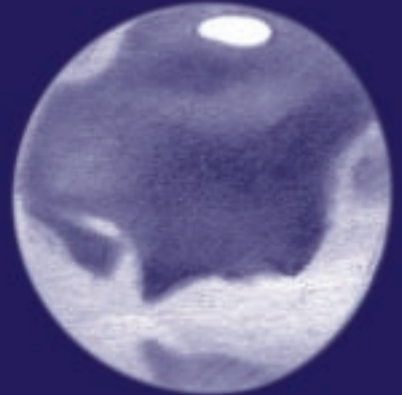
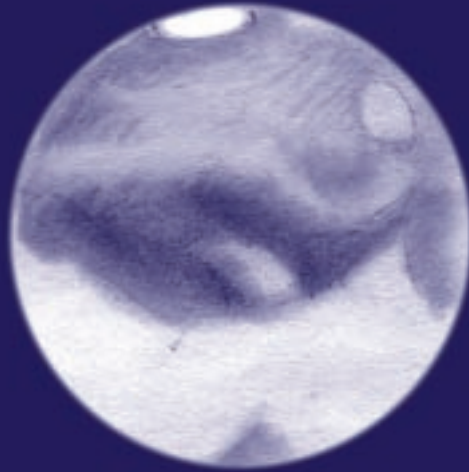
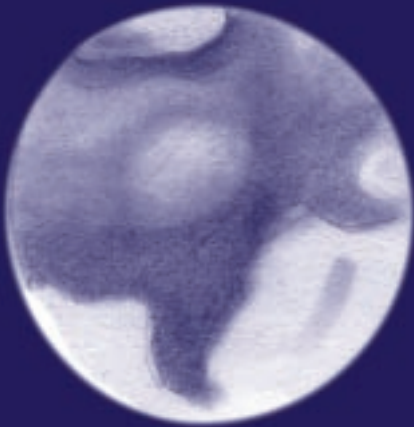
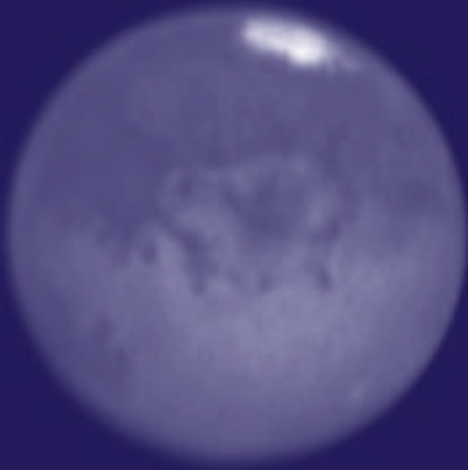




THE ROYAL ASTRONOMICAL SOCIETY OF CANADA
LA SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA



MARS OLD



MARS NEW

ANNUAL REPORT

2003

RAPPORT ANNUEL

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA – 2004

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Constitution
Executive
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Historical
Information Technology
Light Pollution Abatement
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Belleville Centre	Dan Dagenais	Moncton	Adrien Bordage	Saskatoon Centre	Jim Young
Calgary Centre	Susan Yeo	Centre Francophone		St. John's Centre	Garry Dymond
Calgary Centre	Glenn Hawley	de Montréal	Patrice Scattolin	Thunder Bay Centre	Dave Gallant
Charlottetown Centre	Clair Perry	Montreal Centre	Carole Talbot	Toronto Centre	Geoffrey Brown
Edmonton Centre	Krista Stefan	Niagara Centre	Brian Pihack	Toronto Centre	Brian Cheaney
Edmonton Centre	Bruce McCurdy	Okanagan Centre	Alan Whitman	Toronto Centre	Denis Grey
Halifax Centre	Pat Kelly	Ottawa Centre	Gary Boyle	Toronto Centre	Anthony Horvatin
Halifax Centre	Mary Lou Whitehorne	Ottawa Centre	Bob Hillier	Toronto Centre	Andy Schuh
Hamilton Centre	Ken Lemke	Ottawa Centre	Rick Wagner	Vancouver Centre	Pomponia Martinez
Kingston Centre	Peggy Hurley	Prince George	John Ascah	Vancouver Centre	Doug Montgomery
Kitchener-Waterloo Centre	David Garner	Québec Centre	Jean-Marie Fréchette	Victoria Centre	David Lee
London Centre	Mike Costa	Regina Centre	James Edgar	Windsor Centre	TBD
		Sarnia Centre	Richard Weatherston	Winnipeg Centre	Stan Runge

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On the Cover: Sketching has been a time-honoured way to represent the ever-changing features of the planets, a technique that takes advantage of the human eye's ability to detect detail during rare moments of good seeing. Mated with the observer's artistic skill, this has been the preferred way of recording Martian topography for generations. Halifax Centre member Mike Gatto is an expert practitioner of the craft.

The rise of the CCD detector during the last decade has added a powerful new tool to amateur study of the planets. The wide-spread availability of the technology, whether in traditional CCD cameras, webcams, videocams, or even digital cameras has meant that thousands of amateur astronomers worldwide have been recording the planets in unprecedented detail. The opposition of Mars in 2003 is a perfect example of this trend. Hamilton Centre's Steve Barnes has achieved amazing results with a Philips ToUcam and a Meade LX-200 telescope. On the back cover are images and sketches of Mars by RASC members from across Canada. More images can be found on pages 31 and 38.

LAYOUT AND PRE-PRESS PREPARATION
CONCEPTION ET INFOGRAPHIE

Mark Bratton

COVER IMAGES
IMAGES COUVERTURE

Michael Gatto, top. Steve Barnes, bottom.

PRINTING
IMPRESSION

Pulsar Printing

MARS IMAGE CREDITS

GARRY DYMOND, ST. JOHN'S CENTRE – Celestron C8, 2x Barlow, SAC7 camera (pro webcam mod.), Astrovideo, 10 sec avi; Registax, 105 stacked. CHRIS STEVENSON, ST. JOHN'S CENTRE – 18 co-added webcam frames through a Meade 8-inch LX200. MICHAEL GATTO, HALIFAX CENTRE – 8-inch f/7.5 Zambuto primary/secondary optics set in a home-made Dob, at powers around 170x to 210x. Various filters were used including a neutral-density filter, #25 red, and #56 green. These were drawn at the eyepiece, scanned, and cleaned up in Photoshop. DEREK LAPOINTE, MONCTON CENTRE – 6-inch f/8 Skywatcher Dobsonian, 9.7-mm and 6.3-mm eyepieces. LUIS EGUREN, MONTREAL CENTRE – Meade DS-10 (with Celestron 2x Ultima Barlow), 7-inch Meade Mak Cass (with Antares 1.6x Barlow). Philips ToUcam Pro webcam at 640x480 resolution. All were avi files of varying times (anywhere from 10 to 30 seconds) taken using K3CCDTools or VEGA acquisition freeware. All were processed using the freeware Registax (both 1.1 and 2). MARC RICARD, MONTREAL CENTRE – Celestron C8 with a ToUcam Pro. Captured with the help of K3CCD Tools, processed via Registax. Resampled with Photoshop. DAVID SHUMAN, MONTREAL CENTRE – Celestron C8 with Antares 3x Barlow, Logitech Pro 4000 web camera & Registax, Photoshop processing. Approx 200 frames for each stack. Gain and contrast adjusted to minimum with 1/10 to 1/100 second exposures to get the optimal images to my PC. TIM COLE, OTTAWA CENTRE – Celestron C8 on an EQ-6 mount, SBIG ST-237A CCD camera with integral RGB filter wheel and a 3x Barlow lens, and MaxIm DL/CCD. ROLF MEIER, OTTAWA CENTRE – 6-inch f/12 Astrophysics refractor on a G-11 mount. A 3x Barlow was used to yield f/36. Philips ToUcam Pro, IR blocking filter. 300 of the best frames were combined and stacked using Registax2, which was also used for processing. The final adjustments were made using Paint Shop Pro. MIKE WIRTHS, OTTAWA CENTRE – Driven Starmaster 18-inch dob with Zambuto primary. ToUcam webcam/ Televue 5x's Powermate/ Baader UV/IR filter. Registax 2 to stack images and Images Plus to process. GREG LISK, BELLEVILLE CENTRE – 5-inch Celestron Nexstar with a 2.5x Barlow. CMOS based webcam, 30-second video clips at 15 f/s stacked with AstroStack and contrast adjusted only in Corel Photopaint. STEVE BARNES, HAMILTON CENTRE – Meade 12-inch LX200 @ f/25. Philips ToUcam Pro webcam. Stack of about 500-700 each processed with Registax. Final processing with Photoshop. LES NAGY, ROGER HILL, HAMILTON CENTRE – 16-inch Meade LX200, 2x Barlow. Philips Vesta Pro 690K webcam, 75 frames, 1/5th second exposure. GERRY SMERCHANSKI, WINNIPEG CENTRE – 150mm f/6 Intes/Orion Maksutov-Newtonian with a 6.7-mm Meade UWA eyepiece and a 2x Barlow, yielding 270x. MIKE KARAKAS, WINNIPEG CENTRE – 8-inch, f/6 Newtonian reflector, 305x, 377x, 522x, Wratten filters – #21, #23A, #80A. SAM FERRIS, REGINA CENTRE – Celestron C14 on a G11 mount with a ToUcam Pro (prime focus). MURRAY PAULSON, EDMONTON CENTRE – Astrophysics 130 EDF operating at f/60, Losmandy G11 mount, Philips ToUcam, Minus violet filter.

NATIONAL SECRETARY'S MESSAGE

In 2003 the Royal Astronomical Society of Canada celebrated its Centenary. Many people contributed to the celebration and acknowledgement of the Society. A Centenary letter was sent to Sky and Telescope, and an Editorial appeared in SkyNews. The RASC Seal was redesigned with colour, and will be used in its full version starting March 3, 2004.

Our Society grows, because of the many people, at the local Centre level, who help advance the love of the night sky to the everyday person. The first time anyone looks through a telescope and expresses amazement at a planet or the Moon, is a great feeling not only for the individual, but also for the one who shared their love of astronomy with another. It takes people to help out and show others, and you may be one of them. Come out and help your local Centre. Anything that you do is really appreciated.

In 2003 another Centre, Belleville, was accepted into the RASC. This now makes 27 Centres, from sea to sea. Please refer to the table that shows the number of members by Centre from 1996 to 2003. (see Box 1).

The membership numbers show that the RASC has grown around 5%, and this has been a steady increase over the last few years. The totals encompass all memberships including Honorary Members.

As we accepted new members into our RASC family, we lost some friends and fellow members as well throughout 2003. On behalf of the Royal Astronomical Society of Canada, I would like to extend our deepest sympathies to the family and friends for the loss of the following amateur astronomers:

Dr. W. Buscombe (Unattached), Diarmuid Fitzgerald (Toronto), S.R. Kaplan (Toronto), Rajul P. Mather (Kitchener-Waterloo), Campbell Mayne (Hamilton), Hugh Maclean (Niagara), Gerard Pelletier (Quebec), Albert Renaud (Quebec), Harold Taylor (Unattached), Anne Underhill (Vancouver + Honorary Member), W. Jim Walker (Toronto)

One of the year's major events is the General Assembly. This year's General Assembly was held from June 27 to June 30, hosted by the Vancouver Centre in Vancouver, British Columbia. We

held our National Council Meetings and Annual Meeting, to do the Society's business, at the University of British Columbia.

There were many workshops throughout the weekend, and paper sessions on Saturday. The dinner cruise, with guest speaker David Levy, went around the inner harbour and Stanley Park.

On Sunday we had a special guest at our Annual Meeting. The Honourable Iona Campagnolo, PC, CM, OBC, Lieutenant Governor of British Columbia, gave a wonderful speech to open the Annual Meeting and welcomed us all to British Columbia.

On Sunday evening, at the main banquet, there were many awards handed out. The guest speaker, Alan Dyer, gave a great talk on his observing travels and the wondrous sites he has seen. He gave us all a chance to view some of the wonders of the night sky and be part of the experience.

The Simon Newcomb Award was awarded to Alister Ling (Edmonton) for the recognition of the many writings that he has done to promote astronomy and for the many years of contribution to the Astronomical Society at the local and National level.

The Ken Chilton Prize was awarded to a group of five individuals: Peter Ceravolo (Ottawa), Paul Boltwood (Ottawa), Jon Buchanan (Ottawa), Glenn Ledrew (Ottawa), and Doug George (Ottawa) for their production of a 45-minute video "Comet Odyssey" that captured the movement of Comet Hyakutake. The video was taken over several nights from a site in Arizona.

The Service Award was awarded to Dave McCarter (London) for the work he has done over the years for Astronomy and Amateur Telescope Making, to the current work finishing an observatory for the London Centre.

The Plaskett Medal for 2003, which is awarded to the most outstanding Canadian Doctoral thesis in Astronomy or Astrophysics, was awarded to Dr. Tracy Webb. The Plaskett Medal is a joint award by the RASC and CASCA.

Those who stayed an extra day went on a bus tour of CAROP (Canadian Amateur Research Observing Project), the

Box 1

Centre	2003	2002	2001	2000	1999	1998	1997	1996
Belleville	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Calgary	321	315	315	310	270	267	272	256
Charlottetown	20	16	18	26	N/A	N/A	N/A	N/A
Edmonton	271	256	249	222	217	166	152	138
Halifax	214	196	186	172	157	164	135	127
Hamilton	113	114	122	109	79	65	45	50
Kingston	132	145	146	152	176	136	152	142
Kitchener	133	114	106	95	80	51	32	32
London	119	118	115	115	78	65	49	45
Moncton	59	62	46	29	N/A	N/A	N/A	N/A
C.F. de Montréal	40	39	36	38	46	46	33	11
Montreal	121	116	106	102	105	113	108	103
Niagara	117	109	97	91	83	72	60	48
Okanagan	92	87	70	61	53	40	35	16
Ottawa	500	480	457	431	394	298	246	216
Prince George	43	42	25	N/A	N/A	N/A	N/A	N/A
Québec	38	45	50	63	36	50	51	47
Regina	59	56	47	30	27	31	18	23
St. John's	54	54	45	47	36	41	39	35
Sarnia	26	27	27	31	19	10	12	13
Saskatoon	73	70	73	76	77	75	54	54
Thunder Bay	43	39	38	32	37	31	17	20
Toronto	889	886	775	792	723	720	687	682
Vancouver	313	292	294	275	271	229	233	218
Victoria	200	188	200	159	148	144	126	100
Windsor	125	120	107	102	94	71	66	52
Winnipeg	136	114	105	99	106	97	77	64
Unattached	610	575	552	558	476	413	357	365
Honorary	14	13	13	13	14	15	15	15
Total	4901	4688	4420	4230	3802	3410	3071	2872

AOMO -(Antony Oberton Memorial Observatory), and the Liquid Mirror Telescope. The day ended at the Gordon MacMillan Southam Observatory. This is a great way to wind up an astronomical event. You never know whom you might meet, or what you will see, but why not come out and be apart of the experience? The 2004 General Assembly will be held in St. John's, Newfoundland on July 2-4, 2004. For more information visit www.rasc.ca/ga2004/

For a more detailed account of the General Assembly 2003, see your JRASC October 2003 Vol. 97, Number 5 (702), and for more information on the Awards received, visit www.rasc.ca/award/. To view recipients of the Messier, NGC, and 'Explore the Universe' Certificates, see the Awards section towards the end of the Annual Report.

For more information on how you can apply or if you feel you have completed the requirements for these Certificates, go to: www.rasc.ca/observing/home.html

Other events held in 2003, 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. It is with members like you that we continue to grow and flourish. If you feel that you want to contribute at your local Centre or on the National level in any way, please do. We welcome anyone who would like to help in any way. This is your Society, so let's make it work together.

Kim Hay
National Secretary

VANCOUVER GENERAL ASSEMBLY GROUP PHOTOGRAPH



PRESIDENT'S MESSAGE

The year 2003 was an especially significant one for the Royal Astronomical Society of Canada. We were reminded of the rich and proud history of the Society as we celebrated our Royal centenary; it was on March 3, 1903 that *Royal* became part of the Society's name as the result of a decree issued by King Edward VII. The celebration was capped off during the Society's annual General Assembly (GA), which was hosted last summer by the Vancouver Centre. At the invitation of the Centre, the Queen's representative in British Columbia, the Honourable Iona Campagnolo, Lieutenant Governor of British Columbia, delivered a keynote address in which she congratulated the Society on this milestone and also, unexpectedly, recounted her own personal interest in astronomy. It was an unforgettable experience for the over 200 members who attended the GA, including a bagpipe player as well as a colourful performance by local Chinese dancers, which Her Honour seemed especially to enjoy. Her Honour's address, as well as some photos, appear in the October 2003 issue of the *Journal*.

Two other 2003 events nicely augmented the Society's centenary commemorations. In October, National Council approved the adoption of a new graphical seal for the Society. This elegant seal, which is available in a full-resolution colour format, is mostly the work of Vancouver Centre member Dan Collier. The new seal was "rolled out" on March 3, 2004, at the end of the Royal centenary year, and will be featured on new promotional merchandise that will be produced by the Society and Centres this year.

The second event was the awarding of a Michael Smith Award for Science Promotion to the Society by the Natural Sciences and Engineering Research Council (NSERC) of Canada. This major award, named in honour of University of British Columbia geneticist and Nobel laureate Dr. Michael Smith (1932-2000), recognizes individuals and organizations who play an important role in the promotion of science in Canada. On behalf of the Society, and accompanied by nominators James Edgar and Dr. John Percy as well as past President Dr. Bob Garrison, I accepted a gold medal and framed certificate at an awards ceremony in Ottawa, and expressed the Society's gratitude to NSERC for this honour. The medal and certificate are displayed in the Society's national office in Toronto, and a \$10,000 prize cheque received by the Society has been placed in the Society's Ruth Northcott Memorial Fund. Details on both the new seal and the Michael Smith Award appear in the February 2004 issue of the *Journal*.

The astronomical highlight of 2003 was the much-anticipated opposition of Mars in the late summer, the closest approach of the Red Planet to Earth in modern times. Many Centres marked this milestone with public observing events, which in some cases attracted several thousand people! This was a prime example of the type of public outreach activity the Society does so well and for which it was honoured by NSERC.

One new Centre, the Belleville Centre, joined the Society in 2003. It marks the addition of four new Centres in the past four years, a period during which the Society's total membership grew from 3803 to 4901, an increase of almost 29 percent. After having visited 18 of the now 27 Centres during my term as President,

I can confidently report that the Centres, with their increased memberships, are thriving. The details of the Centre activities are reported later in this annual report; membership statistics for the past few years are given in the Secretary's report.

The publications of the Society also continue to thrive in 2003. The two senior members of our unique collection of publications, the *Journal* and *Observer's Handbook*, continue their steady course of small but significant enhancements. The junior members, the *Beginner's Observing Guide* and *Observer's Calendar*, are now established as mature players in the astronomical publishing scene, and a new edition of the former was produced by author Leo Enright and published by the Society in 2003. The final member of the quintet, *Skyways*, authored by Halifax Centre member Mary Lou Whitehorne, joined the scene late in the year. This new publication is an astronomical teaching guide, containing a host of time-tested, self-contained activities teachers can involve their students in.

