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

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2001

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ANNUAL REPORT  
RAPPORT ANNUEL

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LAYOUT AND PRE-PRESS PREPARATION  
CONCEPTION ET INFOGRAPHIE

Mark Bratton

COVER PHOTOGRAPH  
PHOTO COUVERTURE

Rajiv Gupta

PRINTING  
IMPRESSION

Data Resolutions Inc.

**On the Cover:** Two 170-minute and 150-minute exposures of the North America and Pelican Nebulas in Cygnus on medium-format, gas-hypersensitized Kodak Technical Pan film using a dark red filter, with a 130-cm f/6 Astro-Physics refractor, digitally combined and processed using RegiStar and Photoshop software.

# PRESIDENT'S MESSAGE

This was not an exciting year – nor was it intended to be. When my term began two years ago, I stated that it would be characterized as a time for consolidation, a time for using our new tools and ideas to be more productive than ever before. Changes are good, but when there are too many at once, or when they don't work out according to plan, then the Society's energy goes into the change itself rather than into the content.

There were many changes in 1996-1998, especially the outsourcing of membership tracking to the University of Toronto Press. Of course, there was no way to know ahead of time that it would fail and National Council probably thought it was a good way to improve efficiency and quality of life quickly and easily. It didn't take long to discover that the Press didn't have the level of investment in membership satisfaction expected by our members – there were too many problems.

During Randy Attwood's term (1998-2000), Council decided to bring the membership tracking back in-house, but in the much-improved form of a modern, computerized process. The Membership and Publications System is large and complex, but through the combined efforts (i.e. lots of time and hard work) of Bonnie and Isaac (the users) with Peter Hollings (the programmer), the beast has been tamed. It is now working well; for this past year, the National Office has been humming along being productive and efficient. Perhaps it is time for another big shakeup? Not in my time at the helm, please and thank you!

Something good usually comes from change, even when it is not apparent at first. It could be argued that the new computer program would not have been developed without the experience of out-sourcing. The lesson for me is to trust the process.

There have been several positive changes this year. The membership continues to grow at an impressive rate. We are now at an all-time high of over 4500 members, 60 of whom are also members of the Canadian Astronomical Society, Canada's organization of professional astronomers. I was pleasantly surprised to discover that the Astronomical Society of the Pacific, the closest US counterpart to the RASC, has the same number of members even though their population base is a factor of ten larger than Canada's.

Our membership fee continues to be one of the world's greatest bargains, compared with those of any other astronomical organization. This is in spite of a small increase of four dollars for the second year in a row, to a new total of \$44 per year. Most other astronomical societies have fees of over a hundred Canadian dollars per year with fewer benefits included. The *Observer's Handbook* alone retails for \$22.95. It is highly regarded among amateur and professional astronomers the world over and just under 12,000 copies are distributed and sold annually. Also included are *SkyNews* and the *Journal of The Royal Astronomical Society of Canada*. The *RASC Calendar*, produced by Rajiv Gupta, while not included, is offered at a substantial discount to the Centres, most of which pass the savings on to their members.

Considerable enhancements have been made in marketing the RASC, mainly through the efforts of Dave Lane, Patrice Scattolin, Isaac McGillis, and Bonnie Bird. The eStore is accessible from the RASC Web site and has been unexpectedly productive, not only for selling products like the *Observer's Handbook*, the *Calendar* and the *Beginner's Observing Guide*, but also for attracting new members.

One of the unwritten traditions for RASC Presidents is to visit all the Centres during their two-year term of office. Now that all the provinces are included among the 26 Centres, I think the reality is that the President can only manage to visit a fraction of them in a two-year term of office, especially if the President is also working. Being retired during this second year of my term has allowed me the freedom to pursue this elusive goal. The experience has been worth the effort, if only for the perspectives gained. In the spring of 2001, I visited the British Columbia Centres, which all appear to be in good spirits. Victoria hosted the GA in 1999 and Vancouver will host our centennial year of "Royal" designation in 2003. Prince George has just formed a new Centre, but I'll leave that visit in the very capable hands of the next President.

In October, I enjoyed a whirlwind tour of the Prairie Provinces – five Centres in ten days. In the process, I helped dedicate a new telescope, gained new perspectives, new friends, and a new appreciation for the incredible beauty of the Prairies, especially with the late-afternoon Sun on the tawny fields stretching to the horizon, which seems like the near side of forever.

The Atlantic Provinces were the target in November – five lectures, four Centres, eight days. The hospitality was exceptional and again, my perspective was broadened to include Newfoundland and Prince Edward Island. PEI is the smallest province and their newly-established Centre has one of the smallest membership lists. Good speakers, well advertised, can make a difference, and it helps to have a very active core group whose passion is contagious. Halifax is an example of an exceptionally successful Centre.

London Centre of the RASC certainly showed us that they could put on an exciting, well-organized, and interesting GA, with time and space for late-night stellar songfests, led by Peter Jedicke and David Levy, among others.

The GA is in Montreal this year and is on the May long weekend instead of the usual first of July, in order not to compete for space with the very popular jazz festival. Thus, be aware that all deadlines have been moved forward. You won't want to miss this one!

Finally, my heartfelt thanks and profound admiration go to all of the RASC volunteers who give of their passion to "Amateurism for the Love of It."

**Dr. Robert Garrison**  
*President*

# NATIONAL SECRETARY'S MESSAGE

We are now a year into the new millennium, and many triumphs and tragedies have happened all around the world. Though events are unfolding, we can always stay in touch through our Society.

A little closer to home, the Society itself grew with new amateurs joining our membership, and a new Centre, Prince George, joining the RASC. At this time, I extend, on behalf of everyone in the Society, a welcome to all our new and renewed members. The Society's membership at the end of December 31, 2001 was 4407 (see box 1). In addition, at this year's National Council meeting held on the weekend of the General Assembly in London, Ontario, Prince George was voted and accepted into the Society as a new Centre. This addition means that there are 26 Centres stretching across all of our country. Our National President managed to visit over three-quarters of all Centres during his two-year term.

**Box 1: Centres and Membership Numbers from 1996-2001**

Centre	2001	2000	1999	1998	1997	1996
Calgary	315	310	270	267	272	256
Charlottetown	18	26	N/A	N/A	N/A	N/A
Edmonton	249	222	217	166	152	138
Halifax	186	172	157	164	135	127
Hamilton	122	109	79	65	45	50
Kingston	146	152	176	136	152	142
Kitchener	106	95	80	51	32	32
London	115	115	78	65	49	45
Moncton	46	29	N/A	N/A	N/A	N/A
C.F. de Montréal	36	38	46	46	33	11
Montreal	106	102	105	113	108	103
Niagara	97	91	83	72	60	48
Okanagan	70	61	53	40	35	16
Ottawa	457	431	394	298	246	216
Prince George	25	N/A	N/A	N/A	N/A	N/A
Quebec	50	63	36	50	51	47
Regina	47	30	27	31	18	23
St. John's	45	47	36	41	39	35
Sarnia	27	31	19	10	12	13
Saskatoon	73	76	77	75	54	54
Thunder Bay	38	32	37	31	17	20
Toronto	775	792	723	720	687	682
Vancouver	294	275	271	229	233	218
Victoria	200	159	148	144	126	100
Windsor	107	102	94	71	66	52
Winnipeg	105	99	106	97	77	64
Unattached	552	558	476	413	357	365
Honorary	13	13	14	15	15	15
Total	4407	4230	3783	3419	3071	2862

Along with the addition of new members, we have lost our friends and fellow members as well. At this time, on behalf of The Royal Astronomical Society of Canada, I extend our deepest sympathies to the family and friends for the loss of the following amateur astronomers from January to December 2001:

Robert H. Bulbrook (Ottawa), John Burton (Kingston), Arthur Covington (Kingston), William Ferguson (Ottawa), Al Furlong (Hamilton), Bryce Heartwell (Edmonton), Dan Jardine (Unattached), Dr. F. Shirley Jones (Toronto), John Knechtel (Toronto), Sid Lee (Calgary), David V. Lewin (Toronto), Charles W. Manion (Kingston), David Marchand (Windsor), Pamela Mastrogiuseppe (Montreal), George McNamara (Moncton), John

McDermott (Windsor), F. Graham Millar (Halifax), John Mulvenna (Regina), Dr. Donald K. Norris (Calgary), Antony Overton (Vancouver), Sydney Palmer (Victoria), Ron Pow (Kingston), Clyde Reid (Winnipeg), Jacques Richard (Moncton), Robert Rixen (Toronto), Ronald Rodgers (Ottawa), Frederic P. Scholer (Toronto), Bruce Scott (Halifax), Georges Seguin (Toronto), Kevin J. Whalley (Sarnia), Bruce Scott (Halifax).

In a growing Society such as ours, it takes many volunteers to run and organize activities, publish our great publications, and promote the Society. Our two employees, Bonnie Bird, Executive Secretary, and Isaac McGillis, Membership and Publications Coordinator, co-ordinate the membership and publication orders, as well as run the National Office. Everyone's contributions make our Society as great as it is. With all these people that keep our Society going, it is one of which we can all be proud.

The RASC's Annual meeting is held at the General Assembly, which was hosted by the London Centre this year (2001). It takes many people to organize and make an event run smoothly and the London GA Committee did just that. From all those who attended the GA this year, a special thank you goes to the Organizing Committee, chaired by Peter Jedicke, and the volunteers who looked after the great social activities (day and night), the trips shuttling attendees to and from events, the train, and airports, and helping all to their rooms. The London General Assembly was fantastic and the Centre's work is greatly appreciated. For those who could not make it, you missed a chance to meet members and fellow amateurs. If you can, please try to make it to Montreal from May 17-19, 2002, where you will have another chance to meet members, in the exciting city of old Montréal. Visit the National RASC Web site [www.rasc.ca](http://www.rasc.ca) for more details.

Along with the special talks and social events, there was a very special award. Spearheaded by Mike Cook, the Light Pollution Abatement Certificate was presented to the City of Oshawa, by David Crawford, founder and president of the International Dark Sky Association and Rob Dick, chairman of the RASC Light Pollution Abatement Committee. Oshawa's Engineering department has implemented the replacement of all old style "cobra head" lighting with the new full cut off, flat lens cobra head lighting.

Other award winners at the GA were: John Rousom (London), Dr. David G. Turner (Halifax), Service Awards; Richard Huziak (Saskatoon), Chant Medal; Michael Boschat (Halifax), Ken Chilton Prize; Dr. Peter Brown (University of Western Ontario), the Plaskett Medal; and Dan Falk (Toronto), with the Simon Newcomb Award. Many individuals received Membership Certificates, and over the year, many also received their Messier and NGC Finest Objects Certificates.

Other events held within the 2001 year included International Astronomy Week, Space Day, and many Star Parties from coast to coast. This Society has a lot to be grateful for and to be proud of. With members like you, we continue to grow and flourish. If you can help at your local level or the National level in any way please do; we welcome anyone who would like to contribute. This is your Society, so let's make it work together.

**Kim Hay**  
National Secretary

# TREASURER'S REPORT

This time last year I reported on two successive years of deficits, totalling about \$41,000. This year I am pleased to report that the Society experienced a modest surplus on its operations for the year 2001, in the amount of \$24,770. This was in spite of a budget that had projected a surplus of only \$13,500.

I encourage all members to take a close look at the Society's audited financial statements that are printed in the Annual Report. There is a lot of interesting information contained in these statements, not only as to the Society's revenues and expenses for the year 2001, but also about the Society's asset base, net equity, and various investments and funds.

The main reason for the better than anticipated performance in year 2001 was that revenue exceeded projections by about \$12,000. Membership fee revenue, although ahead of the 2000 figure by almost 16%, was actually lower than we had anticipated at budget time. The big news was our publications revenue, which exceeded budget by more than \$18,000, and was ahead of year 2000 by more than 10%. Revenue from each of the *Journal*, the *Observer's Handbook* and the *Observer's Calendar* exceeded the prior year's figures by substantial amounts, varying from 10% each for the *Journal* and the *Observer's Handbook* to an 18% increase for the *Calendar*. I should point out that the entire \$12,500 increase in revenue for the *Handbook* is attributable to (i) the higher price that National Council set for the year 2001 edition, and (ii) the falling Canadian dollar exchange rate vis-à-vis the U.S. dollar (since a large proportion of *Handbook* sales are to the U.S.). The actual unit sales of the *Handbook* declined slightly in 2001 from the 2000 number.

When considering the revenues generated by the Society's publications, it is always helpful to examine the expenses associated with those publications as well. We all know that the *Journal* costs the Society money on a net basis (revenues of \$39,000 compared with expenses of \$80,000, which includes distribution costs). We are fortunate that the net cost of this publication, which is a great benefit to members, is more than made up for by the large surpluses generated by the *Handbook* (over \$100,000 last year) and, increasingly, the *Calendar* (over \$24,000 last year).

As for the other revenue categories, it is worthwhile to mention interest revenue on the Society's investments. As can be seen,

interest revenue declined significantly in year 2001, attributable mainly to lower interest rates last year. The Finance Committee expects that our interest revenue will be even lower in 2002, as a result of the maturing of several investments in the second half of 2001 and the first part of 2002, and their reinvestment in much lower yield investments.

One significant category of expense is office salaries and employee benefits. The total cost of employees includes not only the item "Office salaries and employee benefits" in the revenue and expense statement, but also portions of "Membership services" and "Handbook distribution to members". When these are added together, the total employee cost to the Society in 2001 was \$84,200, compared with a year 2000 figure of \$79,200. This is a reasonable increase, given the 5% increase in the Society's membership from 2000 to 2001.

As for other expenses, there were no grants to Centres in 2001, although Calgary Centre received a \$6,000 grant at the January 2002 National Council meeting arising out of an application made in 2001. Office expenses were down significantly in 2001, due mainly to lower computer and systems costs. Advertising was up by \$5,000, as a result of Council's decision to advertise on the Heavens Above Web site. Finally, committee expenses increased in year 2001 as a result of (i) printing a new brochure in both English and French, and (ii) the purchase of additional inventory of promotional products (which is reflected in promotional product revenue).

The Society's overall financial condition remains healthy. As I reported last year, however, at some point in future, if our membership continues to grow at the pace that it has over the past few years, we will need additional staff and possibly additional premises. This will cause a large increase in expenses, and it remains to be seen whether the Society's revenues – and in particular its publications revenues – will be sufficient to offset these additional costs.

**Michael Watson**  
*National Treasurer*

# AUDITORS' REPORT

## Tinkham & Associates

CHARTERED ACCOUNTANTS

C.J. Tinkham, C.A., C.M.C.  
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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, 2001 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 Canadian 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 Canadian 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, 2001 and the results of its operations for the year then ended in accordance with Canadian generally accepted accounting principles.

TORONTO, Ontario  
February 20, 2002

**Tinkham & Associates LLP**  
CHARTERED ACCOUNTANTS

# BALANCE SHEET

As at December 31

	2001	2000
<b>Assets</b>		
Current		
Cash	\$ 137,416	\$ 120,110
Short-term investments (note 4)	308,132	156,012
Accrued interest receivable	4,879	14,173
Accounts receivable	38,707	41,288
Prepaid expenses	3,916	9,916
	<b>493,050</b>	<b>341,499</b>
Long-term		
Long-term Investments (note 5)	119,839	219,839
Accrued interest receivable	19,487	11,176
	<b>139,326</b>	<b>231,015</b>
Capital assets		
Office building, furniture, equipment, library (nominal value)	1	1
	<b>\$ 632,377</b>	<b>\$ 572,515</b>
<b>Liabilities</b>		
Current liabilities		
Accounts payable and accrued charges	\$ 34,924	\$ 23,263
Deferred revenue		
Membership fees for ensuing years	93,258	84,787
Journal subscriptions	27,549	25,294
Unamortized life membership fees (notes 3 & 6)	63,707	54,516
	<b>219,438</b>	<b>187,860</b>
<b>Net Assets</b>		
Invested in capital assets	1	1
Unrestricted	108,608	85,517
Internally restricted (notes 3 & 7)	304,330	299,137
	<b>412,939</b>	<b>384,655</b>
	<b>\$ 632,377</b>	<b>\$ 572,515</b>

On Behalf of the Board:



President



Treasurer

## STATEMENT OF CHANGES IN NET ASSETS

For the year ended December 31

	Invested in Capital Assets	Internally Restricted (notes 3 & 7)	Unrestricted	2001	2000
Balance, beginning of year	\$ 1	\$ 299,137	\$ 85,517	\$ 384,655	\$ 387,109
Excess (deficiency) of revenue					
over expenditures for the year	–	–	24,770	24,770	(5,672)
Net interest earned on					
Ruth Northcott fund	–	3,514	–	3,514	3,218
Transfers	–	1,679	(1,679)	–	–
Balance, end of year	\$ 1	\$ 304,330	\$ 108,608	\$ 412,939	\$ 384,655

See accompanying notes to financial statements

# STATEMENT OF REVENUE AND EXPENDITURES

For the year ended December 31

	2001	2000
Revenue		
Membership fees	\$ 111,395	\$ 96,278
Publication revenue		
Journal	39,262	35,719
Observer's Handbook	142,779	130,200
Beginner's Observing Guide	12,845	15,011
Observer's Calendar	56,700	48,049
Other	1,362	(95)
	<b>252,948</b>	<b>228,884</b>
Miscellaneous income		
Interest on investment (note 3)	10,865	15,262
Rent	14,678	13,482
Other income	3,380	2,109
	<b>28,923</b>	<b>30,853</b>
	<b>393,266</b>	<b>356,015</b>
Expenditures		
Publication costs		
Journal	64,967	57,465
Annual report	5,236	10,919
Distribution costs	15,428	13,349
Observer's Handbook	41,568	41,498
Beginner's Observing Guide	7,974	12,339
Observer's Calendar	32,564	28,396
Operating costs		
Office salaries and employee benefits	51,889	54,654
Membership services	24,177	19,021
Handbook distribution to members	2,651	3,794
Grants to Centres	-	3,000
Life membership allotment to Centres	4,320	3,931
SkyNews expense	36,860	33,262
Office expenses	26,126	33,834
Advertising	5,828	963
Financial services	8,927	6,902
Insurance	4,574	4,152
Committees/Promotion	4,908	921
Travel expenses	20,226	22,951
Building	10,273	10,336
	<b>368,496</b>	<b>361,687</b>
Excess (deficiency) of revenue over expenditures	<b>\$ 24,770</b>	<b>\$ (5,672)</b>

*See accompanying notes to financial statements*



# NOTES TO FINANCIAL STATEMENTS

December 31, 2001

## 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 Canadian generally accepted accounting principles. The preparation of the Royal Astronomical Society of Canada financial statements in conformance with Canadian 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. There were no capital assets purchased in the current year (2000 - Subscription module software \$5,865) 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 Canadian 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, 2001 is liabilities are overstated by \$16,710 (2000 - \$12,999), interest on investment is understated and excess of expenditures over revenue is overstated by \$3,711 (2000 - \$4,417), and opening unrestricted net assets are understated by \$12,999 (2000 - \$8,582).

