou, and Huronia star parties.

Our Annual Niagara Centre Banquet was held April 8 at the Skyline Brock Hotel in Niagara Falls, Ontario. The guest speaker for the evening was Ken Hewitt-White with his talk "Skywatching as a Way of Life". His pictures and talk were excellent and enjoyed by all. Thanks, Ken, for a very enjoyable evening.

Our general meetings are held on the third Thursday of each month, except July and August, at the Niagara Falls Public Library. The following is a list of the speakers and topics for our general meetings and banquet during 2000:

- January 27:** "Eclipse over Turkey" by Jeff Colinson
- February 24:** Members' night, Eclipse slides and video by John Nemy & Denis Maheu
- March 23:** Members' night, slides and discussion
- April 8:** Annual Banquet: "Skywatching as a Way of Life" by Ken Hewitt-White
- April 27:** "Observing, Sketching, and Photographing the Sun, Moon, and Planets" by Harry C. Pulley
- May 18:** "CCD Astronomy at the Glenlea Observatory" by Scott Young
- June 22:** "Kepler's Astronomica Nova" by Peter Jedicke
- July 27:** Members' night, slides and discussion
- September 28:** Members' night, slides and discussion
- October 19:** Elections, Annual meeting, members' night, slides
- November 4:** Fall Banquet: "A Special New Canadian Meteorite on Ice" by Dr. Peter Brown
- November 16:** "Radio Meteor Detection" by Philip Gebhardt
- December 21:** Members' night, Centre Christmas party

The Niagara Centre in the coming year is looking forward to an active list of events and star nights. We hope with our growing membership base to include our new members in all our activities and help them become involved and enjoy astronomy to the fullest. We want to see the Niagara Centre continue to evolve into an active astronomy club with many new eager members contributing to the club's strength. Our present executive board works well together and has been striving towards this goal of involving all our members in the Centre's pursuits. We are hoping the coming year will see this trend continue. Clear skies to all.

## John Vanderbrugge

*Secretary, Niagara Centre*

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## OKANAGAN CENTRE

The Okanagan Centre has realized continued growth in membership for yet another year. Monthly meetings were well attended at two locations, Kelowna and Vernon, with members sometimes travelling hundreds of kilometers to attend. We have been privileged to have many excellent speakers at our meetings, including a visit from the new RASC National President, Dr Robert Garrison!

The Messier Marathon season brought a frenzy of activity as

members tried to get through an entire night without getting clouded out. Many different sites were tried with less than optimal results. A few members even went on multiple marathons, with Alan Whitman holding the club record of five attempts! One clouded out attempt began very auspiciously under beautiful 6.7 limiting visual magnitude skies. On this night several members were able to pick out the RASC Deep Sky Challenge Object Leo 1, including Ron Scherer with his 10-inch Dobsonian. Adding to the night's excitement was the discovery, by Jim Failes, of three satellites travelling in a group and easily followed with his scope. It is my recollection that these satellites were perhaps associated with a GPS function. Sadly the sky started to cloud over about 3:00 a.m.; nevertheless four forlorn marathoners remained till 4:30 a.m. trying to pick out Messier objects through ever shrinking holes.

On May 13th, Okanagan Centre RASC member Dr. Richard Christie led a small group of local members on a tour of the Dominion Radio Astrophysical Observatory (DRAO), located just south of Penticton. Richard allowed the group to enter many of the back room areas of the facility where computers control the actions of the multi-dish array and decipher the data retrieved. A highlight of the tour for many was a three dimensional animation which Richard demonstrated on his computer. Radio signals provide the dimension of depth, which was apparent as the animation clearly showed dark lanes as we flew through several spiral arms of the Milky Way.

Local members are active on the executive of the Mount Kobau Star Party, held this year from July 29th to August 6th. The star party was well attended this year and everyone enjoyed very good observing on Mount Kobau as most nights were very clear, although a little windy for those clinging to the top of the mountain. Speaking of wind, there was high drama as Okanagan Centre member Jason Henschel watched his tent rise 30 to 70 feet (height is equal to the square of the distance of the witness) into the air, on the shoulders of an energetic dust devil. At the time of lift off, Jason's tent contained the usual sleeping bag and personals, as well as a cooler containing his supply of water! On an independent trajectory, Jason's copy of Nightwatch has never been seen again.

The Okanagan Centre has been very active in public outreach lately. Hugh Carter has been busy in Vernon leading a class in Astronomy from September to November. There were six nights of instruction and one night was spent on a planetarium tour at the Interior Space and Science Centre. Presentations were given by RASC members Bruce Aikenhead (Our Place in the Universe), Hugh Carter (Ode to the Moon), and Ron Scherer (Observing Tips), with much assistance from Trevor Hoff and Kevin Aschenmeir. Jim Failes continues to set the FM band vibrating with his monthly astronomy show on CBC radio, and Guy Mackie led a 10 week discussion group on Astronomy and Cosmology for the Okanagan Institute for Learning in Retirement.

#### Centre meetings

**January:** **Kelowna:** Constellation of the Month (COTM), Member appreciation awards, Slide presentation "Glorious Eclipses";  
**Vernon:** Auroras, Video presentation of January 20th Lunar Eclipse

**February:** **Kelowna:** COTM, Messier Marathon preparation  
**March:** **Kelowna:** COTM, Updates on talks at the College and info on visit by Russian Cosmonauts;  
**Vernon:** Video on NASA tribulations  
**April:** **Kelowna:** Messier Marathon reprise, Planning for Astronomy Day;  
**Vernon:** Observing Techniques (at Tim Horton's)  
**May:** **Kelowna:** Tour of the Dominion Radio Astrophysical Observatory  
**June:** **Kelowna:** COTM, Planning for summer Star Parties  
**September:** **Kelowna:** COTM, "Associating With Disassociating Stars" by Dr. Chris Purton;  
**Vernon:** Public Astronomy Course  
**October:** **Kelowna:** COTM, "The Process of Discovery" by Dr. Robert Garrison, Aurora Video;  
**Vernon:** Public Astronomy Course  
**November:** **Kelowna:** AGM and elections, "Astronomical Sketching" by Guy Mackie;  
**Vernon:** Educational Programs for members  
**December:** **Kelowna:** COTM, Seven Slides & Seven Stories presentation by Jim Failes

In the future it is hoped to combine the Kelowna and Vernon meetings several times a year and perhaps reap some of the benefits that belonging to a burgeoning group such as ours may bring. Among other things, it is goal to develop an official observing site somewhere under the dark skies of the scenic Okanagan.

#### Paul Ellard

*Secretary, Okanagan Centre*

### OTTAWA CENTRE

This year will probably be remembered as the "Year of the Rains" as it seems that almost all the Centre's efforts to show off the night sky were hampered by wet or cloudy weather.

Continuing our efforts to reach out and involve the general public in our love of astronomy, two major projects have been started by the Centre's members.

The SmartScope Project, which will build a remote telescope facility that can be accessed through the Internet by anyone interested, is well underway. This project promises to involve the Centre's great talent pool as it encompasses the disciplines of project management, information technology, imaging, optics and the vast experience of our members in things astronomical. Our thanks to the Petts and the City of Kanata for their funding assistance.

The Kids Calendar Project got many of the young members of the community thinking about astronomy as Debra Tigner and Yves Demers asked school kids to submit art work for this project. A judging, which included local media celebrities, was held at a local high school. The winning artwork from various categories became the featured pieces in the calendar. A rewarding and fun project!

Our web site at [ottawa.rasc.ca](http://ottawa.rasc.ca) continues to become more sophisticated, entertaining, and educational.