The Society's publications, especially the *Observer's Handbook*, continue to generate the majority of the Society's revenue, as shown in the audited 2003 financial statements included in this annual report. But the statements also show that *Handbook* revenue is down approximately 8% in 2003 from 2002, this in spite of a near constancy in unit sales of the current edition as compared with the previous edition and a 9% average unit price increase. This drop in revenue resulted mostly from the fact that over 80% of the sales of the *Handbook* are to US customers in US dollars and the marked and unexpected decrease in the US dollar in the world currency markets in 2003. Mostly as a result of the drop in *Handbook* revenue, but also partly because of increases in some expenses, the Society incurred an operating deficit of approximately \$23,000 in 2003.

Pressure on the Society's finances is expected to continue in 2004 as the result of the changed US-dollar exchange rate and increased costs including higher liability insurance premiums that did not affect the 2003 fiscal year. A budget for 2004 recently approved by National Council predicts a deficit again in 2004, of over \$30,000 dollars. Members of National Council are, naturally, very concerned about the likelihood of two consecutive years of large deficit. Some action has already been taken in the form of a proposal for a modest fee increase, which will be presented to the membership for approval this summer at the St. John's General Assembly. Further action, which will be partly guided by a planned survey of the Society's membership that will attempt to determine which services are most important to our members, will be considered by National Council.

We should place the current deficits in the context of surpluses realized in 2002 and 2001 (totalling over \$57,000), and also not lose sight of the tremendous successes the Society enjoyed in 2003. Despite its deficit, I can state without hesitation that 2003 was a very good year for the Society. I am confident that 2004 will be another very good year, in many ways, and that the Society's finances will soon once again be in positive territory.

Dr. Rajiv Gupta
President

AUDITOR'S REPORT

Tinkham & Associates

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D.C. Tinkham, B.COMM., C.M.C., F.C.A.
P.J. Brocklesby, B.A., C.A.

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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, 2003 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 Canadian 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, 2003 and the results of its operations for the year then ended in accordance with Canadian generally accepted accounting principles.

TORONTO, Ontario
February 28, 2004

Tinkham & Associates LLP
CHARTERED ACCOUNTANTS

BALANCE SHEET

As at December 31

	2003	2002
Assets		
Current		
Cash	\$ 30,813	\$ 121,005
Short-term investments (note 4)	261,000	351,871
Accrued interest receivable	11,112	15,741
Accounts receivable	56,153	39,542
Prepaid expenses	13,978	3,916
	373,056	532,075
Long-term		
Investments (note 5)	250,000	119,839
Accrued interest receivable	9,300	19,487
Deferred charges (note 6)	46,422	-
	305,722	139,326
Capital assets		
Office building, furniture, equipment, library (nominal value)	1	1
	\$ 678,779	\$ 671,402
Liabilities		
Current liabilities		
Accounts payable and accrued charges	\$ 21,483	\$ 28,348
Deferred revenue		
Membership fees for ensuing years	102,343	97,471
Journal subscriptions	24,146	21,313
Unamortized life membership fees (notes 3 & 7)	91,785	74,560
	239,757	221,692
Net Assets		
Invested in capital assets	1	1
Unrestricted	103,478	130,906
Internally restricted (notes 3 & 8)	335,543	318,803
	439,022	449,710
	\$ 678,779	\$ 671,402

On Behalf of the Board:

See accompanying notes to financial statements



President



First Vice-President

STATEMENT OF CHANGES IN NET ASSETS

Year ended December 31

	Invested in Capital Assets	Internally Restricted (notes 3 & 8)	Unrestricted	2003	2002
Balance, beginning of year	\$ 1	\$318,8039	\$ 130,906	\$ 449,710	\$ 412,940
Excess of revenue over expenditures for the year	-	-	(23,398)	(23,398)	32,680
Donations and grants	-	11,000	-	11,000	-
Net interest earned on Ruth Northcott fund	-	1,710	-	1,710	4,090
Transfers	-	4,030	(4,030)	-	-
Balance, end of year	\$ 1	\$ 335,543	\$ 103,478	\$ 439,022	\$ 449,710

See accompanying notes to financial statements

STATEMENT OF REVENUE AND EXPENDITURES

Year ended December 31

	2003	2002
Revenue		
Membership fees	\$ 130,723	\$ 128,551
Publication revenue		
Journal	33,836	36,333
Observer's Handbook	136,010	148,210
Beginner's Observing Guide	8,912	15,884
Observer's Calendar	62,054	62,549
Skyways	5,555	–
Other	(1,003)	950
	245,364	263,926
Miscellaneous income		
Interest on investment (note 3)	8,795	12,206
Rent	15,495	15,058
Other income	4,389	2,704
	28,679	29,968
	404,766	422,445
Expenditures		
Publication costs		
Journal	73,911	66,691
Annual report	9,648	6,440
Journal distribution costs	15,957	16,372
Observer's Handbook	43,285	43,535
Beginner's Observing Guide	11,697	2,418
Observer's Calendar	34,178	33,335
Skyways	7,746	–
Operating costs		
Office salaries and employee benefits	57,038	54,095
Membership services	25,865	23,653
Handbook distribution to members	12,725	12,641
Grants to Centres	–	6,000
Life membership allotment to Centres	4,787	4,734
SkyNews expense	39,711	38,523
Office expenses	18,285	26,096
Advertising	7,072	7,817
Financial services	9,789	8,842
Insurance	5,707	5,362
Committees/Promotion	6,678	5,751
Travel expenses	31,015	21,107
Building	13,070	6,353
	428,164	389,765
Excess (deficiency) of revenue over expenditures	\$ (23,398)	\$ 32,680

See accompanying notes to financial statements

NOTES TO FINANCIAL STATEMENTS

December 31, 2003

1. Organization

The Royal Astronomical Society of Canada is a Canadian corporation without share capital and is 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 (2002 - none).

(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

RASC Journal subscription revenues are amortized into income over the subscription period.

(g) Contributed materials and services

The organization is dependent 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, 2003 is liabilities are overstated by \$25,499 (2002 - \$19,729), interest on investment and excess of revenue over expenditures is understated by \$5,770 (2002 - \$3,019), and opening unrestricted net assets are understated by \$19,729 (2002 - \$16,710).

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, 2003 is interest on investment and excess of revenue over expenditures is overstated by \$1,710 (2002 - \$4,090).

4. Short-term Investments

Short-term investments are comprised of a Canada Savings Bond and a guaranteed investment certificate with rates of interest from 1.75% to 2.50% (2002 - 1.5% to 6.42%). Maturities range from March 2004 to November 2004 (2002 - February 2003 to September 2003).

5. Long-term Investments

Long-term investments are comprised of two guaranteed investment certificates with rates of interest from 3.60% to 5.00% (2002 - 5.00% to 5.50%) and maturities ranging from February 2006 to March 2007 (2002 - November 2004 to March 2007).

6. Deferred costs

Included in deferred costs are amounts paid for publishing books, which are being amortized over a period of 3 and 5 years.

7. Unamortized life membership fees

	2003	2002
Life membership fees as of January 1	\$ 74,560	\$ 63,707
Add: Life membership fees received in the year	12,642	10,184
Interest earned	8,311	3,854
Deduct: Amortization	3,728	3,185
Balance, December 31	\$ 91,785	\$ 74,560

8. 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. 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:

			2003	2002
	Ruth Northcott Fund	P.J. Millman Endowment Fund	Total	Total
Fund balance, January 1	\$ 66,921	\$ 251,882	\$ 318,803	\$ 304,329
Transferred from Unrestricted net assets:				
Interest	2,191	–	2,191	4,090
Donations and grants	10,050	1,000	11,050	–
Expenses	(531)	–	(531)	–
Inflation adjustment	–	4,030	4,030	10,384
Balance, December 31	\$ 78,631	\$ 256,912	\$ 335,543	\$ 318,803

9. Financial Instruments

It is management's opinion that the organization is not exposed to significant interest, currency, or credit risks arising from its financial instruments.

10. Statement of Cash Flows

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

ANNUAL MEETING MINUTES – 2003

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

**Minutes of the Annual Meeting
held July 1, 2003
in Room 2**

**Woodward IRC Building
University of British Columbia, Vancouver, B.C.**

The meeting was called to order at 10:08 PDT by the Chair, the RASC National President, Dr. Rajiv Gupta. Dr. Gupta welcomed delegates to the 2003 General Assembly.

Dr. Gupta called the roll of Centres. Twenty-three Centres were represented (Calgary, Charlottetown, Edmonton, Halifax, Hamilton, Kingston, Kitchener-Waterloo, London, Moncton, Montreal, Niagara, Okanagan, Ottawa, Prince George, Regina, St. John's, Sarnia, Thunder Bay, Toronto, Vancouver, Victoria, Windsor, and Winnipeg) and several Unattached members were present. There were approximately 120 members in attendance.

1. APPROVAL OF THE AGENDA

Motion AM200301

It was moved by Mr. Gada and seconded by Mr. Orenstein to move the report of the Editors to a time following the report by the Constitution Committee and prior to the report by the Finance Committee.

The motion was **CARRIED**.

Motion AM200302

It was moved by Mr. Tisdale and seconded by (unknown) to adopt the agenda as amended.

The motion was **CARRIED**.

2. MINUTES OF THE 2002 ANNUAL MEETING

Motion AM200303

It was moved by Mr. Runge and seconded by Mr. Bordage to adopt the minutes as published in the 2002 Annual Report.

The motion was **CARRIED**.

3. REPORTS:

3.1 OFFICERS

PRESIDENT

Dr. Gupta reported that he has travelled extensively, visiting 18 of the 26 Centres in his first year of office. Dr. Gupta acknowledged and thanked Ms. Bird for her hard work at National Office. Dr. Gupta read a letter signed by a Lady-in-Waiting to Her Majesty, Queen Elizabeth II, thanking the Society for their gift of a 2003 Observer's Calendar celebrating the Queen's Golden Jubilee. Dr. Gupta remarked that a letter of congratulations and best wishes had also been received from the Director of the Dominion Astrophysical Observatory.

1st VICE PRESIDENT

There was no report.

2nd VICE PRESIDENT

Mr. Young sent his regrets at being unable to attend; no report was submitted.

TREASURER

Mr. Watson reported that in 2002 the Society had an excess of revenue over expenditures of \$32,000, achieving the budget for a modest surplus on operations of five to eight percent. Mr. Watson remarked that the Society is financially healthy and that membership fee revenue had increased due to a continuing increase in membership. Mr. Watson discussed the publication revenues, indicating the *Journal* revenue had slightly decreased, *Observer's Handbook* revenue had modestly increased and the *Beginner's Observing Guide* had increased by \$3000 (22%). Mr. Watson stated that the *Observer's Calendar* does increasingly well each year, and overall, publications revenues have increased. Mr. Watson remarked that there was a slight increase in wages and salaries due to the increased workload to servicing the growing membership. Mr. Watson said travel costs for this year may increase slightly due to the distance travelled to the General Assembly and the large number of participants. Mr. Watson remarked that revenue for the *Observer's Handbook* had increased due to the favourable exchange rate with the United States. Mr. Roberts inquired if there was any concern on the increased cost of insurance. Mr. Watson replied that there was no indication that there would be a substantial increase in the cost of insurance.

Motion AM200304

It was moved by Mr. Watson and seconded by Mr. Miller to adopt the audited financial statements as published in the 2002 Annual Report.

The motion was **CARRIED**.

NATIONAL SECRETARY

Ms. Hay announced that 34 members have completed the requirements for their Messier Certificate and 9 members have completed the requirements for their NGC Finest Objects Certificate. Ms. Hay reported that there are 15 Honorary Members including the two newest Honorary Members, Dr. Jay M. Pasachoff and Dr. Jean Meeus. Ms. Hay read the names of members who were reported as deceased in 2002 and the first five months of 2003. A moment of silence was observed in their honour. Ms. Hay thanked the members of the Vancouver Centre for hosting the 2003 General Assembly and wished them well for the rest of the weekend. Ms. Hay stated that her goals in her term of office included updating the RASC Manual, creating a National Secretary's Manual and helping the Executive Secretary and the Executive whenever they require assistance.

EXECUTIVE SECRETARY

Ms. Bird reported that work at the National Office is proceeding smoothly. Ms. Bird remarked that work at the National Office involves the constant details of providing service to the membership, and processing of orders. Ms. Bird thanked Dr. Gupta for his assistance and support. Ms. Bird thanked Ms. Hay for her assistance. Ms. Bird thanked Mr. Kell for his quick attention to maintaining and updating the web page in such a timely manner. Ms. Bird thanked Mr. McGillis for his hard work, support and natural ability with people. Ms. Bird also thanked Mr. McGillis for his enormous contributions and that they work very well together. Ms. Bird remarked that it has been her privilege to have worked for the Society for the past seven years and that this was her sixth General Assembly.

Dr. Gupta conveyed his appreciation and thanks to Mr. McGillis for his hard work.

NATIONAL RECORDER

There was no report.

3.2 STANDING COMMITTEES

AWARDS

Dr. Garrison reported that Dr. Tracy Webb had been awarded the RASC/CASCA J.S. Plaskett Medal for her recent thesis. Dr. Garrison remarked that the award is presented annually to the Ph.D. graduate from a Canadian University who is judged to have submitted the most outstanding doctoral thesis in astronomy or astrophysics in the preceding two years.

CONSTITUTION COMMITTEE

Mr. Watson reported that the Committee was working on several projects including approval of bylaws, bylaw amendments and updating the sample set of Centre bylaws.

EXECUTIVE COMMITTEE

Dr. Gupta welcomed the youngest member, Mr. Scott Young, to the Executive. Dr. Gupta reported that the Committee was working on the procedures for Centres to apply for grants.

EDITORS

Mr. Jedicke remarked that Mr. Garner, Production Manager of the *Journal*, reported that everything is on track and that the Editor of the *Journal*, Dr. Barkhouse, reported that everything is proceeding smoothly. Mr. Jedicke stated that the Editor of the *Observer's Handbook* and *Observer's Calendar*, Dr. Gupta, reported that everything is proceeding well. Mr. Jedicke said that a report was submitted to Council regarding the preparation of a new, revised edition of the *Beginner's Observing Guide* and would be discussed during meetings in the near future. Dr. Gupta responded to a query regarding a PDF version of the *Observer's Handbook* and said that a printed version seemed to be the most accepted.

FINANCE COMMITTEE

Mr. Watson acknowledged the contributions of Ms. Martinez to the Finance Committee and thanked her for her presentation to National Council last February. Mr. Watson stated that the Committee assists in preparing the budget and is helpful to the Treasurer. Ms. Martinez remarked that the Committee would look at the cost impact of reducing the information available in the Annual Report. Mr. Grey stated that the Annual Report is a historical document, with the histories of Centres, reports of officers as well as the financial statements available for all members.

HISTORICAL COMMITTEE

There was no formal report. Mr. Broughton mentioned that the submission for a plaque or plaques to mark historic transits of Venus had been acknowledged by the Historic Sites and Monuments Board of Canada. Mr. Broughton also thanked a number of people who are not on the Committee but who are advancing awareness of our heritage.

LIBRARY COMMITTEE

There was no report.

MEMBERSHIP AND PROMOTION COMMITTEE

Mr. Dechesne remarked that the Committee is always looking for ways to promote the Society to members, potential members and the public at large. Mr. Dechesne also stated that they are looking

for ways to increase service per membership dollar. Mr. Dechesne thanked the members of the committee and thanked Mr. Grey for writing the article on the Society published in *Sky and Telescope* magazine. Mr. Dechesne stated that an article reporting on the General Assembly may be published in a future issue of *Astronomy* magazine.

NOMINATING COMMITTEE

Dr. Garrison reported that the positions of President, 1st Vice President, 2nd Vice President and Treasurer are open for nominations and that nominations must be received at least 60 days prior to the next General Assembly.

PROPERTY COMMITTEE

Ms. Bird expressed Mr. May's regrets at not being able to attend the General Assembly and mentioned that this was the first General Assembly that he has missed in 22 years. Ms. Bird invited members to visit the National Office during regular their regular business hours.

PUBLICATIONS COMMITTEE

Mr. Jedicke remarked that he had already presented the report previously under Editors.

3.3 SPECIAL COMMITTEES:

ASTRONOMY DAY CO-ORDINATOR

Mr. McCurdy reported that most of the Astronomy Day activities are conducted at the Centre level. Mr. McCurdy thanked the many volunteers that participate and provide support in the form of information, resources and publicity. Mr. McCurdy announced that the next International Astronomy Day will be held April 24, 2004 and that there will be four planets available for viewing.

COMPUTER USE COMMITTEE

Mr. Lane reported that the Committee would be submitting a proposal that the Computer Use Committee be replaced by an Information Technology Committee to better serve the needs of the Society. Mr. Lane remarked that the Committee looks after the Internet function, Web site, responds to computer problems at the National Office, and assists with computers and equipment. Mr. Runge asked if Centres could run Web sites on the Society Web site. Mr. Lane answered that it was not economically feasible at this time.

LIGHT POLLUTION ABATEMENT COMMITTEE

Mr. Dick reported that they have had a higher profile than in previous years and that the Society continues to be a member of the International Dark Sky Association. Mr. Dick remarked that the Committee is active and described the programs undertaken by the Committee. Mr. Dick announced that the Discovery Channel is producing a video on Light Pollution Abatement. Mr. Dick stated that he would be attending two conferences on behalf of the Society - the Ontario Professional Planners Institute where he would encourage planners to use full cut-off lighting, and the Ecology of the Night conference. Mr. Dick invited anyone to contact him regarding the establishment of dark-sky reserves in their area.

OBSERVING CERTIFICATE COMMITTEE

Mr. Grey announced that the first year of the "Explore the Universe" certificate has gone well. Mr. Grey remarked that they are hoping to transform the Committee into a National Observing committee to encourage more Centre co-operation on

observing projects such as variable stars and provide resources for people to accomplish their learning goals.

PUBLIC EDUCATION COMMITTEE

David Clark reported on the Committee's activities regarding the *Skyways* publication.

4. PRESENTATION OF PROPOSED AMENDMENTS TO BY-LAW NUMBER ONE.

Dr. Gupta asked the members present that in order to save time, Motion 1 and Motion 2 as published under "Background on Proposed By-law Amendments" in the Annual Report be combined in one motion. All present agreed to this.

Motion AM200305

It was moved by Mr. Gregory and seconded by Mr. Pihack that By-law Number One be amended to create a Standing Observing Committee and a Standing Education Committee as distributed in the 2002 Annual Report.

The motion was **CARRIED** by special resolution.

Motion AM200306

It was moved by Mr. Ronback and seconded by Ms. Hurley that By-law Number One be amended to change chairs of standing committees and appointed officers to non-voting members of Council as distributed in the 2002 Annual Report.

The motion was **DEFEATED** 70 for, 144 against.

Motion AM200307

It was moved by Mr. Watson and seconded by Mr. Miller that Tinkham & Associates be appointed as Auditors for the forthcoming year.

The motion was **CARRIED**.