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, 2001 is interest on investment is understated and excess of expenditures over revenue is overstated by \$3,514 (2000 - net \$3,218).

## 4. Short-term Investments

Short-term investments at December 31, 2001 are comprised of three guaranteed investment certificates. One bears a fixed rate of interest of 5.63% and two bear variable interest rates which are linked to prime. The prime-linked rate at December 31, 2001 is 1.50% (2000 - all fixed rate at 4.20% to 5.05%). Maturities range from March 4 to September 23, 2002 (2000 - January 21 to February 22, 2001).

## 5. Long-term Investments

Long-term investments are comprised of a Canada Savings Bond and a guaranteed investment certificate with rates of interest from 6.42% to 7.00% (2000 - 5.625% to 7.00%) with maturities ranging from February 11, 2003 to November 1, 2004 (2000 - March 4, 2002 to November 1, 2004).

## 6. Unamortized life membership fees

	2001	2000
Life membership fees as of January 1	\$ 54,516	\$ 45,127
Add: Life membership fees received in the year	7,556	6,800
Interest earned	4,361	4,845
Deduct: Amortization	2,726	2,256
Balance, December 31	\$ 63,707	\$ 54,516

## 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:

			2001	2000
	Ruth Northcott Fund	P.J. Millman Endowment Fund	Total	Total
Fund balance, January 1	\$ 59,317	\$ 239,820	\$ 299,137	\$ 288,483
Transferred from Unrestricted net assets:				
Interest	3,514	–	3,514	3,218
Inflation adjustment	–	1,679	1,679	7,436
Balance, December 31	\$ 62,831	\$ 241,499	\$ 304,330	\$ 299,137

## 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.

# ANNUAL MEETING MINUTES – 2001

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

### Minutes of the Annual Meeting held 2001 07 01 in Room G1020

#### Fanshawe College, London, Ontario.

The meeting was called to order at 10:10 DST by the chair, the RASC National President, Dr. Robert Garrison. Dr. Garrison welcomed delegates to the 2001 General Assembly.

Dr. Garrison called the roll of Centres. Twenty-four Centres were represented (Calgary, Charlottetown, Edmonton, Halifax, Hamilton, Kingston, Kitchener, London, Moncton, Centre Francophone de Montreal, Montreal, Niagara, Okanagan, Ottawa, Regina, St. John's, Sarnia, Saskatoon, Thunder Bay, Toronto, Vancouver, Victoria, Windsor, Winnipeg) and there were also several Unattached and Honorary members present. Approximately 100 members were in attendance.

#### 1. APPROVAL OF THE AGENDA

There was one correction to the Agenda. The Public Education Committee was omitted and should be added to section 3.3 Special Committees. Under section 8, the date for the next Annual Meeting should be recorded as May 19, 2002. No further changes were made to the Agenda.

#### 2. ADOPTION OF THE MINUTES OF THE 2000 ANNUAL MEETING MOTION AM2000101

It was moved that the minutes of the 2000 Annual Meeting as published in the 2000 Annual Report be adopted.

The motion was **CARRIED**.

#### 3. REPORTS:

##### 3.1 OFFICERS PRESIDENT

Dr. Garrison thanked the London Centre for hosting the GA, and appreciated the efforts of all the volunteers and those that helped at all levels. Dr. Garrison stated that he would like his term of office to be characterized by a time of consolidation among Centres and at the national level. Dr. Garrison remarked that membership has increased and there is currently at least one Centre in every province. The new Prince George Centre will soon have a representative. Dr. Garrison announced that Charlottetown and Moncton are celebrating their first anniversary as Centres at this GA. Dr. Garrison remarked that there should be more emphasis on public outreach and education, for which funding is available. Dr. Garrison reported that the *Journal* needs more contributions from professionals. Past issues of the *Journal* have been scanned and are available on the Astronomical Data system and are available publicly. Dr. Garrison stated that the fee increase is a contentious issue that will be discussed at this GA. Dr. Garrison explained that with a growing electronic

medium, the Society can not continue to rely on the income received from the *Observer's Handbook* as a major source of income. Dr. Garrison acknowledged the great efforts of the staff at the National Office in performing the work of the Society and thanked Ms. Bird for her dedication to the Society. A round of applause followed.

##### 1st VICE PRESIDENT

There was no report.

##### 2nd VICE PRESIDENT

There was no report.

##### NATIONAL SECRETARY

Ms. Hay remarked that the National Secretary assists the executive and replies to inquiries by correspondence. Ms. Hay announced that several Membership Certificates for 5 and 25 years, 8 Messier certificates and 8 NGC certificates will have been awarded up to June 30, 2001. Ms. Hay read the roll of the members who were reported as deceased in 2000 and in the first six months of 2001. A moment of silence was observed in their honour.

##### TREASURER

Mr. Watson described the financial state of the Society and referred to the financial statements for 2000, which were presented in the Annual Report. Mr. Watson explained that there was a deficit much smaller than the previous year. Mr. Watson explained the relationship of the deficit to the Society's base of assets. Mr. Watson remarked that the Society should try to have a modest annual surplus of 5-8% of revenues to hedge against future difficulties, down turns in revenues and to rebuild the assets to be able to deal more effectively with unexpected large expenditures. Mr. Watson presented a summary of recent membership statistics and acknowledged that Ms. Hay had included membership figures for the past 5 years in the Annual Report.

##### MOTION AM200102

It was moved by Mr. Watson and seconded by Ms. Goodman to adopt the audited financial statements as published in the 2000 Annual Report.

The motion was **CARRIED**.

##### EXECUTIVE SECRETARY

Ms. Bird reported that she has worked for the Society for 5 years. Ms. Bird stated that work continues at the National Office, memberships are being processed, reports and council preparations are proceeding in a timely manner. Ms. Bird announced that she and Mr. McGillis have been on a 4-day work week from Easter until August. Ms. Bird reported that Mr. McGillis processes all the memberships and renewals, handles problems, and product orders while she handles the administration of the Society. Mr. McGillis has taken over the eStore, processes the eStore orders daily. Ms. Bird stated that Mr. McGillis has many talents including designing the Japanese meditation garden and landscaping the property. Ms. Bird acknowledged that Mr. McGillis is a constant, steady worker and is an asset to the Society. Ms. Bird acknowledged the support of Mr. Haig in assisting with the computer. Ms. Bird thanked Dr. Garrison and Ms. Hay for their assistance and avail-

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ability to answer astronomy questions and administrative assistance.

#### **NATIONAL RECORDER**

There was no report.

### **3.2 STANDING COMMITTEES**

#### **AWARDS COMMITTEE**

Mr. Attwood reported that the Membership Certificate had been abolished by Council and that the committee will look at new awards over the next eight months. Mr. Attwood remarked that membership is most appropriately acknowledged at the Centre level.

#### **CONSTITUTION COMMITTEE**

Mr. Watson reported that the committee is pursuing an initiative to make by-law amendments that will decouple Society fees from Centre fees. Mr. Watson remarked that Centre representatives have details on the amendments that they will bring to each Centre for discussion and input.

#### **EXECUTIVE COMMITTEE**

Dr. Garrison reported that most committee meetings have been held by phone to help cut costs to the Society.

#### **FINANCE COMMITTEE**

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

#### **HISTORICAL COMMITTEE**

There was no report.

#### **LIBRARY COMMITTEE**

There was no report.

#### **MEMBERSHIP AND PROMOTION**

Ms. Hay reported that new stickers and crests are available for sale.

#### **NOMINATING COMMITTEE**

Mr. Attwood reported that the new Honorary President is Dr. Roy Bishop. A round of applause followed. Dr. Bishop announced that he looks forward to serving the Society well as Honorary President and reminded the membership that Arthur Covington, a former Honorary President had passed away three months ago. Mr. Attwood announced that nominations are being accepted for the positions of President, 1st Vice President and 2nd Vice President and National Secretary, whose terms of office expire at the 2002 GA.

#### **PROPERTY COMMITTEE**

Mr. May reported on the improvements to the Society property made by Mr. McGillis, and the repairs and maintenance made to the building. Mr. May thanks Ms. Bird and Mr. McGillis for their assistance and support in maintaining the property. Dr. Garrison thanked Mr. May for his work on the committee. Dr. Garrison thanked all volunteers in the Society for their assistance and enthusiasm.

#### **PUBLICATIONS COMMITTEE**

Dr. Gupta thanked Mr. Barkhouse, Dr. Garrison, Mr. Bratton, Mr. Lane and Mr. Scattolin for their work on the committee. Dr. Gupta announced that publications are being more aggressively marketed and remarked on the success of publications on the eStore. Dr. Gupta acknowledged Mr. Bratton's efforts in producing an excellent Annual Report. Ms. Goodman asked if advertising in the *Journal* could be promoted to reduce production costs. Mr. Lane answered that advertising is permitted but this has not been as aggressively pursued. Mr. Lane suggested that his successor could more actively encourage advertising.

#### **EDITOR OF THE JOURNAL:**

There was no report.

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

Dr. Gupta reported that the *2002 Observer's Handbook* will be printed at the end of August. Dr. Garrison thanked Dr. Gupta for the enormous amount of work on publications as well as his other duties on the executive.

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

Mr. Enright reported that sales of the *Beginner's Observing Guide* are progressing well and he encourages Centres to have sufficient copies on hand for their membership, workshops, teacher groups and star parties. Mr. Enright urges contact with Centres and individuals for input to continue to improve and promote the *Guide* as an observing tool. Dr. Levy congratulates Mr. Enright on his book, his work and his recovery from his recent illness and hopes Mr. Enright will be able to continue his work for many years. Mr. Winkler (Kingston) congratulates Mr. Enright and states that Kingston is proud of Mr. Enright's major contribution to astronomy and to have him as a member of their Centre.

#### **EDITOR OF THE OBSERVER'S CALENDAR:**

Dr. Gupta announced that order forms are available for the *2002 RASC Calendar* and that a sample of the calendar is available for viewing.

### **3.3 SPECIAL COMMITTEES**

#### **ASTRONOMY DAY**

Mr. Young congratulated Centres for their enthusiasm in hosting Astronomy Day activities. Mr. Young announced that next year's Astronomy Day will be held on Saturday April 20th, 2002. Mr. Young reported that Astronomy Week may be celebrated from April 15th to 21st, 2002 and that most planets will be visible with the Moon passing through each one in succession that week. Mr. Young remarked that the Society has been invited to participate in International Space Day held annually on May 3rd and is supported by NASA, the Canadian Space Agency and a number of science centres and planetaria. Mr. Young stated that information on these events will be posted on the Web site as soon as possible.

#### **COMPUTER USE**

There was no report.

#### **LIGHT POLLUTION ABATEMENT**

Mr. Dick stated that reports are available on the Web site. Mr. Dick reported on the success of the Dark Sky Reserve in the

Muskoka region of Ontario, that it may have been the first one in the world, but several more are in planning stages in other provinces in Canada and in some American states. Mr. Dick announced that the LPA award was presented to the City of Oshawa for its amendments to by-laws to include light pollution abatement. Mr. Dick stated that the committee would like to improve the Web site for the LPA with links to Dark Sky Reserve, etc. Mr. Dick welcomed Mr. Dave Crawford of the International Dark Sky Association.

#### **NEW OBSERVING CERTIFICATE**

Mr. Fleming announced the new beginning observing certificate program that has recently been passed at National Council. Mr. Fleming thanks the members of the committee for their assistance. The program is now available.

#### **PUBLIC EDUCATION**

Mr. Orenstein reported there was a direct outreach to Canada's teacher organizations and requests assistance from members in making contacts in each province. Mr. Orenstein acknowledged Mr. Enright's written seasonal observing opportunities that are used in public education. Mr. Orenstein encouraged members to become involved in the RASC educator's discussion group.

#### **4. RESULTS OF THE ELECTION OF OFFICERS OF THE SOCIETY**

Mr. Attwood acclaimed Mr. Watson as National Treasurer for another three-year term. Mr. Watson has chaired the Finance Committee, oversees special grants for projects, and has assisted in the implementation of the new computer system at the National Office. A round of applause followed.

#### **5. MOTION TO INCREASE SOCIETY FEES MOTION 20010107**

"That Council recommend at the Society's Annual Meeting a fee increase of \$4 for ordinary members, \$2.50 for youth members and \$80 for life members."

Dr. Gupta described the financial state of the Society and referred to the financial statements presented. The Society has depleted some of its assets to unhealthy levels. The Society must cut expenses and increase revenues. The Society cannot rely on the revenues of the *Observer's Handbook* as its major source of revenue. Expenses have already been cut. Ms. Goodman asked if the number of *Journal* issues could be reduced. Mr. Lane replied that the mailing costs would increase if *SkyNews* is mailed separately from the *Journal*. Dr. Garrison commented that the *Journal* is a major vehicle of communication of the Society with its members and is vital. Mr. Grey commented that membership in the Society means a great deal to most members and there is no question that the benefits are a good deal to its members but would be more willing to support a fee increase next year. Mr. Lane reminds the membership that the Society receives 60% of the increase, Centres receive 40% of the increase and that Centres may reduce surcharges by that amount or have a negative surcharge. Mr. Attwood responded to Mr. Grey's remarks that there is no guarantee that the decoupling of fees will take place next year. Mr. Attwood remarked that information will be taken back to Centres by their representatives for discussion and that Centres have

opportunity for input. Mr. Attwood stated that there should be a small modest annual profit, revenue over expenses to help recover from the few years of deficits. Mr. Attwood said that there may be further expenses such as hiring a third person for the National Office, increased costs to maintain an aging building and the office may need to move to larger office facilities. Mr. Scattolin remarked that the Society must remain affordable and accessible and must keep control of its costs. Dr. Gupta pointed out that the bulk of revenue is in the Society's publications and that the publications need a more aggressive marketing campaign. Mr. Breckenridge would like to follow Mr. Grey's lead in waiting for the decoupling issue to be resolved. Mr. Watson remarked that he hoped to deal with the decoupling of fees and fee increase at once but the Society is in need of revenue to meet its expenses. Mr. Watson remarked that if the Society reclaimed the tenant space in the building, it would mean a \$14,000 loss annually in rent. Mr. Watson stated there have been several years with no fee increases and yet the Society has increased services to members. Dr. Gupta remarked that the Society is in a tight financial position, without room for new programs. Dr. Gupta stated that the Society should enhance to fulfill its mandate, and to accomplish that goal, it must have more funds available for education, light pollution abatement, and grants to Centres. Dr. Gupta said that these goals can not be realized unless there is adequate funding. Mr. Cheaney remarked that the Toronto Centre does not charge a surcharge, that membership is a bargain but is not happy with a fee increase because it is too soon after last year's increase. Mr. Dick supports the fee increase to help support the programs and activities of the Society. Mr. Batty commented that he was concerned with the cost of the computers and software at National Office and that he was opposed to the increase. Dr. Gupta answered that the software was the major expense, it drives the office and the eStore and the cost is depreciated over 3 years.

**MOTION 20010107** was **CARRIED**.

#### **6. ELECTION OF AUDITOR MOTION AM200103**

It was moved by Mr. Watson and seconded by Mr. Bennett that Tinkham & Associates be re-appointed as auditors of the Society. The motion was **CARRIED**.

#### **7. OTHER BUSINESS**

Mr. Levy brings greetings and salutations from Mr. Arthur C. Clarke who remarked that he liked the theme for the conference. Mr. Enright acknowledges and recognises Mr. Watson's Messier Marathon achievement and Mr. Levy's 109 Messier and 35 NGC and deep-sky objects in one evening.

#### **8. NEXT ANNUAL MEETING**

Dr. Garrison announced that the next annual meeting would take place on 2002 05 19 in Montreal, Quebec.

#### **9. ADJOURNMENT MOTION AM200004**

It was moved by Ms. Goodman that the meeting adjourn. The motion was **CARRIED** at 12h:45.

Respectfully submitted,  
**Heide DeBond**, *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, 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 large 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 also 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 who are willing to volunteer for these events.

It is with sadness that we mark the passing of long time Centre member Sid Lee. Sid was very active in the Centre, acting as the Director of the Centre's Wilson Coulee Observatory, organizing the observatory-tour program, as well as the observing-deck program in conjunction with the Calgary Science Centre. The amount of time that Sid was able to give to the Centre was enormous and it has taken several volunteers to fill his big shoes. 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 observer's 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 also 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.

The Centre held nine general meetings in 2001, the main topics were:

- January:** "Solar Variations and Global Warming" by Ken Allen  
**February:** "Gamma Ray Bursters" by Gary Billings  
**March:** "My Ascent of K2" by Andy Evans  
**April:** "Galileo Probe" by Dr. Steven Achel – Peter Sim Lecture  
**May:** "Extra-Solar Planets" by Barry Legget  
**June:** Annual BBQ at the Wilson Coulee Observatory  
**September:** "Sundials that use human gnomens" by Roger Bailey  
**October:** "Eclipse Expedition to Africa" by Don Hladiuk, Glenn Hawley, Alan Dyer, Ruth Lewis, Murray Paulson, etc.  
**November:** Annual general meeting and elections.

**Jason Nishiyama**

*Secretary, Calgary Centre*

## CHARLOTTETOWN CENTRE

Record snowfall put a damper on our observing activities at the beginning of the year. Our favourite dark site was snowed in until about April! However, we made up for it with several nights at "ad hoc" sites and five great events during the summer.

Two of these were new this year – "Boardwalk Astronomy," a public event on the boardwalk of Victoria Park in Charlottetown, and a star party at members Dave and Debbie Cunningham's new house. Also new this year was a "Sky Review" added to our monthly meetings. This gives members a chance to discuss their observations and experiences from the previous month at each meeting.

The highlights of our year were definitely the lectures by Roy Bishop, former editor of the *Observer's Handbook*, and Bob Garrison, President of the RASC. Both generously shared their wealth of knowledge and experience and their infectious passion for astronomy.

An extensive survey of our membership showed their specific interests in astronomy covered the gamut from computer imaging to spiritual awareness as wide-ranging and as varied as the sky itself.