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Exposure for the Ottawa Centre came from newspaper articles and numerous radio spots. Television coverage included news interviews pertaining to various events and astronomical highlights. Some members even 'acted' as extras in an upcoming movie titled *A Taste of Jupiter*.

Our Centre is now the second largest in the country with over 400 members.

Sadly, we note the passing of members Bob Bulbrook, George Glass, Huntley Keefe and Max Stuart.

This is my final report as Secretary of Ottawa Centre and I wish to express my thanks to our Executive, Council and National Representatives. I enjoyed working with you.

### **Lee Macdonald**

*Secretary, Ottawa Centre*

## **CENTRE DE QUÉBEC**

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### **Activités**

#### **a) Conférences**

L'année 2000 a été un vif succès pour les conférences. Au total, douze conférences, à raison d'une conférence par mois, ont été données par d'excellents conférenciers. Au mois de janvier, monsieur Laurent Drissen est venu parler d'une «Étoile mystérieuse.» En février, monsieur Christian Marois de l'Université de Montréal est venu nous parler des «Planètes extra-solaires.» Pour le mois de mars, monsieur Cedric Foelmi, également de l'Université de Montréal, est venu traiter des «Étoiles massives et de leur vent stellaire.» Pour la conférence du mois d'avril, monsieur Dominique Beauchamp nous a parlé des «Étoiles naines.» En mai, monsieur Alphonse Tardif nous a parlé des «OVNI, mythe ou réalité.» La conférence du mois de juin a été présentée par monsieur Gaétan Deaudelin qui a discuté de la «Météorologie en astronomie.»

En septembre, monsieur Yvan-Miville Deschênes nous a parlé des «Satellites artificiels.» En octobre, à nouveau monsieur Alphonse Tardif nous a parlé de la «Physique du 21e siècle.» Pour novembre, monsieur Philippe Moussette nous a parlé des «Léonides.» Finalement pour décembre, monsieur Ermano Bora de l'Université Laval nous a parlé des «Miroirs liquides.»

En annexe aux conférences, nous avons organisé quatre ateliers consacrés aux membres débutants. Le premier atelier a traité du fonctionnement du cherche-étoiles. Le deuxième atelier a été consacré aux constellations. En ce qui a trait au troisième atelier, il a été question de la formation du système solaire. Enfin le quatrième atelier a été consacré aux parties constituantes d'un télescope et de leurs fonctions.

#### **b) Observation**

L'année 2000 a été un échec en ce qui a trait à l'observation. La raison principale est la température. Nous avons organisé une quinzaine de soirées d'observation. Les observations ont eu lieu à l'Observatoire Alphonse Tardif à St-Nérée, en campagne à environ une heure de la région de Québec. De ces quinze soirées organisées, seulement sept ont eu lieu. Les autres ont été annulées en raison de la mauvaise température.

De plus, cinq activités spéciales ont été organisées. D'abord, il y a eu le Marathon Messier en mars. Cette activité a été annulée

encore une fois en raison de la mauvaise température. Ensuite, un hot-dog party a été organisé en juillet. Cette fois-ci, la température a été de notre côté. En août, il y a eu une soirée spéciale consacrée aux «Perséides.» La température a été aussi cette fois-ci de notre côté. C'est pendant cette nuit-là que nous avons observé les plus belles aurores boréales de notre vie! En septembre, une soirée consacrée à la photographie a été organisée mais n'a pas eu lieu en raison de la mauvaise température. En octobre, un «Marathon Galaxies» a été organisé mais en vain également en raison de la mauvaise température.

Finalement, une soirée consacrée au Léonides a été organisée mais encore une fois, la nature n'a pas été de notre côté.

En résumé, l'année 2000 aura été une des pires années d'observation, une année à oublier. Évidemment, les astronomes sont dépendants de la température. Il faut donc vivre avec cette situation qui, parfois, devient frustrante.

Préparé par **Daniel Tardif**

*Secrétaire, Centre de Québec*

## **REGINA CENTRE**

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Greetings, sister clubs, upon finally entering the new millenium! We are pleased to announce that this year has been quite an interesting one, with the continuing installation of a 12" Meade LX 200 SCT, computer supplies to run what could hopefully become a remote controlled dome, and automated telescope unit. We still have a few bugs to work out, however, such as how to tell the dome to stay closed in a winter snowstorm, etc. Also of interest is the purchase of an SBIG ST7 to complement the storage of what could potentially be a large database of collected pictures from our city skies, as well as our server site at [www.ras.sk.ca](http://www.ras.sk.ca). We are pleased to accept the donations from Sasktel, Ark Communications and Xerox, as well as support from the local Saskatchewan Science Centre, to help make possible this project's intentions to improve the ease of use of our astronomical instruments.

We are also pleased to announce that, with the aid of our sister club at Saskatoon, we are steadily building one of the largest star parties in western Canada. Visitors not only from Saskatchewan, Alberta, Manitoba, and British Columbia, but also from the Yukon and portions of the southern U.S. as far as Texas, travelled to our star party in the Cypress Hills Provincial Park in August. Please contact our general inquiries mail address at [info@ras.sk.ca](mailto:info@ras.sk.ca) or our website for further information. Our last star party was a success, with a nearly fully booked park of over 200 from our section, as well as Jack Newton and others giving talks between sleep time (?), observing time, and booth trading time.

While capturing the attention of some potential new astronomers on the Canada Day holiday watching sunspots in the park, we unfortunately missed a few of the good shows from the Leonid shower and the Christmas eclipse that passed by in 2000. We do, however, expect to continue watching the skies, and would hope to see you visit us soon.

**Kai G. Gauer**

*President, Regina Centre*



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## ST. JOHN'S CENTRE

The St. John's Centre had an interesting year in 2000. The Centre has continued to carry out an active programme of meetings, public displays, and educational programmes. Our regular meetings have attracted an audience of about 25 members or more on each occasion, with upwards of half being non-members. Our year involved many educational events, from the Memorial University Faculty of Science Open House (one of the largest in attendance across the country), to radio and TV appearances by members in conjunction with our public events, and also our annual course at the university for the general public. We changed the location of Star-B-Que, our annual star party, to Butterpot Provincial Park. We hope the new location will bring in more of our own members to help. The visit of National President Randy Attwood was the highlight of various meetings that took place.

We now have one of the biggest memberships ever, with 46 members in good standing. We have started preliminary studies into a new facility at Butterpot. This is now at the stage of forming a board, and getting terms of reference and by-laws. Garry Dymond has done stellar work running the planetarium over the year, educating many groups passing through. Since he began keeping records in 1987, Garry has counted 10,380 people who have taken part in the educational programs (Girl Guides, Scouts, planetarium groups, schools) he has been involved with. This is an immense accomplishment.

This year we acquired software for our CCD camera and are soon to receive setting circles for the 12-inch scope located at Butterpot. Unfortunately, we can work on getting out more newsletters. We need members to write some articles. We should also be more aware of various national awards that may apply to local Centre members.

One of our major initiatives this year came from our long-range plan of having an observatory for the Centre, possibly located in the provincial park at Butterpot. The Centre became the driving force behind the idea of building a multi-purpose facility at Butterpot. There is now a pre-feasibility document completed regarding the Butterpot Interpretation/Activity Centre. The Butterpot building will have a natural science, "day/night" theme. It will contain sections on the natural environment of the park (and the Avalon peninsula), such as geology, and remote viewing of birds' nests, among others. It will also contain a planetarium and observatory, where we plan to put a 24" scope connected to the Internet for provincial schools. Groups, especially including those from the school system, will be able to visit. An expedition was sent to the park to have a look at a potential site. All the groups involved so far are enthusiastic and receptive, including the Provincial Department of Parks. The Interpretation Centre will be a staging area for visitors, designed to showcase the natural environment on the Avalon, including the night sky. An extensive presentation can be found on the web at our Centre's site.