6. Other Business

Mr. Gada remarked that the General Assembly is the only time of the year that members have direct input into the governance and affairs of their Society, a fundamental principle of a democratic society. Mr. Gada stated that every member should have the right to have their vote counted just as they have indicated, without change or being withheld.

Motion AM200308

It was moved by Mr. Gada to change the wording on the proxy vote regarding instructions on how to vote. Mr. Gada asked that the last paragraph on the proxy form be replaced with:

"The proxy holder should review these instructions prior to accepting the proxy and if he/she is not willing to act in accordance with these instructions should decline the proxy. Once a proxy has been accepted the proxy holder is obligated to vote the

proxy as directed."

Dr. Gupta stated that the motion was out of order as the setting of the wording on the proxy form is provided by by-laws determined by Council.

Motion AM200309

It was moved by Mr. Gregory and seconded by Mr. Kell to amend Motion AM200308 that this body instruct Council to revise and rewrite the proxy form so that a proxy holder is required to represent the proxies as directed that are given to her/him to present before the National General Assembly.

Ms. Hurley recommended that Council form an ad hoc committee to revise the proxy form.

Motion AM200310

It was moved by [inaudible] and seconded by Geoff Gaherty to refer this matter to an ad hoc committee of Council that would report to Council regarding the previous motion directing Council to amend the proxy form as described.

Ms. Hay inquired if there was a specified time period so that it could be in place in time for next year's vote.

Motion AM200311

It was moved by Mr. Dick and seconded by Mr. Matthews that the ad hoc committee would report to Council at the October meeting this year (NC035) regarding the previous motion to change the proxy form.

Motion AM200311 was **CARRIED**

Motion AM200310 was **CARRIED** as amended.

Mr. Gregory submitted to the General Assembly his written report "The Skies Over China - The Expedition Report On the Planetary Society's 1st Visit to the Observatories and Space Exploration Facilities of the People's Republic of China" detailing his visit in April 2003.

7. NEXT ANNUAL MEETING

The next Annual Meeting will be held on Sunday, July 4, 2004 in St. John's, Newfoundland.

8. ADJOURNMENT

Motion AM200312

It was moved by Ms. Hurley and seconded by Mr. Kaye to adjourn the 2003 Annual Meeting.

The motion was **CARRIED**.

Respectfully submitted,

Heide DeBond

National Recorder

ANNUAL REPORTS FROM THE CENTRES

BELLEVILLE CENTRE

- January:** General Meeting: Carl MacDonald
"Constellation Orion"
Club Observing: Zwicks Park - Very Cold!
- February:** Executive Meeting: Discussion of observing sites / Telescope committee
General Meeting: Carl MacDonald
"Constellation Gemini"
Executive Meeting: Messier Marathon Prep / RASC discussions
- March:** General Meeting: Carl MacDonald
"Constellation Ursa Major"
Robert Adye "Collimating Newtonian Reflectors"
Executive Meeting: New observing site / RASC voting procedure
Messier Marathon Observing Session - Clouded out!
- April:** General Meeting: Carl MacDonald.
"Constellation Leo"
Robert Adye "Indoor telescope 'star testing' "
Vote held: question - to apply for RASC status?
Executive Meeting: RASC next step / Astronomy Day prep
- May:** Club Observing: New location - the "Graveyard"
General Meeting: Carl MacDonald
"Constellation Canes Venatici"
Executive Meeting: Bylaws discussion / Astronomy Day prep
Club Observing: At the Graveyard - 15 members present
International Astronomy Day at the Quinte Mall - 18 of 30 members present
Total Lunar Eclipse Party - Clouded out!
Scouts Canada Regional Cubaree - Public Observing Session - 4 members present
- June:** General Meeting: Larry Hum
"Constellation Centaurus"
Bon Echo Provincial Park Astronomy Presentation and Public Observing Weekend - 11 members present. Beach observing and amphitheatre talk.
"Adventure Class" Astronomy Presentation and Observing at Presquille Provincial Park - 6 members present - 100 public school children and parents participated.
- July:** General Meeting: Carl MacDonald
"Constellation Sagittarius"
Executive Meeting: Bylaws discussion / RASC membership drive
Presquille Provincial Park Astronomy Presentation and Public Observing Session - 2 members for amphitheatre talk - Observing clouded out!
- August:** General Meeting: Carl MacDonald
"Constellation Scutum"
Greg Lisk "Cleaning mirrors and eyepieces"
Sandbanks Provincial Park Astronomy Presentation and Public Observing Session - 4

- members for multimedia talk and beach observing
"StarBQ" Summer Bar-B-Que - 22 members present - soccer and solar observing!
Starfest - 11 members participated
"Mars I" Public Observing Session - 11 telescopes and about 1000 members of the public!
Quinte Exhibition - 6 members present - static display and solar observing
- September:** General Meeting: Carl MacDonald
"Constellation Andromeda"
Executive Meeting: Mars event debriefing / Mentorship program
"Mars II" Public Observing Session - 9 members present - 300 members of the public
Fall-N-Stars RASC Belleville / RASC Kingston Star Party - 48 individuals registered - Speaker: Janek Hollan!
- October:** General Meeting: Les Dempsey
"Constellation discussion"
Executive Meeting: Dan D. to represent Belleville at RASC meeting
- November:** General Meeting: Carl MacDonald
"The MOON!"
Total Lunar Eclipse Party- 4 members present - very cold but great experience!
- December:** General Meeting: Carl MacDonald
"Constellation Auriga"
Speaker Greg Lisk: "Lunadob" and Flex-mirror design, "Explore the Universe" Program discussion
Annual Christmas Dinner - 28 participants

Clark MacDonald
President, Belleville Centre

CALGARY CENTRE

Calgary Centre members conducted many public education activities during the year. The largest ones were:

- April 5:** Astronomy Day at Fish Creek Provincial Park
May 1: Space Day at the Aerospace Museum and the Calgary Science Centre
May 15: Lunar eclipse observing at Nose Hill Park
June 3-5: (Calgary) Mayor's Environmental Expo
Sept. 25-28: Alberta Star Party
October 18: Fall Star Night at Fish Creek Park
October 24: Camp Gardner Star Night for Scouts and Cubs - Andrew Jones

Ongoing programs continue to flourish thanks to the vital efforts by these leaders and numerous unnamed volunteers: The StarSeeker newsletter - Chantelle Dubois-Nishiyama; The Telescope for Lend program - John Breen; Youth Group - Blair Colborne; Light Pollution Committee - Bob King and Roland Dechesne; Telescope Building program - Phil Johnson; Wilson Coulee Observatory tours - Shirley Conway and Susan Yeo; Public viewing at the Calgary Science Centre - Steve Donaldson. Calgary Centre conducts events that provide members with a chance to meet each other in a social setting, to recognize impor-

tant contributions and to celebrate our accomplishments. The major ones during 2003 were: February 15 Annual Banquet; June 21 Final general meeting and season-end Bar-B-Que at the Wilson Coulee Observatory; July 4 - 6 Eccles Ranch Observatory Star-B-Que.

We continue to hold monthly general meetings in the Calgary Science Centre. During 2003, the featured speakers were:

- January:** (In order of appearance) Don Hladiuk, Andrew Lowe, Ulrich Haasdyk, Ruth Lewis, Glenn Hawley, and Alan Dyer presented material on their experiences at four different venues from which members of the Calgary Centre watched the December 4, 2002 solar eclipse.
- February:** Dr. Grant Gussie "Ideas, Theory and the Scientific Method in Astronomy"
- March:** Dr. Sun Kwok (Peter Sim Memorial lecture) "Cosmic Butterflies" on planetary nebulae
- April:** Rajiv Gupta "Composite Digital Techniques for High-resolution Astrophotography (with film)"
- May:** Alan Dyer - pictures of the recent lunar eclipse and technical details of the Canon 10D camera he used for some of the shots
- June:** No speaker
- September:** Andrew Jones showed slides and gave a description of his South Africa trip.
- October:** Brian Fenerty described some of the strange properties of ferrofluids and talked about scientific speculations concerning a possible role for ferrofluids in shaping the surface of Mars.
- November:** Gary Billings presented data he recently collected during observations of a superhumping dwarf, a type of variable star.
- December:** Jim Kinnaird made a presentation on artificial Earth satellites. He described an eclipse that he observed of a geostationary satellite.

Jim Kinnaird

Secretary, Calgary Centre

CHARLOTTETOWN CENTRE

The Charlottetown Centre had a very active 2003. It continued its schedule of meetings on the third Sunday of each month, with the exception of July and August. Meetings were held at the University of Prince Edward Island.

The Centre is directly associated with the Charlottetown Astronomy Club (CAC). Members have the choice of joining RASC or the CAC if they so wish. Most opt for the RASC membership to get the additional benefits.

Meetings of the Centre are structured around presentations by members on topics of interest. Examples of topics covered in 2003 include:

- The issue of light pollution and the need for a dark-skies policy for the province. A member of the Centre has pursued the matter with some success with representatives of the provincial government
- Monthly sky overviews to brief members on the most interesting objects and events in the 'sky' and to alert them to upcoming happenings
- The transit of Jupiter

- Lunar eclipses
- Asteroid near misses
- Star hopping
- Stellar magnitude
- Solar system superlatives
- Stellar spectra, and of course
- Mars

The Centre observed International Astronomy Day with a public information and demonstration session at the Charlottetown Mall. Attendance and interest was high.

The Centre was fortunate to have had the annual meeting of the Canadian Association of Physicists in Charlottetown in June. Members volunteered their time to the event and arranged a day-time viewing session at the University's scope.

The public viewing session held at Greenwich in the Prince Edward Island National Park in July was a great success. Turnout was high and representative of all age groups, and if the lineups at the scopes were any indication, all enjoyed the evening. Viewing conditions were superb.

Throughout the year, members took advantage of scheduled observing nights at a designated site outside of the city. One of the advantages of Charlottetown is that the site is located some 15 minutes from the city and is easily accessible. Of course, this is offset occasionally by those nasty maritime clouds.

Social events included a summer Bar-B-Que and the annual Christmas dinner.

All in all, 2003 was a great year for the Centre.

Keith Wornell

Secretary, Charlottetown Centre

EDMONTON CENTRE

The Edmonton Centre continued to thrive this year, maintaining an eclectic list of guest speakers amply balanced by our own members on Members' Nights.

Our monthly meetings saw from 90 to 120 in attendance and featured the following speakers:

- January:** Orla Aaquist "Physics of Astronomy"
- February:** Dr. Sun Kwok "Cosmic Butterflies"
- March:** Dr. Russ Taylor, University of Calgary "The International Galactic Plane Survey: An Inside View of a Galaxy"
- April:** Andrew Yau "Magnetic Field and Plasma Environment on Mars"
- May:** Dr. Robert Hiltz "Apollo Hoax: Did US astronauts really land on the Moon?"
- June:** Members' Night.
- September:** Members' Night. Warren Finlay "The Concise Catalogue of Deep-Sky Objects," Sherrilyn Jahrig "Summer at the Observatory," Bruce McCurdy, "The Marzathon"
- October:** Bob King (RASC Calgary Centre) "Fighting Light Pollution," Orla Aaquist "Tribute to the Hubble Telescope"
- November:** Tyler Foster "Mapping the Galactic Outback with Hydrogen Gas"
- December:** Members' Night. Sherry MacLeod "The Millennium Diamond," David Roles "Astrophotos of Eclipses," Doug Hube "The Transit of Venus,"

Murray Paulson "The Last Word on Mars"

Observing Highlights: The highlight this year, beyond a doubt, was the Mars opposition. This began in earnest in late August and into September. This was the year of the planets with an opposition of Jupiter in February and Saturn reaching perihelion later in the fall. The other major event was the Moon rising in eclipse in early November.

Membership: The membership increased over last year to more than 300 members.

Public Education: Our Centre's main public education effort is focused at 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 2003, the Centre members hosted approximately 15,000 public viewers during the Mars opposition. The lineups extended all the way to 142 Street and well into the wee hours of the morning. In addition to this, Astronomy Days were held on April 11-13. The public witnessed a very active Sun during the summer as well.

Members also participated in a telescope workshop held in October. As well, the membership voted unanimously to support the Sky Scan Project (www.skyscan.ca) to assist them in bringing astronomy to the grade-nine classroom. There was no Astronomy workshop held this year but one is planned for April of 2004.

Equipment

2003 saw the purchase and installation of a pier mount for the 7-inch Starfire. While no major purchases were made, the Centre did get new eyepieces for the loaner scopes and invested in refurbishing the C8s. We also purchased a monitor for the observatory as well as a display board and materials to promote awareness of light pollution.

Awards

(Note: A new award was added this year "Project of the Year" and named after one of the Edmonton Centre's most active and long-standing members - Franklin Loehde)

- President's Award for Service to the Centre: Roman Unyk & David Robinson
- Angus Smith Award for Excellence in Telescope Design: Not Awarded
- Observer of the Year Award: Sherry MacLeod
- George Moore's Award for Excellence in Public Education: Frank Florian
- Bryce Hartwell Memorial Award for Astro-Imager of the Year: Lance Taylor
- Franklin Loehde Award for Project of the Year: Warren Finlay

Bob Jahrig,

Secretary, Edmonton Centre

HALIFAX
CENTRE

Membership

2003 President, Stephen Tancock, stood watch over a year that continued the previous year's membership growth trends. This year saw our roster rise 7 percent to 214 members. Especially heartening is the rising number of young members and active observers. A number of factors led to this growth, particularly First VP Pat Kelly advertising our monthly meetings in local alternative and mainstream media.

The Centre membership was especially proud to learn that Mary Lou Whitehorne and David Chapman were finalists for the Discovery Awards Science Champion Award, sponsored by Genome Atlantic. It is awarded to a working scientist for the promotion of science and technology to the public, above and beyond what is normally expected within a person's workplace. The Centre would like to extend a special and sincere "Thank You" to four long-time Centre Executive members who decided to take a step back from council duties at the end of 2003: Dave Lane, Clint Shannon, Dr. Michael Falk, and David Chapman.

St. Croix Observatory (SCO)

This year the Executive initiated a very successful fund-raising campaign within the membership that allowed some much-needed improvements to the SCO facility. The driveway was improved, the parking area enlarged, and most importantly, the south-facing gravel observing pad was greatly enlarged to accommodate the increased usage of the facility.

Burke Gaffney Award

This year's Burke-Gaffney Award for best-written article appearing in the 2002 year of Nova Notes was presented to Andrea Misner.

The Murray Cunningham Astrophotography Award

Halifax Centre established the Murray Cunningham Astrophotography Award in 2003 to promote interest among Centre members in astrophotography, including digital imaging. The award is named after Dr. Murray Cunningham, one of the Centre's founding members and long-time Honorary President, who always displayed a sense of wonder and marvel when looking at the photographic achievements of Centre members.

Centre Meetings

- January:** Dave Lane, Mary Lou Whitehorne, Dr. Roy Bishop, Dr. Bill Thurlow "The Skies of Mauna Kea"
- February:** Dr. Ian Short "The Oldest Red Giants and the Formation of the Milky Way"
- March:** Mary Lou Whitehorne "The Publication of *Skyways*"
- April:** Sherman Williams, Clint Shannon, Roy Bishop, Paul Heath "Observatories - Personal Reflections on Astronomy"
- May:** Mark Kaye "Three Decades of Observing, or How to Make Looking Up Look Easy"
- June:** Dr. Roy Bishop "A Leonid Meteor"
- September:** Jayanne English "Cosmos vs. Canvas: Tensions Between Art and Science in Astronomy Images"
- October:** Dr. David Crawford of the IDA "Protecting Our Night Environment"
- November:** Daryl Dewolfé and Friends: "New Astro-products Showcase"
- December:** Pat Kelly "Binary Stars: the Astronomer's Friend"

Nova East

This year's Nova East star party also continued the trend towards increased attendance year-over-year, but this year the clouds hogged the sky. Fortunately there were many speakers and events to entertain the attendees. Dan Falk was the featured speaker with his "Universe on a T-shirt" talk. Other speakers included Dr. Roy Bishop, Paul Evans, John Jarvo, Dave Lane, Graeme Hill, plus we were entertained by Paul Gray and Chris Beckett's rockets.

Congratulations to the 2003 organizing committee for putting on a first-class event!

Of Note

Skyways, an astronomy resource for teachers, authored by our Mary Lou Whitehorne was published by the RASC. This excellent resource is garnering praise from across Canada and the USA. Well done Mary Lou!

Carolyn Shoemaker was given an honorary doctorate at St. Mary's University in late May and arrangements were made for members to meet her in a private reception while she was in Halifax. Her grace, intelligence, and charm had the group hanging on her words both in her address and in the relaxed conversation afterwards.

Craig Levine

Secretary, Halifax Centre

HAMILTON CENTRE

The Hamilton Centre was very active with observing, public education, innovations in amateur instrumentation and imaging, the successful pursuit of a Trillium Grant to facilitate the advancement of astronomy and outreach to the public. The following are a few highlights of the year:

January: There were a number of observing nights for Jupiter at the Leslie V. Powis observatory in Flamborough, just north of Hamilton. Gary Colwell demonstrated the use of the Centre's antique Marsh 5-inch refractor with modern digital photography gear. Roger Hill hosted a Web-camera workshop for those getting started with imaging on a budget. Michael Spicer has led the charge with new observing activities for club members.

February: The 2002 Saturn Study was wrapped up, and an article is underway for JRASC. A variable-star observing program was introduced. Local electronics wiz, Kevin Hobbs, has been helping observers to modify Web-Cam imagers for longer exposure and lower noise. Our famous sidewalk astronomy program was launched with dates from May through October.

March: Dr. Rajiv Gupta visited the Centre and spoke on "Composite Digital Techniques for High-Resolution Astrophotography with Film." Grant Maguire has been coordinating efforts for an Ontario Trillium Foundation grant in order to purchase new infrastructure and instruments to help us to deliver more in terms of public education in the Hamilton area. A number of improvements to the site, including a digital projector, and an automated (12 inch to 16 inch) telescope were discussed.

April: Ken Lemke formed The Beginner's Observing Group. The group is following the RASC "Explore the Universe" as a guide. Currently, we have established the third Thursday and third Saturday of each month as our regular meeting times (8:00 p.m. at the Observatory), clear skies permitting. Heather Neproszel and Michael Spicer conducted the first of many Observatory Tours, with a large number of children and their parents participating. Mark Kaye and Roger Hill donated time and gear to upgrade the observatory computer.

May: The Hamilton Centre's annual banquet was held at the Holiday Inn Select in Oakville, with guest speaker Alan Dyer sharing 'The Amazing Sky' with an excellent turnout. Organizer Tina Coppolino and helpers Steve Barnes, Grant Maguire, and many others ensured the event did slightly better than break-even,

and a large number of members and their partners attended. A number of folks donated door prizes to add some more fun to the evening.

June: Observing included special programs for Girl Guide troops. Regular meeting introduced an astronomy Buy & Sell Swap Table, which was a great way for one member's junk to become someone else's treasure. Sidewalk astronomy along the lakeshore continued, as did public nights at the observatory.