- January:** "Winter Wonders" by Brian Gorveatt  
**February:** "The 200th Anniversary of the Discovery of Asteroids" by Earl Wonnacott  
**March:** "The Ecliptic" by Brian Roche  
**April:** "The Future – Telling People About Astronomy" by Mark Walker; Astronomy Day festivities at Charlottetown Mall  
**May:** "The Science and Technology Awareness Site" by Walter Lane  
**June:** "The Summer Sky" by Brian Gorveatt  
**July:** Annual Barbeque; Star Party at the Cunninghams; Boardwalk Astronomy  
**August:** Observation at Greenwich National Park, Perseids Observation at Stanhope  
**September:** "Tides and the Bay of Fundy" by Roy Bishop  
**October:** "Taurus and the Crab Pulsar" by Brian Gorveatt  
**November:** "Bizarre Stars..." by Bob Garrison  
**December:** Annual Christmas Party.

**Brian Roche**

*Secretary, Charlottetown Centre*

## EDMONTON CENTRE

### Membership

Membership continued to expand in 2001, reaching 258 members including 14 youth and 10 life members. Meetings are well attended with typically 100 members and guests in attendance.

### Meetings

General meetings are held at the Margaret Zeidler Planetarium in the newly expanded and renamed Odyssium (formerly known as the Edmonton Space and Science Centre). This planetarium is well equipped for multi-media presentations, adding to the many

excellent presentations at the general meetings this year.

- January:** "Radio Astronomy and the Use of the Japanese Halka Satellite at 21 and 6 cm" by Dr. Bill Scott, University of Calgary.
- February:** "Planning an Observing Session" by David Prud'homme
- March:** "Multi-media presentation on the sounds of birds, animals and nature heard at night when observing through the year" by Warren Finlay  
"Photos of eclipses & conjunctions, lunar and aurora photos taken over the years including total eclipses observed in 1977, 1981, and 1998" by Luca Vanzella.
- April:** April Fools Meeting. "I Am Canadian" rant set to an astronomical theme by David Prud'homme  
"Mars as observed through history with recommended techniques for viewing the planet" by Murray Paulson  
"The April 2 solar flare" by Bruce McCurdy  
"Video footage of meteors and aurora from the all sky camera" by Doug Hube
- May:** "Astronomical Computation and its application to sunspot observing" by Paul Campbell
- June:** "Safe Solar Observing" by Paul Campbell  
"Australian Skies" Helen Steinke  
"Observing Faint Moons" Larry Wood  
"Noctilucent Clouds" by Mark Zalcik  
"Photos of lunar lunations, the ISS and Saturn's rings" by David Roles
- September:** "African Solar Eclipse – Hippos, Zebras, Solar Crescents, and Charging Elephants" by Murray Paulson
- October:** "Radio Astronomy 1 – The Canadian Galactic Plane Survey – Comparisons of Radio and Optical Features" by Tyler Foster
- November:** "Radio Astronomy 2 – Magnetotellurics and the Study of the Earth's Interior from the Yucatan to Tibet" Martin Unsworth
- December:** "Radio Astronomy 3 – FM Radio Detection of the Leonids" by David Cleary

### Observing Highlights

Five members of the Centre had the good fortune of visiting Africa to view the total solar eclipse. Two members led tours. The returning Edmontonians entertained the membership with stories of hippos, charging elephants, zebras, and solar crescents.

Perhaps the biggest astronomical highlight of the year was the fabulous Leonid shower in November. The shower was observed in both optical and radio "light," with naked eye observations running a maximum Zenithal Hourly Rate of between 1700 and 2000. Forward scatter FM radio observations reached a maximum count of 214 coinciding with the optical peak.

### Public Education

Public education has long been an important part of Edmonton Centre's activities. In 2001 approximately two dozen groups approached the Centre to do presentations. This included about

15 school groups. There were Cubs, Brownies, Guides and Scouts, as well as a few others. The Centre was also involved in presenting Astronomy days at three locations around Edmonton in April.

Many volunteers from the Centre staff the public Observatory at the Odysium where several telescopes are operated afternoons and evenings on weekends during the winter, and all week in summer. In 2001, Centre members hosted over 7,000 people from the public, mostly visitors to the Odysium. There were people from 47 countries, and all ten provinces and territories. The word for "Sun" was written on the Observatory blackboard in 64 languages.

Two of our members are regular contributors to astronomical publications. Alister Ling contributes monthly to *Astronomy* magazine, and Bruce McCurdy contributes to the *RASC Journal*. The Leonid shower and other astronomical events through the year led to several interviews of Centre members on local media outlets.

The Centre's Website has been re-launched at a new URL: [www.edmontonrasc.com](http://www.edmontonrasc.com) with Centre news and events, links to astronomy sites, local weather conditions, and free software downloads. There have been over 1,000 visits to the site since it was redesigned this year.

The Radio Astronomy committee expanded its connection with the University of Alberta's Department of Physics and received NSERC PromoScience funding to begin in 2002 carrying out a public education program in Alberta elementary and high schools. Two presentations on using FM radios for meteor detection were given to conferences of Alberta science as a first step in this program.

The Centre has raised funds through Casinos over the past number of years. This has led to a sizeable fund for public education. Decisions were made to purchase equipment for the public observatory at the Odysium including an equatorial, pier-mounted 16" Meade telescope with various eyepieces, and a Calcium K-Line filter for another telescope at the observatory. The equipment is expected to arrive in the first half of 2002. Funding has also been used to support the public education program of the Radio Astronomy committee. A committee was set up by Council to evaluate new public education proposals that are aimed at funds raised through the Centre's Casino fundraising.

### Awards

President's Award for Service to the Centre:	Larry Wood.
Angus Smith Award for Excellence in Telescope Design:	Sherrilyn Jahrig.
Observer of the Year Award:	Pat Abbott.
George Moores Award for Excellence in Public Education:	Alister Ling.
Astrophotographer of the Year Award:	Murray Paulson.

### David Cleary

*Secretary, Edmonton Centre*

## HALIFAX CENTRE

The Halifax Centre settled nicely into its new home at St. Mary's University.

There were a few more changes to come. At the beginning of the year we held an extra meeting of the council to organize a new format for our main meetings. We wanted to do more for members and encourage attendance at the monthly meetings of both old and new members. Another goal was to improve the interaction between members and the council. It seems to have worked, as the meetings are much more active in conversation and attendance than last year. Our membership has also grown to 180, despite the move from the Nova Scotia Museum to St. Mary's.

Our observing chair, Paul Evans, started "Members' Night" observing sessions at the St. Croix Observatory. These sessions started off to encourage more use of the observatory and have been so popular that they are now held once a month. In fact, they have been so well received that observing space gets tight on some nights. I have heard people ask on a few occasions: "When are we going to build another roll-off?"

There were two losses to the Centre this year. Graham Millar passed away July 27, and Bruce Scott passed away on October 27. They will be missed.

Nova East, held back in Nova Scotia for the second year, was a success with lots of interesting talks and the nights were clear at least some of the time.

There were many awards presented to members of the Halifax Centre this year. We are all proud of our fellow members and their accomplishments. Congratulations again to: Michael Boschat (Ken Chilton Prize); Dan Falk, past member, (Simon Newcomb Award); Blair MacDonald (Burke Gaffney Award); and David Turner (Service Award).

The Leonid meteor shower was a real entertainer this year, with peak zenith hourly rate (ZHR) counts in the 180 to 260 range. Stories and pictures of a magnitude -13 fireball were the highlight.

Our meetings were as follows.

- January:** "Astronomical Observing Projects" by Paul Evans and "Canada and the International Space Station" (video)
- February:** "Galaxy Formation and the Origin of the Hubble Sequence" by Dr. Francine Marleau
- March:** "Relativity and Black Holes" by Aidan Keane
- April:** "Time-Lapse Photography and Animation in Astronomy" by Jeff Kowalski and Kevin Casteels, and "Workshop Report" by Dave Lane
- May:** "Interstellar Gas and Galaxy Evolution" by Dr. Gary Welch
- June:** "Minas Basin Pulp & Power" by Dwight Whynot and Jill Johnston and "Who Wants To Be a Gazer?" by Pat Kelly
- September:** "Tycho Brahe's Europe" by Dan Falk and Nova East reports
- October:** "CCD Image Processing" by Blair MacDonald
- November:** "Bizarre Stars I Have Known" by Dr. Bob Garrison
- December:** "Rainbows" Dr. Bob Garrison

**Stephen Tancock**  
*Secretary, Halifax Centre*

## HAMILTON CENTRE

The Hamilton Centre has had a very good year. Here are some highlights from 2001.

The Sidewalk Astronomy Program was held every month through the summer and fall at Spencer Smith Park in Burlington. The program was extremely effective at raising the awareness of not only the RASC but also astronomy in general. The public is consistently amazed at seeing our moon through a telescope. It is a great program that will be repeated in 2002.

Astronomy Day was celebrated at Mapleview Mall in Burlington. We had a display of astronomical photos as well as telescopes set up for the public to see.

The Centre held several cleaning bees at the observatory in the spring and fall. As a result, the Observatory, the Chilton building, and the storage shed have been thoroughly cleaned. Several trailer-loads of debris were taken to the dump. Everybody was very pleased with the new look.

Several public nights were held at the observatory, attracting new people to the exciting hobby of astronomy.

General Meetings were held on the first Thursday of every month at the Steam Museum in Hamilton. We enjoyed several guest speakers as well as many member nights where we enjoyed astrophotography from many of our senior members.

Public education evenings were held for some of our local organizations such as Cubs, Scouts, Beavers, Guides, etc.

We saw the restoration and remount of our "Marsh Family" antique refractor telescope, which again is proudly mounted in the dome of the observatory. This telescope is very functional and nice for observing planets. It should also serve us well for our educational programs.

I would like to thank the many volunteers who generously gave of their time to support all of these programs. I look forward to 2002 and the many programs being planned.

**Grant Maguire**  
*Secretary, Hamilton Centre*

## KINGSTON CENTRE

2001 marked the 40th anniversary of the Kingston Centre. In an effort to commemorate the occasion, our energetic Editor, Kevin Kell led a small band of helpers to produce a yearbook filled with pictures and history of the Centre. All members will receive a copy with their November/December *Regulus*. Other Anniversary efforts enjoyed by all include talks given by Leo Enright about Dr. A.V. Douglas and the birth of the Centre. Leo has a great supply of slides and stories about founding members, very entertaining.

Public events this year were seen to be quite successful. A prime real estate location in a local mall, secured by our Astronomy-Day chair, Don Mastrianni, resulted in excellent exposure. Our display was always busy with volunteers and visitors. Three scopes set up outside for solar observing were also very busy. Over the following six days we held lunchtime and evening observing sessions at our usual downtown park location. These too were well attended. In July it was time for the Sky is the Limit Festival, a local charity fundraiser. Mirror grinding, observing, and an information table were the basics of the display. August



brought a great night out at Charleston Lake Provincial Park. Every year the Park hosts an Astronomy night where Terry Dickinson gives a talk, followed by a chance to look through scopes provided by volunteers. Kingston has participated for several years and it is always rewarding since it is such a great dark site.

On a more member-oriented note, a small army of Centre members made their way to the London GA. It was a great time with the usual G.A. stresses like, why can't I ever get this time/space thing working so that I can attend all the sessions! Then came Starfest and Kingston sent a formidable delegation. In September we and the Belleville Astronomy Club held our second dark-sky weekend which has come to be known as Fall'N'Stars. All aspects seemed improved, even the weather to some extent.

Increasing Centre exposure, public awareness of astronomy, and addressing light pollution all came together in a tidy package for our LPA chair, Kim Hay, this year. The Land O' Lakes Tourist Association is looking for input about what makes the area special and what to promote. Of course, at the top of our list is plenty of dark sky, and our delegation did not waste any time pointing that out. There seems to be interest in Bread and Breakfast establishments hosting astronomy nights, so we will see where this leads.

The ATM committee continued with its labour of love to complete the 24-inch. There is a good chance that it will see first light before the year is out. Good work Doug and Kendra Angle, ATM leaders. Education soldiers on with classroom visits, the production of teaching aids and a third year of presentations to the Science Teachers of Ontario Association.

Monthly public observing continues and it has been well attended, while most members' dark-site observing has been clouded out. Our Youth Observers Group is on a break now waiting for fresh ideas and energy. The CCD has become very popular and after a summer break has picked up again.

We were most fortunate to have some excellent meetings this year:

- January:** Members' Night: "History of the Kingston Centre" by Leo Enright
- February:** "The Nstars Project" by Bob Garrison,
- March:** Members' Night: "History of the Kingston Centre, Part 2" by Leo Enright
- April:** "Moonward Vacuum Coatings" by Alan Ward
- May:** "Active Galaxies" by Dr. J. Saikia
- June:** "Mars 2001 Observations and Expectations" by Terry Dickinson
- July:** "Mars: 10 Years of Photometric Observations" by Richard Schmude
- August:** "Markfest annual BBQ" by Judith Irwin
- September:** "Deep Sky Challenge" by Ken Kingdon
- October:** Elections and Members' Night
- November:** "SNO" by Dr. Barry Robertson
- December:** Members' Night.

As 2001 closes we look forward to our banquet, elections, and plans for the next year. This year we have had a chance to reflect on the history of our Centre. This look at who we are and what we hope to achieve led the executive to change the location of the meeting room. There were two great choices, the original meeting room where the Centre started, in a building that hous-

es the Queen's telescope, or Stirling Hall, home of the Astronomy/Physics faculty. The Stirling D lecture hall was chosen for the following reasons: plenty of A.V. equipment, greater capacity for more public participation, and last but not least, proximity to the Astronomy faculty and students. This we hope will foster closer ties, which will allow the Centre to bring more of the research done by Queen's staff and grad students to the public for our mutual benefit.

My report only offers a brief glimpse of the hard work done by members, and as always there is much more to do in 2002. So many ideas, so little time!

**Susan Gagnon**

*Secretary, Kingston Centre*

## KITCHENER-WATERLOO CENTRE

Since many of our members are very actively involved, we have had a very good year. We have had guest speakers, star parties, observing contests, fund-raisers, and we actually did a major overhaul on our observatory and the telescope.

Perry Cash and Matthew Dance re-worked the dome on the observatory. Bernd Mueller and Jim Graham set up the fencing around the observatory property. Ken Saumure installed some solar panels to provide electricity. Mike Burns assisted with painting and various other tasks.

Also, our 12" telescope inside the observatory was in an extreme state of dis-repair. Many members contributed to the effort of rebuilding this telescope. Ken Saumure and Herb Schilling did most of the mechanical work with the machining. Darryl Archer has rebuilt the drives and is now in the process of finalizing their adjustment. Many more got involved with cleaning the telescope and re-installing it into the observatory.

At our monthly meetings, several members did a variety of interesting presentations and slide shows.

Bernd Mueller organized a fundraiser with club T-shirts and sweatshirts. Peter Daniel organized a fundraiser with the RASC calendars.

John Molson, editor of our newsletter *Pulsar*, provided us with interesting news-bits.

All through the year, Mike Burns did a great job as president, and kept us well-informed on astronomical news and events. Mike also organized the monthly 'Observing Challenges'.

During the year, we also had several preliminary discussions about the proposed site of a future (several years from now) observatory. Our present site in Ayr is starting to have problems with light pollution.

On April 28 and 29 of 2001, we held an 'Astronomy Day' at Conestoga Mall in Waterloo.

On June 16, 2001, we held a family picnic at our observatory in Ayr. There was a good turnout for this excellent day (and evening).

We had a good turnout from our group at 'Starfest' last summer. Too bad the weather wasn't better.

Some of our members went to the 'Frozen Banana' star party in Sudbury last October. They had a good time and thanks for the invitation.

We held a 'Leonid Party' on November 18 at our observa-

tory – all we saw was fog. We also held a local ‘Star Party’ the evening of December 1, 2001 at Laurel Creek Nature Centre in Kitchener.

At our December meeting, Alan Ward from the Sudbury group did a great presentation on mirror coating technology. We held our elections for the 2002 executive at the December meeting.

Current total membership is approximately 100 members. Our group is growing.

Thanks to all the volunteers that made last year a great success for our club.

Respectfully submitted,

**David Garner**

*Secretary, Kitchener-Waterloo Centre*

## LONDON CENTRE

The London Centre membership continued to climb throughout 2001, exceeding 125 members.

The Centre’s activities involved the implementation of detailed plans put in place for the 2001 General Assembly by the “GA planning team”. These plans were instrumental in the overall success of “2001: A space R.A.S.C.” In a word, “Wow!” What a great time with 225 attendees interspersed through business and breakout sessions, banquets, lunches, and social gatherings. Could it be that the London Centre may have started what could be the first of the annual pickup volleyball games? Of course the “party” room was well attended even to the “wee hours of the morning.” In fact, many attendees endured to the “not-so wee hours,” sharing song, stories, and camaraderie. With almost a week of planned activities and events for the “G.A.”, I cannot do justice in summarizing in one paragraph all that happened during this time. I can say, however, that the London Centre has exceeded the great success of the 1979 General Assembly, in providing another highly memorable and unique event. Well done team!

Throughout the year, public star nights and slide shows were also provided to schools, Cubs, Scouts, and Guide groups. Keeping with the planning process, we have already implemented the use of sliding-date windows, to overcome weather, and increased the number of successful events.

The summer Saturday public star nights at the Hume Cronyn Observatory were held with good results. This year, for a change, the weather generally co-operated, and so did Mars. Attendance was great on many nights and, due to the hot, humid weather, so was the attendance of mosquitoes. Undaunted, many London Centre members still showed up and handed out pamphlets along with RASC brochures to anyone expressing an interest about our local Centre 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. Attendance, again, was phenomenal. In fact, the London Centre has also added another provincial park to their repertoire of public star nights with the inclusion of Rondeau, located near Chatham. Just like the Pinery event, this one was also very well attended.

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. Later in the year, the Centre slightly moved their prime observing Fingal site to an area containing an abandoned concrete pad, which previously housed aircraft hangars from the World War II era. The sky coverage is even better at this new site because trees are now a minor nuisance. During the spring, many members tried, again in vain, to visually observe Omega Centauri from Hawk Cliff near Port Stanley as conditions on Lake Erie were still not conducive to seeing this object so low on the southern horizon. One of these years, there will be that pristine, transparent-down-to-the-horizon night so that Omega Centauri can be shared with other northern observers. We will keep trying!