### David Bourgeois

*Secretary, St. John's Centre*

## SARNIA CENTRE

The year 2000 got off to a slow start with our first meeting taking place in March. Harry Pulley from Guelph gave us a talk on

astrophotography. He gave many tips and suggestions on what equipment was to be used, what films should be used, and how to get the best shots.

In May, Peter Jedicke from London was our speaker, and gave an oratory on Johannes Kepler, his life and his work. Part of the way through he suggested that if anyone was interested, reading a copy of "Astronomia Nova" as written by Kepler and Brahe, and doing the work inside, it might be fun to do. Although I can't speak for anyone else, I found his 'challenge' very attractive!

Later that summer, we found ourselves setting up a booth at Sarnia's annual Hobbyfest. The Hobbyfest is a one-day affair in which various clubs, groups, and organizations share their interests with the public, as a way of promoting all the different means that a person can enjoy his/her spare-time. All in all, it was a fine day, despite the fantastic heat-wave of the time.

Our next meeting was in November and had a large turnout considering the size of this town. Approximately twenty people showed up, and our speaker, Chris Fleming, gave a discussion on the various certificates members of the R.A.S.C. can obtain (Messier, NGC) by sending in logs showing that all the objectives on the lists have been viewed. Chris also talked about some binocular lists that he had compiled. Copies of this list were handed out to all those in attendance. Tips on viewing, a slide show, and a talk on various books and charts were also given.

So another year begins, and as to what will happen down here, well, your guess is as good as mine. But with a bit of luck, it is hoped to be a very interesting one.

### James Selinger

*Secretary, Sarnia Centre*

## SASKATOON CENTRE

The year 2000 has turned out to be another exciting one for the Saskatoon Centre. Our new President, Les Dickson, has proved more than capable at his duties. He had excellent support from a very fine executive this year. Work at the Sleford Observatory site is still going well and the Centre's warm-up shelter and revamped ten-foot dome are almost complete. A desiccating and composting toilet has been installed at the new site. A phone has also been installed. Our facilities along with the University of Saskatchewan's Physics Department's roll-off observatory now form an impressive site.

The Saskatchewan Summer Star Party 2000 held at Cypress Hills in August was well attended with approximately two hundred registrants. The attendees enjoyed fine talks from guest speakers Jack Newton and Alan Dyer. There were also several nights of dark clear skies. A thank-you goes out to the many volunteers who helped to make this event a great success. Many talks were given and star nights held again this year for the benefit of local school groups, clubs and the general public.

Astronomy Day was held at the Circle Park Mall and was relatively well attended this year. We had lots of enthusiastic volunteers for this event.

A member of our club, Dale Jeffery, has built an observatory at his home in Laird, SK and is using this facility to get quite involved with educational events at his site for the people in his area.

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In early November an open house was held at the new Sleaford Observatory. This was organized by the University of Saskatchewan's Physics Department; several members of our Centre volunteered their help. About 250 people showed up to see the facilities at the new site and to look through the telescopes made available. Once again our club continues to be a beehive of activity.

### **Al Hartridge**

*Secretary, Saskatoon Centre*

## **THUNDER BAY CENTRE**

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The year 2000 was a busy year for our Centre. We hosted a public observing session at the bluffs, overlooking Thunder Bay City, to view the total lunar eclipse on the evening of January 20. Some members were at the site from 20:00 to 02:30. Despite the frigid conditions (-33°C and 10 km/hr wind) about 50 people braved the elements to join us to see the Moon fade in the Earth's shadow through several telescopes and binoculars.

I developed and introduced an observing program designed for the beginners in our group. Nearly all of the objects are visible to the naked eye or binoculars. Included in the exercise are constellations, major stars, planets, basic deep-sky objects, and other astronomical events. A certificate is awarded to those completing the program.

Many of the speakers for our meetings were Centre members. Many interesting and varied topics were presented including: The Oldest Working Planetarium (Hero Huitsing), Houghton Crater on Devon Island (Al Huard), Asteroids – Composition and Orbits (John Bakkelund), Asteroids – Mining Prospects (Dave Galley), and Solar Filters (Ed Kucbel and Doug Stuart). One meeting was devoted to the Moon with topics such as its features (John Stewart), observations (John Bakkelund) and orbital dynamics (Ted Bronson.). The planetary grouping of February 6 and 7 was covered at a meeting with photos and discussion of planetary orbital mechanics (Ted Bronson).

The club has taken on a project to revitalize a 17.5" Dobsonian reflector. The scope had not been in use for quite awhile and required some repair and maintenance. The project leader, Bruce Miron, is coordinating the efforts in obtaining parts and materials in order to get this instrument up and running again. We expect to have the telescope in operating condition by early in 2001.

During the summer season the Thunder Bay Centre received requests to run star nights as had been done in the past. These were held at various Provincial Parks throughout the region. Of the five requests for the star parties, four were held; time constraints prevented the fifth event.

• **Neys Provincial Park** (July 15) – The weather was warm but the mosquitoes made viewing impossible. About 35 people attended the slide presentation. The aurora was spectacular that evening!

• **Sleeping Giant Provincial Park** (July 28 and 29) – This event is held in conjunction with the Thunder Bay Naturalists who run the daytime programs. The astronomers take over at night with slide shows and tours of the night sky at the (dark) beach. The first night produced variable cloudiness while the next night was

perfectly clear. Several members attended with telescopes and binoculars to reveal the summertime skies to the campers. The aurora made their appearance in the north around midnight. Over 150 people attended the event.

• **Kakabeka Falls Provincial Park** (August 5) – A slide talk was held in the theatre with demonstrations following the talk. It was hoped that the rainstorm at the time would subside and the sky would clear – it didn't.

• **Quetico Provincial Park** (August 18 and 19) – Our 14th annual Quetico star party was held in mid-August. Both nights had good viewing. After the slide talk on the 19th, we went outside to do a sky tour with the campers and Junior Rangers. The Park staff shut off the lights in the parking lot to allow the spectacular dark skies of Quetico to come out. The sky was so good this year that 6th magnitude stars were easily seen. Members brought their scopes, experience and knowledge to assist in revealing the heavens to all (around 50) who attended the event.

The Leonid Meteors were predicted to be better this year so it was decided to view them from the Sleeping Giant Provincial Park with its dark skies. The Visitors' Centre was booked so that we would have a place to spend the night (John Bakkelund and Barry Wojciechowski). Last year it was completely clouded out. This year the sky was clear until about 22:30 EST when the clouds moved in and conditions remained partly cloudy for the rest of the night. A few meteors were seen.

The final event for the year was the partial eclipse of the Sun on December 25. The Centre had invited the public to the bluffs to observe the eclipse. The weather was partly cloudy with gradual clearing throughout the event. Considering the date and weather conditions (-21°C and light wind), the 50 or 60 people who attended were considered a good turnout.

To close out the year, our annual Christmas social was hosted by Bev Bishop. Photos were passed around, equipment was displayed, and plans for the new year were discussed.

The Thunder Bay Centre has maintained its membership numbers for another year. We are optimistic that our group will move into the year 2001 with the anticipation of a program as successful as that of 2000.