July: The annual picnic at the observatory was a good success, with site repair work combined with fine Bar-B-Que food. Ken Lemke introduced the Hamilton Centre line of apparel, with beautiful, high-quality polo, long-sleeve polo, denim, and pullover shirts, emblazoned with the Centre logo.

August: Members helped the public see Mars at its nearest approach. We have scheduled the next Mars closest approach viewing for 60,000 years hence. Plan on attending.

September: Based on the success of the new logo clothing line, new options were made available. The small profit on the apparel went to the Centre's operations. Beginners' nights and public events were attended but weather was not ideal.

October: The new Board was elected, with some new faces joining, and our first election in some time. As part of the ongoing operation of the club, a Bylaw Update committee started under Colin Haig. The new Board is also busy as the Trillium grant was awarded to the Centre. This substantial (\$75,000) grant will be applied to upgrade our facility, and to help us do more in advancing astronomy and public education in the Hamilton area. The new Board is obligated to implement the plan presented to the Trillium Foundation, and must apply the funding to the specific items outlined in the final grant proposal. Specific items included a portable Digital Projector for use with computers or video, a 14-inch or 16-inch Ritchey-Chretien telescope on a Software Bisque Paramount ME mount, a new CCD camera, and a number of other items. The Trillium Foundation will continue to guide the team in meeting the conditions of the grant as well as becoming more successful at public outreach. Meanwhile, Les Nagy, Gary Colwell, Mark Kaye, Roger Hill, John Williamson, Steve Barnes, and Grant Maguire gathered at the observatory in the pouring rain to build an insert in the ceiling so the observatory could accommodate a Sony video projector donated by Systems Xcellence of Milton. This large, permanently-mounted unit has subsequently been used for presentations at the site on cloudy evenings or as an introduction to what people will see at the scope. An AV package, including speakers, amplifier, and DVD player, was donated by various members to work in conjunction with this setup.

November: The RASC Hamilton Centre presented "A" is for Astronomy by Alexi Manis and Dave Mott. These two entertaining presenters posed the question "Are you a newcomer to astronomy but finding it a bit intimidating? Unable to distinguish NGC 869 from M31? Can't afford the newest Dob or Schmidt Cass? Well, join the crowd!" Newbies and experts alike thoroughly enjoyed the presentation. The RASC Hamilton Centre hosted a public showing of the lunar eclipse on November 8, 2003 at Bay Front Park in the city of Hamilton starting at 6:30 p.m. This chilly evening was attended by more than ten members with scopes including Gary Colwell's unique travelling video setup for large groups to look through his scope by way of a colour TV and video camera. We estimate 100 people attended.

December: Keith McColl provided some good observing advice for late-blooming astronomers as well as for planing the hunt for deep-sky objects. Gary Colwell presented his latest efforts in digital imaging the Sun in H-Alpha light. Four club

members are planning to visit the Winter Star Party in the Florida Keys in the New Year. New-year efforts were being planned by the Board and much-needed work at the observatory continued. Glen Kukkola and a number of other members shared their latest astrophotography efforts.

The Hamilton Centre had a good, challenging year, with a lot of innovation, new possibilities, and very active members. An invitation is extended to come visit us at any time.

Colin Haig

Secretary, Hamilton Centre

KINGSTON CENTRE

We currently have 132 Affiliated Members, 33 of whom live outside Ontario.

Regular Meetings were held on the second Friday of each month at 7:30 p.m. in Theatre D, Stirling Hall, Queen's University.

- January 10:** Student presentations on spacecraft were cancelled due to weather. Doug Angle did an extended "What's up tonight?" and Jan Wisniewski showed some of his fine astronomical images.
- February 14:** Jan Wisniewski "How to do a Messier Marathon." Jan showed how he prepares for and conducts a Messier Marathon, including some of his experiences in his three attempts to see all 110 Messier objects in one night.
- March 14:** Doug Angle "Using Star Charts and Starhopping." Our scheduled speaker was not able to attend. Doug Angle led an exercise in using the Handbook, planisphere, and star charts to find a Messier object by star hopping.
- April 11:** Dan Falk "The Quest for the Theory of Everything." Dan presented a historical overview and latest theories of the unified field theory.
- May 7:** David Levy "Shakespeare's King Lear and the Comet of 1605: A cosmic union of Science and Art." David gave an enthusiastic talk on historical comets and his own early experiences in astronomy. The Astronomy winners from the Regional Science Fair joined us.
- June 13:** Dr. Rajiv Gupta "Astro Imaging Techniques." Rajiv showed his techniques for capturing and processing astro images with film, digital scanners, and Registar(r).
- July 11:** Dr. Richard Jones "Amerigo Vespucci's Measurements of Longitude." Richard presented his research proposing that Amerigo Vespucci made accurate measurements of longitude in the New World in the early 16th century, much earlier than commonly thought.
- August 8:** Annual Bar-B-Que at Mark Kaye's. Guest Speaker: Geoff Gaherty "Observing under Urban Skies"
- September 12:** Leo Enright "Transits of Mercury and Venus." Leo presented the causes and patterns of transits of the inner planets, along with some fascinating

stories of early transit expeditions.

- October 10:** Members' Night: Mark Kaye showed some of his latest slides; Doug Angle "Tides"; Leo Brodeur showed some of his aurora pictures; Laura Gagnon "The Antikythera Mechanism"; Mike Earl "Finding Lost Satellites"; Dieter Bruechner "The Ries Crater"
- November 14:** Gregg Wade "Magnetic Activity of the Sun and Stars"
- November 29:** Annual Dinner Meeting: David Turner, St. Mary's University "Will Polaris stop Pulsing?"; Gregg Wade "Magnetic Activity of the Sun and Stars"
- December 12:** Peggy Hurley - "Solstice Celebrations"

Events this year included: May 10: Astronomy day at Frontenac Mall; July 5: Sky is the Limit Festival (A local charity event); September 26/27: Fall 'N' Stars (A camping and observing weekend held jointly with the Belleville Centre of the RASC) Almost all public and club observing sessions were plagued by remarkably poor weather throughout the year.

In March, the Kingston Centre and the Queen's University Physics Department made application to the Trillium Foundation to form the Kingston Astronomy Outreach Network. The funding will allow both organizations to expand their outreach activities in the local community through the hiring of an Observatory Coordinator and the purchase of an eight-inch GOTO telescope and CCD camera, primarily for public events. Even before funding has been approved, we have rearranged our public-observing schedule to hold joint sessions at the Queen's Observatory on Ellis Hall. The first event was the lunar eclipse of November 8 and even the weather cooperated. The public enjoyed views through eight telescopes on the observing deck and toured the University Observatory. Henceforth, the joint RASC/Queen's observing sessions will be held at 7:30 p.m. on the second Saturday of each month at the Ellis Hall observatory.

Further information on our activities may be found on our Web site at <http://members.kingston.net/rasc> and, in particular, in our newsletter *Regulus* which is available on the Web site.

Brian Hunter

Newsletter Editor, Kingston Centre

KITCHENER WATERLOO CENTRE

In 2003, Kitchener-Waterloo Centre was the recipient of a \$50,000 grant from the Tula Foundation. This has allowed our club to purchase a variety of new and used equipment for our Observatory site in Ayr. In the spring of 2004 we will be completing the refurbishment of our buildings to accommodate the equipment. This will give our members the opportunity for enhanced astrophotography and observing sessions.

Membership in the club has continued to increase and is now at 134. Our meetings are held on the second Friday of the month, except for July and August, at Sir Wilfred Laurier University. On average, 50 to 60 people attend the meetings. An added accomplishment of the club has been the formation of a Code of Conduct. It was approved by our members and added to our constitution.

Increased participation by our members has resulted in the formation of a Beginners 101 Group. The group meets once a

month in the Community Room at Zehr's for lectures followed by observing sessions out at our site in Ayr, weather permitting. This forum allows new members and beginners a place to learn the fundamentals of Astronomy and provides them with mentorship. The group also has a lending library of three new six-inch Dobsonian telescopes for members to try before buying their own. Our Treasurer, John Beingessner, has produced a new Web-page design that is more user friendly and has links for members to access. Alen Koebel is now publishing our quarterly newsletter, *The Pulsar*.

Outreach to the public proved very popular, through our Astronomy Day at the Mall in April, followed by a Public Star Party in May. In September, thanks to the publicity about Mars, we had 300 people turn out at Waterloo Park. Club members brought 18 scopes of various sizes and types for the public to use. Dave Garner was host to the Second Annual Scope Building Party. It was held in July at his home in Mt. Forest. Six 8- to 10-inch Dobsonian scopes were built by 18 members, followed by a Bar-B-Que. The weather unfortunately did not co-operate so First Light of the scopes was not achieved that evening.

We finished off the year with our Annual Christmas Party in the Royal Room at Golf's Restaurant in Waterloo. At the dinner a long time member of our club, Ray Koenig, was honoured with the Karl Arndt Founders Award for Service. Ray is a retired Professor of Physics from Wilfred Laurier University and has been a guiding force in the club for many years. Dave Garner, our National Representative and Past President, was also given the Eric Peterson Award for Promotion of Astronomy. Other members were given certificates of appreciation for the hard work that they have done on behalf of the club. The evening concluded with prizes for our Astrophotography contest winners.

Brenda Purdy
Secretary, Kitchener-Waterloo Centre

LONDON CENTRE

The past year has been a very busy one for the London Centre. Our monthly meetings continued to have an excellent variety to the topics, ensuring that there was something of interest for everyone. Thank you very much to the following people who gave presentations at our monthly meetings:

- January 17:** Robert Jedicke, Spacewatch Institute, discussed the ongoing search for large Earth-crossing and possibly Earth-impacting asteroids and comets. Tom Glinos showed some video and slides of his November trip to David Levy's backyard in Tucson, Arizona to observe the Leonids. Steve Arenburg presented a passionate and mathematical proof that astronauts really did visit the Moon.
- February 21:** RASC President, Rajiv Gupta, gave a talk on "Composite Digital Techniques for High-Resolution Astrophotography with Film."
- March 21:** John Appleyard, Chris Fleming, and Bob Duff gave us three very interesting and very different presentations on how one might keep an observing log. Faye Bontje displayed and discussed her wonderful astronomically inspired watercolours,

and had her audience in awe. Most paintings were readily identifiable and astronomically accurate. Michael Costa showed slides of his visit to Palomar Mountain, and his great fortune to have a tour inside the dome.

- April 25:** Steve Barnes, Sky Optics, showed slides and video from his trip to Australia for the December 2002 Solar Eclipse. He was fortunate enough to visit an amazing amateur observatory in Adelaide and talked about Astronomy Down Under.
- May 24:** Annual Banquet at the Seven Dwarfs. David Clark was acclaimed Member of the Year, John Appleyard received the Observer of the Year award, and it was announced that Dave McCarter would be receiving the RASC Service Award at the General Assembly.
- June 20:** Dave Clark demonstrated his astronomical demonstration software "ClearSky." Joe O'Neil spoke about using a simple Web-cam with telescope adapter to do high-quality astromaging and showed some great results. Neil Ripley showed a light-pollution map of southwestern Ontario that he has been developing, based on data from the Defence Meteorological Satellite Program. Dave McCarter showed several Web pages where images of Mars taken by amateurs can be seen.
- September 19:** Professor John Hatch, Associate Professor in the Art History section of the Faculty of Visual Arts at University of Western Ontario, discussed constellation patterns in the background of paintings by Max Ernst.
- October 17:** Vincent Chan spoke about collimation and showed methods, depending on the skill of the user and tools available, for making a laser collimator from a cheap \$5-\$15 laser pen.
- November 21:** Peter Brown showed early results from an innovative stereo-telescope imaging process to determine meteor-trail size.

The year was also another very busy year for London Centre's outreach programs, organized mainly by Harold Tutt, slide presentations given by David McCarter, and many members providing their time and telescopes. The following groups hosted us for an evening:

- The London Children's Museum
- John McKittrick's and Cherryhill Mall acted as hosts for both Astronomy Day and for a special Public Mars Night
- John Paul II Secondary School in London
- Sunrise Baptist Church
- Kensal Park Public School
- St. Thomas Pinafore Park to provide a Star Party for members of Faith Baptist Church
- Quai du Vin Estate Winery
- London Centre members took part in the Seventh Annual Pinery Provincial Park Star Party
- Third Annual Rondeau Provincial Park Star Party
- Mars Public Viewing at Cherry Hill Mall, in cooperation with John McKittrick
- Lake Whitticker Provincial Park
- Brescia College at the University of Western Ontario
- Clara Bretton Public School

- Kensal Park Public School
- Byron Northview Public School
- 92nd Cubs at the new meeting hall at Spencer Hall
- Jeanne Sauve School
- HEARTH, a home schooling group, north of Port Burwell
- Observing for the 29th London Cubs at the Optimist Hall in Byron was cancelled due to rain, but Harold Tutt still wowed the audience with slides
- The 77th Brownies & Sparks at St. Mark's School.
- The Landon Branch Library
- The Wallaceburg Christian School
- The 44th Brownies at the Byron United Church

Bob Duff again served as London Centre's liaison, organizer, and recruiter for our continued participation in the Saturday Night Open House at the Hume Cronyn Observatory on the main campus of the University of Western Ontario throughout the summer.

Of course, none of these events would have been possible without the commitment and dedication of the members of London Centre: Dave McCarter, Dave Clark, Jon Gunning, Dave Nopper, David Mooney, Peter and Dianne Jedicke, Mike and Donna Costa, Everett Clark, John, Bram, Faye and Nancy Bontje, Ron and Colleen Sawyer, John and Darle Rousom, Harold Tutt, Kelly Sibthorpe, Cliff Johnson, Ingrid Hutchinson, Joan Henderson, James Collins, Shawn Osterberg, Cliff Johnson, Jean Théberge, Steve Gauthier, Valerie Rausch, Bob Duff, Bill Helps, Gary Wabersich, Joe and Tristan O'Neil, Eric Clinton, Steve and Christie Arenburg, Paul Griffiths, Bogdan Tudose, Richard Gibbens, Bill Gardner, Chris Fleming, Gary Hinks, Steve Imrie, and George Leatherdale

A large "thank you" must also go to Derek Hitchens for continuing to host the Celestial Tent Fall Star Party at his home. This event is shared with Sarnia Centre.

A continued "thank you" must also to the ongoing support of the Elgin Stewardship Council, who are in charge of the Fingal Wildlife Management Area, our dark-sky observing site.

Through the generosity of its members, London Centre has donated copies of *The Backyard Astronomer's Guide* in memory of Mark St. George to Public Libraries in London (15 copies), Aylmer, Ingersoll, Lucan, Tillsonburg, Shedden, St. Thomas, Strathroy, St. Mary's, Stratford, and Woodstock. This book is an excellent introduction to amateur astronomy and each copy now contains a dedication plate and contact information for London Centre.

Bill Gardner

Secretary, London Centre

CENTRE DE MONCTON CENTRE

The year 2003 shows continuous membership growth for our third year in the RASC, our Centre being one of the fastest growing in Canada. We have continual monthly public viewing sessions at the Université de Moncton Observatory. The viewing of Mars had extremely long lineups, showing us the public's awareness of astronomy. We had interviews by the Weather Network on the evening of Mars close approach. The news clips will not air until summer 2004.

Members of our Centre had an Astronomy Day display and

a lunar eclipse viewing in May that attracted a great number of people. The warm days in August gave us our Second Annual Cosmic Vacation Star Party, attracting fellow astronomers from across the province.

The month of November was especially hectic as we hosted our third RASC Moncton Annual General Meeting (AGM) and Conferences with wonderful talks by Geoff Gaherty on "Urban Astronomy," Dr. Francis LeBlanc on "Chemically Peculiar Stars," Dr. J.G. Spray on "The Planet Mars," Curt Nason on "Rainbows and Other Daytime Delights," and Dr. J.R. Percy on "Pulsating Red Giant Stars." Also there was a mirror grinding display by Moncton member, Shawn McHatten, poster displays, as well as information, equipment displays, etc. The finale of the day: total lunar eclipse observations at the Université de Moncton's observatory, and welcoming dozens of public visitors. Three Moncton members (our first recipients ever) were awarded "Explore The Universe" certificates in November 2003! Our Moncton Centre President, Adrien Bordage, officially presented ETU certificates to members Charles Doucet and Emma MacPhee at our AGM/Conferences, and member Ivan Robichaud received his ETU certificate from the RASC National Observing Committee in November.

To finalize our year, our new Web site was established in December.

Centre Meetings

January 18: Business Meeting

March 15: Curt Nason "Binoculars Section of Observer's Handbook"

April 21: Cosmic Vacation and Astronomy Day

May 17: Shawn McHatten "Orbital Elements section of Observer's Handbook"

August 2: Cosmic Vacation weekend (Bristol, N.B.), AGM planning, Constitution

September 20: AGM/Conference planning

November 8: Elections and AGM/Conference



L'année 2003 a été productive, lorsqu'on porte attention à la croissance de notre Centre. À chaque mois nous avons des sessions publiques à l'observatoire de l'Université de Moncton; la session de la planète Mars en août avait des grandes lignes de gens intéressés, nous démontrant l'intérêt public en astronomie. Des entrevues en août par le 'Weather Network' nous ont aidés avec la publicité, et seront transmises jusqu'à l'été 2004.

Les membres de notre Centre ont eu une soirée astronomique publique en mai et aussi pendant l'éclipse de la lune. Les journées chaudes d'août nous ont donnés notre deuxième Vacances Cosmiques, dont plusieurs personnes de divers parties de la province ont assistés.

Le mois de novembre était très occupé pour nous en organisant le 3e SRAC, Centre de Moncton, Réunion Annuelle et Conférences avec excellents conférenciers tels que Geoff Gaherty sur «Astronomie Urbaine», Dr. Francis LeBlanc «Étoiles Chimiquement Particulières», Dr. J.G. Spray «La Planète Mars», Curt Nason «Arcs-en-ciels et autres délices du jour», et Dr. J.R. Percy «Étoiles Géantes Rouges et Vibrantes». Nous avons aussi profités d'un exposé par membre SRAC Moncton, Shawn McHatten: mouler des renseignements généraux, pancartes, exposition d'équipement; et pour compléter notre journée: Eclipse de la Lune à l'Observatoire de l'Université de Moncton; avec participation du public en général. Nous avons aussi profité de l'occasion pour décerner à trois membres du SRAC Moncton, (nos premiers bénéficiaires!) le certificat 'Explorez L'Univers.' Adrien

Bordage, président SRAC Centre de Moncton, a officiellement présenté les certificats à Charles Doucet et Emma MacPhee pendant la conférence, et membre Ivan Robichaud a reçu son certificat par le SRAC Comité d'observation national.

En terminant notre année: création de notre site web.

Réunions de notre Centre:

- 18 Janvier:** Réunion d'affaires
15 Mars: Curt Nason «Section sur jumelles, Observer's Handbook 2003»
21 Avril: Vacances Cosmiques et Jour d'astronomie
17 Mai: Shawn McHatten «Elements orbitales et éphémères»
2 Août: Planification réunion annuelle, constitution, Vacances Cosmiques
20 Septembre: Planification finales de réunion et conférences annuelles
8 Novembre: Élections et conférences

Emma MacPhee

Secretary, Moncton Centre
Secrétaire, Centre de Moncton

CENTRE FRANCOPHONE DE MONTREAL

Cette année, nous sommes redevenus membre de la «Fédération des astronomes amateurs du Québec» après une absence de cinq ans. Nous avons participé au congrès provincial réunissant les clubs du Québec. Il s'est tenu à Dorval, du 5 au 7 septembre.