The London Centre continues to meet on the third Friday of each month at 19:00h in Room B1073 at Fanshawe College, on Oxford St. East in London. Last year’s meetings included the following speakers and topics:

- January:** “Radio Detection of Meteors”  
by Phil Gebhardt
- February:** “Video Observations of Lunar Occultations”  
by Guy Nason, Toronto Centre
- March:** “Highlights of 19th Century Astronomy”  
by Peter Jedicke
- April:** Banquet – “Denizens of the Milky-Way Halo”  
by Dr. Bob Garrison, RASC President
- April:** Members’ Night
- May:** “Backyard Observatory Designs”  
by Susan Sawyer-Beaulieu,  
Windsor Centre
- June:** Planning for the General Assembly
- July:** Report on meeting of the Astronomical Society  
of the Pacific in Minnesota
- August:** A large tent city containing many Centre  
members braved the elements at Starfest, 2001
- September:** “An Astronomical Vacation in Australia”  
by Mike Costa, London Centre
- October:** “Mosaics Using Digital Astrophotography”  
by Jan Wisniewski, Kingston Centre
- November:** “A Space Tourist in Russia”  
by Dr. Philip Stooke,  
University of Western Ontario
- December:** “The New Space Gallery” by Tammy Atkins  
& Katherine Quinton, London Regional  
Children’s Museum

Surprisingly, this report is somewhat different than, and yet the same as, previous years. The London Centre continues to build on its strength in leadership, enthusiasm, and public presence. Monthly meetings are well attended, and public star nights were major successes. We also managed to host a highly successful General Assembly. Ultimately, 2001 was a great year for the London Centre.

**Steve Gauthier**

*Secretary, London Centre*

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## MONCTON CENTRE / CENTRE DE MONCTON

Notre Centre a été très actif durant cette deuxième année de notre existence. Notre comité du feuillet d'information a continué son très bon travail de publication de notre feuillet d'information intitulé *Horizon*. Le comité des membres a eu beaucoup de succès à attirer de nouveaux membres puisque nous avons maintenant plus de cinquante pour cent plus de membres que l'année dernière. Le comité du site internet a continué d'ajouter du nouveau matériel à notre site incluant une version électronique de notre feuillet d'information et a aussi créé un groupe Yahoo exclusivement pour nos membres. Le comité de la pollution lumineuse a commencé à approcher les autorités afin de les sensibiliser au problème grandissant de la pollution lumineuse. Notre tout nouveau comité de levée de fonds a organisé une loterie afin d'amasser des fonds pour, entre autres, pouvoir inviter des conférenciers à nos réunions. Nous avons aussi créé un comité d'observations qui sera responsable des certificats d'observation.

Nos membres ont organisé quelques douzaines de séances d'observation (e.g. pour observer les Léonides et le Perséides) à différents endroits dans la province. Certains de nos membres qui sont également associés au département de physique et d'astronomie de l'Université de Moncton ont également participé aux séances publiques à l'observatoire de l'université. Afin de souligner la journée internationale de l'astronomie, certains de nos membres de Moncton et de Saint-Jean ont monté un kiosque d'information à des centres commerciaux. Notre Centre a aussi participé à l'organisation du 'star party' de la NBANB (New Brunswick Astronomy – Astronomie Nouveau-Brunswick Inc.).

En plus d'organiser des conférences à nos réunions régulières, nous avons organisé une série de conférences à notre réunion annuelle. Cinq conférences furent présentées: Getting The Right Telescope For You – Adrien Bordage (Centre de Moncton), Radiation In Space – Curt Nason (Centre de Moncton), Digital Imaging On A Budget – Roger Thompson (membre non attaché de la SRAC), The Nearby Stars (NASA's NStar Project): What Can We Learn About The Solar Neighborhood? – Dr. Bob Garrison (président national de la SRAC) and 30 Years Of Observing, How To Make Looking Up Easier – Mark Kaye (Centre d'Hamilton). Une cinquantaine de participants de notre centre et du public ont assisté à ces conférences très intéressantes.



Our Centre has been very active in this, its second year of existence. Our newsletter committee has continued their much-appreciated work in publishing our Centre's newsletter, *Horizon*. The membership committee has been very successful in attracting new members since our membership has grown by more than fifty percent in the last year. The Web site committee has continued to add new material to our site including an electronic version of our newsletter, and has also created a Yahoo group exclusively for our members. The Light Pollution Abatement Committee has started to approach the authorities in order to inform them of the growing light pollution problem. The newly-created fundraising committee has organized a raffle in order to amass funds in order to invite speakers to our meetings, for example. We have also created an observing committee that will be responsible for the observ-

ing certificates.

Our members have organized several dozen observing sessions (e.g. to observe the Leonids and Perseids) at several locations in the province. Some of our members, who are also affiliated with the Département de physique et d'astronomie de l'Université de Moncton, have participated in the public-observing sessions at the university's observatory. To mark International Astronomy Day, some of our members from Moncton and Saint John set up information kiosks in shopping centres. Our Centre was also involved in the organization of NBANB's (New Brunswick Astronomy – Astronomie Nouveau-Brunswick Inc.) annual star party.

In addition to organizing talks at our regular meetings, we have also organized a conference series at our annual meeting. Five talks were presented: Getting The Right Telescope For You – Adrien Bordage (Moncton Centre), Radiation In Space – Curt Nason (Moncton Centre), Digital Imaging On A Budget – Roger Thompson (unattached RASC member), The Nearby Stars (NASA's NStar Project): What Can We Learn About The Solar Neighborhood? – Dr. Bob Garrison (RASC National President) and 30 Years Of Observing, How To Make Looking Up Easier – Mark Kaye (Hamilton Centre). About fifty people from our Centre and from the general public attended these very interesting conferences.

**Francis LeBlanc**

*President / président, Moncton Centre*

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## CENTRE FRANCOPHONE DE MONTRÉAL

Astronomiquement parlant, l'année 2001 c'est bien déroulé. Les activités au parc de l'île de la Visitation furent plus populaires que jamais, ainsi que l'activité au parc de la Pointe aux Prairies qui fut très apprécié des visiteurs du parc. Notre participation à la journée des 24 heures d'activités du parc régional de la Pointe aux Prairies avec une activité d'observation populaire fut très appréciée des visiteurs de ce parc que nous fréquentons pour la première fois. En tout et pour tout, nous avons été très actif et ce au cours de toute l'année. La grille des activités a été variée et couvre toute la gamme d'activité astronomique que l'on peut faire. Mes plus sincères remerciements à tous ceux qui rendent ces activités possibles. La météo a été plus clémente cette année pour les sorties au Vieux Port de Montréal que l'année antécédente ce qui nous a permis de réaliser deux des trois sorties que nous avions planifiées. Nous y avons même observé la planète Mars. Plusieurs sorties à St-Valérien ont eu lieu dans le cours de l'année même si l'hiver n'a pas été des plus propices. Le CAFTA fut aussi une belle réussite cette année. Encore cette année les réunions d'été ont pris la forme de visites mensuelles au club de Dorval pour le ciel du mois. Je me dois aussi de les remercier, pour leur généreux accueil. Le souper de Noël en est à sa deuxième année et fut un succès avec une quinzaine de participants. Tenus avec la même formule que l'an passé ce sont les membres assidus des réunions furent donc les principaux participants.

L'horaire des conférences du premier mardi du mois fut particulièrement bien rempli. Les astronomes du département de physique de l'Université de Montréal ont présenté les sujets suivants en l'an 2001 :

<b>Titre</b>	<b>Conférencier</b>
Le champ magnétique dans la Galaxie	M. Frédérick Poidevin
Les travaux de rénovation au mont Mégantic	Dr. Pierre Bastien
Polarimétrie, RY Tau et la comète Linear	M. Vincent Ross
La région à sursaut de formation stellaire la plus lumineuse de notre Galaxie	Prof. Anthony Moffat

Certains d'entre vous ont peut-être entendu parler de la fermeture imminente du centre de loisirs St-Mathieu qui nous héberge. En effet en décembre 2001 la vocation du centre a été remise en question et le bâtiment aurait alors retourné à la commission scolaire qui en aurait refait une école. Par chance pour nous, le CLSM demeure dans sa forme actuelle pour trois autres années. Il n'y a donc pas de déménagement en perspective dans l'immédiat. Il faudra cependant garder une oreille attentive car tout changement dans ce dossier aura d'importantes implications.

L'année 2001 a vu le départ de plusieurs de nos collaborateurs les plus dévoués au fil des dernières années. Jacques Bélanger nous a quitté comme secrétaire-trésorier pour une retraite méritée et qu'on lui souhaite longue, Marcel Legris a laissé les rennes du magasin et André Gendron, que l'on voit souvent aux réunions du mardi, à laissé le poste de directeur des conférences. Le défi de 2001 fut donc de maintenir le même niveau de service avec quelques collaborateurs en moins. Au poste de trésorier nous sommes des plus bénis d'avoir Yvon Massicotte pour remplacer Jacques Bélanger. Yvon fait un travail exemplaire et on doit se compter heureux d'avoir quelqu'un qui a autant d'expérience en gestion et en informatique pour s'acquitter de ces tâches administratives. J'ai pris la relève d'André Gendron comme directeur des conférences mais je dois admettre que la tâche est plus complexe que je l'aurais cru au départ. Les tâches du magasin sont maintenant partagées entre tous les membres du conseil mais on se doit bien d'admettre que les 30 ans d'expérience de Marcel sont bien

#### **Patrice Scattolin**

*Président, Centre Francophone de Montréal*

## **MONTREAL CENTRE**

### **Skyward Milestone**

After serving as editor of our Centre newsletter, *Skyward*, for six years, Mark Bratton resigned his position in February of 2001. The Montreal Centre would like to thank Mark Bratton for his dedication, energy, and quality that he placed into our newsletter as the editor of *Skyward* for the past 6 years. Kenneth Gee (current Editor) and David Shuman (Production) have now taken on this task. We wish Kenneth and David success in their new functions.

### **Special Events**

The Centre hosted public viewing nights at the Morgan Arboretum, in Ste-Anne-de-Bellevue. These were preceded by brief talks on amateur astronomer activities and things to look for on those particular evenings.

In May, a fair-sized group of Centre members attended the 10th annual Northeast Astronomy Forum in Suffern, New York.

The annual Stellafane Telescope Makers' Convention was held on August 17th and 18th this year and, as usual, was well attended by Montreal Centre members. On Friday night we were rewarded with a few hours of clear skies, but inclement weather on Saturday kept the event somewhat lower key than in previous years.

### **Minor Planet: Papacosmas**

Congratulations are due to Montreal Centre member, Constantine Papacosmas, for having an asteroid named after him. The original discovery was made by the Shoemaker/Levy team on July 23, 1993.

### **Membership**

Membership levels throughout the year tended to be static, as about twelve new members signed up to replace those whose memberships lapsed. While attracting new members is a positive development, there is some concern that too many are leaving, being interested and active for just a year or two. The Centre needs to seriously begin considering ways of keeping newer members for longer periods

### **Observational Activities**

Since its inauguration in September 1999, the Centre's out-of-town observatory, Woolly Woods on Johanne Gamache's property in St. Chrysostôme, has become the primary gathering place for our observational activities. Other secondary "dark sites" that were used less often included Walter Cartwright's property in Williamstown, Ontario and Cathy Palmer-Lister's cottage near Lachute northwest of Montreal. Observing outings were generally scheduled around the "New Moon" on Friday and Saturday evenings at Woolly Woods. "Full Moon" weekends were reserved for the monthly Observers Group Meetings held downtown at the Montreal Centre.

### **Talks and Lectures**

In addition to the monthly Observers' Group Meetings, the Centre held eleven talks during 2001.

- "Venus lifts her Veil" by Dr. Dimitri Photiades;
- "Quantum Physics and the Discovery of White Dwarf Stars" by Chris Hunter;
- "Solarmax" by David Shuman;
- "After the Crunch: Observations of Neutron Stars" by Dr. Victoria Kaspi;
- "Project Astro in Quebec" by Nathalie Martimbeau;
- "The Invisible Universe – Highlights from the Compton Gamma-Ray Observatory" by Anita Muecke;
- "Documentary Filming of Trip to Gemini and Keck Observatories on Mauna Kea" by David Shuman;
- "Gemini and Keck Observatories on Mauna Kea + SETI/Amateur Radio Astronomy" by Stephanie Choquette/David Shuman;
- "Examining the Galaxy's Visibly Most Luminous Starburst from Radio through X-rays" by Dr. Anthony F.J. Moffat;
- "Dust Around Stars II" by Sergey Marchenko;
- "The Mystery of the Galactic Gamma-Ray Sources" by Mallory Roberts.

## Future

The Centre is gearing up for continued efforts aimed at increasing its visibility and improving membership levels. Board members are expecting to be unusually busy in 2002, because in May the Montreal Centre is hosting the 2002 General Assembly – the first time since 1960, the year when the GA was held for the very first time outside of Toronto!

## Frank Tomaras

Secretary, Montreal Centre

## NIAGARA CENTRE

The Niagara Centre during 2001 was notable for the active involvement of its members in the club. The Centre and its activities are successful due to the energy of our members. We are lucky enough to have a large number of members who are interested and dedicated to participating in the running of the Centre. Additionally they are enthusiastic about astronomy and observing. Our ATM group of members have been working hard at completing their respective mirrors of various sizes as a first step to building complete telescopes. Other members have followed this project, with a growing interest in some to also build their own telescopes. The Niagara Centre is becoming a better club with each passing year due to the spirit of its members.

The Niagara Centre's observatory at Chippawa Creek Conservation Area in Wellandport is undergoing continual improvement. The skies here are the darkest available in the Niagara Region, which, compared to a northern dark sky, pale in comparison. But we have to work with what we have available. Plans are well under way to build a second larger roll-off roof observatory on this site to complement the original observatory. The new observatory will house our 16" and 17.5" Newtonian reflectors when completed. Construction will begin in the spring of 2002. Many members have already volunteered their labour when the construction phase begins.

We had the pleasure in 2001 of honouring one of our founding members with a birthday party at the December general meeting. Hugh Maclean has been with the Niagara Centre since its inception in 1958 and is greatly respected. He still actively observes and serves as an inspiration to us all. He was presented with a copy of *Uranometria 2000*, a birthday cake, and a richly deserved round of applause. Hugh turned 86 on December 25 and we felt it important to recognize him for his continuing contribution to our club. Happy Birthday Hugh and may you be observing for years to come.

The Niagara Centre has had a full year of public-star nights. Our public-star nights previously held at Guy Road Park, St. Catharines, have been switched to Fireman's Park in Niagara Falls. This new location has proven to be much more successful in attracting the public; sometimes too successful as we've had crowds in the hundreds. This excellent turnout is also due to the hard work of some members in organizing these public-star night dates and getting the word out. Special thanks go to Chris Duller, Darlene Marano, Les Welgan, and Brian Pihack for their efforts. Our annual Brock University star night for their large astronomy class was postponed in September due to weather and will be held

in the spring. Four star-nights were also held for the campers of Chippawa Creek Conservation Area and Rockpoint Provincial Park during the summer months. Members of our Centre have also been involved in giving astronomy talks, slide shows, and star-nights to local school classes, Scout troops, and nature clubs in the Niagara Region.

We had a great turnout for Starfest 2001 with 20 members making the trip to Mount Forest. Our best turnout ever! A good time was had by all. It would have been even better if nature had allowed us to do some observing. Oh well, at least we had the light-cannon wars to amuse ourselves on those clouded-out nights. The things bored astronomers think of to pass the time, eh?

Our Annual Niagara Centre Banquet was held April 7 at the Skyline Brock Hotel in Niagara Falls, Ontario. The guest speaker for the evening was J.J. Kavelaars with his talk "Understanding the Formation of the Jovian Planets." His slides and talk were excellent and enjoyed by all. Thanks J.J. for a very enjoyable evening and presentation.

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 during 2001:

- January:** Members' night, slides, Q&A panel, discussion
- February:** Members' night, slides, Q&A panel, discussion
- March:** Members' night, slides, Q&A panel, discussion
- April:** "A Pictorial Journey of Star Formation"  
by Dr. Doug Johnstone
- May:** "Galaxies in Collision" by John Dubinski
- June:** Members' night, slides, Q&A panel, discussion
- September:** "N Stars and the Canadian Connection:  
The NASA Nearby Stars Program"  
by Dr. Bob Garrison
- October:** Members' night, slides, discussion
- November:** Members' night, slides, discussion
- December:** Members' night, Centre Christmas party, tribute  
and birthday celebration for Hugh Maclean

The Niagara Centre in the coming year is looking forward to the completion of our second observatory. This will allow better access for all members who don't own telescopes and would like to observe actively. No more waiting while a group has to share the one telescope presently there. The Niagara Centre Web site has undergone great improvements with the addition of a list server for member's email discussion, as well as a private members' area for Centre-related information. Thanks to Ron Gasbarini for an excellent job in keeping our increasingly important Web site current and interesting.

Our newsletter, the *Niagara Whirlpool*, is moving towards a goal of becoming completely electronic one day. Two thirds of the membership now receive their *Whirlpool* via email, with a PDF of the newsletter posted on the Web site for those that desire the graphics. Besides saving money for the club this also allows current information and events to get to the members faster. The ten members serving as the executive are dedicated to making the Niagara Centre an active, enjoyable club for all our members, as well as doing our best to bring the beauty of astronomy to the public. These past few years the efforts made by these people have

seen the Niagara Centre grow to the first-rate astronomy club it is today. Clear skies to all.

**John VanderBrugge**  
*Secretary, Niagara Centre*

## OKANAGAN CENTRE

The past year was a good year for the Okanagan Centre. While membership remained fairly constant, a number of events increased public awareness of the Centre and one can only hope that this will reap the obvious reward at some point. An increase in the number of activities over previous years also bodes well.

Perhaps the most significant milestone in the past year was the acquisition of a Centre observing site. Several members spent several months searching for suitable Crown Land or private land with enough altitude to get above the bulk of the Okanagan's lake-effect cloud. In late Spring Guy Mackie, the Centre President, finally had success. The Centre now has an agreement with a local radio-controlled aircraft club to use their airfield, officially known as Emeny Field.

Sidewalk astronomy, a Centre President's initiative, also saw its inception this year. Guy Mackie and a number of volunteers set up their telescopes in front of the local Chapters (Kelowna) and Earl's (Vernon) during the First Quarter Moon of each month and invited members of the public to have a look at Saturn's rings, Jupiter's moons, or our own Moon. The public reaction was good and each night had its own reward seen in the faces of the children.

Astronomy Day, held April 28, was a great success. Fourteen Centre members set up shop in front of the Chapters in Kelowna and were rewarded by excellent public interest. Displays included an in-store model of the solar system, home-built/commercial telescopes and some observing. A special thanks goes out to the weather for co-operating so well.

Notable observing nights included:

- The Leonid Showers from Big White;
- the Messier Marathon with a Centre high in 2001 of 104 by Ron Scherer;
- Mount Kobau Star Party; and
- several Emeny Field observing sessions.