### **Ted Bronson**

*Secretary, Thunder Bay Centre*

## **TORONTO CENTRE**

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The Toronto Centre hosts two monthly meetings, which are held at the Ontario Science Centre. Regular meetings feature a professional astronomer or scientist as a guest speaker. John Percy organized a superb program of speakers:

**October:** "Cosmology from a Balloon over the Antarctic" by Prof. C. Barth Netterfield

**November:** "Multi-Wavelength Studies of Star Formation" by Jennifer Karr & Charles Kerton

**December:** "Meteorites: Their Story About the Formation and Evolution of Our Solar System, Earth, and Life" by Prof. Ulrich J. Krull

**January:** "The Future of Astronomy in Canada" by Prof. Ernest R. Seaquist

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- February:** "M82 – The Anatomy of a Starburst Galaxy"  
by Prof. Michael Allen
- March:** "Pseudoscience in the New Millennium"  
by Prof. Michael M. de Robertis
- April:** "Einstein's Distorted View of the Universe"  
by Allen Attard & Chris Burns
- May:** "Galaxy Mergers" by Prof. David R. Patton

Members' Nights feature talks given by Centre members on various astronomical themes. Tony Horvatin organized an exceptional program; topics included: Binocular Asteroids, Celestron CR150 Refractor Review, Messier Marathons, Star Hopping Techniques, Visit to Burr Castle, Ireland, Astronomy in Colombia, the Annual Algonquin Adventure, Palm Pilot Astronomy, etc.

The Centre joined with the Royal Canadian Institute for the Advancement of Science on February 13th to present a lecture by Prof. Martin Duncan of Queen's University on "The Kuiper Belt and the Origin of the Solar System."

The Centre continued its very popular tradition of hosting very active monthly observing programmes. Dark Sky Observing sessions at Camp Robin Hood were organized by Robert Chapman. The City Observing Workshops and the Public Star Nights in Morningside Park were organized by Heide DeBond. Also, this year the west-end deep-sky location of Forks of the Credit was restarted by Guy Nason. All these programs were well attended. We thank all those who contributed to these events, Robert Chapman, Heide DeBond, Guy Nason, and especially Camp Robin Hood, Metro Toronto Parks Commission, The Ontario Science Centre and its technicians.

The Toronto Centre has a very active public education committee. Brian Cheaney introduced his very successful "Talk-in-a-Box" program, a standardized presentation geared to meet the grade 6 and grade 9 astronomy curriculum requirements. The Centre sponsored an award for the best astronomy project at the Toronto Science Fair in April. Leslie Harvey organized our participation in the Hobby Show and our Astronomy Day activity where volunteers conducted readings at various Chapters stores.

Ralph Chou reports that as of July 1, 2000 there were 738 regular members, 32 youth, 85 life and 97 associate members in the Toronto Centre.

The Centre continued to support the David Dunlap Observatory (DDO) staff with its summer evening public viewing program by having members set up their telescopes. Our annual open house at the DDO took place on September 8.

The 3rd Annual Open House and Awards Presentation was held at the E.C.Carr Astronomical Observatory on June 3. Over 100 members and friends enjoyed the clear skies and the festivities, organized by Grace Horvatin. Guy Nason presented the Bert Winnearls Award for significant contribution to the Centre, its programmes and services, to Dr. John Percy. The Bertram J. Topham Award for significant contributions to observing activities was earned by Brian Cheaney. The Andrew Elvins Award for promotion of astronomy and the Society was earned jointly by Spilios Asimakopoulos and Irene Gaspar. Toronto Centre members are very impressed with the new revision and improvements Spilios and Irene have made to our newsletter, *SCOPE*. They have included more feature articles of interest to astronomers making

it a more valuable newsletter. I regret that I must report the death of four members: Willi Sauter, David V. Lewin, John R. Knechtel, and Dr. F. Shirley Jones.

Work continued at a hectic pace at the E. C. Carr Astronomical Observatory (CAO). The steel framing and roof trusses by Steelgate Security Products Ltd. were installed in early July. Work parties continued on weekends and by October, the exterior walls and roof had been built and weatherproofed and the interior walls and electrical service completely fitted. A manual winch system operates the roof. The 16-inch telescope was installed on its pier. The alarm system was upgraded and monitors the observatory as well as the main building and storage shed. We acknowledge the leadership and fundraising efforts of Geoff Brown without whose tireless work the observatory could not have been made a reality. Over 30 members contributed their time to help with this project. Financial and in-kind donations by Steelgate Security Products Ltd., Architectural School Products and Bondfield Construction Ltd. are gratefully acknowledged. We thank the members of the Centre whose generous donations have contributed to the construction at the CAO and to the purchase of our tractor lawnmower, affectionately known as "Star Grazer," making grounds maintenance more efficient and enjoyable. Many members are using the CAO for observing, nature hikes along the Bruce Trail and swimming in nearby Georgian Bay.

The Centre's 3rd Annual Algonquin Adventure took place September 22-24 under the direction of Robert and Lillian Chapman. We enjoyed being in the beautiful setting of Algonquin Park in autumn overlooking a calm lake. Although the weather did not co-operate, we enjoyed camaraderie and social astronomy around a large campfire.

### **Heide DeBond**

*Secretary, Toronto Centre*

## **VANCOUVER CENTRE**

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This past year has been somewhat of a blur to me as so many things have occurred, culminating in the end of my tenure as the President of the Vancouver Chapter of the RASC. I have spent 3 years in this capacity and have enjoyed it very much. I have seen the Centre through good times and not so good times, always with the support of my council and friends at the RASC. Craig Breckenridge has taken up the reins of the club now and will do a superb job.

Again this year we had an excellent array of speakers, starting with Derik Busazi who spoke to us on using the useless WIRE satellite to do useful research on solar seismology. Craig Breckenridge showed us all the amazing telescope projects that have been built by the local business Coast Steel. In March, Martin Connors returned to speak on his successful Leonid meteor shower hunt to the Egyptian desert, along with a travelogue of interesting Egyptian sites. In May, National President Randy Attwood visited and spoke on the Lunar Lander. Then in July, we had what was the most talked about presenter that I can remember: Gary Wolanski demonstrated and talked about the building of his 45-lb. 16-inch all-aluminium wonder scope. If you have not seen this scope in Sky and Telescope or at the Mt. Kobau star party, you have missed a true work of art, which also performs

superbly as a telescope. Dr. John Hutchins of the Dominion Astrophysics Observatory spoke about the FUSE (Far Ultraviolet Spectroscopic Explorer) for which he is the Project Scientist. September brought us the amusing and informative *If it isn't Dark, it Doesn't Matter* talk of Dr. Douglas Scott of University of British Columbia on dark matter in the universe. Jim Bernath returned with another humorous story of how he came to be the owner of an unlaunched Canadian satellite. Jim has given us several talks in the past, all of which have been most enjoyable. Other meetings this year included Lee's Amateur Hour as they have come to be known. Lee Johnson organizes meetings with local members' presentations given in his unique style.

Special events this year included our two star parties at Manning Park and the annual pilgrimage to Mt. Kobau. The Manning parties did not enjoy the best weather this year but did give good viewing for at least part of the weekends. Mt. Kobau was very good this year, no rain and the mosquitoes were at a manageable level. The club also enjoyed a special meeting with Bob Garrison, the new National President, who spoke to us on his varied and interesting experiences as an astronomer. The club continued its Outreach programs with events on Astronomy Day and with the Greater Vancouver Regional District at Fraser River Days and the Aldergrove Lake site.

The Vancouver chapter is in good shape with new programs in the works, which will be reported next year at this time. Until we meet again, So Long from Vancouver.

### **Bob Parry**

*Past President, Vancouver Centre*

## **VICTORIA CENTRE**

Another year has passed already, bringing us fun, friends, and the pursuit of knowledge and beauty through the observation and study of the stars.