L'année a aussi été marquée par un renouvellement à notre Centre. Notre site web a été refait et s'appelle «www.lasam.ca.» Il comprend 29 divisions thématiques. Notre bulletin "Astro-Notes" est maintenant disponible sur ce site web en format PDF pour nos membres. Hugues Lacombe a publié sur notre site web, une brochure historique de 35 pages, donnant une chronologie sur l'histoire de notre société. Il comprend la liste de nos conseils depuis l'année 1947. Le deuxième changement concerne nos activités: Une nouvelle structure d'accueil a été produite pour nos membres. Les groupes d'observations ont été répartis en quatre divisions: débutant, intermédiaire, avancé, et astrophotographie. Des ateliers ont aussi été créés pour les débutants et ceux qui ont déjà de l'expérience comme observateurs.

Trois soirées d'observations ont eu lieu au parc de l'Île-de-la-Visitation (en avril, mai, et octobre). Trois autres n'ont pu avoir lieu à cause des nuages. Une soirée a aussi lieu à la Pointe-aux-Prairies (23 août) durant l'opposition de la planète Mars. Nous avons six instruments, et près de 60 personnes sont venus nous visiter. Malheureusement, la turbulence de l'air n'a pas donné de bonnes images sur la planète Mars. Nous avons eu plus de chance lors du congrès provincial en septembre. Beaucoup de détails ont été observés sur la planète.

Nous avons tenu 27 réunions au Centre de loisirs St-Mathieu au cours de l'année:

- 21 Janvier:** Pierre Tournay «Rassemblement des observateurs du ciel (ROC 2003)»
4 Février: Paul Charbonneau «L'astronomie chez les indiens Anasazies»
18 Février: Gilles Guignier «La photographie CCD à l'aide d'une Webcam»
4 Mars: Serge Demers «Les étoiles de carbone»

- 11 Mars:** Guy Jasmin «Les étoiles»
18 Mars: Jean-Paul Pelletier «Les grossissements extrêmes»
1 Avril: Hugues Lacombe «L'histoire de l'astronomie»
8 Avril: Hugues Lacombe «L'histoire de l'astronomie (suite)»
15 Avril: Jean Vallières «Le logiciel Coelix»
22 Avril: Jean-Luc Leqault «Comètes, astéroïdes, et étoiles filantes»
7 Octobre: Hugues Lacombe «Histoire de l'astronomie (17èmes à 19èmes siècles)»
14 Octobre: Hugues Lacombe «Histoire de l'astronomie (20èmes siècles)»
28 Octobre: Sébastien Gauthier «Mon voyage au Chili»
25 Novembre: Maurice Provencher «Manipulation et utilisation d'un télescope amateur»
2 Décembre: Hugues Lacombe «Cosmologie: La relativité, la loi de Hubble, et les origines de l'univers»

Nous avons participé au concours annuel de télescopes (CAFTA) qui a lieu à St-Timothée, près de Valleyfield. Nous avons participé à l'organisation avec les clubs de Dorval et le club Orion de St-Timothée. Cette année, le concours réunissait 20 clubs du Québec. Il y avait 17 exposants dont 11 ont présenté un télescope, d'autres ont montré des instruments (table «Scotch,» appareil-de-foucault) et des photos d'objets du ciel. Le concours a donné huit nouveaux gagnants, répartis dans sept catégories. La rencontre a eu lieu les 25 et 26 juillet 2003.

Au cours de l'année, notre société a connu le décès d'anciens présidents: André Aird (président 1969-70) et Jacques Lebrun (président 1971-72). M Lebrun a déjà été conférencier au planétarium Dow, et était connu du public montréalais. Il a participé à des séries télévisées sur les satellites et les vols d'Apollo à la Lune.

Patrice Scattolin

Centre Francophone de Montréal

MONTREAL CENTRE

In 2003, the RASC Montreal Centre made three major equipment purchases, which helped to improve and facilitate its public outreach program.

The first was the acquisition of a Coronado MaxScope 70 on a rock-solid SkyScan 2001 equatorial mount. This sealed-unit optical-tube assembly allows completely safe viewing of the Sun in hydrogen-alpha light at a bandpass of <0.8Å, which has proven to be ideal to do daytime astronomy with both the public and school groups. Our Recording Secretary, Carole Talbot, is a retired high-school science teacher who has used her contacts at the Lester B. Pearson School Board to provide a travelling program to local elementary and high schools allowing students to view the Sun in an entirely different light. As well, the Montreal Centre is a major player in the School Board's International Space Day initiative, which takes place each year in June. Thousands of Montreal-area residents viewed the Sun in hydrogen-alpha light in 2003 thanks to the efforts of Carole and other Centre members.

The second major acquisition was the purchase of a Mallin-Cam video CCD camera, which proved to be a big hit this year at Astronomy Day, the two lunar eclipses, and our regular public nights held at the Morgan Arboretum. The Mallin-Cam provided

exceptional views of the Moon, Mars, and a number of deep-sky objects such as M13, M57, M51, and the Andromeda galaxy.

To project the views through the Mallin-Cam onto a large movie screen, the Montreal Centre acquired its third major piece of equipment, an Epson video projector. Not only is this projector ideal for outdoor use on clear nights, but it has greatly enhanced the professionalism of indoor Centre talks and public-night events when the weather is less than cooperative. In the hands of Montreal Centre member Andrew Fazekas, the Epson has helped to provide highly entertaining programs to thousands of Montrealers.

The Montreal Centre faced a major challenge this year as work began on the expansion of McGill University's Percival Molson Stadium. Ever since the Montreal Alouette Football Club relocated their home games to the stadium in 1998, the Centre has been concerned about the impact that renovations would have on the I.K. Williamson Observatory, which is located right next to the stadium. These concerns became a reality when the Observatory became part of the construction site in March of 2003. This effectively closed off the Observatory to the Montreal Centre as access to the site was severely restricted. In effect, we could not use the Observatory for our regular meetings from March until October 2003. During this period, meetings were held at the Montreal Planetarium or the Conservation Centre at the Morgan Arboretum. At this time we would like to express our appreciation to the staff of the Planetarium and the directors of the Morgan Arboretum Association for providing us with temporary accommodations.

Finally, Dan Falk, Peter Broughton, David Levy, Rajiv Gupta, and especially Peter Gillette of the Vermont Astronomical Society, graced us with some exceptional talks in 2003. Peter Gillette's presentation early in the year has triggered tremendous activity by Centre members David Shuman, Marc Ricard, Luis Eguren, and Peter Cleary in the use of Web-cams in astronomical imaging. We expect that they will continue to wow us with their efforts in 2004.

Mark Bratton

Secretary, Montreal Centre

NIAGARA CENTRE

The Niagara Centre and its members have done their best throughout 2003 to continue their busy schedule of public star nights and events. Centre public events include monthly public star nights held at Fireman's Park, Niagara Falls from September to May each year, Chippawa Creek Conservation Area for the summer months, Rockpoint Provincial Park in August, and Stonechurch Winery in September to coincide with the Niagara Grape & Wine festival. The winery evening is always a popular yearly event. New in 2003, we held two sidewalk public star nights at a St. Catharine's mall, in front of a Chapters & Starbucks, for Mars and the fall lunar eclipse. Large crowds attended these evenings. All in all this was a successful year of public events.

The past year was also a sad one for us in the Niagara Centre, due to the passing of one of the founders of our club. Hugh Maclean was a much-loved individual within the Niagara Centre. His energy and drive helped to make the club the active, dynamic entity that it is today. His guidance and time spent with many

young members over the years sparked many to make astronomy their passion. Many of these members are still with the Centre 20 or 30 years later. Hugh was honoured upon his death with the naming of an asteroid for his lifetime commitment to astronomy. His gentle and guiding presence will be deeply missed by all of us. Hugh Noel Alexander Maclean died at 87 on June 11, 2003. He was an active participant in our club to his final days. Farewell old friend!

Below is a list of speakers and topics for our general meetings during 2003:

- January 16:** Les Marcz "Digital Astrophotography"
- February 20:** Rajiv Gupta "Composite Digital Techniques for High-Resolution Astrophotography with Film"
- March 20:** Members' Night, Slides, Discussion
- April 12:** Annual Banquet: Ivan Semeniuk "Aristotle's Forest: Exploring the New Cosmology"
- April 17:** Members' Night, Slides, Discussion
- May 15:** Members' Night, Slides, Discussion
- June 19:** Vincent Chan "Build Your Own \$15 Laser Collimator"
- Sept 25:** Members' Night, Slides, Discussion
- October 16:** Les Marcz "Web Camera Astrophotography," Beginner's Workshop
- November 20:** Wojtek Pych "Extrasolar Planets," Beginner's Workshop
- December 18:** Jess Gilmour "Astronomer's Companion Handbook," Christmas party

John VanderBrugge

Secretary, Niagara Centre

OKANAGAN CENTRE

During the past year the Okanagan Centre has continued to thrive and grow with involvement of the membership in the activities of the club. This has enabled our Centre to reach many public-outreach goals, providing satisfying rewards for both the membership and the community.

Once again, Okanagan Centre members were pleased to present a 6-inch Skywatcher telescope to the winner of our annual Essay Contest. Sixty-three entries were received from grade 7, 8, and 9 students in the Vernon and Kelowna area. The contest winner was Allyce Kranabetter. Allyce and runners-up Deirdre Lucas and Natalia Snarski were given Youth membership in the RASC for one year, paid for by the Okanagan Centre members.

Okanagan Centre members participated in an Opportunities Fair that took place on Sunday, April 6 at the Kelowna Curling Club. A great time was had by all that attended and a big "thank you" goes to all of the OK Centre members that volunteered their time to help.

Members have been active in sharing astronomy with our community. Members of the group have made presentations at local schools, to youth groups such as Girl Guides and Boy Scouts, and to adult learning programs. Another popular event has been the Novice Night observing sessions where experienced observers share their knowledge and experience with beginners and those wishing to improve their observing skills.

Personal astronomical milestones were achieved by Jim Tisdale, who completed his Messier list in May, and Alan Whitman who completed the Deep-Sky Challenge Objects list in

September. Wendell Shuster received his Messier Certificate in June 2003.

Our bid for the 2005 GA, chaired by Jim Tisdale, was accepted.

Centre Meetings

- January 6:** Kelowna - Guy Mackie "Isaac Newton"
January 28: Vernon - Hugh Carter "Sirius & the Dogon Tribe"
February 18: Kelowna - Ken Tapping "How Did We Find Out How We Got Here?"
February 26: Vernon - Terry Adrian "Producing the Focus Newsletter"
March 18: Kelowna - Richard Christie "Latest Observational Evidence of Black Holes"
March 26: Vernon - Wayne Willett "Lunar Presentation"
April 30: Combined Vernon / Kelowna - Ken Hewitt-White "Working the Dark"
May 20: Kelowna - Hugh Carter "Banneker & the Dogon Tribe"
May 28: Vernon - Guy Mackie "History of Celestial Navigation"
June 17: Kelowna - Guy Mackie "Variable Stars & the MOST Satellite"
June 25: Vernon - Guy Mackie "Variable Stars & the MOST Satellite"
September 23: Combined Vernon / Kelowna - Tony Seabrook of the Royal Greenwich Observatory
October 7: Kelowna - Wendell Shuster "Ready, Aim, Focus"
October 29: Vernon - James McRae "Back to the Drawing Board, ATM"
November 4: Kelowna - AGM and elections, Alan Whitman, "Digging Deep, 20 Hours on M33"
November 26: Vernon - Jim Kanester "Photographing Comets"
December 2: Kelowna - Jim Tisdale "Hypothermia - Killer of the Unprepared"
December 17: Vernon - Bryan Kelso "Barn Door Tracker"

Terry Adrian

President, Okanagan Centre

OTTAWA CENTRE

2003 was another busy and successful year for the Ottawa Centre. The year started with a bang with the announcement that our Vice President, Debra Tigner, co-discovered a supernova. Debra is a member of the Puckett supernova search team (where four out of the twelve members are from Ottawa). Debra now has Supernova 2002jz Puckett/Tigner (located in UGC 2984) to her credit.

Membership continues to grow each year. We now have 477 members, an increase of 4 percent. We hope this is a reflection of the monthly meetings that are open to the public and the many public outreach programs.

Our popular monthly meetings are held at the Canada Science and Technology Museum with a new Chair, Mike Earl, who recently moved from the Kingston Centre. Typical meetings have four to six members giving talks in their area of expertise, as well as a slide show of members' new astrophotos. Many of the talks are part of an on-going series: Chuck O'Dale's personal aerial tours of meteor craters from all over North America, Simon

Hanmer's geology of the Moon and rocky planets, Carmen Rush's history of women in astronomy, Paul Comision's cutting edge of astronomy, and Roland Prevost's beginners' corner. Members' astrophotos include stunning CCD images taken by club members and rival the finest quality seen in astronomy books. Particularly noteworthy have been Albert Saikaley's deep-sky objects and Rolf Meier and Mike Wirth's planetary images.

The highlight meeting of each year is the Annual Dinner. This year, we were privileged to hear Canadian astronomer, Dr. J.J. Kavelaars of the Hertzberg Institute for Astrophysics, talk about his work with the outer gas planets and his discovery of numerous irregular moons of Saturn, Jupiter, and Uranus. The dinner was an excellent opportunity for the announcement of one of our two annual awards. The winner of the 2003 Observer of the Year is Albert Saikaley. Guests left with a bounty of door prizes, thanks in particular to large donations by Focus Scientific, Main Sequence Software, Sky & Telescope, and the Ottawa Centre.

The GA was another highlight for ten Ottawa members who travelled all the way to Vancouver and brought back many enthusiastic stories and memories.

Public outreach and education remains an important part of the Ottawa Centre. Debra Tigner again organized numerous public star parties at nearby Pinhey's Point and the Carp Diefenbunker and had better than usual success with the weather. The best event had over 200 people attending under clear dark skies, lured by the spectacle of Mars. This year we experimented with holding Astronomy Day in the fall instead of the spring when weather is risky. Indoor booths were set up all day at the Canada Museum of Science and Technology but clouds prevented outdoor viewing at night.

The Centre's Fred Lossing Observatory, managed by Al Seaman, continues to be well used by members and is sometimes used as well for public outreach. While it is located outside of the major light pollution of urban Ottawa, there is a significant light bubble on the eastern horizon caused by the city. The observatory is located in the municipality of Mississippi Mills, a combination of small town, hamlet, and rural areas. So far, it has not caused a major light-pollution problem. Pat Browne and Ricardo Borba have worked long and hard with Mississippi Mills and Ottawa to reduce and prevent light pollution. Pat had a major accomplishment in Mississippi Mills when they passed a bylaw specifically to protect the dark skies around the observatory. It is one of the first two municipalities in Ontario to take advantage of the recently revised Ontario Municipal Act, which now permits municipalities to enact such lighting-control bylaws. The town is now working with local residents to replace offending luminaires. Ricardo has also led a group of members who have lobbied hard at Ottawa City Hall to include the control of light pollution as a goal in the new Official Plan of the City.

The SmartScope project, a remotely/Internet operated observatory for club members and public outreach, has now started limited operations. The Pett Observatory building and all of the equipment are functional and the telescope is being operated remotely by core members of the project team. The next steps are to improve the interface so that regular club members can use it safely. The core members include Chris Teron, Tim Cole, Hugh Pett, Al Seaman, and Pat Browne, with many more people contributing significant time and effort.

The Centre's monthly newsletter, AstroNotes, is now produced in two formats - the original B&W paper format that is mailed to members, and now a coloured, electronic format. There has been quick acceptance of the new format, which reduces

printing and mailing costs for the Centre at the same time as delivering a better product to the members. The Editor, Tim Cole, and our Webmaster, Yves Demers, spearheaded this conversion idea. The winner of the best Astronotes article is Simon Hanmer for his piece on "Missing Achondrites and the Early Solar System."

The Centre is proud to see many of its members' work recognized. This year, RASC National presented the Chilton Prize to the Cyanogen team of Doug George, Peter Ceravolo, Paul Boltwood, Glenn Ledrew, and Jon Buchanan for their Comet Odyssey production. Peter Ceravolo must be pleased to see the successful launch of the Canadian MOST satellite, for which he built the optics. Messier certificates were awarded to Jason Colley, Mike Earl, Andre Hiotis, Geoff Meek, and Jennifer Tigner. It is possible that Jenn is the youngest member (14 years) ever to achieve this.

The Centre's Web site (ottawa.rasc.ca) continues to explode with new data and is by far the largest of the RASC Centre sites. Members are constantly adding new content, whether it be written and illustrated versions of special talks given at our regular meetings, new astrophotos, updates on Centre projects such as SmartScope, announcements of star parties, public outreach events, and astronomical events.

Finally, it is with sadness that we report that Bradley Pett passed away in September. Bradley's love of science and desire to share it with others will live on in a small way through the SmartScope project. His very kind donation, together with Hugh (his son) and Irene Pett's own huge donations and efforts, have been the major stimulus to make the project happen. The Centre was pleased to name the Pett Observatory in recognition of their contributions.

Chris Teron

Secretary, Ottawa Centre

PRINCE GEORGE CENTRE

2003 saw an immense effort to upgrade the facilities at the observatory. With the acquisition of long-awaited grant money, there was a frenzy of construction activity during the summer and fall. It was essential to have reconstruction of the viewing area completed in time for the Mars viewing event, and that was accomplished the day before the event occurred. Our upgraded viewing area now boasts four permanent concrete piers, each one supplied with AC power, 12-volt DC power, access to the observatory computer network, video-feed capabilities, and the ability to operate telescopes remotely from inside the observatory. Night visibility around the piers is accomplished with the inclusion of dimmable red LEDs at each station. Six classroom workstations have been established.

A myriad of other improvements occurred as well. The 24-inch scope's outdated tracking motor was replaced with a computer-controlled device. With the purchase of an overhead projector and piggybacking to the main 24-inch scope an 8-inch Celestron SCT equipped with a video camera, it is now possible to show live images of the Moon and planets on the classroom wall. Site safety was also addressed with the construction of a lockable security gate, extension of the sidewalk, and the installation of external "Night Sky" friendly lighting. Of course, red lights were used! What better way to promote the use and effec-

tiveness of Night Sky lighting than by showing it in use? The purchase of a high-powered green laser pointer has proven to be an invaluable aid for pointing out constellations and other objects in the night sky to the public.

Members have been busy building a diverse selection of PowerPoint presentations that can be run at tours and open houses. The ultimate goal is to have a selection of topics tailored to meet the needs of specific age groups.

The results of a mirror-grinding seminar should soon be seen. Four members are each grinding a 6-inch f/8 mirror, and it may not be long before we see four new Dobsonians in action.