### Centre Meetings

- January:** **Kelowna:** The First Okanagan Centre Social (A Potluck Supper) of the New Millennium  
**Vernon:** Beginner's Observing Tips
- February:** **Kelowna:** Constellation of the Month (COTM) Monoceros, Crater Formation, Presentation of Messier Marathon Certificates
- March:** **Kelowna:** Observing in the Oregon High Desert, Messier Marathon Planning, Planning for Astronomy Day  
**Vernon:** Some Experts' Views on the Universe
- April:** **Kelowna:** Astronomy Day at "Chapters"  
**Vernon:** Asteroids
- May:** **Kelowna:** Observing in Australia, COTM Antlia
- June:** **Kelowna:** Upcoming Star Parties

- September:** **Kelowna:** Combined Meeting – Review of Summer Observing, Saturn Lunar Graze
- October:** **Kelowna:** Chris Purton – Our Current State of the Universe  
**Vernon:** General Discussion
- November:** **Kelowna:** AGM and elections, Procyon and Sirius, Comets, Aurora Photo Presentation  
**Vernon:** Taking Orion Apart
- December:** **Kelowna:** Xmas Potluck Supper  
**Vernon:** Blue Moons, Recent Observing Activity

The past year saw the commencement of combined Vernon and Kelowna "meeting group" meetings and social activities. We will continue to plan further meetings that bring both locales together in order to further the sharing of our experiences. The Kelowna meeting group has also changed its meeting night so as not to conflict with New Moon observing periods.

## OTTAWA CENTRE

Throughout the past year, the Ottawa Centre continued several growth trends that have been established over the last decade. Among these are attendance at monthly meetings, total Centre membership, and public outreach events of various kinds, particularly star parties. Furthermore a new initiative, the Internet-accessible "SmartScope" project, gained significant momentum.

Centre "Observers' Group" Meetings, held on the first Friday of the month in the auditorium of the Canada Science and Technology Museum, have routinely approached 200 people, with anywhere from ten to thirty first-time visitors. These meetings generally have from six to eight presenters speaking on a wide range of topics, from astrophotography slide shows to historical sketches of prominent astronomers, and from observing tips, techniques, and projects to the processes that shape the Earth, other planets, and their satellites. The meetings were ably co-ordinated by the Observers' Group Chairman, Gary Boyle, or his substitutes.

Membership in the Centre now stands at 35 life members, 425 regular members, and 19 youth members. This represents an overall increase by 22% over the figures two years ago. Administrative details were handled by the Centre Council, which met formally six or seven times during the course of the year. The simultaneous "bad news/good news" story from Council this year was the loss and subsequent restoration of the Centre's charitable status with Canada Customs and Revenue Agency. Many thanks to Treasurer Stephen Nourse and the individuals who worked with him to iron out that problem!

Besides operating an "Astronomy Day" display and supporting public lectures at the Museum with urban-environment views of the moon and planets, the Centre scheduled no fewer than six public star parties of its own in 2001. Four of these came to fruition, the others being cancelled due to weather conditions. The prime venue for these events was the Pinhey's Point Historic Site in suburban Kanata, a location that provides a good compromise between reasonably dark skies and accessibility to the public. Our thanks are extended to the City for permitting (even encouraging) these events, to Debra Tigner of our Centre for organizing them, and to the many members of our Centre for bringing out

their telescopes and enthusiasm to share with the public.

“SmartScope” deserves more space than it can be given in this report. In brief, the highlights were the delivery of the 16” Schmidt-Cassegrain optical tube and the CCD camera, and a generous further donation from Hugh Pett. In recognition of the Pett family’s contributions to this project, the instrument will be called the Pett Remotely Operated Telescope. Everything is now in order for construction to proceed on the site graciously granted us by Communications Research Centre once the winter is over. The entire “SmartScope” team has met every month to discuss issues and plan details ranging from the building to ongoing operations. In addition, the software development group has held separate meetings on a regular basis.

Finally, congratulations are due to Centre members John Douglas and Pat Browne for receiving their “Finest NGC Object” and “Messier” Certificates respectively.

### **Hilderic Browne**

*President, Ottawa Centre*

## **CENTRE DE QUÉBEC**

### **Activités**

#### **a) Conférences**

L’année 2001 a été, tout comme à chaque année, 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 Dominique Beauchamp est venu nous parler des Étoiles naine. En février, monsieur Martin Rochette nous a entretenu sur le collimateur de télescope. Pour le mois de mars, monsieur Alphonse Tardif nous a parlé du projet OVNI. Pour la conférence du mois d’avril, madame Carmel Robert nous a parlé de la «Spectroscopie». En mai, Luc Bellavance a parlé du Logiciel SKY. La conférence du mois de juin a été présentée par le réputé astronome du nom de Pierre Chastenay qui nous a entretenu sur «L’Exploration lunaire».

En septembre, monsieur Luc Bellavance nous a entretenu de la «Météo en astronomie». En octobre, monsieur Damien Lemay nous a parlé du «Projet Millenium». Pour novembre, monsieur Dominique Beauchamp nous a parlé de «L’Étoile de Bethléem». Finalement pour décembre, monsieur Laurent Drissen nous a parlé de «L’Expansion et l’accélération de l’Univers».

#### **b) Observation**

L’année 2001 a été, contrairement à l’année 2000, un vif succès en ce qui a trait à l’observation. Nous avons organisé une quinzaine de soirées d’observation. Les observations ont 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 cinq ont été annulées en raison de la mauvaise température.

De plus, quatre activités spéciales ont été organisées. D’abord, il y a eu le Marathon Messier en mars. Cette activité a été annulée en raison de la mauvaise température. En juillet, nous avons organisé un party Hot-Dog qui a été annulé en raison de la température. En août, il y a eu une soirée spéciale consacrée aux «Perséides». C’est dans cette nuit-là que nous avons observé la réentrée d’une étage de fusée russe dans l’atmosphère. Ce fut un

spectacle tout à fait merveilleux. Malheureusement nous n’avons pu observer les Léonides en novembre en raison de la mauvaise température.

En résumé, l’année 2001 aura été une bonne année en observation et ce, agrémentée de plusieurs nuits d’aurores boréales.

### **Daniel Tardif**

*Secrétaire, Centre de Québec*

## **PRINCE GEORGE CENTRE**

The year 2001 was highlighted with the inclusion of the Prince George Astronomical Society’s entry into the RASC. This Centre has a core group of 10-15 members who enthusiastically promote astronomy through open houses and group tours. In addition to the Friday open houses, the Centre averages two tours a week, which both entertain and educate the attendees by means of computer based presentations, short talks, question and answer periods, and celestial observations using the observatory’s 24” telescope and members’ personal telescopes. Some of these events can involve standing room only situations, but through the efforts of the Centre’s members, and the application of their varied fields of interest and expertise, be it binocular or telescopic observations, locating the constellations and their prominent stars, relating the legends and lore of the constellations, or describing the operation of the equipment, most people leave with a better understanding of, and appreciation for astronomy. Special public observing nights were held for such events as the Perseid and Leonid meteor showers.

In addition to observatory-based activities, the Centre hosted solar viewing sessions held in shopping-centre parking lots. One of the most unique events that occurred this year was holding our September general meeting in the Fort George Park bandshell. Considerable public interest was generated, and although clouds mostly obscured the skies, some objects could be observed through the telescopes set up in the park.

Weather conditions were unsettled throughout much of the fall, but didn’t deter the public from driving, sometimes in rainy conditions, out to our rural location. Many times public attendance on Members’ Night exceeded attendance on open-house evenings, especially if the skies were clear. People even showed up during the week when members were involved in work bees, observations, or individual projects. These folk were never turned away, as someone would always show them around the facility. This phenomenon can be attributed to the diligent efforts in promoting the Centre’s existence through newspaper articles, radio spots, and participation in mall-based community markets. Increased public awareness has also resulted in acquiring new members.

Although the Centre is located in a rural setting, the encroachment of new subdivisions has been a concern. A club member’s concerted effort resulted in the adoption of the Centre’s proposal into a restrictive covenant, to minimize light pollution.

Several work bees were organized throughout the year to upgrade our facility. In addition to regular maintenance, the domestic water system was completed, and a parking lot was created to minimize the effect of headlights ruining night vision in the outdoor viewing area.

The Prince George Centre publishes a monthly newsletter called 'The Pegasus,' which is e-mailed to all of its members. Articles include a column from founding member and past president Dr. Bob Nelson, Ph.D., who is currently in Christchurch, New Zealand. 'Dr. Bob' has been studying variable stars for quite some time, and during his stay 'Down Under', he will be continuing his research. Other items included in the newsletter and submitted by various members are the editorial, and 'Starhop of the Month'. The newsletter is also available on the Centre's Web site.

Since joining the RASC, several members have begun earning the 'Explore the Universe' Certificate. Others are working towards obtaining the RASC 'Messier' Certificate. Efforts are being made to create a members' handbook geared towards educating new members in procedures and the operation of equipment at the observatory. This, coupled with a 'Mentor System for Observing' and the existing program, will ensure that these new people are brought up to speed as quickly as possible, thereby enhancing their experiences in the field of astronomy, and becoming important assets when participating in tours and open houses.

One of the events we avidly look forward to in 2002 is the appearance of Mark Kaye in February. Efforts will be made to find suitable locations for Astronomy Day and the Messier Marathon. Another item on the 2002 agenda is a 'Name the Observatory Contest,' which local elementary school grade students will be invited to enter. Along with the aforementioned items, plus other projects and ideas, 2002 promises to be a busy and exciting year for the Prince George Centre of the RASC.

#### **Glen Harris**

*Secretary, Prince George Centre*

## **REGINA CENTRE**

The year 2001 was exceptional for the Regina Centre. With some hard work by the members, our membership has grown by 27%. Much of the growth can be attributed to the public observing nights that the club held throughout the year and from a simple modification to our observatory: the addition of an answering machine. Up until this point in the club's history, there has never been a single point where the public could contact the club directly. This addition has proved invaluable to us during its first year of operation.

The club spent a lot of its time and resources working on the Saskatchewan Millennium Telescope project. Since the project's inception in April 1999, many volunteer hours have been spent turning the project plans into reality. Over the past year, the club has made some significant progress with some of the milestones being: the automating of the observatory's 12' dome by University of Regina Engineering students; the creation of a web interface which can perform all the commands of the hand controller; and the installation of the polar-aligned 12" Meade LX-200.

Along with the hard work comes play. The Regina Centre was involved in both internal and external activities throughout the year with the first event being the Messier Marathon. Nine members showed up to brave the cold. The first couple of hours weren't bad but by midnight, the wind increased pushing the windchill close to -30°C. Even astronomers know when to quit when the weather turns bad. Needless to say, we were thankful

that the hot chocolate was warm, that the company was good, and that there would always be a next year to attempt the marathon again.

Our spring activities were few, so we all looked forward to our annual Star-B-Que, which is held in June. Attendance was very good and we all enjoyed a wonderfully warm evening with the smell of summer on the barbecues and clear skies. Of course to pass the time away, members indulged in a few friendly games of horseshoes until dusk.

Over the summer, the club set up telescopes in the park for Canada Day, Pile O' Bones Sunday, and Lanterns on the Lake. We had a few hundred people peeping through eyepieces of our telescopes over the course of these events. For the most part, the events were cloudy but the few breaks in the clouds rewarded those that stuck around.

One of the biggest highlights of the year for the club is the Saskatchewan Summer Star Party held at Cypress Hills Interprovincial Park. The lure of the dark skies, the great accommodations, the daytime activities, the wonderful speakers, and the friendly people make this one of the best star parties in the country. This year was no exception! As always, Alan Dyer gave two excellent presentations to the delight of the crowds. His presentation style and fabulous photos are a winning combination that always gets the crowd pumped to do astronomy. Of course, this year's SSSP turned out to be bigger than anyone had imagined. The discovery of a new comet by Regina Centre's Vance Petriew was an event to be remembered. A fuzzy patch in Vance's eyepiece, thought maybe to be a faint galaxy, was identified by Saskatoon Centre's Rick Huziak as a comet. Together they explored the uncharted object and decided to report the find to the Harvard-Smithsonian Institute for Astrophysics "just in case." Expectations were low since their data was a month old and the object was very bright (magnitude 11.0) in Vance's 20" Obsession telescope. Vance notified the star party attendees of the potential discovery and, even though the official word hadn't been received by the close of the star party, many of the party-goers remained optimistic and thankful that they were present when history was made.

Another highlight for the Regina Centre was the visit of the National President, Dr. Bob Garrison. We filled the IMAX boardroom to capacity for Dr. Garrison's presentation entitled "In Praise of Small Telescopes." As part of Dr. Garrison's visit, the club held a small ceremony to open the Saskatchewan Millennium Telescope for use by the members.

In the fall, the Saskatoon Centre hosted the Regina Centre for the Saskatchewan Winter Warm-up. The event started off in the afternoon with a very informative tour of SED Systems and the satellite receiving station at RADARSAT. Afterward, the Regina Centre was given a tour of Saskatoon's impressive facilities at the Sleaford Observatory. The weather was cold and miserable but the barbecues were lit and everyone enjoyed some presentations by both Centres to close off the evening.

The final event for the year is the annual Christmas party. This year was a get together for some family "glow-bowling" and a visit to the pub next door for those who wanted to celebrate some more.

Looking back over the past year, it has indeed been fun and exciting. We hope the upcoming year will be better than the last and that our efforts in the Saskatchewan Millennium Telescope



will come to fruition. Keep your eyes on the skies and may all your clouds be clear!

**Vance Petriew**

*President, Regina Centre*

## ST. JOHN'S CENTRE

The St. John's Centre had a fairly good year in 2001. We carried on with our usual array of activities. For our January meeting we had the traditional "What I got for Christmas/ What I wanted for Christmas" show and tell. There were 14 members present, plus 40 or more Scouts. Quite a few new scopes were brought in. Randy Dodge spoke on the different sorts of telescopes, in particular electronic ones. Fred Smith touched on Newtonians versus refractors. He gave some examples of the sort of things you could expect to see. Randy talked a little bit about constellation navigation. He asked all the Scouts to look at the Sky Charts in the middle of the old *Sky and Telescopes* each had received. The Scouts were able to take these home and each would be usable for the appropriate season.

For February, the writer gave a talk on "Grinding and Testing a Telescope Mirror." Members were encouraged to do some grinding with the provided 8-inch blank. Chris Stevenson was kind enough to bring in his *f/5* BVC 18-inch blank. Large, black glass is "way cool."

Our speaker for March was Dr. John Scott, Head of the Philosophy Department at Memorial University of Newfoundland. His talk was on "The Straight Story on Aristotle's Heavenly Curves." Aristotle has received some bad press according to Dr. Scott. He has been charged and found guilty, but of the wrong two charges. Some of Aristotle's ideas can be seen to parallel Einstein's in the general theory of relativity.

In April, Jack Cocker and Garry Dymond gave a show and tell on computer-driven telescopes. They showed how to find Deep Sky Objects the hard way, and the easy way. Garry brought in his non-computerized scope, and Jack brought his fancy computerized Meade.

Fred Smith introduced the idea of hosting the General Assembly in 2004 to coincide as closely as practical with the transit of Venus that year. The transit was a very important event for determining the size of the solar system. The only place in North America where the 1761 event could be viewed was here in Newfoundland, and Harvard University sent an expedition. The IAU is pushing for plaques to commemorate historical observing sites. Just like in 1761, we won't quite get to see the entire event in 2004. The historical transit, the plaque, and the next Venus transit together make a good excuse to hold the GA here in Newfoundland and Labrador.

In late May, Phil McCausland talked about the Tagish Lake Event. He also promoted GA 2001, which would soon be held in London, his newly adopted Centre. The rest of the talk was on the "Fall and Recovery of the Tagish Lake Meteorite." As usual, Phil gave an impressive talk, dense with information and overhead images. Phil became involved in the joint field party sent to Tagish Lake by the University of Western Ontario and the University of Calgary. The field expedition was organized by Peter Browne and Alan Hildebrand.

After discussing meteorites in general, Phil described in some detail the logistics of how the search took place (mostly on the frozen lake) up to the point where the river became too dangerous due to the spring conditions. Searching for meteorite fragments embedded in a lake and then retrieving them can be a pretty tedious job.

In June, John Carter gave a talk on Carl Popper. In the magazine "*Horizon*," during the 1950's, he came across an article by Brian McGee on "Sir Carl Popper, the Useful Philosopher." Mr. Carter wrote to Sir Popper. He showed us some of their correspondence over the years and talked a bit about how they met briefly when he was in England. John spoke a bit on Popper's philosophy and his interest in it. My favourite analogy: Popper likened the acquisition of scientific knowledge to the problem of getting out of a dark room full of furniture.

In September, Garry Dymond took us on a trip of the sky at the Marine Institute's Planetarium, and answered people's questions. He showed a NASA educational slide show about the Cassini mission.

At the next meeting, a video entitled "The Celestial Sphere" (owned by Garry Dymond) was shown. Robert Dick, of the Ottawa Centre, kindly granted permission to show the video. This is an excellent video that goes season by season, with many well-done photographs of the night sky.

Our last talk, in November, an excellent end to an excellent year of talks, was given by Dr. Robert Garrison, Professor Emeritus of Astronomy for the University of Toronto, A.K.A. our President. The talk concerned: "Some Bizarre Stars I Have Known; The Interpretation of Stellar Spectra." Dr. Garrison noted that most of astronomy depends on the knowledge gained from studying spectra, in one way or another. He presented some interesting stars and also discussed ideas he has worked on over the years. His slides of Chile were very interesting.

The meeting year ended with our usual wine and cheese get-together. As usual, the subjects presented for general discussion included possible astronomical gifts and telescopes available in town or elsewhere.

Our educational and public activities continued unabated, in no small part due to people like Garry Dymond. Our Star-B-Que format was as usual: sunspots, meteors, a rocks-and-meteorite talk, Garry's toilet paper show, and the actual barbeque. We also had a trail walk, with planet models at scale distances. We added a talk on building a barn-door tracker. There were plenty of people (over 200 at the star-party session), and the public seemed pleased.

Fred Smith is the "resident astronomer" for our local Chapters bookstore, so he had the idea of doing a public event there. A small display of telescopes was set up and members were available from the Centre to answer questions, give mini-talks, and even suggest books.

It was agreed our moribund newsletter is not needed anymore. Most members seem to have access to the web, so our web page fulfills that function. This, of course, does not solve the problem of getting people to write the occasional bit of content.

Fred Smith made a presentation to Intergovernmental Affairs (IGA) on the Butterpot Project. We are also speaking with Industry Canada and other bodies. Things are in the early stages of looking at funding sources and forming a board of manage-

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ment. For more information on the first-class "Universe Centre" we hope to build, log on to our Web site at [www.sji.ca/rasc/](http://www.sji.ca/rasc/) and look at the Butterpot Project link.

Garry Dymond is still running our Planetarium programme. Things are slower this year (which still means it is quite busy). There would be no lack of groups from schools if someone could do shows during school hours.