Although I was unable to attend many meetings this last year, I was able to keep abreast of Centre activities through the *Skynews* Newsletter. The lecture topics at the monthly meetings have covered everything from the genesis of the universe to weather conditions on Venus and how stars form in dwarf galaxies.

Our Outreach and Education programs continue to bring more of the curious to meetings and have even, through the Light Pollution Committee, begun to make progress in dealing with the previously under-recognized fallout of technological advancement.

This year also included Astronomy Day at the Royal British Columbia Museum. Although I couldn't join the great crew of volunteers, I understand it was a great success and it looks like it will be repeated next year. I did get a chance to go out to Camp Barnard (the local Scout campsite) and saw sun spots through a telescope for the first time. Beavers, Cubs, and parents all seemed to greatly appreciate our volunteers' time and effort.

Members' nights, the Pearson College Observatory project, Star Party 2000 (put on by the Cowichan Valley Starfinders), and our annual Hobby display are but a few of the activities that have filled our year.

Our regular meetings for this year were:

- January:** "Venturing Down the Cosmic Highway: Lights, Action, Telescopes" with Ken Hewitt-White
- February:** "The Solar Telescope Project" with Pal Virag
- March:** "Under the Weather: The Atmosphere of Earth and Venus Examined" with Richard Harvey
- April:** "Canadian Involvement in the Next Generation Space Telescope" with Dr. Simon Morris, Senior Research Officer, DAO/HIA/NRC
- May:** "Sending a Spider to the Moon" with Randy Attwood
- June:** "FUSE: Canada's New Space Telescope" with John Hutchings of the NRC
- September:** "Regulating Star Formation Activity in Dwarf Galaxies" with Dr. Lise Van Zee
- October:** "What Did You Do on Your Summer Holidays?" Members' Night
- November:** "Gemini: Canada's New 8-Metre Telescopes" Annual Dinner with Dr. Dennis Crabtree
- December:** "Introduction to Adaptive Optics" with Glen Herriot of the NRC

### **Margaret Ulitzka**

*Secretary, Victoria Centre*

## **WINDSOR CENTRE**

2000 was a fulfilling year for the Windsor Centre with one important new beginning. Susan Sawyer-Beaulieu did an excellent job in her fourth consecutive year as President of the Windsor Centre. Our Astronomy Day event was once again on Earth Day, April 18th, at Ojibway Park with a very good solar observing session and display. The new beginning of importance involved the dream of having our own observatory. Last fall, St. Clair Community College sold their observatory with a Celestron 8" telescope to the Windsor Centre. We are planning to move the building in the spring of 2001 to a yet to be determined dark-sky site in Essex County. Larry Burgess and David Marchand each received the RASC's Messier Certificate at our membership meeting on November 21st. A very special thank you is extended to Susan Sawyer-Beaulieu for her four wonderful years as President of our Centre. Randy Groundwater is our new President for 2001 and should do quite well therein. Genuine thanks are expressed to all persons that helped our Centre have a very positive, progressive year. The Windsor Centre held nine membership meetings, three council meetings, two socials, and one public display with an observing session. Membership meetings were as follows:

- January 18:** Members' Night: "Using Binoculars in Astronomy" by Jim Meredith, "Making Your Own Eyepiece Case" by Susan Sawyer-Beaulieu, "The Galileo Probe and Some Results" by Steve Pellarin
- February 15:** "CCD Cameras in Astronomy" by Walter MacDonald and Doug Clapp
- March 21:** "Milky Way Astronomy" by C. Joady Ulrich
- April 18:** "Our Expanding View of the Expanding Universe" by Dr. William Baylis, University of Windsor, Department of Physics

- May 16:** "CCD Astrophotography"  
by Scott Young, Winnipeg Centre
- June 20:** "Galileo Update" by Steve Pellarin
- September 19:** "Observing the Moon" by Robin Smallwood  
and Susan Sawyer-Beaulieu
- October 11:** "Comet Hyakutake" video
- November 21:** "Cosmology" by Dr. Krishan Duggal, University  
of Windsor, Department of Mathematics

**C. Joady Ulrich**

*Secretary, Windsor Centre*

## WINNIPEG CENTRE

The 1999–2000 membership year was a banner one for the Winnipeg Centre. Our membership has exceeded 120 for the first time ever, and we are reaching the capacity of our regular meeting room in St. John's College, with an average of 60 members attending each meeting. Many new members are enjoying the special "Beginners' Session," run a half-hour before each regular meeting by Centre Secretary, Jay Anderson. Jay's presentations focus on the basics of backyard astronomy, which allows us to satisfy new members without boring the old salts. This has resulted in a dramatic increase in the retention of new members, which is largely responsible for our high membership.

Of course, the 2000 General Assembly was held in Winnipeg from June 30 to July 2, and the planning and preparation kept most of the Centre Council and GA Committee members busy for most of the year. We found that the GA brought a new sense of community amongst the members (or was it urgency from the impending call of "Delegates Arriving"?). We recommend that every Centre consider hosting a General Assembly: not only is it a lot of fun, but it brings out the best in your membership. Jay Anderson chaired the GA Committee, with important support from many Centre members and friends of the Winnipeg Centre. Thanks to everyone who helped make the GA a success, including the 120-odd delegates who came out.

The following regular meetings were held by the Winnipeg Centre in 1999–2000:

- December 8:** "Mission STS-97: Canadian Visits  
the Space Station" by Scott Young
- November 10:** "Meteorological Effects During Solar Eclipses"  
by Jay Anderson
- October 13:** "Jupiter and Saturn: Giants Rising"  
by Scott Young
- September 8:** "Virtual Astronomy – A Review of  
Astronomical Software" by various  
members
- August 11:** "Light Buckets" by various members
- May 12:** General Assembly preview
- April 14:** "Arizona or Bust!" by Kevin Black,  
Ray Andreiovich and Jay Anderson
- March 10:** "Asteroids, Comets and Meteoroids, Oh My!"  
by Scott Young
- February 11:** "The Sun, Our Star" by Jay Anderson
- January 14:** "Galaxy Quest" by Marjorie Gonzales
- Dec. 10, 1999:** "Eclectic Astronomy" by various members

**Nov. 12, 1999:** "Electronic Astronomy: CCD Observing"

by Kevin Black and Jay Anderson

**Oct. 15, 1999:** Annual Meeting; Elections; Members' Night

In addition, each meeting has featured regular installments of presentations by Centre members, including Gail Wise's "Constellation of the Month," Stan Runge's "Messier Objects," Jay Anderson's "What's New" and Andora Jackson's "Spacecraft Update."

Centre 1st V.P. Andora Jackson left us late in the year, heading for the clear skies of Calgary. Many of you will know Andora from the Winnipeg or Toronto GA's. She will be missed by the entire Winnipeg Centre, and we are sure Calgary will scoop her up quickly.

Several public star parties were held in a variety of locations, including a very successful one at the Forks open market for the January lunar eclipse, which drew upwards of 500 people, despite the -33 degree Celsius temperature and severe wind-chill!

Finally, Winnipeg Centre has upgraded its Glenlea Observatory, replacing the venerable C14 with a brand new Meade 12" LX200 telescope. The telescope is installed and the telescope-training course is being developed; we hope the scope will be in regular use as soon as winter releases us.

Respectfully submitted from the RASC's coldest Centre!