Several members are in the process of fulfilling the requirements needed to obtain the Astronomical League's Double Star Certificate. When the Messier Marathon in March was cancelled due to inclement weather, a September session at Baldy Hughes, our alternate site, was scheduled. The higher elevation and increased distance from the light pollution of Prince George provided those attending with a most enjoyable evening of observing.

One of the features of the Centre's newsletter 'PeGASus' is a spotlight on astrophotography. Several members contribute their images to the publication, and one person's photos of the lunar eclipse even appeared on the front page of the local newspaper. Great advertising for the Prince George Centre!

More than 1700 visitors toured the observatory in 2003, up from just over 1000 last year. A dedicated core of club members hosted many school, Brownie, Girl Guide, Cubs, Katimavik, SUNY, and Church tours. Newspaper advertising of the Perseid and Leonid meteor showers drew many people, and club members were nearly overwhelmed by the 1000 or so people that appeared for our Mars viewing in late August. The Moon eclipse in November was very well attended. It is obvious that newspaper advertising and attendance at recreation markets has greatly improved public awareness of the observatory and its facilities.

Two family events are scheduled every year. The May potluck dinner and Christmas party are well attended, the food is excellent, and the camaraderie always warm and friendly.

Plans for 2004 include running many more tours, with both the newer and seasoned club members stepping up to the plate to ensure that these tours are run smoothly and professionally. Technical upgrades will continue in the New Year, with a vision to project live images of deep-sky objects onto the classroom wall. Members will continue to hone their astrophotography, viewing, and presentation skills. Our alternate-viewing site, Baldy Hughes, will be visited more often.

The Prince George Centre and its membership continue to evolve. Each year brings a deeper commitment by more and more members to show the viewing public what astronomy is all about, and with that comes a keen sense of pride and accomplishment.

Glen Harris

Secretary, Prince George Centre

CENTRE DE QUÉBEC

Activités

a) Conférences

L'année 2003 a été, tout comme à chaque année, un vif succès pour les conférences. Au total, dix 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 de L'Astrophotographie à l'aide d'une caméra numérique. En février, monsieur Guy Campeau nous a entretenu sur Un regard astronomique sur l'Astrologie. Pour le mois de mars, monsieur Dominic Cantin nous a parlé du Chasseur d'aurores. Pour la conférence du mois d'avril, monsieur Patrick Dufour: Sortez vos Web Cam. En mai, Jean-Marc Carpentier a parlé de la Route des Étoiles. La conférence du mois de juin a été présentée par monsieur Clément Drolet qui nous a parlé de l'Observation des satellites artificiels.

En septembre, monsieur Allan Rahill nous a entretenu sur la Météo au service de l'astronomie. En octobre, à nouveau monsieur Dominique Beauchamp nous a parlé de l'Histoire de la découverte de Neptune. Pour novembre, monsieur Damien Lemay nous a parlé de la Géologie de Mars. Finalement pour décembre, monsieur Marc Paradis nous a parlé de la Caméra numérique et l'amateur.

b) Observation

L'année 2003 a été en partie une belle année d'observation. Nous avons organisé une dizaine 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. Nos deux principales activités importantes n'ont pas eu lieu cette année en raison de la mauvaise température, soit le Marathon Messier et notre traditionnel Hot Dog Party.

Nous avons eu la chance cette année d'assister à deux éclipses lunaires. Dans les deux cas, la météo à été de notre côté. Ces deux activités ont attirées une quinzaine de personnes chacune. La proximité de Mars à la fin du mois d'août a attirée une quarantaine de personnes lors d'une activité organisée à cet effet. L'année 2003 aura eu son lot de phénomènes astronomiques qui ont sus attirer bien des gens.

c) Divers

Comme activité complémentaire, il y a eu la Journée internationale de l'astronomie. Nous avons organisé une activité à cet effet. Malheureusement comme à chaque année, peu de gens y ont participé.

Daniel Tardif

Secrétaire, Centre de Québec

REGINA CENTRE

For the Regina Centre, the year 2003 was certainly significant in terms of our public education and outreach. It is noteworthy to mention the hard work and participation of our enthusiastic members who made all these events possible through their persistence and creativity.

Commencing with an exciting multi-school astronomy fair on January 15, 2003, both numerous school children and their parents enjoyed several unique presentations written and shared by our members. The evening included a typical but cold winter night of observing at -25 degrees Celsius! This astronomy fair in many ways was a wonderful learning experience for our club.

March 11, 2003, marked our first out-of-town astronomy function of the year, at the Moose Jaw Library. Although the weather was uncooperative for public observing that evening, the

astronomy primer was still very well received. Ambitiously, members of Regina Centre on the following day provided yet another elementary-school astronomy fair to interested attendees.

International Astronomy Day on May 10, 2003 saw milder temperatures, yet it was still quite windy at best. Regina Centre warmly greeted visitors at the Saskatchewan Science Centre and offered some hands-on information about astronomical resources and equipment.

June 14, 2003, was the annual Regina Children's Festival. We enjoyed the rays from the warm Sun, not to mention showing sunspots to people at the festival. A hot Canada Day afternoon at Wascana Park enjoyed enthusiastic public reception as our daytime star was again showcased. Our famous Pile o' Bones Sunday Celebration on July 27, 2003 was again well attended by the public. Being another very hot day under the Sun, our diligent members often required shelter under the trees to avoid heat stroke! That having been said, it proved no hindrance to our passion for passing on the astronomy bug. We were proud and happy to have made the acquaintance of thousands of new friends since January. Many first-time observers, young and old, were absolutely astonished at the sheer presence of the Sun through the telescopes during these summer events.

Our Mars Public Viewing Nights in August proved hugely successful for our club. We coordinated efforts with the Saskatchewan Science Centre and local broadcasting stations for public awareness, so this comes as no surprise. Numbers easily exceeded 1000 in just two nights, and those who were in attendance for this rare event got a great taste of what astronomy means to the Regina Centre. Sharing in the camaraderie, people lined up in anticipation to catch their first glimpse of the red planet at its closest approach in just under 60,000 years. It was exciting for all of us. Our members worked extra hard to insure that the public experience would be remembered for years to come.

The annual 2003 Saskatchewan Summer Star Party was again an inspiration to stargazers as well as the public. Approximately 250 people were in attendance at Cypress Hills Interprovincial Park's Centre Block to take in some of the most pristine dark skies in North America. A special thanks to the Saskatoon Centre for their fine efforts as well. During this time, our club received two generous equipment donations from Skycraft Canada and BC Telescopes and Nature Supply through local member Michael Holzer, to encourage continued public education of astronomy.

Currently our club is taking initial steps toward securing the Cypress Hills Interprovincial Park as a National Dark-Sky Reserve. We believe that our common heritage will be protected well into the future by striving forth in this noble cause. Our club feels strongly that light-pollution abatement is definitely a serious issue worth pursuing through friendly, intelligent discussion.

2003 was a glorious year for the public who came to see us at the Saskatchewan Millennium Telescope. The Kalium Observatory witnessed thousands of diverse people from many places visit us for gorgeous views of deep-sky objects, as well as the planets of our Solar System. Earth's Moon, especially during crystal-clear nights, is always stark and beautiful to the experienced and novice observer alike. Open to the public on the first, third, and fifth Fridays of each month, this observatory stands as a hallmark for astronomical outreach in Saskatchewan.

Last but not least were our mobile private tours for the children at Sedley, the Beavers group at Echo Valley Provincial Park in Fort Qu'Appelle, the Scouts group that attended fall camp, as well as public observing in Avonlea. The last public event took

club members to Wolseley, where we gave a presentation followed by public observing this fall. These events represent a firm commitment of the Regina Centre to helping others realize and appreciate the wonders of the Universe. A special thanks to all who gave their spare time to friends and family on many other occasions throughout the year, not listed as official club events. Your generosity made our dark prairie skies accessible to so many of us. Congratulations on a job well done, Regina Centre!

Michael K. Holzer
Secretary, Regina Centre

ST JOHN'S CENTRE

The St. John's Centre carried out its normal program of activities for the year 2003. The highlights of the year for most members were our annual Star-B-Que and observations of Mars.

Our annual star party at Butterpot Provincial Park went well. The Star-B-Que event attracted about two hundred visitors from the park, looking through a good number of our members' scopes. Star-B-Que has been held since the late 80s, though it is only in the last few years that we have shifted from Terra Nova National Park to Butterpot.

Here is a summary of our meeting year:

- January:** Christmas "Show and Tell" / Bring Your New Telescope
February: Fred Smith "Harvard College Expedition for 1761 Venus Transit"
March: Dr. Ivan Booth "Black Holes"
April: Setting Up Telescopes
May: GA 2004 Call for Member Participation, Mercury Transit, lunar eclipse
June: Chris Stevenson "Diffuse Nebula"
September: Garry Dymond "Fireball Cameras," Gary Case "Celestron 114GT"
October: Dr. Jacques Guigné and Dr. Chris Woodworth-Lynas "Mars: A Second Look at the Evidence for Floating Ice"
November: Dr. John Lewis "High Energy Astronomical Sources"
December: Annual Wine and Cheese

Summaries of all these talks can be found on our Web site at www.sji.ca/rasc/. Amongst our educational activities this year, Garry Dymond has continued planetarium shows for the public at the Marine Institute. Garry has been steadfast in educating school, Scouting, and other groups at the planetarium on an almost weekly basis over much of the year. In addition, the Centre has run a couple of one-day courses for beginners in conjunction with Memorial University's "Division of Life-Long Learning." Gary Case has been on the radio in his capacity as Observing Chair.

Garry Case organized several Mars viewing sessions; all were well attended. Participants viewed deep-sky objects as well, many for the first time. Quite a few members also attended the Mars sessions to get help with their new GOTO telescopes.

It is interesting to note that the last transit of Venus visible from St. John's took place in 1761, and served as the focal point of the first American scientific expedition from Harvard College, led by John Winthrop. GA planning was started early in the year, and Garry Dymond has agreed to serve as the Chair of 2004

General Assembly. We look forward to hosting the GA this summer! Good luck and clear skies!

David Bourgeois
Secretary, St. John's Centre

SARNIA CENTRE

One of the major highlights of the year for the Sarnia Centre was a visit by Dr. Rajiv Gupta, RASC President and Professor of Mathematics at the University of British Columbia. To the delight of the members and non-members in attendance, Dr. Gupta presented a talk on February 24 outlining his extensive expertise in the area of astrophotography. Especially fascinating was Dr. Gupta's demonstration showing how a crisp, detailed, colour photograph could be generated by combining the benefits of both black-and-white and colour photography.

The Sarnia Centre formally adopted a small piece of unused farmland outside of the city to be used as our official observing site. This was made possible with the consent of Mr. Houghton, whose generosity we gratefully acknowledge. The site is located 20 km outside of the city on Fleming Road and is open for use by RASC members and their guests. The observing site was made fit-for-use through rental of a "bushwacker" and the physical efforts of many Sarnia members. Skies are reasonably dark at the site, which has been used extensively to observe many celestial objects and events, including the unusually close approach of Mars in August/September 2003.

An annual summer event for the Sarnia Centre is our regular participation in Hobbyfest held at Sarnia's Centennial Park. This event allows local clubs, societies, and organizations the opportunity to share interest in their hobby with the public. Sheldon Jones, Jose Ordenes, and Jim Selinger entertained huge crowds at this year's astronomy booth, which included photographs, books, posters, and, of course, several telescopes on display.

Nature generously scheduled two total lunar eclipses in 2003, both of which would be visible from eastern North America. Unfortunately, much to our disappointment, clouds shrouded the skies over Sarnia during the May eclipse. Overcast skies threatened to ruin the November eclipse for us as well; however, the clouds miraculously parted over Sarnia just in time to view the remarkably short total phase of the eclipse in its entirety. Some of our members were not willing to wait out the clouds and drove south where they were rewarded with clearer skies.

It is becoming a tradition for several of our members to attend the annual Starfest at Mt. Forest. The members in attendance this year were treated to clear skies with very good observing conditions, as well as the camaraderie of other observers/Centres.

Nominations and elections for our 2004 Centre executive took place at our Fall meeting, which included the election of our current President Marie Fisher. Attendees enjoyed a spectacular slideshow by Jose Ordenes, with many astrophotos highlighting Jose's latest subject of interest - observing lunar libration throughout a full lunar cycle.

Special thanks go to Marguerite Hamilton for the diligent preparation of Urania, our monthly newsletter. With anticipation, the Sarnia Centre looks forward to the many exciting celestial events in store for 2004, including the rare transit of Venus across the Sun at sunrise on June 8 and a total lunar eclipse in

October. As always, we wish everyone clear skies!

Paul Bessonette

Secretary, Sarnia Centre

SASKATOON CENTRE

2003 has been another interesting year in the affairs of the Saskatoon Centre. Our membership has been hovering around 80 members. We have unfortunately lost two good executive members from our ranks as Bob Christie, our former Membership Coordinator, has retired to travel around North America by RV and Sandy Ferguson, our previous National Representative, has moved back east to be with her family.

Astronomy Day saw lots of volunteers to help with our display and with the ensuing star night but a rather sparse turn out of the public.

Sleaford Observatory is being well used by the first-year astronomy students from the University of Saskatchewan who conduct their labs out there. A group of stalwart members from our Centre also use the facility on a regular basis. Our Centre continues to have a very good relationship with the Physics Department at the University of Saskatchewan, which keeps Sleaford running smoothly. The open house in October hosted by the Physics Department however was not as well attended this year.

Saskatchewan Summer Star Party 2003 at the Cypress Hills Park, held in August, was timed perfectly to coordinate with Mars' close approach. The star party was a resounding success with a registration of over 240 participants. Unfortunately Mars' low altitude and the smoke from forest fires hampered its observation and proved frustrating for enthusiastic photographers. However the many good talks, the fellowship amongst the astronomers, and the incredible location more than made up for this.

We continue to hold occasional gastronomy nights, which prove to be a great way for our members to socialize and talk about their favorite subject. Also a Bar-B-Que and tour of the observing sites of two of our most remote members was held this summer. This proved to be most enjoyable and the gracious hospitality of the wives of these members was most appreciated.

There was a strong turn-out of members to view the October lunar eclipse from the Bessborough Park in Saskatoon, also making this a most enjoyable time.

The Centre meetings have been well attended this year. We have had a good number of guest speakers providing lectures on subjects including, the new Canadian Light Source, the Mystery of High-Energy Cosmic Waves, the Transits of Venus, and High Resolution Astrophotography.

Our Centre continues to provide talks and star nights for various children's groups thanks to the efforts of Rick Huziak.

While our Centre remains relatively small in numbers there continues to remain a strong undercurrent of enthusiasm, which greatly adds to the enjoyment of astronomy and all its facets in the Saskatoon Centre. We look forward to more of the same in 2004!

General Meeting Programs for 2002 - 2003:

October: Darrell Chatfield "Explore the Universe Certificate," Rick Huziak "The Alberta Star-B-

Que & Star Party," and "What's Up With Light Pollution?"

November: Darrell Chatfield "Astronomical Filters," Gord Sarty "Reading Star Maps," Rick Huziak "Tomorrow Morning's Leonid Storm"

December: Les Dickson "The Interplanetary Highway," Tenho Tuomi "A Digital Camera Adapter," Darrell Chatfield "Binocular List Revisions"

January: Dr. Mark DeJong "The Canadian Light Source," Tenho Tuomi "A Homemade 30-mm Telescope"

February: Rick Huziak "How Guide 7 Predicts Jupiter Events"

March: Dr. Rainer Dick "The Puzzle of Ultra-High-Energy Cosmic Rays," Rick Huziak "Speaking at the Edmonton and Winnipeg Centres," Darrell Chatfield "Astronomical Tidbits"

April: Dr. Rajiv Gupta, National President "High-Resolution Astrophotography with Film"

May: Rick Huziak "The 92nd AAVSO Spring Conference in Tucson," Mike Clancy "Saskatchewan's Regional Parks - Alternative Dark Skies"

June: Mike Clancy "The Urban Observing Certificate," Rick Huziak "Don't Like Variables? Try Noctilucent Clouds!" Les Dickson "The Upcoming Saskatchewan Summer Star Party - An Invitation"

August: Event - The Saskatchewan Summer Star Party - Aug. 22 -24. Speakers: Dr. Doug Hube (Kemble Memorial Lecturer), Murray Paulson, David Prud'homme, and Kevin Black

September: Mike Clancy "Adventures with Garry & Tenho - A Solstice Visit," Rick Huziak "The Alberta Star-BQ & Regina's Davin Observatory," Les Dickson "The Saskatchewan Summer Star Party 2003"

Al Hartridge, Secretary

Rick Huziak, President

Saskatoon Centre

THUNDER BAY CENTRE

The year 2003 has turned out to be another good year for the Thunder Bay Centre. Our membership numbers have continued to climb over the past year. Centre activities were diverse and more members become involved in club operations and presentations.

Centre members conducted many of the presentations at our general meetings. Some of the topics covered throughout the year include Digital Photography and Astroimaging (Rob Taylor and Randy McAllister), Deep-Sky Objects (Doug Stuart), Collision of Galaxies (Bruce Miron) and Basic Orbital Mechanics (Rob Taylor and Brian Manovich). Shirley Godfrey discussed book reviews concerning brief histories of Kepler, Newton, and Galileo. John Bakkellund covered the properties of planetary nebula. Dave Gallant had the opportunity to be in Halifax and brought back pictures of their observatory. Ted Bronson talked about the two lunar-eclipse elements before each of the events and presented a slide show at the meeting after the eclipse. Randy McAllister, along with the help of several members, has built a permanent

observatory to house a 14-inch Schmidt-Cassegrain telescope.

Ted Bronson ran the Basic Backyard Astronomy course at Confederation College in the spring and again in the fall. This eight-week course is for the beginner and covers all aspects of the sky and observing equipment at a general level. A total of 27 students enrolled in the courses.

This year the Thunder Bay Centre was able to run two Stargazing Weekends. There were numerous requests to run star nights at various Parks around the Thunder Bay area this summer but due to time restraints and other commitments many of the requests could not be accommodated. The star parties were held at:

Kakabeka Falls Provincial Park (August 16) - A slide show on general astronomy was presented in their theatre to an audience of around 55 people. The talk was followed by a sky tour and observing session. Fortunately the skies had cleared after a cloudy afternoon. Centre members had telescopes and binoculars available to give spectators the opportunity to see various celestial objects.

Quetico Provincial Park (August 22 and 23) - This was the 17th year that Ted Bronson has run this event. He did the slide presentation at the outdoor (screened in) amphitheatre to an audience of about 65 people on August 23. The public observing session was held at the pavilion parking lot after the talk. Several of our members had telescopes and binoculars available but the weather was less than good as clouds predominantly covered the sky. There were brief periods when the stars were visible and a quick tour of the constellations was possible. It is noted that the night before was perfectly clear!

Astronomy Day was held on May 11 at County Fair Plaza. With handouts, a few telescopes, and some good displays, we had a good response from the people passing by.

Other events attended by the Centre were Kid's World and Camp Quality. The Kid's World (August 6-10) consisted of astronomical displays and activities aimed at children. Centre members put on a sky tour (August 18) for Camp Quality (children with cancer). Only the brighter stars were visible due to a hazy sky but the children enjoyed our stories as we talked about the constellations.