In June we had a one-day course with Memorial University Continuing Studies. It was practical and hands-on. We showed people how to use gear and took them out for an observing session. There were 11 students who took part in three hours of talks; later a total of three hours of observing and planetarium use was provided for the students.

Good luck and clear skies!

### **David Bourgeois**

*Secretary, St. John's Centre*

## **SARNIA CENTRE**

The year 2001 was a transition year for the Sarnia Centre due to some significant changes in the Centre's executive. Nevertheless, Sarnia Centre members were active participants in many events within the local community.

In February, Centre member, Jim Selinger, participated in the "Mars Challenge" at a local high school. This event included displays and workshops designed to expose students to the science and planning involved in putting together a mission to Mars. Jim played the role of Astronomy expert at the event, and his display was well received by the adults and students in attendance.

Summertime brought with it the annual Hobbyfest held at Sarnia's Centennial Park. This one-day event gives all of the various clubs, societies, and organizations in the community the opportunity to put together a display to promote awareness and nurture interest throughout the public. The astronomy display was assembled and manned by Centre members Brendan Fleming and Jim Selinger. Despite the heat, the astronomy booth was enormously popular, especially the 8" SCT on display, which gave visitors a "hands-on" demonstration of the power of a telescope in daytime observing.

Several members attended the annual General Assembly held at Fanshawe College in London. All thoroughly enjoyed the informative presentations and workshops offered at the gathering. A major highlight for the Sarnia Centre occurred when Jim Selinger won the grand prize of an ETX-125EC telescope complete with deluxe tripod and Autostar controller!

A meeting held in November allowed many members to talk informally about their astronomy experiences throughout the year, in anticipation of the enhanced viewing opportunities that would be provided by the longer winter nights. The highlight of the evening was a slideshow by Jose Ordenes who demonstrated his prowess in astrophotography through impressive shots showing crisp views of many deep sky objects, along with a spectacular aurora that just happened to appear during one of Jose's outings!

We look forward to an interesting and fun-filled year of astronomy in 2002. May we all have clear skies!

### **Paul Bessonette**

*Secretary, Sarnia Centre*

## **SASKATOON CENTRE**

2001 has been another busy and interesting year for the Saskatoon Centre of the RASC. Work at the Sleaford Observatory goes on with the renovations to the ten-foot dome and the warm-up shelter near completion. The 2001 Saskatchewan Summer Star Party was another resounding success. Approximately 200 enthusiastic registrants showed up, the skies were dark and clear and a new comet discovery added to the excitement. A new event for our club this year was a combined Regina and Saskatoon get-together, which was extremely well attended. This included a visit to SED systems followed by a barbeque at the Sleaford Observatory. We are hoping to make this an annual event alternating between the two cities. On Saturday, Nov. 10, an open house was held at the Sleaford site and organized by the Physics Department, University of Saskatchewan. Around 200 people showed up to tour the facilities and to look through the University's telescopes and through scopes attended by volunteers from our Centre. The sky co-operated and was dark and crystal clear. Serious observing continues to be an important item in our club with a core of hardy members who are making good use of our new facilities at Sleaford. It should be noted that our Centre appears to have a disproportionately high number of people with Messier and Herschel Certificates as members. The acceptance of our club's nomination for and the awarding of the Chant Medal to Rick Huziak was another big highlight of this year's activities. In closing, one can see that our Centre continues to have fun with astronomy the way I feel it should be.

One very sad note was the accidental death of Regina club member John Mulvenna on November 20th. A number of us had come to know John as a friend and fine observer as a result of his strong support of the Cypress Hills star party. Deepest sympathy is extended to his family. We will miss his enthusiasm in the years to come.

### **Al Hartridge**

*Secretary, Saskatoon Centre*

## **THUNDER BAY CENTRE**

The year 2001 was a very busy and interesting time for our Centre. The activities were diverse and more members become involved in club operations and presentations.

Many of the talks at our general meetings are conducted by the membership. Some of the topics covered were: Book Review of Quasars, Neutron Stars and Black Holes (Nathan Hewitson), Liquid Mirror Telescopes (Al Huard), Observing Lunar Topography (John Bakkelund), and Houghton Crater And Mars Camp on Devon Island in Northern Canada (Al Huard). Our deep sky expert, Doug Stuart, also presented to us techniques and methods for coaxing out those faint objects in the skies. Our webmaster (Ed Kucbel) enlightened us to a number of interesting sites to browse for valuable astronomical information. I did presentations including solar and sunspot photography, occultations, solar eclipse photos, and objects to see for the Centre's "Observer Certificate".

Doug, with the help of Ed and John, has done excellent work in producing an updated version of the club sweatshirt for our

members this year.

The Thunder Bay Children's Festival organizers contacted the Thunder Bay Centre to put on an astronomical exhibit for the event on the weekend of June 16. We had posters, colouring books, interactive equipment, etc. available for the public to see. A portable planetarium was available from the Winnipeg (Manitoba) Science Centre.

Bruce Miron, heads the team on rebuilding our 17.5" scope (nicknamed "Bob's Dob" in honour of its first designer). The telescope had its "first light," since its reconstruction, at Bev Bishop's place on September 25, 2001. The many hours of work were worth that 30 seconds at the eyepiece! The finishing touches on the scope are underway at present and should be completed early in 2002.

We had the honour of hosting visitors from the London Centre this year. Peter Jedicke and Mike Costa were our guest speakers in April. Peter presented slides of a former GA in London and an excellent talk on globular clusters. Mike enlightened us on London Centre activities as well as the details of the upcoming London GA events.

The Thunder Bay Centre had received six requests to run star nights at various Parks around the north last summer! Again, due to time restraints and commitments all requests could not be accommodated.

• **Sleeping Giant Provincial Park** (July 27 and 28) – Once again, this astronomical event was held in conjunction with the Thunder Bay Naturalists program. The Naturalists run their events during the day (hiking, plant and animal photography, bird identifications, etc.) and we take over at night. Unfortunately the weather did not cooperate this year and both nights turned out overcast.

• **Quetico Provincial Park** (August 17 and 18) – This was the 15th year I have run this event. A slide presentation took place at the new outdoor (screened in) amphitheatre. The evening of the 18th had cleared and, with no moon to interfere, was exquisitely dark (Quetico lives up to its reputation once again). About 50 people attended the slide presentation and sky watching. We observed to nearly 04:00 when dawn's light started to appear.

• **Kakabeka Falls Provincial Park** (August 25) – A slide presentation took place in their theatre and a practical exercise followed. There were a few clouds during the observing but that did not deter many people from wanting a peek through the scopes. This park is close to Thunder Bay so a quite a few people attended the session.

During the autumn season Thunder Bay was blessed with good weather. Several members got out to work on the Observer's Certificate offered through the Centre.

One of the events we looked forward to was that of the Leonid meteor shower of November. Some Centre members (myself included) went to one of our deep-sky observing sites around 22:00 EST on November 17<sup>t</sup> to view the event. With dark skies, warm temperatures (a low of +6°C – unusually warm for our area that time of year!) and no bugs, the show started out slow. A few, but bright, meteors graced the skies at first. Beginning around 04:30 EST the heavens came alive with meteors radiating from Leo at rates from 1 to 4 per second! We left the site around 06:00 EST as the sky became increasingly hazy. On the way home I had noticed that there were many people parked off to the side of the road observing the meteors from lawn chairs.

Arriving home from my backyard in the city I was still observing meteors radiating from Leo by 07:00 EST. Many of our members elected to stay home and wake up around 04:00 EST and view the meteors. They were not disappointed. I went all out for media coverage of this rare event. It worked well.

A partial solar eclipse on December 14 was to be visible from Thunder Bay. We were all set to take photos of the event. The Sun would be in eclipse at sunset as seen from this location. Unfortunately, the weather was overcast in the region, beyond any reasonable driving distance.

The final event of the year was a Centre membership party at the Bronson residence. A toast was made to a good year of 2001 and a successful observing year in 2002.

### **Ted Bronson**

*Secretary, Thunder Bay Centre*

## **TORONTO CENTRE**

The Toronto Centre hosts two monthly meetings held at the Ontario Science Centre. Regular meetings feature a professional astronomer or other scientist as a guest speaker. Dr. Roberto Abraham organized a superb program of speakers:

**October:** "Astronomy on Grub Street, The Popularization of Astronomy in the Age of Captain Cook"  
by Dr. Carol E. Percy

**November:** "Galaxies!" by Kris Blindert & Tracy Webb

**December:** "Time and How We Measure It"  
by Dr. Hooley McLaughlin

**January:** "The Birth, Life, Death & Rebirth of Galaxies"  
by Dr. Roberto Abraham

**February:** "Computer Simulation of Galaxy Formation"  
by Dr. John Dubinski

**March:** "Gravitational Lenses" by Dr. Henk Hoekstra

**April:** "Simulating the Universe in a Box"  
by Dr. Ue Li Pen

**May:** "The Most Distant Galaxy Clusters"  
by Mike Gladders

Members' Nights feature talks given by Centre members on various astronomical themes. Paul Markov organized an exceptional program with topics including the regular feature "The Sky This Month." Other topics have been Astrophotography Sampling, The Horvatin Observatory, Arizona Messier Marathon, Ishpiming Observatory, product showcases and reviews, Three Decades of Observing and More!, Building an Internet Accessible Observatory, Building a Merry-Go-Round Observatory, reviews of e-mail groups and astronomy Web sites, report on June's African Total Solar Eclipse, Starfest 2001, A Trip to the Hayden Planetarium, 20 Years of H-alpha solar photography, the Gneiss Hill Observatory, Autoguiding Astrophotos with an ST4 CCD camera, and many other talks.

The Centre joined with the Royal Canadian Institute for the Advancement of Science on November 12 to present a lecture by Dr. Simon Lilly on "The Next Generation Space Telescopes."

The Centre continued its popular tradition of hosting very active observing programmes. Dark Sky Observing sessions at Camp Robin Hood were organized by Bob Chapman. The City

Observing Workshops were held at Morningside Park organized by Heide DeBond, and the west-end deep-sky location at Forks of the Credit were organized by Guy Nason. Astronomy Day in April, and the Public Star Nights at the Ontario Science Centre were organized by OSC staff astronomer, Sara Poirier. We thank all those who contributed to these events, Robert Chapman, Heide DeBond, Guy Nason, Sara Poirier, Metro Toronto Parks Commission, Camp Robin Hood, the Ontario Science Centre and its staff and technicians.

Once again, Brian Cheaney and his Public Education Committee have been very active making presentations to approximately 2000 students in 24 astronomy workshops, numerous talks at Guides and Cub packs, presentations at the Scouter's Conference and a star party in Collingwood for the Life Long Learning Group. Leslie Harvey continued her tradition of organizing astronomy talks at Chapters on International Astronomy Day and spearheaded our participation at the Hobby Show. We thank Brian and Leslie and all the volunteers who so enthusiastically support our public education program.

The Centre continued its support of the David Dunlap Observatory with its summer evening public viewing program by having members set up their telescopes. Thanks go to Robert Taylor, Geoffrey Gaherty, Tim Hunter, John Ginder and all the other volunteers. The annual open house at the DDO took place on September 15. We thank Dr. Michael Allen and his staff for their kind hospitality.

Our Centre newsletter, *SCOPE*, has evolved into a very comprehensive compilation of news, activities, and information to enhance your observing techniques and equipment under editor Spilios Asimakopoulos. Spilios has stepped down for personal reasons and the reins of responsibility have been picked up by Denis Grey, the new editor and Leslie Harvey, associate editor.

The 4th Annual Open House and Awards Presentation was held at the E.C. Carr Astronomical Observatory on July 21. Also celebrated was the first light ceremony and dedication of the Geoff Brown Observatory, named in honour of the person who was instrumental in obtaining the materials and funds for this project. Guy Nason presented the Bert Winnearls Award, for significant contribution to the Centre, its programmes and services, to Tony Horvatin. The Andrew Elvins Award for promotion of astronomy and the Society was earned by Leslie Harvey. Geoff Brown was awarded the Jesse Ketchum Award for construction or application of equipment suitable for astronomical observing, and the Bertram J. Topham Award for significant contributions to the observing programs of the Centre.

The Toronto Centre has completed construction of the Geoff Brown Observatory and we thank the many members who attended work parties during the past two years as well as those who contributed expertise and materials through their businesses to make this project a reality. Several members have operated the 16-inch telescope. The Committee plans to organize a series of weekend training sessions to familiarize members with opening and closing procedures for the facility and operation of the telescope. The Site Management Committee thanks Geoff Brown, David Sage, Brian Cheaney, Dietmar Kupke, Rob Burbank, Charles Darrow, Dave Halliday, Jean McMullen, Denis Grey, Rob Williamson, Tim Hunter, and Wayne Yeo for their participation in the work parties.

The Centre's 4th Annual Algonquin Adventure took place

September 14-16 under the superb direction of Robert and Lillian Chapman. This popular event was the best attended yet and has become very popular with the public as well as with members. Lillian Chapman has also organized our Centre logo wear, with an excellent choice of quality clothing to help our membership show pride in their Centre.

Four members travelled to Zambia for the solar eclipse of June 21. Following four days of game drives in South Africa's Kruger National Park, they visited Victoria Falls, Zimbabwe. The solar eclipse was successfully observed from Landless Corner Farm north-west of Lusaka. The group enjoyed a tour of the Johannesburg area before returning to Canada. A report was presented at the July Members' meeting and more photographs were shown at the CAO Open House.

The Web site has been revised and improved under the very capable direction of Geoffrey Gilmour-Taylor. It is a comprehensive source of information on our Centre and its events and activities. The Centre's Web address has changed to: [webhome.idirect.com/~taylorm/rascutoronto/](http://webhome.idirect.com/~taylorm/rascutoronto/), with a link from [www.rasc.ca/toronto](http://www.rasc.ca/toronto). Geoffrey has also organized and maintains the Centre's discussion list.

The Centre thanks St. Joan of Arc Church and Carruthers, Shaw and Partners for kindly providing space for Council meetings.

Ralph Chou reports that on 2001 September 30, our Centre had 748 regular members, 41 youth members, 84 life members, and 103 associate members for a total of 976 members.

## Heide DeBond

*Secretary, Toronto Centre*

## VANCOUVER CENTRE

This year has again been an active one at the Vancouver Centre. To start, I would like to mention that last year we ended with a ceremony at which Anne B. Underhill was honoured for her remarkable career in Astronomy and presented with a Member's Award honouring her 58-year association with our Centre.

A big event for us this year was requesting that the 2003 GA be held in Vancouver. Holding it on the campus of the University of British Columbia in early July, which is often our best time for good weather, will hopefully tempt people to combine attendance at the meeting with a vacation in our beautiful 'City by the Sea' and visits to other parts of our province.

This year, our C.A.R.O. observatory was operated and funded through a Vancouver Centre Council sub-committee. Much-needed repairs were made to the dome and to the telescope and camera equipment. With CAROBOT, the automated control system, now operating fairly well and with the system pointing very accurately, it is hoped that the weather will allow routine, automated, supernova searches.

Another big step for us this year was 'going electronic' with our *NOVA* newsletter. Printing and mailing it had become our second biggest expense next to our Speakers program and had become a major chore for the volunteers. The *NOVA* is now made available in .pdf format, in a protected 'members area' on our Web site. This allows it to be presented with colour graphics at a fraction of the previous cost. Some black-and-white copies are still

printed for distribution to other Centres, etc., and for those who cannot access the Internet, but the majority of members are now notified of its location by e-mail. In its short time in operation, the savings have been significant.

During the year we held two (weather-challenged) Sidewalk Astronomy evenings, two star parties at Manning Park, took part in Astronomy Day, had a booth at the Fraser River Festival, tried Messier Marathons in March and Leonid Watches in November, and celebrated our Centre's 70th birthday. Some of our members attended the Mt. Kobau Star Party while others went to Africa to view the total eclipse.

Finally, we had an excellent Speakers program, starting with Ray Villard who presented lots of new information and beautiful 'eye-candy' from the Hubble Space Telescope. Next came Simon Lilly with a preview of the "Next Generation Space Telescope," and then Robert Smith with his record of the "History of the Hubble Space Telescope." Martin Connors described the "Magnetic Fields of the Aurora" and the H.R.M. Planetarium gave us "Electric Skies" to complement it. David Dodge provided a slide presentation of his cruise around South America and his visit to Cape Canaveral. Sun Kwok presented "Cosmic Butterflies," about planetary nebulae, Alan Hildebrand took us along, through slides, on his expedition to collect the Tagish Lake meteorites, Chris Waltham gave us a short course on the "First Science from the Sudbury Neutrino Observatory" and John MacDonald told us "How the Canadian Space Industry was Stolen by Western Canada." Last but not least, we had two of Lee Johnson's excellent "Original Amateur Hour" programs, our forum for members' presentations.

In the coming year we hope to increase membership involvement in Observing Groups, workshops, and discussion groups. In particular, we wish to increase the amount of useful information available to the novice members of our Centre.

#### **Bill Ronald**

*Secretary, Vancouver Centre*

## **VICTORIA CENTRE**

Just as the sky seems to turn, swinging the constellations through their annual parade, the activities of the RASC Victoria Centre also worked their way through the seasons during another active and successful year.

This past cycle has seen many wonderful celestial events. The sun continued to display spots and brought us lovely auroras, as well as more data on how our nearest star functions. In August, the Perseids were on display again. I was out to see this but unfortunately, due to local light pollution, found it not nearly as spectacular as I would have wished. I am sure I was not alone in my disappointment.

Here on earth, however, we have had some terrific activities. I have not had a chance this year to participate in any but the star party in September, but I am pleased to see so much involvement by local schools. Astronomy night at Cedar Hill Jr. Secondary, Willows Elementary, and the ongoing work at Pearson College are but three that come to mind.

Astronomy Day was held on April 21 at Ste Anne's Academy. Stelly's school was involved, and along with Sid Sidhu and his

crew of volunteers made this event another great success. At the moment, we can't actually go to the places we can see, but we can learn much from observation. Sharing this with as many people as possible during these events keeps the lamp lit and the road of knowledge open.

The highlight of the year has to be the opening of the 'Centre of the Universe' at the Dominion Astrophysical Observatory last June 9. This is precisely the kind of thing we need to keep public interest on track, and what a way to do it. A big thank you to all the folks who worked so hard to bring this on-line, so well.