**Scott Young**

*Secretary, Winnipeg Centre*

# CENTRE TREASURERS' REPORTS FOR FISCAL 2000

	CALGARY	CHARLOTTETOWN	EDMONTON	HALIFAX	HAMILTON	KINGSTON	KITCHENER-WATERLOO	LONDON	MONCTON	C.F. DE MONTRÉAL	MONTREAL	NIAGARA	OKANAGAN
<b>REVENUE</b>													
Membership fees – regular	10,564	1,310	3,432	2,457	3,871	3,065	3,614	1,132	422	1,053	4,674	1,805	1,072
Membership fees – basic surcharge			896			1,643	397	280		947			290
Membership fees – special surcharge	259					75				143			
Life membership grants			144	446	55	158		101				43	
Donations			94	373		4,342	297	2,000		92	1,268	735	47
Fundraising	23		41,994		180	326	168	634			1,740	227	272
Educational activities	1,484				160	3,492							
Interest and dividends	541		676	107		358		230		1	2,374	87	1
Sale of Observer's Handbooks – net	(72)	6		232		268						(67)	
Sale of RASC Calendars – net	(105)	72	187	478		587	199	(268)			133	152	130
Sale of Beginner's Observing Guides – net	121			(141)		73						20	
Advertising			120							53			
General Assembly – including travel grants		320				699							
Miscellaneous	922	23	933	502	220	1,778	3,000	937		711	1,462	5,809	68
<b>TOTAL REVENUE</b>	<b>13,737</b>	<b>1,731</b>	<b>48,476</b>	<b>4,454</b>	<b>4,486</b>	<b>16,864</b>	<b>7,675</b>	<b>5,046</b>	<b>422</b>	<b>3,000</b>	<b>11,651</b>	<b>8,811</b>	<b>1,880</b>
<b>EXPENDITURES</b>													
Fees remitted to National Office	9,969	546				820	2,223			1,117		44	
Library	78		1,155							59	205		
Meetings			133	145	252	326		411		24		444	
Newsletter	966		2,827	865	1,140	1,336	194	352	50	650	1,113	593	750
Annual dinner – net	(308)	25				567		(14)		40		2,438	80
General assembly – including travel grants		500				699					68		
Equipment and supplies	1,149		2,434		623	670		7		22	286	157	607
Office administration			59	104		123		163	11	164	983	115	
General expenses and audit	1,054		7,660	25		387						2	
Educational activities	292					1,704							
Insurance	1,469		105	500	787					280	732		
Awards and donations	289	200				171				52			
Observatory	402			435	913	710	3,725			220	651	1,972	
Miscellaneous	542			391	500	983	18	699	160	1,252	151	2,838	53
<b>TOTAL EXPENDITURES</b>	<b>15,902</b>	<b>1,271</b>	<b>14,373</b>	<b>2,465</b>	<b>4,215</b>	<b>8,496</b>	<b>6,160</b>	<b>1,618</b>	<b>221</b>	<b>3,880</b>	<b>4,189</b>	<b>8,603</b>	<b>1,490</b>
<b>SURPLUS (OR DEFICIT) ON OPERATIONS</b>	<b>(2,165)</b>	<b>460</b>	<b>34,103</b>	<b>1,989</b>	<b>271</b>	<b>8,368</b>	<b>1,515</b>	<b>3,428</b>	<b>201</b>	<b>(880)</b>	<b>7,462</b>	<b>208</b>	<b>390</b>
<b>BANK BALANCE</b>													
FROM PREVIOUS YEAR	30,881	276	33,570	15,875	917	8,742	1,077	6,293		2,725	4,919	4,881	1,337
<b>BANK BALANCE END OF YEAR</b>	<b>28,716</b>	<b>736</b>	<b>67,673</b>	<b>17,864</b>	<b>1,188</b>	<b>17,110</b>	<b>2,592</b>	<b>9,721</b>		<b>1,845</b>	<b>12,381</b>	<b>5,089</b>	<b>1,727</b>

\*Balance adjusted

	OTTAWA	QUÉBEC	REGINA	ST. JOHN'S	SARNIA	SASKATOON	THUNDER BAY	TORONTO	VANCOUVER	VICTORIA	WINDSOR	WINNIPEG
<b>REVENUE</b>												
Membership fees – regular	16,216	3,259	1,472	847	395	2,638	634	29,083	4,864	3,066	1,416	4,468
Membership fees – basic surcharge		2,682	152			290			2,841			1,534
Membership fees – special surcharge						25				10	14	
Life membership grants	504					43		1,210	187		29	14
Donations	1,049	250	32,700			5,681		18,366	401	200	1,397	641
Fundraising	29,500		12						667		210	
Educational activities				1,119		6,514						40
Interest and dividends	155		1,038	88	1	9		1,941	695		1	229
Sale of Observer's Handbooks – net		1,002	4			1,494			11	(58)	9	
Sale of RASC Calendars – net	2,272		17	16	(22)		200		143	(170)	120	131
Sale of Beginner's Observing Guides – net									136	50	7	
Advertising									150		50	
General Assembly – including travel grants												
Miscellaneous	3,915	874	2,190		25	151		17,233		2,924	1,909	77
<b>TOTAL REVENUE</b>	<b>53,611</b>	<b>8,067</b>	<b>37,585</b>	<b>2,070</b>	<b>399</b>	<b>16,845</b>	<b>834</b>	<b>67,833</b>	<b>10,095</b>	<b>6,022</b>	<b>5,162</b>	<b>7,134</b>
<b>EXPENDITURES</b>												
Fees remitted to National Office	9,956	3,373	883			1,588		16,783				3,206
Library				51		55			160	74	55	101
Meetings	262	230		135	128		100		305		185	151
Newsletter	3,179	929	98			826	141	4,714	1,921		264	733
Annual dinner – net	2,205									247	150	
General assembly – including travel grants									585	331	75	
Equipment and supplies	58	1,091	14,730	771	54	434			523	2,433	3,397	46
Office administration	536	1,117	817			150		6,319	118	147	8	27
General expenses and audit	990	32	419				16			121	272	80
Educational activities	708					252		1,332	396	589		
Insurance	845					346						595
Awards and donations				300			171					
Observatory	800		1,971			1,519		7,553			26	(3,196)
Miscellaneous	5,322	165	1,507	1,840		6,867	230	22,649	265	1,746	313	275
<b>TOTAL EXPENDITURES</b>	<b>24,861</b>	<b>6,937</b>	<b>20,425</b>	<b>3,097</b>	<b>182</b>	<b>12,037</b>	<b>658</b>	<b>59,350</b>	<b>4,273</b>	<b>5,688</b>	<b>4,745</b>	<b>2,018</b>
<b>SURPLUS (OR DEFICIT) ON OPERATIONS</b>	<b>28,750</b>	<b>1,130</b>	<b>17,160</b>	<b>(1,027)</b>	<b>217</b>	<b>4,808</b>	<b>176</b>	<b>8,483</b>	<b>5,822</b>	<b>334</b>	<b>417</b>	<b>5,116</b>
<b>BANK BALANCE FROM PREVIOUS YEAR</b>	<b>37,966</b>		<b>1,541</b>	<b>2,411</b>	<b>951</b>	<b>8,100</b>	<b>1,857</b>	<b>46,615</b>	<b>15,315</b>	<b>3,479</b>	<b>6,985</b>	<b>6,582</b>
<b>BANK BALANCE END OF YEAR</b>	<b>66,716</b>		<b>18,701</b>	<b>1,384</b>	<b>668</b>	<b>12,908</b>	<b>2,033</b>	<b>55,098</b>	<b>21,137</b>	<b>3,784*</b>	<b>7,402</b>	<b>11,698</b>

\*Balance adjusted

# OFFICERS AND COUNCIL OF THE CENTRES FOR 2001

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**Stardust Editor:** Sherry MacLeod  
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**Deep Sky:** Gary Susick  
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**Instrumentation:** Rock Mallin  
**Light Pollution:** Réal Arsenault  
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**Webmaster:** Vance Petriew