Public observing sessions were held in Thunder Bay for several events. The two lunar eclipses drew hundreds of eager observers to our sites overlooking Lake Superior to peer at the Moon as it darkened at totality. On September 5, we had a large crowd gather at Hillcrest Park in Thunder Bay to observe the close approach of Mars through members' telescopes.

Maureen Nadin's interest in a Dark-Sky Preserve in the Thunder Bay area resulted in the Thunder Bay Centre hosting a special guest speaker, Paul Greenhalgh. Paul is President of the Fraser Valley Astronomer's Society, Vice-President of the Merritt Astronomical Society, and promoter of the Dark-Sky Preserve Initiative. His topic, "Are We Losing Our Dark Skies?" was well received at the public presentation on October 26.

Ted Bronson

Secretary, Thunder Bay Centre

T
ORONTO
CENTRE

The year 2002-2003 marked the centenary of the Royal Charter, which transformed the Astronomical and Physical Society of

Toronto into the Royal Astronomical Society of Canada. Scope Editor, Denis Grey, prepared an article about the RASC Centenary for the July 2003 issue of *Sky and Telescope*, and the Centenary was recognized in the welcoming address to this year's General Assembly by the Hon. Iona Campagnolo, Lieutenant-Governor of British Columbia.

It was a memorable year for observing and public education, with much effort devoted to the close opposition of Mars, the transit of Mercury, and preparations for two total lunar eclipses. These were in addition to the usual monthly deep-sky and city observing sessions, the first Astronomy 101 program at the E.C. Carr Astronomical Observatory, and attempts to observe the Perseid and Leonid meteor showers. This year, the City Observing Sessions were moved to the much more accessible Bayview Village Park in North York from the long-time site at Morningside Park in Scarborough. An alternative location for the Deep-Sky East sessions is being considered since the Mount Albert site no longer meets our needs.

The Public Education Committee enjoyed a very successful year. Thousands of people visited the Toronto Centre's booth at the Hobby Show, and many members continued the tradition of bringing their telescopes to the David Dunlap Observatory's public nights during the summer. The school program delivered 35 in-class presentations to 2200 students in the GTA, and 21 star parties to over 1250 students, teachers, and family members. Presentations were also given to six Wolf Cub and Girl Guide groups, and three programs were delivered to patients at the Riverdale Hospital. Record numbers of public visitors were recorded at the Astronomy Day and MarsFest programs at the Ontario Science Centre, with over 6000 attending MarsFest alone. Dr. Roberto Abraham assembled an impressive array of speakers for this year's lecture meetings. They included Megan McClure "The Expanding Universe," Heather Cameron "Our Sun at 21 Centimetres," Dr. Ian Shelton "Nights spent under the Rising Sun," Dr. Roberto Abraham "The Gemini Deep, Deep Red-Shift Survey," Dr. Sun Kwok "Cosmic Butterflies: The Colourful Mysteries of Planetary Nebulae," Dr. Slavek Rucinski "The MOST Project - Canada's Space Telescope," Dr. Alexander Jones "Astronomy from Babylon to Alexandria," Dr. John Percy "Red Giant Stars," and Hugh Gregory "Soviet Space Disasters."

On November 24, 2002, Dr. Jayanne English of the University of Manitoba addressed the joint meeting of the Toronto Centre with the Royal Canadian Institute for the Advancement of Science. Her topic was "Cosmos versus Canvas: Tensions between Art and Science in Astronomy Images."

Members' Night programs organized by Paul Markov included monthly "The Sky This Month" presentations by Geoff Gaherty, and presentations on a variety of observing equipment and aids, digital astro-imaging, variable star observations, Mt. Wilson Observatory, the Woodstock College Observatory, school programs at the Ontario Science Centre, the Hildene Observatory, the total solar eclipse of December 4, 2002, the aurora of September 7, 2002, a tour of the Celestron factory, satellite observations, and media coverage of astronomical public events. The feature presentation of this year's Members' Nights was the talk in February by Dr. Rajiv Gupta, the National President, on "Composite Digital Techniques for High-resolution Astrophotography with Film."

Denis Grey and Leslie Harvey are to be congratulated on the high quality of *Scope*. The newsletter has been published on time and on budget, with excellent coverage of Centre events and well-written articles supplied by many members. To encourage members to contribute articles to *Scope* as well as the *Journal of the*

RASC and other national publications, Council established the Ostrander-Ramsay Award for astronomical writing. It will be awarded for the first time in 2004.

Geoff Gilmour-Taylor, who operated the Web site and list-server, managed the Toronto Centre's Internet presence. The Web site was moved to Web space provided by Openweb Communications, and dial-up Internet access has been established for the CAO. Over 135 members participate in the list-server, which carried over 2700 messages in 2002-2003.

Membership in the Toronto Centre stood at 766 regular, 44 youth, and 83 life, with 133 associates, for a total of 1026 members in 2003. It is with regret that we record the deaths this year of Brenda Disher, a member since 2000, Diarmuid Fitzgerald, a member since 1956 who served as President of the Centre and National Secretary, and Ernest Litovitz, a life member since 1985. Mr. Litovitz bequeathed his collection of astronomical equipment and publications to the Centre for use at the CAO.

The CAO saw much use this year, with volunteer supervisors on site every clear weekend to open the facility. Work on the Geoff Brown Observatory building was completed with the installation of safety switches on the roof drive, and a lightweight south panel that makes opening the roof much safer. Work is continuing on finishing the lower level of the residence building.

Despite poor weather, over 50 members and guests attended the Annual Open House and Awards Presentation at the CAO in May. This year's award recipients were Guy Nason, the Andrew Elvins Award; Geoff Gaherty, the Bertram J. Topham Award; and Robert Wyss, the Jesse Ketchum Award. Citations were published in the August/September issue of *Scope*.

Poor weather failed to dampen the spirits of the many members who attended the 6th Annual Algonquin Adventure this September. Thanks are due Bob and Lillian Chapman for organizing this event, which was sold out once again.

A telescope loan program has been set up to give members the opportunity to "test drive" telescopes before they buy. John Bohdanowicz administers the program, which has one 8-inch Dobsonian telescope in circulation, with others in various stages of preparation.

This year's recipient of the Gold Medal of the Royal Astronomical Society of Canada, Toronto Centre is Helen Kirk, of Bolton, Ontario. Ms Kirk has begun graduate studies at the Department of Physics and Astronomy at the University of Victoria.

All of the Centre's achievements would not be possible without countless hours of volunteer work on the part of the membership. The Centre acknowledges the contributions of Geoff Brown, Geoff Gilmour-Taylor, Geoff Gaherty, Brian Cheaney, Leslie Harvey, Dietmar and Millie Kupke, Jim Low, Denis Grey, Paul Markov, Ostap Mojsiak, Frank Smith, Dave Sage, Lucy Winnicki, Rajesh and Diane Shukla, Andy Schuh, John Bohdanowicz, and many others. Special thanks are due Bob and Lillian Chapman for their work on the Annual Algonquin Adventure and promotional items, and to Guy Nason, who stepped down this year after 15 years as head of the Observational Activities Committee.

In closing, I wish to thank Dr. Michael DeRobertis, our Honorary President, and Councillors, Marinella Meli and David Hanson, who are retiring from the Council as of this Annual Meeting. Their contributions to the business of the Toronto Centre are much appreciated. Thanks are due Carruthers, Shaw and Partners Architects for the use of their facilities for Council meetings. I also wish to thank the Ontario Science Centre for its continued hospitality in providing the facilities and audio-visual

support for our meetings and public events. On behalf of the Council, I thank all members for your continued trust and support of our work.

B. Ralph Chou

Secretary, Toronto Centre

VANCOUVER CENTRE

The Vancouver Centre had one of its busiest and most successful years.

Rather than simply repeating the monthly activities, I separated the presentations into topics to highlight the breadth and depth of subjects that were touched on. I have also listed the majority of our Centre's public activities to point out the efforts we make to reach a number of different audiences.

Speakers

In the Joy of Science category Ray Villard delivered the wonderful Hubble eye candy that attracts children of all ages. Photographer Ed Hanlon presented a multimedia show that starred the Aurora Borealis decked out in its many hues.

In the area of Cosmology Dr. Mark Halpren discussed the MAP project's efforts to confirm theories and discoveries regarding the age and the early evolution of the Universe and noted there were few surprises.

In Stellar Research Dr. Alan Shoter described efforts to model the first moments of a supernova and link the microscopic and the macroscopic worlds related by such an event. Dr. Fred Rabb discussed laser interferometry as a tool for detecting ripples in space and time - the elusive gravity waves. Post-doctoral student Ingrid Stairs outlined the search for and study of radio pulsars.

The Life and Times of Planetary Systems featured Dr. Brett Gladman's examination of Kuiper Belt objects and their clues to the formation of the outer solar system. Dr. Jaymie Mathews pointed Canada's MOST satellite in the direction of stars that may host planets, as its mission has evolved in a direction different from that originally intended. Michael Winters reviewed the Drake Equation, which tries to assign probabilities to "life" on those planets.

In the realm of Practical Science Dr. Steven Brahm attempted to simulate Mars-like conditions selecting Devon Island to test prospective communications gear. Gaelen Marsden and Craig Breckenridge described the construction, assembly, and launch of a balloon-based telescope for research and the practical problems of making it happen. The science will come with the next launch. Finally, Lee Johnson brought his practical approach to the night sky in a talk - "Open Clusters."

Events

The Vancouver Centre is very active in public events. Subject to weather, the Council agreed to host the following event in 2003:

- February:** The Young Naturalists were introduced to the night sky. Plans were made to hold a Messier Marathon with a backup date or two.
- March:** An Artificial Star Party was organized.
- April:** A Sidewalk Astronomy event was held in White Rock.
- May:** Astronomy Day marked the 100th anniversary of the granting of the Royal Charter. We enjoyed

- cake and media attention.
- June:** We participated with the Greater Vancouver Regional District at their Fraser River Festival. During June 26-July 1 we hosted the best General Assembly in the history of the RASC!
- July:** Mt. Kobau Star Party followed the Manning Park Star Party and Outreach program. Several members also attempted to observe and record the occultation of star SAO100819 by asteroid 1263 Varsavia during the month.
- August:** Another joint venture with the Greater Vancouver Regional District at the Perseid meteor shower observing event at Aldergrove Lake. The Mars watch was the biggest public event ever witnessed by the Centre, as an estimated 18,000 Vancouverites showed up over four days to see the Red Planet at opposition on the 28th. Volunteers were out until 4:00 a.m. on two occasions. The Space Centre participated along with representatives from Celestron.
- September:** We saw the first Merritt Star Party, a three-way venture between the Fraser Valley Astronomy Association, the Okanagan Centre, and ourselves.
- October:** Another charity requested our services as Starry Night Guides to help raise money.
- November:** The Harrison Eagle Festival was attended by a few hardy souls. Separately, as joint-venture hosts with the Space Centre, we presented Ken Crosswell and his lecture "Magnificent Mars" at the Planetarium.
- December:** Annual General Meeting

These were all volunteer efforts, and we are looking for more active volunteers to help expand our programs.

Ron Jerome

Secretary, Vancouver Centre

VICTORIA CENTRE

The Victoria Centre experienced another successful year due to the outstanding efforts, dedication, and enthusiasm of its members. These efforts allowed the Centre to maintain a very extensive list of programs, events, and public outreach. A sample of regular Centre activities includes: our regular monthly meetings, Saturday and Sunday evenings at the Dominion Astrophysical Observatory, our new Sidewalk Astronomy program organized by Blaire Pellatt, and Sandy Barta's Astronomy Café every Friday night where all things astronomical are discussed and, if it's clear, everyone observes under the beautiful, dark Sooke skies. Sid Sidhu's beginners observing sessions are also held once a month weather permitting at Sid's house under the dark skies of the Highlands.

The Centre offered a number of special event and public outreach programs this year as well. Twenty-four public and private schools, Cubs, and Brownie groups took advantage of the School Telescope program. This included classroom presentations, solar observing, and night sky viewing. Last year we have been able to reach more than 1,300 youngsters in the Greater Victoria area and

shared our joy of the heavens. Very many thanks to our dedicated volunteers for making this program such a success.

International Astronomy Day 2003 was celebrated at the Royal British Columbia Museum on May 10 with a full schedule of daytime activities. This included a lecture series by professional astronomers, multimedia presentations, hands-on activities of grinding telescope mirrors, children's fun activities, displays of solar system scale models, solar observing, and show and tell of different types of telescopes. In the evening, the public was invited to the Centre of the Universe at the Dominion Astrophysical Observatory for night sky viewing. It was a successful event and fun for all.

This year Mars had a special place in the hearts of the public and amateurs because of its close approach to the Earth. To take advantage of this event, on August 28, the Centre organized a public viewing of Mars at Cattle Point in Oak Bay. About 2,000 people enjoyed viewing Mars through more than twelve telescopes set up by the members. For the November 8 lunar eclipse, the Victoria Centre organized public viewing at Cattle Point. About 500 people turned out to enjoy this rare and dazzling sight. The third annual RASC Victoria Centre Star Party, September 19 and 20 at the Victoria Fish and Game Association, was a success. Friday evening started out with several excellent presentations, after which everyone headed outdoors to find clear skies and a night of very enjoyable observing. Saturday evening also saw a number of interesting presentations. The Victoria Centre is grateful for the hard work of Rich Willis in the organization of the Star Party. In late July, many Victoria Centre members also attended the Island Star Party put on by our good friends, the Cowichan Valley Starfinders.

This year saw the Victoria Centre membership continue its modest growth, but we were also saddened by the loss of longtime members John Howell and Ernie Pfannenschmidt. John made major contributions to our Centre and to the Calgary Centre. Ernie was a long time RASC member, a DAO staff member for more than 20 years, and a regular contributor to Sky and Telescope. Both will be greatly missed.

For the benefit of the members, the Centre now has 14 telescopes for loan. The club also continues to maintain and enhance a valuable library for the benefit of members. Sid Sidhu, who has been looking after the telescope, library, and school outreach programs, was chosen for the Newton-Ball Award last year for his outstanding service to the Centre. The Centre congratulates Sid for this achievement and thanks him for his enthusiastic dedication. This past year also saw Victoria Centre member, Christopher Spratt, donate his meteorite and tektite collection to the National Meteorite Collection of Canada. The collection, which includes 800 samples from more than 400 meteorites, adds 76 previously unrepresented meteorites to the National collection.

2003 was the Centenary of the National Society's Royal designation, and more than a dozen members from Victoria were on hand at the RASC General Assembly at the end of June in Vancouver to join in the celebrations.

The Light-Pollution Abatement Committee efforts continued this year. The City of Victoria Mayor and Council were presented with a petition concerning the effect of inefficient streetlights depriving its citizens of the enjoyment of the night sky. With respect to the light-pollution issues the City of Victoria has instructed staff to "add a lighting review to the City's Design Guidelines." A large concentration of larger retailers in the Western Communities is a concern to the Light-Pollution Committee, especially the ones at high elevation and in direct line of site to the DAO. A plan is underway to make personal contacts

with these businesses to highlight effects of light pollution on the astronomical research activities at the DAO.

This year the Victoria Centre Web site migrated from the Victoria Freenet to a private Internet service provider, with donated Web site and email service being provided. We have a new domain name: victoria.rasc.ca and the private ISP is providing various enhanced services: email lists, private members' Web site, and generic email accounts for members of council. The new Webmaster, Joe Carr, is reworking, upgrading, and expanding the Web site content. Thanks are extended to the past Webmaster, David Lee, who was responsible for the formative years of the Victoria Centre Web site.

The Victoria Centre continues to meet on the second Wednesday of every month (except July, August, and November) at 7:30 p.m. at the University of Victoria in the Elliot Building, Room 061. The following is a list of speakers from our regular meetings:

- November:** Dr. J.J. Kavelaars "Discovering Planetary Moons"
December: Dr. Richard K. Herd "Meteorites: Messengers from Space"
- January:** Members' Night
February: Margaret Milne "Canada-France-Hawaii Telescope Legacy Survey"
- March:** Dr. Puragra Guhathakurta "The Birth and Evolution of Galaxies"
- April:** Ernie Pfannenschmidt "65 Years of Backyard Mars Observing"
- May:** Dr. Chris Willott "Enormous Black Holes in the Centres of Galaxies"
- June:** Dr. Falk Herwig "The Born-Again Giants"
September: Members' Night
October: Dr. R. Elizabeth Griffin "Modern Treasure-Hunting in Astronomy's Historic Records"

Many thanks to all the speakers, members and volunteers whose dedication and hard work have made this past year very successful.

Robert Walker

Secretary, Victoria Centre

WINDSOR CENTRE

For the Windsor Centre, 2003 was another great year of progress concerning its members and the development of the Hallam Observatory, south of Comber, Ontario. Work continued on the observatory building, including installing forest green metal siding, painting the dome white, and construction of a high-quality wooden deck alongside it. The most significant event to occur concerning the observatory was the installation of the new Celestron 14-inch telescope and its dedication on December 27. On this truly historic occasion, Mamie Lee was present and represented her husband, Henry, who was unable to attend due to poor health. Randy Groundwater gave the dedicatory speech and the telescope was officially named the Henry Lee Telescope in honour of Henry and of the many efforts that he put into furthering the cause of the Windsor Centre since its beginning in 1945. Mamie later reported that Henry was indeed pleased with receiving this special honour of recognition. The first-light object of observation was the Sun, featuring two rather prominent sunspot groups, which when viewed through the telescope

showed a crisp, clear image of fine resolution.

We had a Public Observing Night on March 8 at Malden Park and later on April 27, a public display in connection with Earth Day at Ojibway Park. Our Annual Picnic, including observing the night sky, was held again at the Hallam Observatory on June 7.

Throughout the year, a number of members gave presentations on astronomy to various groups of individuals at the observatory and other locations. Our December Social was held at the Ojibway Nature Centre on December 5. Four individuals were recipients of the Centre's Service Certificate: Randy Groundwater, Felice DesMarais, Vernon Richards, and James Meredith.

After three years as President of the Windsor Centre, Randy Groundwater finished another term of service in that office. Steve Mastellotto is the new president for 2004. An extra special "Thank you" goes to Randy for his service as the Centre's President. As well, special thanks go to Peter Bondy, who again chaired and worked diligently on the Observatory Committee in 2003. Sincere appreciation is expressed to the members generally, speakers at the membership meetings, persons who gave education talks, and to individuals who worked on the observatory. All helped to make this year once again a very good one for the Windsor Centre and astronomy in the Windsor and Essex County area.