The calendar of monthly meetings included the following:

- September:** "Regulating Star Formation Activity in Dwarf Galaxies" by Dr. Liese Van Zee
- October:** Members' Night: What Did You Do on Your Summer Holidays?
- November:** Annual Dinner: "Gemini: Canada's New 8 Metre Telescopes" by Dr. Dennis Crabtree
- December:** "Introduction to Adaptive Optics" by Glen Herriot of the NRC
- January:** "PNe And How They Are Interlocking With Our Knowledge About The Central Stars" by Falk Herwig
- February:** "Back To The Beginning: Understanding The Large Scale Structure Of The Universe" by Dr. Arif Babul
- March:** Members' Night: "Is That A CCD Camera Or Is That A Modified Webcam?" by Guy Walton, and "Comets: Superstition And Mystery" by Bill Almond
- April:** "Tour Of The NRC/DAO Visitors' Centre" by Scott Mair
- May:** "New H-Alpha Solar Images" by Jack Newton
- June:** "The Search For Extra Solar Planets" by Russ Robb
- September:** "The Origin Of Galaxies" by Simon Lilly
- October:** "Some Astrophysical Facts Worth Memorizing" by Jim Nemec

#### **Margaret Ulitzka,**

*Secretary, Victoria Centre*

## **WINDSOR CENTRE**

For the Windsor Centre, 2001 was a year of truly new progress with the start of our observatory in a dark-sky site near Comber, Ontario. Last spring, the Centre purchased, from St. Clair Community College, the observatory building with telescope. Members did much of the work in preparing the site prior to the placing of the observatory upon its new foundation on December 6. A warm room has been built beside the dome and, as of the end of December, was already mostly complete. This exemplifies the great enthusiasm put into this endeavour. Special thanks go to Peter Bondy, who chairs the Observatory Committee, Al DesRosiers, Tim Bennett, Randy Groundwater, Dan Taylor, and Barry Girard for their excellent work on this significant project. Future plans include the installation of a catadioptric telescope of 14-inch aperture to be purchased within the

next two years. Randy Groundwater had a great year as President of our Centre.

It was with genuine sadness that Windsor Centre members learned of the sudden passing of John McDermott and David Marchand on November 2, 2001 and November 8, 2001, respectively. These fine men were quite active in our Centre. They are truly missed, but definitely remembered for their well-given contributions to the growth of our group.

A special "Thank you" is expressed to Dr. Robert Garrison, our National President, for the very good and thought-provoking presentation he gave us. Also, great appreciation is expressed to all those persons who helped to make this year one of much progress for the Windsor Centre as the new Millennium began. 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:** "Backyard Observatories" by Susan Sawyer-Beaulieu  
**February:** "Messier Marathons" by Steve Mastellotto  
**March:** "The Fall and Recovery of the Tagish Lake, BC Meteorite" by Phil McCausland  
**April:** "Globular Cluster" by Peter Jedicke, London Centre  
**May:** "The Romance of Astronomy is Where It's At" by Dr. Robert Garrison, President, RASC  
**June:** Short Talk Series: "Nearby Star Parties" by Susan Sawyer-Beaulieu; "Occultation of Venus" by Steve Mastellotto  
**September:** "Sending a Spider to the Moon" by J. Randy Attwood, Past President, RASC  
**October:** 2nd Short Talk Series: "Calculating Time Using the *Observer's Handbook*" by Robin Smallwood; "Torrance Barrens Conservation Preserve for Dark Sky Observing" by V. John Beaudoin  
**November:** "Johannes Kepler: Attack on Mars" by Dr. Pierre J. Boulos, University of Windsor, Department of Philosophy

### C. Joady Ulrich

*Secretary, Windsor Centre*

## WINNIPEG CENTRE

The Winnipeg Centre enjoyed a stable membership through the year with over 110 members. Meetings were typically well attended, with 55-75 members and guests each month. For the third year running, meetings were conducted through the summer months. Winnipeg Centre meetings are typically held on the second Friday of the month.

Some of the meeting highlights:

- January:** "The Telescopes of Mauna Kea" by Dr. Richard Bochonko  
**February:** "Video Imaging with Small Aperture Telescopes" by Gerald Stelmack  
**March:** Dr. Jayanne English showed off her work with the Hubble Heritage Project  
**April:** "Black Holes – Portals to the Holy Grail of Theoretical Physics" by Dr. Gabor Kunstatter

- May:** "Greeting the Red Planet"  
**June:** "Summer Skies" conducted at the Manitoba Planetarium  
**July:** "The June 21 Solar Eclipse"  
**August:** The annual picnic at Glenlea Observatory  
**September:** A review of the South Saskatchewan Star Party  
**October:** Bob Garrison, the National President  
**November:** "The Leonids are Coming!"  
**December:** "Hunting Cosmic Power in the Invisible Universe" – Dr. Samar Safi-Harb discussed her work with the CHANDRA observatory

Regular features at each meeting included a Beginner's Session at the start, "What's New in Astronomy," "Constellation of the Month," and Messier targets.

Several observing sessions, some for members and some for the public were offered during the year. The best attended was Astronomy Day on April 28, held under bright skies and a clear evening at The Forks, Winnipeg's downtown gathering-place. In March, a club observing session introduced the new Meade 12" LX-200 to the membership. The August BBQ was followed by a late night as conditions proved suitable for summer observing and mosquito-feeding.

Two major equipment acquisitions were made during the year – a Meade 12" LX-200 and a 14" Dobsonian. The first followed the sale of the old Celestron 14 (a process that took several minutes on the Web); installation was completed in March. When a former member decided to sell his 14" Dobsonian, the club acquired it for a good price and immediately put it through its paces. It is a very good telescope indeed and will see considerable use in years to come.

Glenlea Observatory escaped flooding this year, by about 2 meters horizontally and 30 cm vertically. The floodwaters lapping at the foundation presented an interesting opportunity to take star trail images reflected in a still body of water with the telescopes in the background. Renovations after the 1997 flood are completed and only regular maintenance was needed. Training sessions on the new telescopes, telescope-making groups and several Messier and Herschel lists kept the observing site busy.

In February and March a few members travelled to Arizona and Texas for more serious observing. These trips have now become a regular annual pilgrimage (it takes 37 hours to drive the 3800 km to McDonald Observatory provided a stop is not made at Astronomics in Oklahoma).

### Jay Anderson

*Secretary, Winnipeg Centre*

# CENTRE TREASURERS' REPORTS FOR FISCAL – 2001

	CALGARY	CHARLOTTETOWN	EDMONTON*	HALIFAX	HAMILTON	KINGSTON	KITCHENER-WATERLOO	LONDON	MONCTON	C.F. DE MONTRÉAL	MONTREAL	NIAGARA	OKANAGAN
<b>REVENUE</b>													
Membership fees – regular	12,120	243	4,549	2,587	1,607	2,214	4,388	2,482	840	1,021	1,617	1,806	1,253
Membership fees – basic surcharge					1,248	684	511	516		1,206	1,980		288
Membership fees – special surcharge						15					40		
Life membership grants	304		160	448		160		112			192	64	
Donations		28	96	535	92	223	36	19,932		40	670	474	95
Fundraising	6,347				665	286	462	660	224		230	211	
Educational activities	1,432				40	1,608							
Interest and dividends	942		2,290	113		14		272			2,821	93	1
Sale of Observer's Handbooks – net	29			327		90						(33)	
Sale of RASC Calendars – net	350	136	248	659	116	767	166	276	645		283	58	248
Sale of Beginner's Observing Guides – net	6			59	67	20						27	
Advertising			133									5	
General Assembly – including travel grants		451						47,640				6,067	
Miscellaneous	3,061		692	665	660	1,468		320		698	640		75
<b>TOTAL REVENUE</b>	<b>24,591</b>	<b>858</b>	<b>8,168</b>	<b>5,393</b>	<b>4,495</b>	<b>7,549</b>	<b>5,563</b>	<b>71,670</b>	<b>1,709</b>	<b>2,965</b>	<b>8,473</b>	<b>8,771</b>	<b>1,960</b>
<b>EXPENDITURES</b>													
Fees remitted to National Office	3,438					345	2,539			1,427			
Library										87	816		
Meetings		99	1,779	176	159	725		1,005	8			370	25
Newsletter	1,545		3,085	1,118	1,124	1,305	28	394	274	201	1,556	897	690
Annual dinner – net	68	80						(37)					
General assembly – including travel grants		713						45,843					
Equipment and supplies		53	7,587			2,420						100	320
Office administration			978	184	1,133	468		1,802		364	792	87	23
General expenses and audit	776			25	111						1,195	1	
Educational activities	1,758	210	2,483	46	60	2,000							105
Insurance	1,468			519	827					391	818		
Awards and donations	174	200	415		22	89				52			103
Observatory	2,991			289	426	873	1,845			306	351	586	
Miscellaneous	2,029			332	357	863		241	374	259	3,081	4,717	327
<b>TOTAL EXPENDITURES</b>	<b>14,247</b>	<b>1,355</b>	<b>16,327</b>	<b>2,689</b>	<b>4,219</b>	<b>9,087</b>	<b>4,412</b>	<b>49,248</b>	<b>656</b>	<b>3,086</b>	<b>8,609</b>	<b>6,759</b>	<b>1,593</b>
<b>SURPLUS (OR DEFICIT)</b>													
ON OPERATIONS	10,344	(497)	(8,159)	2,704	276	(1,538)	1,151	22,422	1,054	(121)	(136)	2,012	367
<b>BANK BALANCE</b>													
FROM PREVIOUS YEAR	28,716	736	68,007	17,893	1,187	17,110	2,592	9,721	201	1,845	12,381	5,089	1,727
<b>BANK BALANCE END OF YEAR</b>	<b>39,060</b>	<b>239</b>	<b>59,848</b>	<b>20,597</b>	<b>1,463</b>	<b>15,572</b>	<b>3,743</b>	<b>32,143</b>	<b>1,255</b>	<b>1,724</b>	<b>12,245</b>	<b>7,101</b>	<b>2,094</b>

\*Bank balance adjusted

	OTTAWA	PRINCE GEORGE	QUÉBEC	REGINA	ST. JOHN'S	SARNIA	SASKATOON*	THUNDER BAY	TORONTO	VANCOUVER	VICTORIA	WINDSOR	WINNIPEG
<b>REVENUE</b>													
Membership fees – regular	16,327	959	3,101	1,962	1,026	266	3,075	493	31,966	4,952	2,530	1,106	4,041
Membership fees – basic surcharge				184			553			2,360	334		966
Membership fees – special surcharge							30					32	
Life membership grants	512						48		1,376	240	384	32	32
Donations	1,114	922		157	765		828		14,953	852	110	853	81
Fundraising	46,764			294			142			(229)		244	
Educational activities							6,711				896		
Interest and dividends	1,324	1		400	4	0	8		3,106	800	1		225
Sale of Observer's Handbooks – net				4	41					30			
Sale of RASC Calendars – net	800		700	11	450	100	174	345		885	265	148	179
Sale of Beginner's Observing Guides – net										23		4	
Advertising										150		50	
General Assembly – including travel grants							83						
Miscellaneous	3,391			1,782					13,832	400	20	825	10
<b>TOTAL REVENUE</b>	<b>70,232</b>	<b>1,882</b>	<b>3,801</b>	<b>4,794</b>	<b>2,286</b>	<b>367</b>	<b>11,651</b>	<b>838</b>	<b>65,233</b>	<b>10,464</b>	<b>4,540</b>	<b>3,294</b>	<b>5,533</b>
<b>EXPENDITURES</b>													
Fees remitted to National Office	9,945		600	1,177	401		2,546		16,924				2,425
Library				197						239	333	92	
Meetings	17		100				62	50	1,945	2,054	191	500	112
Newsletter	4,492	125					364	251	4,875	1,769	1,461	260	692
Annual dinner – net	1,829										331	150	
General assembly – including travel grants						160	361			1,390			(1,322)
Equipment and supplies	19		212	5,682	72	28			8,856		117	281	
Office administration	578	964	1,585	1,505		1	100		5,483	608	258	349	16
General expenses and audit	401	1,674		1,171			66	18	1,500		40	542	87
Educational activities					73		4,443	130		293	3,417		
Insurance	1,080						346						595
Awards and donations		44			160		40	220			176		
Observatory	619	5,619		5,428			911		1,203	1,247		3,614	7,394
Miscellaneous	51,309	25	296	1,411	47			876	17,564	946	4	313	2,052
<b>TOTAL EXPENDITURES</b>	<b>70,289</b>	<b>8,452</b>	<b>2,792</b>	<b>16,571</b>	<b>752</b>	<b>189</b>	<b>9,240</b>	<b>1,546</b>	<b>58,350</b>	<b>8,545</b>	<b>6,328</b>	<b>6,101</b>	<b>12,050</b>
<b>SURPLUS (OR DEFICIT)</b>													
ON OPERATIONS	(57)	(6,570)	1,009	(11,777)	1,534	178	2,411	(708)	6,883	1,919	(1,787)	(2,807)	(6,517)
<b>BANK BALANCE</b>													
FROM PREVIOUS YEAR	66,716	7,670	3,532	18,701	1,384	668	13,109	2,033	55,098	21,137	3,784	7,402	11,698
<b>BANK BALANCE END OF YEAR</b>	<b>66,659</b>	<b>1,100</b>	<b>4,541</b>	<b>6,924</b>	<b>2,918</b>	<b>846</b>	<b>15,424</b>	<b>1,325</b>	<b>61,981</b>	<b>23,056</b>	<b>1,997</b>	<b>4,595</b>	<b>5,181</b>

\*Bank balance adjusted



# OFFICERS AND COUNCILS OF THE CENTRES FOR 2002

## CALGARY CENTRE

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(403) 237-7827

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**Newsletter Editor:** Gary Billings  
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Wilson, David Brown, Stephen Panes,  
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## CHARLOTTETOWN CENTRE

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**Centre Address:**  
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**Stardust Distribution:** Stephanie May  
**Librarians:** Bill Kunze & Harris Christian  
**Social Director:** Terry & Daphne Samuels  
**Web Site Administrator:** Denis Boucher  
**New Member Advisor:** Shelly Sodergren  
**Observing Site Co-ordinator:** Bob Jahrig  
**Public Education Director:** Sherrilyn  
Jahrig  
**Membership Secretary:** Terry Nonay  
**Light Pollution Abatement Committee:**  
Vacant  
**Councillors:** Terry Samuels, Arnold Rivera,  
Helen Steinke, Wendy Routhier,  
Franklin Loehde

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**President:** Mary Lou Whitehorne  
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**Observing Projects:** Bob Botts

**Education:** Robert Sears  
**Orbit Editor:** Scott Barrie

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**Editor:** Kevin Kell  
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**Observing Director:** Tom Dean  
**CCD:** Jan Wisniewski  
**Light Pollution Abatement:** Kim Hay  
**Publicity:** Kim Hay  
**Fall'N'Stars** (Observing weekend):  
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**Education:** Laura Gagne  
**Awards:** Peggy Hurley  
**Astronomy Day Coordinator:** Kim Hay  
**Social Activities:** Susan Gagnon

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Steve Gauthier

**Treasurer and Sky & Telescope Coordinator:** Kelly Sibthorpe  
**National Representative & Email List Master:** David Clark  
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**Tri-County Public Star Party Coordinator:** Harold Tutt  
**Librarian & Hume Cronyn Coordinator:** Robert Duff  
**Observers' Chair:** Chris Fleming  
**Past President:** John Rousom  
**Observatory Trustee:** Joe O'Neil

### MONCTON CENTRE

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**National Representative:** Mark Bratton  
**Recording Secretary:** Carole Talbot

**Director of Observational Activities:** Mark Bratton  
**Director of the Observatory:** Chris Novak  
**Librarian:** Brian Pritchard  
**Directors without Portfolio:** Anita David, Kevin Whittaker, Andrew Fazekas, David Shuman

### NIAGARA CENTRE

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**Vice-President:** John Dean  
**Secretary:** John VanderBrugge  
**Treasurer:** Dave StremLaw  
**Board of Directors:** Chris Duller, Glen Pidsadnick, Joyce Sims, Les Welgan  
**Public & Members' Observing Coordinator:** Les Welgan  
**National Representative:** Ron Gasbarini  
**Dark Skies Chairman:** Wayne Liebau  
**Librarian:** Ivana Plut-Evoy  
**Whirlpool Editor:** Philip Downey  
**Whirlpool Publisher:** John VanderBrugge

### OKANAGAN CENTRE

**Centre Address:** PO Box 20119 TCM  
Kelowna, BC V1Y 9H2  
www.m51.ca  
guy.m@shaw.ca  
(250) 861-3074

**President:** Guy Mackie  
**Vice-President:** Wendell Shuster  
**Secretary:** Jim Fisher  
**Treasurer:** Bryan Kelso  
**National Representative:** Jim Tisdale  
**Librarian:** James McRae  
**Newsletter Editor:** Ron Scherer  
**Web site Administrator:** Stewart Hill

### OTTAWA CENTRE

**Centre Address:**  
PO Box 33012, 1974 Baseline Road  
Ottawa, ON K2C 0E0  
ottawa.rasc.ca/ • contact@ottawa.rasc.ca  
Hotline: (613) 830-3381

**President:** Hilderic Browne  
**Vice-President:** John Thompson  
**Secretary:** (open)  
**Treasurer:** Stephen Nourse  
**National Representatives:** Rick Wagner,

Rob Dick, Barry Matthews  
**Councillors:** Yves Demers, Debra Tigner, Tim Cole  
**Centre Meeting Chair:** Gary Boyle  
**Past-President:** Brian McCullough

### PRINCE GEORGE CENTRE

**Centre Address:** 7365 Tedford Road  
Prince George, BC V2N 6S2  
www.pgweb.com/~astronomical  
pgcentre@yahoo.com  
(250) 964-3600

**Honorary President:** Dr. Bob Nelson  
**President:** Brian Battersby  
**Vice-President:** Gilbert Self  
**Secretary:** Glen Harris  
**Treasurer:** Roderick Herd  
**National Representative:** Dr. Bob Nelson  
**Membership Chair:** Brian Battersby  
**Newsletter Editor:** Gilbert Self  
**Members at Large:** Rob Frith, Kane Sanders, Peter Wyper

### CENTRE DE QUÉBEC

**Centre Address:**  
2000, boul. Montmorency  
Québec, QC G1J 5E7  
www.sracqc.com  
srac\_quebec@hotmail.com  
(418) 660-2815

**Président:** Daniel Tardif  
**Vice-Président:** Dominique Beauchamp  
**Secrétaire:** Daniel Tardif  
**Trésorier:** Pierre-Paul Leblanc  
**Représentant national:** René Breton  
**Secrétaire de l'exécutif:** Jacques-Denis Dumulong  
**Directeur des conférences:** Jean Chiasson  
**Directeur des observations:** Jean Chiasson  
**Bibliothécaire:** Jean Chiasson  
**Conseillers:** Agathe Caron, Daniel Allaire, Lyne Dion