**Communications:** Carter Smith

**ST. JOHN'S CENTRE**

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(709) 364-4953

**President:** Fred Smith

**Vice-President:** Randy Dodge

**Secretary:** David Bourgeois

**Treasurer:** Jack Cocker

**National Rep:**

**Observing Chairperson:**

**Librarian:** Florence McNeily

**Newsletter Editor:** Chris Stevenson

**Equipment Officer:** Brian Payton

**Webmaster:** Michael Crawford

**SARNIA CENTRE**

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**President:** Richard Weatherston

**Vice-President:** Jose Ordenes

**Secretary:** Jim Selinger

**Treasurer:** Brendan Fleming

**National Rep:** Brendan Fleming

**Newsletter Editor:** Zdenko Saroch

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**Past-President:** Erich Keser

**President:** Les Dickson

**Vice-President:** Darrell Chatfield

**Honorary President:** vacant

**Secretary:** Al Hartridge

**Treasurer:** Barb and Jim Young

**National Rep:** Sandy Ferguson

**Newsletter Editor:** Rick Huziak

**Librarians:** Sandy Ferguson  
and Ellen Dickson

**Youth Co-ordinator:** Andrew Krochko

**Observing Co-ordinator:** vacant

**Activities Co-ordinator:** Mike Stephens

**Fundraising Co-ordinator:** Rick Huziak

**Sleaford Site Co-ordinator:**

Bill Hydromako

**Sleaford Building Co-ordinator:**

Darrell Chatfield

**Publications/Sales Co-ordinator:**

Debbie Anderson

**SSSP Co-ordinators:** Les Dickson

and Dale Jeffrey

**Councillors:** Brian Friesen, Scott Alexander,

Daphne Lowden, Merlyn Melby

**THUNDER BAY CENTRE**

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**Vice-President:** Bruce Miron

**Secretary:** Ted Bronson

**Treasurer:** John Bakkelund

**National Rep:** Ted Bronson

**Webmaster:** Ed Kucbel

**Newsletter:** Ted Bronson

**Programs:** Ted Bronson

**Media Contact:** Ted Bronson

**TORONTO CENTRE**

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**Honorary President:**

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**President:** Guy Nason

**1st Vice-President:** Tony Horvatin

**2nd Vice-President:**

Dr. Roberto Abraham

**Secretary:** Heide DeBond

**Treasurer:** Tim Hunter

**National Reps:** Dr. Ralph Chou, Brian

Cheaney, Tony Horvatin, Tim Hunter

**Alternate Reps:** Robert May,

Gord Skerratt

**Past Presidents:** Gordon Skerratt,

Steven Spinney

**Recorder:** Brian Cheaney

**Councillors:** Dr. Ralph Chou, Leslie

Harvey, Paul Neal, Spilios Asimakopoulos,

Geoffrey Brown, John Ginder,

Geoffrey Gilmour-Taylor, David Hanson,

Robert May

**Membership:** Dr. B. Ralph Chou

**Member's Nights:** Tony Horvatin

**Regular Meetings:** Dr. Roberto Abraham

**Deep Sky Observing:** Robert Chapman

**City Observing:** Heide DeBond

**Public Education:** Brian Cheaney

**Scope Newsletter Editor:**

Spilios Asimakopoulos

**Website:** Geoffrey M. Gilmour-Taylor

**VANCOUVER CENTRE**

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**Honorary President:** John MacDonald

**President:** Craig Breckenridge

**Vice-President:** Sean Roddick

**Secretary:** Bill Ronald

**Treasurer:** Marc Verschuere

**National Rep:** Bob Parry

**Director of Telescopes:** Phil Morris

**Librarian:** William Fearon

**Merchandising:** Doug Montgomery

**Membership:** Dan Collier

**NOVA Editor:** Gordon Farrell

**Public Relations:** Angela Squires

**Speakers:** Barry Shanko

**Webmaster:** Bill Ronald

**Councillors:** Pomponia Martinez,

Duncan Munro, Marcellus Redmond,

Norman Song

**Trustees:** Sally Baker, Lee Johnson

**C.A.R.O. Committee:** Eric Fuller

(Chairman), Duncan Munro, Phil Morris,

Tony Overton, Bob Parry

**C.A.R.O. Trustee:** Tony Overton

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## **VICTORIA CENTRE**

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**Honorary President:** George Ball

**President:** David Lee

**Vice-President:** David Luttmann

**Secretary:** Margaret Ulitzka

**Treasurer:** Laura Roche

**National Rep:** Sandy Barta

**Recorder:** Bruno Quenneville

**Skynews Editor:** Sandy Barta

**Website Editor:** David Lee

**New Members Liason:** Eric Schandall  
and Sandy Barta

**Librarian and Director of Telescopes:**  
Sid Sidhu

**Members at Large:** Bill Almond,  
Don Dundee, Dr. James Hesser,  
Betty Hesser, John Howell, Ed Maxfield,  
Frank Ogonoski, Malcom Scrimger,  
Robert Walker

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**First Vice-President:** Steve Mastellotto

**Second Vice-President:** Robin Smallwood

**Secretary:** C. Joady Ulrich

**Treasurer:** Frank J. Shepley

**National Rep:** Frank J. Shepley

**Councillors:** V. John Beaudoin,

Susan Sawyer-Beaulieu, Tim Bennett, Rev.  
Harry Brydon, Larry Burgess, Lindsay Fish,  
Henry Lee, Steve Pellarin, Paul Preney,  
Ken Rounq, Tom Sharron, Robert  
Hastings-Trew

**Appointed Officers:**

**Honorary President:** Dr. William Baylis

**Past President:** Susan Sawyer-Beaulieu

**Librarian:** Tom Sharron

**Recording Secretary:** V. John Beaudoin

**Public Ed. Director:** Randy Groundwater

**Public Relation Director:**

Robin Smallwood

**Newsletter Editor:** Steve Mastellotto

**Director of Observing:** Robin Smallwood

**Assistant Director of Observing:**

Steve Pellarin

**Assistant Treasurer:** Tim Bennett

**Alternate National Rep.:** Tim Bennett

## **WINNIPEG CENTRE**

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**Past-President:** Kevin Black

**President:** Scott Young

**First Vice-President:** Gail Wise

**Second Vice-President:** Gil Raineault

**Secretary:** Jay Anderson

**Treasurer:** Stan Runge

**National Rep:** Scott Young

**Councillors:** Mike Karakas, Lindsay Price,  
Robin Woods Raymond Andrejowich,  
Fred Wood, Brad Masiowski

**Winnicentrics Editor:** Gail Wise

**Observatory Director:**

Raymond Andrejowich

**Librarian:** Fred Wood

**Webmaster:** Kevin Georgison

# 2000 AWARD WINNERS

**Service Award:** Phil Johnson (Calgary)  
**Chant Medal :** (not awarded)  
**Ken Chilton Prize :** (not awarded)  
**The Plaskett Medal:** Alexei Razoumov  
**Simon Newcomb Award:** (not awarded)

## MESSIER CERTIFICATE

Andrew Andrejowich (Winnipeg)  
Eric Brown (Ottawa)  
Lawrence J. Burgess (Windsor)  
Paul Ellard (Okanagan)  
Lee Macdonald (Ottawa)  
David Marchand (Windsor)

Ken Noesgaard (Saskatoon)  
Jose C. Ordenes (Sarnia)  
Dunstan Pasterfield (Regina)  
Michael Pataky (Windsor)  
Roland Prévost (Ottawa)  
Arnold L. Rivera (Edmonton)

Susan Sawyer-Beaulieu (Windsor)  
Janice Tokar (Ottawa)  
Brian White (Hamilton)  
Gail Lorraine Wise (Winnipeg)

## NGC CERTIFICATE

Darrell Chatfield (Saskatoon)  
Garry Dymond (St. John's)  
Dale Jeffrey (Saskatoon)

Guy Mackie (Okanagan)  
Roland Prévost (Ottawa)  
Arnold L. Rivera (Edmonton)

Gordon E. Sarty (Saskatoon)  
Ron Scherer (Okanagan)

## MEMBERSHIP CERTIFICATE

Sally Baker (Vancouver, 25 years)  
Jim Bernarth (Vancouver, 25 years)  
Eric Dunn (Vancouver, 25 years)  
Simon Fallman (Vancouver, 25 years)

Kenneth Lassenes (Vancouver, 25 years)  
James Martin (Vancouver, 25 years)  
William Phillips (Vancouver, 25 years)

Stan Sullivan (Vancouver, 25 years)  
Paul Sykes (Vancouver, 25 years)  
Anne B. Underhill (Vancouver, 25 years)

*The following is a list of former winners of the Chant Medal, Ken Chilton Prize, Plaskett Medal, Service Award and Simon Newcomb Award.  
For names before 1990 please refer to "Looking Up – A History of the RASC" by Peter Broughton.*

## CHANT MEDAL

The Chant Medal of the Society was established in 1940 in appreciation of the great work of the late Professor C.A. Chant in furthering the interests of astronomy in Canada. The medal is awarded not oftener

than once a year to an amateur astronomer resident in Canada on the basis of the value of the work carried out in astronomy and closely allied fields of original investigation.

1993 Mary Lou Whitehorne (Halifax)  
1995 Paul Boltwood (Ottawa)  
1996 David Lane (Halifax)  
1998 Bertus (Bert) Rhebergen (Hamilton)

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## KEN CHILTON PRIZE

The Chilton Prize was established in 1977 by the National Council of the Society in remembrance of Ken E. Chilton, an active member of the Hamilton Centre. The prize is awarded annually to an amateur

astronomer, resident in Canada in recognition of a significant piece of astronomical work carried out or published during the year.

1990 Doug George (Ottawa)  
1995 Paul Gray, David Lane (Halifax)  
1996 Raymond Thompson (Toronto)  
1997 Heather T. Cameron (Halifax)

## THE PLASKETT MEDAL

The Royal Astronomical Society of Canada and the Canadian Astronomical Society together present an award in recognition of the pivotal role played by John Stanley Plaskett in the establishment of astrophysical research in Canada. The award is made to the graduate from a Canadian university who is judged to have submitted the most

outstanding doctoral thesis in astronomy and astrophysics in the preceding two calendar years. An award need not be made every year.

1991 Paul Charbonneau (Montreal)  
1992 Eric Poisson (Alberta)  
1993 Pierre Brassard (Montreal)

1994 Grant Hill (Montreal)  
1995 Michael Richer (York)  
1996 Gordon Squires (Toronto)  
1997 Alain Beauchamp (Montreal)  
1998 Dean McLaughlin (McMaster)  
1999 Stéphane Charpinet  
(Université de Montréal)  
2000 Alexei Razoumov

## SERVICE AWARD

The Service Award was established in 1959 and takes the form of a bronze medal presented to members who have performed outstanding service to a Centre or to the National Society. Below is a list of recent winners of the Service Award.

1990 Mary Grey (Ottawa)\*  
1991 Don Hladiuk (Calgary)  
Ian McGregor (Toronto)

1992 Jean-Marie Frechette (Quebec)  
Michael Watson  
(Unattached, Canada)  
1993 Eric Clinton (London)  
David Tindall (Halifax)  
1994 Randy Dodge (St. John's)  
Gary Dymond (St. John's)  
Mel Rankin (Edmonton)  
1995 Ron Gasbarini (Niagara)  
Patrick Kelly (Halifax)

1996 Sidney Lee (Calgary)  
Robert Venor (Montreal)\*  
Abbe Alphonse Tardif (Quebec)  
1998 David Lane (Halifax)  
Roger Hill (Hamilton)  
Sandy Ferguson (Saskatoon)  
1999 John Mirtle (Calgary)  
Ralph Chou (Toronto)  
2000 Phil Johnson (Calgary)  
\* deceased

## SIMON NEWCOMB AWARD

This award was instituted in 1978 to recognize literary ability among non-professional members of the society.

1994 Michael S.F. Watson  
(Unattached, Canada)

1999 Terence Dickinson (Toronto)

## HONORARY MEMBERS OF THE RASC

Dr. R. B. Baldwin (United States)  
Dr. F. M. Bateson (New Zealand)  
Dr. R. Hanbury Brown (Australia)  
Dr. David L. Crawford (United States)  
Dr. A. Dollfus (France)

Rev. Robert Evans (Australia)  
Dr. Owen Gingerich (United States)  
Dr. Stephen W. Hawking (United Kingdom)  
Dr. Patrick Moore (United Kingdom)

Dr. Grote Reber (Australia)  
Leif Robinson (United States)  
Dr. A.R. Sandage (United States)  
Dr. Anne Underhill (Canada)

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## ELECTED OFFICERS OF THE RASC

At right are lists of former Presidents, Secretaries and Treasurers of the RASC, as well as the current holders of these positions. For names before 1990, please refer to *Looking Up – A History of the RASC* by Peter Broughton.

### Honorary Presidents

1989-1993 Ian Halliday  
1993-1997 Alan Batten  
1997-2001 Jack Locke

### Secretaries

1987-1993 David Tindall  
1993-1996 Randall Brooks  
1997-1999 Raymond Auclair  
1999- Kim Hay

### Presidents

1990-1992 Damien Lemay  
1992-1994 Peter Broughton  
1994-1996 Doug Hube  
1996-1998 Doug George  
1998-2000 Randy Attwood  
2000-2002 Robert Garrison

### Treasurers

1989-1992 Karl Miller  
1992-1994 Terry Hicks  
1994-1998 Rajiv Gupta  
1998- Michael Watson

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## GENERAL ASSEMBLIES – 1990 - 2002

The following Centres hosted the General Assembly from 1990 to 2000:

1990 Ottawa Centre	1996 Edmonton Centre
1991 Vancouver Centre	1997 Kingston Centre
1992 Calgary Centre	1998 Victoria Centre
1993 Halifax Centre	1999 Toronto Centre
1994 St. John's Centre	2000 Winnipeg Centre
1995 Windsor Centre	

The following Centres will host the General Assembly during the 2000s.  
2001 London Centre  
2002 Montreal Centre

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## WINNIPEG GENERAL ASSEMBLY GROUP PHOTOGRAPH



PHOTO COURTESY: MURRAY PAULSON, EDMONTON CENTRE

# CENTRE ADDRESSES / ADRESSES DES CENTRES

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## EDMONTON

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11211 - 142 St., Edmonton, AB T5M 4A1 • (780) 477-8881  
<http://www.edmontonrasc.com> • [president@edmontonrasc.com](mailto:president@edmontonrasc.com)

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(902) 420-5633 (9 a.m. - 5 p.m. M-F)  
<http://halifax.rasc.ca> • [halifax@rasc.ca](mailto:halifax@rasc.ca) (reaches President)  
[hfxexec@rasc.ca](mailto:hfxexec@rasc.ca) (reaches executive)

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## MONCTON

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## OKANAGAN

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## REGINA

PO Box 20014, Cornwall Centre, Regina, SK S4P 4J7  
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(709) 364-4953

## SARNIA

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## SASKATOON

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## THUNDER BAY

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## WINNIPEG

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

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