### REGINA CENTRE

**Centre Address:** PO Box 20014  
Cornwall Centre, Regina, SK S4P 4J7  
www.ras.sk.ca and  
www.telescope.mysask.com  
info@ras.sk.ca • (306) 751-0128

**President:** Vance Petriew  
**Vice-President:** Carter Smith

**Treasurer:** Darcy Kozoriz  
**Secretary:** Catherine Hadi  
**National Representative:** Lee Beck  
**Newsletter Editor:** Jennifer Petriew  
**Webmaster:** Vance Petriew  
**Librarian:** Kai G. Gauer  
**Kalium Observatory Director:**  
Ron Haughey  
**Davin Observatory Director:** Bob Brann  
**Computer Systems Director:**  
Vance Petriew  
**Equipment Manager:** Steve Meister  
**Public Education Director:** Fred Rackow

### ST. JOHN'S CENTRE

**Centre Address:** c/o Randy Dodge  
206 Frecker Drive  
St. John's, NF A1E 5H9  
www.sji.ca/rasc/  
randy@morgan.ucs.mun.ca

**President:** Randy Dodge  
**Vice-President:** Garry Dymond  
**Secretary:** David Bourgeois  
**Treasurer:** Wayne Winsor  
**National Representative:** Chris Stevenson  
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**Observing Chairman:** Gary Case  
**Librarian:** Florence McNeily  
**Equipment Officer:** Brian Payton  
**Webmaster:** Mike Crawford

### SARNIA CENTRE

**Centre Address:** c/o Jim Selinger  
160 George Street, Sarnia, ON N7T 7V4  
www.sarnia.com/groups/astro/  
jselinge@mnsi.net • (519) 337-6815

**Acting President:** Jose Ordenes  
**Vice-President:** Jose Ordenes  
**Secretary:** Paul Bessonette  
**Treasurer:** Brendan Fleming  
**National Representative:** Brendan Fleming  
**Newsletter Editor:** Zdenko Saroch

### SASKATOON CENTRE

**Centre Address:** PO Box 317  
RPO University, Saskatoon, SK S7N 4J8  
prana.usask.ca/~rasc/  
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(306) 249-1091

**President:** Les Dickson  
**Vice-President:** Darrell Chatfield  
**Honorary President:** OPEN  
**Past-President:** Rick Huziak

**Secretary:** Al Hartridge  
**Treasurer:** Barb Young  
**National Representative:** Sandy Ferguson  
**Newsletter Editor:** Rick Huziak  
**Librarians:** Sandy Ferguson  
and Ellen Dickson  
**Observing Group Co-ordinator:** OPEN  
**Youth Co-ordinator:** Tyrone Klassen  
**Activities Co-ordinator:** Mike Stevens  
**Membership Co-ordinator:** Bob Christie  
**Fundraising Co-ordinator:**  
Darrell Chatfield  
**Sleaford Site Co-ordinator:** Bill Hydromako  
**Publications/Sale Co-ordinator:**  
Debbie Anderson  
**Councillors:** Scott Alexander, Jim Young,  
Merlyn Melby

### THUNDER BAY CENTRE

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Thunder Bay, ON P7C 5V6  
www.geocities.com/rasc/tb/tbrasc.htm  
bronsont@air.on.ca • (807) 475-3406

**President:** Doug Stuart  
**Treasurer:** Marion Biloski  
**Vice-President:** Bruce Miron  
**National Representative:** Ted Bronson  
**Secretary:** Ted Bronson  
**Newsletter:** Bruce Miron/Marion Biloski  
**Programs:** Ted Bronson  
**Media Contact:** Ted Bronson

### TORONTO CENTRE

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770 Don Mills Road  
North York, ON M3C 1T3  
www.rasc.ca/toronto • (416) 724-7827

**Honorary President:**  
Dr. Michael DeRobertis  
**President:** Guy Nason  
**1st Vice-President:** M.A. (Tony) Horvatin  
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Dr. Roberto Abraham  
**Secretary:** Heide DeBond  
**Treasurer:** Timothy Hunter  
**National Representatives:** Geoffrey Brown,  
Brian Cheaney, Tony Horvatin, Tim Hunter  
**Recorder:** David Hanson  
**Past President:** Steven Spinney  
**Councillors:** Retiring 2002: Spilios  
Asimakopoulos, Geoffrey Brown, John  
Ginder. Retiring 2003: Brian Cheaney,  
Robert May, Geoffrey Gilmour-Taylor.  
Retiring 2004: Denis Grey, Leslie Harvey,  
Paul Neal

**Committee Chairs:**  
**Archives & Property:** Robert May  
**Awards:** Guy Nason  
**CAO (Observatory):** Ralph Chou,  
Tony Horvatin  
**Editorial:** Denis Grey  
**Education:** Brian Cheaney  
**Finance:** Tony Horvatin (By-law)  
**Nomination:** Steven Spinney (By-law)  
**Membership:** Ralph Chou  
**Observational Activities:** Guy Nason  
**Programme:** Roberto Abraham  
**Refreshments:** Leslie Harvey  
**Solar Eclipse:** Ralph Chou  
**Web site:** Geoffrey Gilmour-Taylor

### VANCOUVER CENTRE

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1100 Chestnut St., Vancouver, BC V6J 3J9  
members.shaw.ca/rascvan/index.html  
craig.breckenridge@shaw.ca  
(604) 437-3103

**Honorary President:** John MacDonald  
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**President:** Craig Breckenridge  
**Vice-President:** Bill Ronald  
**Secretary:** Marcellus Redmond  
**Treasurer:** Marc Verschuere  
**National Representatives:** Bob Parry,  
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**Membership:** Sean Roddick  
**NOVA Editor:** Gordon Farrell  
**C.A.R.O. Project Chairman:** Eric Fuller  
**Director of Telescopes:** Phil Morris  
**Librarian:** William Fearon  
**Merchandising:** Doug Montgomery  
**Public Relations:** Norman Songs  
**Speakers:** Barry Shanko  
**Webmaster:** Bill Ronald  
**Councillors:** Dan Collier, Jason Rickerby  
**Trustees:** Sally Baker, Lee Johnson  
**C.A.R.O. Project Committee:** Duncan  
Munro, Phil Morris, Bob Parry

### VICTORIA CENTRE

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**President:** David Lee  
**Vice-President:** Chris Gainor  
**Treasurer:** Laura Roche  
**Secretary:** Robert Walker  
**Recorder:** Joel Ortin

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**Librarian & Telescopes:** Sid Sidhu  
**National Representative:** Sandy Barta  
**Past President:** Sandy Barta  
**Honorary President:** George Ball  
**Members at Large:** Bill Almond,  
Don Dundee, Dr. James Hesser,  
Betty Hesser, John Howell, Ed Maxfield,  
Frank Ogonoski, Malcolm Scrimger  
**Skynews Editor:** Sandy Barta  
**Website Editor:** David Lee  
**New Members' Liaison:** Ron Bell,  
Sandy Barta

**Secretary:** Jay Anderson  
**National Representative:** Scott Young  
**Alternate National Representative:**  
F. Lindsay Price  
**Councillors:** Mike Karakas, Lindsay Price,  
Robin Woods Raymond Andrejowich,  
Fred Wood, Brad Masiowski  
**Appointed Positions:**  
**Winnicentrics Editor:** Gail Wise  
**Observatory Director:** Ray Andrejowich  
**Observatory Booking:** Gil Raineault  
**Librarian:** Fred Wood  
**Webmaster:** Kevin Georgison

## WINDSOR CENTRE

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(519) 839-5934

**President:** Randy Groundwater  
**First Vice-President:** Steve Mastellotto  
**Second Vice-President:** Robin Smallwood  
**Secretary:** C. Joady Ulrich  
**Treasurer:** Frank J. Shepley  
**National Representative:** Tim Bennett  
**Honorary President:** Dr. William Baylis  
**Past President:** Susan Sawyer-Beaulieu  
**Librarian:** Tom Sharron  
**Recording Secretary:** Dave Panton  
**Public Education Director:**  
Randy Groundwater  
**Public Relations Director:**  
Robin Smallwood  
**Aurora Editor:** Steve Mastellotto  
**Director of Observing:** Robin Smallwood  
**Assistant Director of Observing:**  
Steve Pellarin  
**Assistant Treasurer:** Ken Garber  
**Councillors:** Peter Bondy, Rev. Harry  
Brydon, Lindsay Fish, Henry Lee, Steve  
Pellarin, Paul Preney, Ken Rounq, Susan  
Sawyer-Beaulieu, Tom Sharron

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winnipeg.rasc.ca  
Scott\_Young@ManitobaMuseum.MB.CA  
(204) 956-2830 (Scott Young)

**Past-President:** Kevin Black  
**President:** Scott Young  
**First Vice-President:** Gail Wise  
**Second Vice-President:** Gil Raineault  
**Treasurer:** Stan Runge

# 2001 AWARD WINNERS

**Service Award:** John Rousom (London)  
David G. Turner (Halifax)  
**Chant Medal:** Richard Huziak (Saskatoon)

**Ken Chilton Prize:** Michael Boschat (Halifax)  
**The Plaskett Medal:** Dr. Peter Brown (University of Western Ontario)

**Simon Newcomb Award:** Dan Falk (Toronto)

## MESSIER CERTIFICATE

Joyce Carley (Toronto)  
Robert R. Chapman (Toronto)  
Dave Halliday (Toronto)  
Michael Hanes (London)  
Stan Runge (Winnipeg)  
Pat Browne (Ottawa)  
Michael Stephens (Saskatoon)

## NGC CERTIFICATE

Chris T. Adamson (Unattached)  
Geoff Gaherty (Toronto)  
Paul Gray (Halifax)  
John Douglas (Ottawa)  
Paul Markov (Toronto)  
Jan Wisniewski (Kingston)

## MEMBERSHIP CERTIFICATE (FIVE YEARS)

**Calgary Centre:** Richard Bailey, Roger T. Bailey, Gary Billings, Tom Cameron, Russel Chandler, Shirley Conway, Kerby Eccles, John M. Fearnly, Brian Fenerty, Glenn A. Hawley, Ian Jackson, Don Jasper, Robert W. King, Richard A. Keppler, Jim Kinnard, Barry Leggett, Ruth D. Lewis, Andrew Lowe, Richard Lowndes, Dwight McKague, Terrence G. Miller, Dr. Eugene F. Milone, Christopher M. Mulders, Jason Nishiyama, Stephen Panes, Bruce W. Shier, Ken W. Slack, Gene Sydor, David G. Watson, Carol Weis, Richard Weis, Jeff Zambory  
**Kingston Centre:** Doug Angle, Tom Dean, Laura Gagné, Judith Irwin,

Mark Kaye, Ian Levstein, Dave Pianosi, Ray Berg, Hank Bartlett.  
**London Centre:** Steve Arenburg, David L. Clark, Robert Duff, Christopher Fleming, Tom Glinos, Mike Hanes, Derek Hitchens, David McCarter, Phil McCausland, Dave Nopper, Shawn Osterberg, David Toth  
**Niagara Centre:** John Fishleigh, Denis Maheu, Ray Merrick, John Nemy, Brian Pihack, David Stremlaw  
**Regina Centre:** Al Andrews, Robert Klein, Steve Szuta, Darcy Kozoriz, Ed Matheson, Tony Mackay, Ross Parker  
**Thunder Bay Centre:** John K. Bakkelund, David R. Galley, Douglas L. Stuart

**Toronto Centre:** Spilios Asimakopoulos, Robert Chapman, Brian Cheaney, Heide DeBond, Frank Dempsey, John Ginder, David Hanson, Leslie Harvey, M. Anthony Horvatin, Tim Hunter, Stephen Keefer, Paul Markov, Robert May, Jean McMullan, Guy Nason, Paul Neal, John O'Dea, David Sage, Ivan Semeniuk, Frank Smith, Robert Taylor, Kirsten Vanstone, Wayne Yeo  
**Winnipeg Centre:** Jay Anderson, Ray Andrejowich, Kevin Black, Dr. Richard Bochonko, Chris Brown, Andora Jackson, Paul Paradis, Gil Raineault, Stan Runge, Gail Wise, Guy Westcott, Scott Young

## MEMBERSHIP CERTIFICATE (TWENTY-FIVE YEARS)

**Calgary Centre:** Craig Dunbar, Dr. David J.I. Fry, Ruth Guengerich, Jim Himer, Ronald Stuart, Donald Scarlett  
**Kingston Centre:** Frank Aldrich, Helen Brooks, Gordon Francis, Javier Ramirez  
**London Centre:** Walter Campney

**Niagara Centre:** Ron Gasbarini  
**Thunder Bay Centre:** Ted Bronson  
**Toronto Centre:** Dr. C.M. Clement, G.L. Fairfoul, Dr. Mike Fich, Richard Freedman, Dr. A.W. Fullerton, Dr. Robert F. Garrison, George Hoshowsky, Peter

Jones, C. Latremouille, J.F.A. Perkins, Alison A. Smith  
**Vancouver Centre:** William L. (Bill) Robertson, Terry Taylor  
**Winnipeg Centre:** Jack Iverson

Note: The Membership Certificates were discontinued as of June 29, 2001.

*Below 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)  
2001 Richard Huziak (Saskatoon)

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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)  
2001 Michael Boschat (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 (British Columbia)  
2001 Peter Brown (Western)

## 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)  
2001 John Rousom (London)  
David G. Turner (Halifax)

\* 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)  
2001 Dan Falk (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  
2001-2005 Roy Bishop

### 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

## GENERAL ASSEMBLIES – 1990 - 2003

The following Centres hosted the General Assembly from 1990 to 2001:

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	2001 London Centre

The following Centres will host future General Assemblies.

2002 Montreal Centre  
2003 Vancouver Centre

## LONDON GENERAL ASSEMBLY GROUP PHOTOGRAPH



PHOTO: JOE O'NEIL

# THE ROYAL ASTRONOMICAL SOCIETY OF CANADA – 2001

## Officers

Honorary President	Dr. Roy Bishop	
President	Dr. Robert Garrison	<a href="mailto:garrison@astro.utoronto.ca">garrison@astro.utoronto.ca</a>
First Vice President	Dr. Rajiv Gupta	<a href="mailto:gupta@interchange.ubc.ca">gupta@interchange.ubc.ca</a>
Second Vice President	Peter Jedicke	<a href="mailto:pjedicke@fanshawec.on.ca">pjedicke@fanshawec.on.ca</a>
National Secretary	Kim Hay	<a href="mailto:kimhay@kingston.net">kimhay@kingston.net</a>
Treasurer	Michael S.F. Watson	<a href="mailto:michael.watson@gowlings.com">michael.watson@gowlings.com</a>
Recorder	Heide DeBond	<a href="mailto:hdebond@rogers.com">hdebond@rogers.com</a>
Past President	J. Randy Attwood	<a href="mailto:attwood@istar.ca">attwood@istar.ca</a>

Executive Secretary Bonnie Bird  
136 Dupont Street, Toronto, ON, M5R 1V2, Canada  
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Observer's Handbook Editor	Dr. Rajiv Gupta	<a href="mailto:gupta@interchange.ubc.ca">gupta@interchange.ubc.ca</a>
Beginner's Observing Guide Editor	Leo Enright	<a href="mailto:tcorbor@frontenac.net">tcorbor@frontenac.net</a>
Observer's Calendar Editor	Dr. Rajiv Gupta	<a href="mailto:gupta@interchange.ubc.ca">gupta@interchange.ubc.ca</a>
Librarian	Colin Haig	<a href="mailto:chaig@compuserve.com">chaig@compuserve.com</a>
Astronomy Day Coordinator	Scott Young	<a href="mailto:Scott_Young@ManitobaMuseum.mb.ca">Scott_Young@ManitobaMuseum.mb.ca</a>
RASC Web Site	<a href="http://www.rasc.ca">http://www.rasc.ca</a>	
RASC eStore	<a href="http://www.store.rasc.ca">http://www.store.rasc.ca</a>	

## 2002 Committees

Awards	J. Randy Attwood	<a href="mailto:attwood@istar.ca">attwood@istar.ca</a>
Computer Use	Mark Kaye	<a href="mailto:markkaye@sympatico.ca">markkaye@sympatico.ca</a>
Constitution	Michael S.F. Watson	<a href="mailto:michael.watson@gowlings.com">michael.watson@gowlings.com</a>
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Light Pollution Abatement	Robert Dick	<a href="mailto:rdick@ccs.carleton.ca">rdick@ccs.carleton.ca</a>
Membership and Promotion	Kim Hay	<a href="mailto:kimhay@kingston.net">kimhay@kingston.net</a>
Nominating	J. Randy Attwood	<a href="mailto:attwood@istar.ca">attwood@istar.ca</a>
Observing Certificates	Chris Fleming	<a href="mailto:chrisfleming1@sympatico.ca">chrisfleming1@sympatico.ca</a>
Property	Robert May	416-265-4037
Public Education	Lee Beck	<a href="mailto:leebeck@accesscomm.ca">leebeck@accesscomm.ca</a>
Publications	Dr. Rajiv Gupta	<a href="mailto:gupta@interchange.ubc.ca">gupta@interchange.ubc.ca</a>

## Centre Representatives on National Council

Calgary Centre	Susan Yeo	Ottawa Centre	Rob Dick
Calgary Centre	Glenn Hawley	Prince George	Bob Nelson
Charlottetown Centre	T.B.D.	Centre de Québec	René Breton
Edmonton Centre	Pat Abbott	Regina Centre	Lee Beck
Edmonton Centre	Bruce McCurdy	Sarnia Centre	Brendan Fleming
Halifax Centre	David Lane	Saskatoon Centre	Sandy Ferguson
Hamilton Centre	Mark Kaye	St. John's Centre	Chris Stevenson
Kingston Centre	Peggy Hurley	Thunder Bay Centre	Ted Bronson
Kitchener-Waterloo Centre	Bernd Mueller	Toronto Centre	Geoffrey Brown
London Centre	David Clark	Toronto Centre	Brian Cheaney
Moncton	Francis LeBlanc	Toronto Centre	Tony Horvatin
Centre Francophone de Montréal	Patrice Scattolin	Toronto Centre	Tim Hunter
Montreal Centre	Mark Bratton	Vancouver Centre	Bob Parry
Niagara Centre	Ron Gasbarini	Vancouver Centre	Pomponia Martinez
Okanagan Centre	Jim Tisdale	Victoria Centre	Sandy Barta
Ottawa Centre	Barry Matthews	Windsor Centre	Tim Bennett
Ottawa Centre	Rick Wagner	Winnipeg Centre	Scott Young



# CENTRE ADDRESSES / ADRESSES DES CENTRES

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## HAMILTON

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## KINGSTON

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## KITCHENER-WATERLOO

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