The Windsor Centre held nine membership meetings, three council meetings, two socials, one public observing session, and one public display. Membership meetings were as follows:

- January 21:** Milica Rakic "The Aurora"
February 24: Dr Rajiv Gupa, President, RASC "Digital Development of Astrophotographs"
March 16: Juliana Grigorescu "Celestial Co-ordinates"
April 20: Members' Night: Dan Taylor "Okie-Tex Star Party 2002"; Steve Mastellotto "New Video Imaging Camera"; and Rev. Harry Brydon "The Logic of How Easter Sunday is Dated"
- May 18:** Dr. Pierre J. Boulous, University of Windsor, Department of Computer Science "Conceptualizing the Heavens"
- June 15:** Steve Mastellotto "Observing Mars"
September 21: Steve Pellarin "Seeing Mars at its Best"
October 19: Dave and Tom Sobocan "Astrophotography from the Sobocan Brothers"
November 16: Dr. Pierre J. Boulous "Edmund Halley"

C. Joady Ulrich

Secretary, Windsor Centre

WINNIPEG CENTRE

Steady growth and an active observing and meeting program were the hallmarks of the Winnipeg Centre in 2003. Membership has reached 133 persons, an increase of 16 percent during the course of the year. Monthly observing sessions were instituted during 2003, formalizing and increasing the frequency of the casual sessions conducted in the past. The Centre's meeting facilities are occasionally being taxed to capacity with as many as 80 members attending the more popular sessions.

Glenlea Observatory, 15 km south of the city, saw a steady use, though the more determined club members found darker locations to the east and southwest of the city. Two lunar eclipses

and the opposition of Mars brought considerable public attention and the Centre worked closely with the Planetarium to highlight these and Astronomy Day events. Nine “Messier” Certificates, three “Finest NGCs,” and three “Explore the Universe” Certificates are now in the hands of club members; most were acquired this year. A further seven members are working on the “Explore the Universe” Certificate, three on the “Herschel 400,” five on the “Messier,” and three on the “Finest NGC.” Two members graduated with Master’s degrees in Astronomy.

Meetings and Topics:

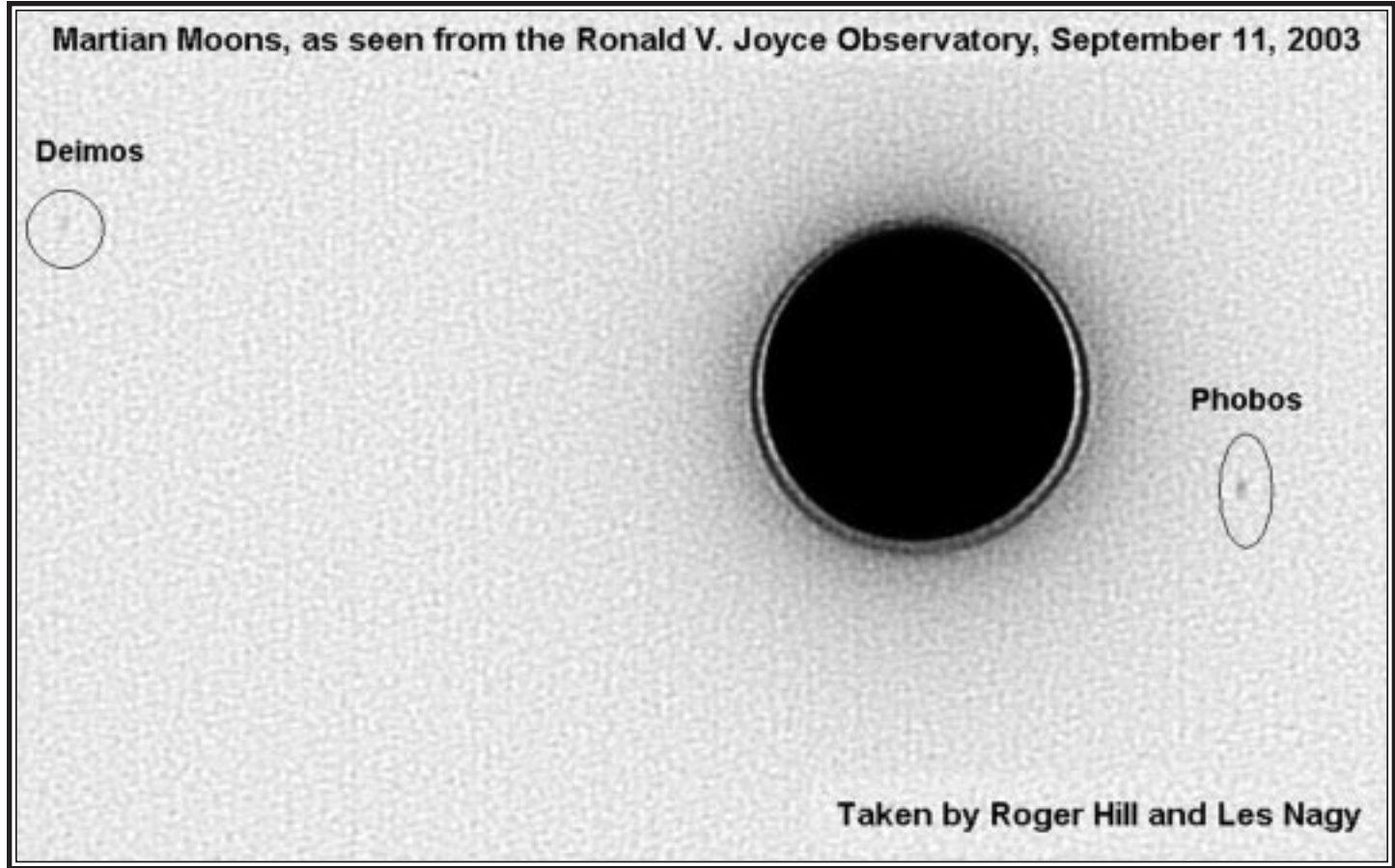
- January:** Gord Tulloch “Unconventional Imaging with Web Cams and Digicams”
- February:** Ron Berard and Gail Wise “Astronomical ‘Love Connection”
- March:** Richard Huziak “The Great Canadian Observing Challenge”
- April:** Scott Young “Aurora”
- May:** Dr. Dwight Vincent “Posing Einstein’s Question, Questioning Einstein’s Pose”
- June:** Annual Bar-B-Que

- July:** Gord Tulloch and Ron Berard “The New Web Page”
- August:** Scott Young “Telescope Users’ Seminar”
- September:** Ian Cameron “Amateur Telescope Making Workshop”
- October:** Alan Dyer “Amazing Sky”
- November:** Jennifer West “W4; On hearts and running dogs”
- December:** Gord Tulloch “Amateur Telescope Making”

- Events:** Member Observing Nights were held in all months but July
- January:** Public Star Nights; Mid-Winter Potluck
 - May:** Astronomy Day; Lunar Eclipse Public Star Parties
 - July:** Falcon Lake Star Party
 - August:** Big Whiteshell Star Party; Mars Night
 - September:** Spruce Woods Astro Weekend
 - November:** Lunar Eclipse Public Star Party

Jay Anderson
Secretary, Winnipeg Centre

MARS 2003



CENTRE TREASURERS' REPORTS FOR FISCAL YEAR – 2003

		Belleville	Calgary	Charlotte- town	Edmonton	Halifax	Hamilton	Kingston	Kitchener- Waterloo	London
REVENUE										
Membership	Membership fees – year	1,352	5,297	352	N	3,488	1,866	2,635	2,268	2,704
	Membership fees – youth	31.5	1,361				110			
	Membership fees – basic surcharge	216	2,576		O		1,378	744	640	
	Membership fees – special surcharge/Associates	50	130				120	49		
	Life membership grants		299			493	35	141	53	141
Donations/Fundraising	Donations			10	R		284	309	3,156	1,019
	Fundraising/Sponsorship/Grants	1,164	3,547	519	E	2,480	318	520	381	
Educational/Activities		60	1,836				90	60		
Interest and Dividends			137		P	56		1		167
Publication Sales	Sale of Observer's Handbooks		115			1,028	60	358		
	Sale of RASC Calendars		1,817	300	O	1,315	146	695	236	492
	Sale of Beginner's Observing Guides		316		R	108				184
	Other Publication Sales									
Subscriptions	Astronomy/Sky & Telescope magazine				T			974		
	Other									
Product Sales	RASC promo items					7				
	Other items					128	27			357
Advertising										
General Assembly	General Assembly – including travel grants									
Events	Star Parties					3,306		1,064		286
	Annual Dinner		1,462				1,890	825		772
Observatory site or equipment rentals/loans			795				320			
Miscellaneous			775				1,067	146		
TOTAL REVENUE		2,874	20,463	1,181		12,409	7,711	8,521	6,734	6,122
EXPENDITURES										
Library			447					70		
Publications	Newsletter	20	3,317			1,493	157	1,303	12	
	Handbook		65			758	70	331		
	BOG		303			70				167
	Calendar		2,394	228		851	205	480		273
	Other Publications							1,062		500
Events	Meetings					711	180	28	362	674
	Star Parties		586			2,487		445		772
	Annual Dinner	189	1,622	45			1,661	1,163		
	Astronomy Day	50								
	Other Events	70		70						
Product Expenses	RASC promo items	24		11		45		120		
	Other items			141			248			230
Advertising								40		
Travel	General Assembly and Council Meetings									
	Speaker Travel Assistance	50					463			
Equipment and Supplies			1,849			42		244		
Office Administration				20		83	49	221		156
General Expenses and Audit			724			25	66			
Educational Activities			8,137				100	588		139
Insurance			1,893			1,007	1,080			
Awards and Donations			97	200		250		119	100	
Observatory and Site Expenses			6,254			422	2,640	984	3,047	
Miscellaneous		641				755	174	236	57	54
TOTAL EXPENDITURES		1,044	27,688	715	0	8,999	7,093	7,434	3,578	2,965
SURPLUS OR (DEFICIT) ON OPERATIONS (A)		1,830	(7,225)	466	0	3,410	618	1,087	3,156	3,157
ASSETS/INVESTMENTS AT END OF PREVIOUS YEAR										
(Note: capital Assets not included.) (B)			36,979	471	59,848		2,513	15,050	3,356	21,167
ASSETS/INVESTMENTS AT END OF THIS YEAR (C)										
(Note: Capital Assets not included.)		1,830	29,754	937	59,848	11,171	3,131	16,137	6,512	24,324

CENTRE TREASURERS' REPORTS FOR FISCAL YEAR – 2003

		Moncton	C.F. de Montréal	Montreal	Niagara	Okanagan	Ottawa	Prince George	Québec	Regina
REVENUE										
Membership	Membership fees – year	1,079	2,536	3,531	2,226	1,492	7,704	1,080	598	1,016
	Membership fees – youth				33	77				
	Membership fees – basic surcharge			640	336	350			544	209
	Membership fees – special surcharge/Associates				60				840	
	Life membership grants			211	70	18			88	35
Donations/Fundraising	Donations		111	287	1981	135	409	2,200		2,745
	Fundraising/Sponsorship/Grants	43		50	283		2,246	15,900		
Educational/Activities						675				
Interest and Dividends			2	995	175	1	425		1	
Publication Sales	Sale of Observer's Handbooks	60			32					
	Sale of RASC Calendars	801		585	(112)	705	2,783	1,702	303	417
	Sale of Beginner's Observing Guides	136		45	184	45				
	Other Publication Sales			9					10	20
Subscriptions	Astronomy/Sky & Telescope magazine				1,114					
	Other									
Product Sales	RASC promo items				484	278				
	Other items	139	1,980		517	340				2,585
Advertising			240							
General Assembly	General Assembly – including travel grants									
Events	Star Parties	475			1,547			1,649		458
	Annual Dinner	190			2,610		1,770			
Observatory site or equipment rentals/loans				120		410	964			
Miscellaneous			15		1,107	70	1,000	1,114		105
TOTAL REVENUE		2,923	4,884	6,473	12,647	4,596	17,301	23,645	2,384	7,590
EXPENDITURES										
Library			71	133						
Publications	Newsletter	319	436	1,054	716	782	5,261			52
	Handbook	161			88					
	BOG	100			160	30				
	Calendar	682		364	48	455	1,890	951	240	287
	Other Publications				125			4		
Events	Meetings				360		31		650	
	Star Parties	675	60							
	Annual Dinner	219			2,600		1,881			483
	Astronomy Day									
	Other Events									
Product Expenses	RASC promo items					225				
	Other items	180	605			137				1,756
Advertising								276		
Travel	General Assembly and Council Meetings					150				
	Speaker Travel Assistance	282		333		289	182		354	
Equipment and Supplies		16		7,638	993	809			2,550	1,212
Office Administration		92	2,142	441	134	205	967	1,321	678	1,439
General Expenses and Audit					7	215	14,871		167	16
Educational Activities						1,419	650			
Insurance			604	709			(824)	1,749		392
Awards and Donations						150				
Observatory and Site Expenses			188	2,057	1,900		624	12,196	460	460
Miscellaneous				282	2,250	104		80	40	210
TOTAL EXPENDITURES		2,726	4,106	13,011	9,381	4,970	25,533	16,577	5,139	6,307
SURPLUS OR (DEFICIT) ON OPERATIONS (A)		197	778	(6,538)	3,266	(374)	(8,232)	7,068	(2,755)	1,283
ASSETS/INVESTMENTS AT END OF PREVIOUS YEAR										
(Note: capital Assets not included.) (B)		1,551	6,269	73,723	9,898	2,733	53,541	285	3,645	1,772
ASSETS/INVESTMENTS AT END OF THIS YEAR (C)										
(Note: Capital Assets not included.)		1,748	5,697	65,460	13,164	2,359	29,152	7,353	890	3,055

CENTRE TREASURERS' REPORTS FOR FISCAL YEAR – 2003

		St. John's	Sarnia	Saskatoon	Thunder Bay	Toronto	Vancouver	Victoria	Windsor	Winnipeg
REVENUE										
Membership	Membership fees – year	1,364	406	1,188	1,053	15,841	4,986	3,028	2,457	2,530
	Membership fees – youth			66			144			
	Membership fees – basic surcharge			537			1,955	356		875
	Membership fees – special surcharge/Associates			80						
	Life membership grants			53	17	1,461	282	405	53	35
Donations/Fundraising	Donations			863	20	18,935	1,804	169	5,480	1,197
	Fundraising/Sponsorship/Grants			128	473		2,012	6,400	25,638	
Educational/Activities		1,431		15		3,360			1,430	
Interest and Dividends		1	0	3		2,485	155		9	48
Publication Sales	Sale of Observer's Handbooks						640		22	
	Sale of RASC Calendars	364	252	104	50	4,105	1,076	240	699	691
	Sale of Beginner's Observing Guides						280		15	
	Other Publication Sales			695						
Subscriptions	Astronomy/Sky & Telescope magazine					439				
	Other									
Product Sales	RASC promo items			131		6	1,760			
	Other items			493			267			
Advertising							25			
General Assembly	General Assembly – including travel grants						(3,109)	808		
Events	Star Parties			9,035				910		
	Annual Dinner							1,382		
Observatory site or equipment rentals/loans						3,780				
Miscellaneous						1,156	3		304	
TOTAL REVENUE		3,160	658	13,391	1,613	51,568	12,280	13,698	36,107	5,376
EXPENDITURES										
Library							465	425		68
Publications	Newsletter		29	403	226	5,925	1,192	1,064	709	1,286
	Handbook						320			
	BOG						260			
	Calendar	663	205		96	2,328	951	144	674	642
	Other Publications			939						
Events	Meetings	78	91			700	956	59		249
	Star Parties			6,150			319	789		
	Annual Dinner							1,811		
	Astronomy Day				16			1,365	35	
	Other Events									
Product Expenses	RASC promo items		175	188		6	1,168		10	
	Other items				544		248			
Advertising										
Travel	General Assembly and Council Meetings	600	350				830	1000		
	Speaker Travel Assistance			118	830					
Equipment and Supplies					30		792		3,059	
Office Administration			9	43		5,655	185	543	213	19
General Expenses and Audit				115	51	1,625	449	25	1,619	142
Educational Activities		290		12		2,992	309			
Insurance				393						631
Awards and Donations				154	50	233		218	61	
Observatory and Site Expenses		277	184	1,054		11,689	10,971	375	13,659	3,462
Miscellaneous			38			18,060	317	19		352
TOTAL EXPENDITURES		1,908	1,081	9,569	1,843	49,213	19,732	7,837	20,039	6,851
SURPLUS OR (DEFICIT) ON OPERATIONS (A)		1,252	(423)	3,822	(230)	2,355	(7,452)	5,861	16,068	(1,475)
ASSETS/INVESTMENTS AT END OF PREVIOUS YEAR										
(Note: capital Assets not included.) (B)		2,512	1,467	17,474	2,187	69,736	30,029	3,066	6,308	7,967
ASSETS/INVESTMENTS AT END OF THIS YEAR (C)										
(Note: Capital Assets not included.)R		3,764	1,044	21,296	1,957	72,091	22,577	8,927	22,376	6,492

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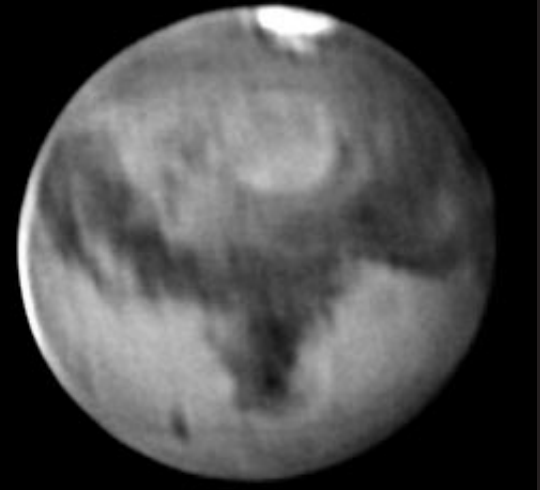
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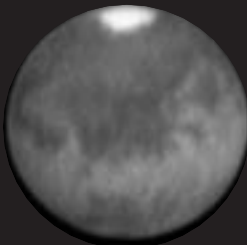
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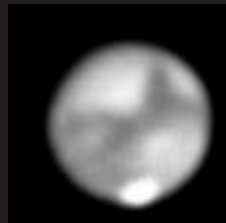
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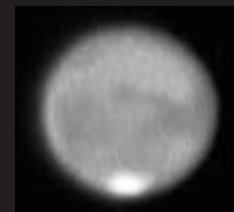
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2003 AWARD WINNERS

Service Award: Dave McCarter (London)
Chant Medal: (not awarded)

Ken Chilton Prize: Doug George (Ottawa), Peter Ceravolo (Ottawa), Paul Boltwood (Ottawa), Jon Buchanan (Ottawa), Glenn LeDrew (Ottawa)

The Plaskett Medal: Dr. Tracy Webb
Simon Newcomb Award: Alister Ling (Edmonton)

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David Barrie (Regina)
Martin Bonert (Toronto)
Bob Brann (Regina)
Sean Ceaser (Winnipeg)
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Hugues Lacombe (Centre Francophone de Montréal)
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Emma MacPhee (Moncton)
Charles Doucet (Moncton)

Marguerite Hamilton (Sarnia)
Michael Stephens (Winnipeg)
Ivan Robichaud (Moncton)

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)
2002 Dr. Roy Bishop (Halifax)

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 recogni-

tion of a significant piece of astronomical work carried out or published recently.
1990 Doug George (Ottawa)
1995 Paul Gray, David Lane (Halifax)
1996 Raymond Thompson (Toronto)
1997 Heather T. Cameron (Halifax)

2001 Michael Boschat (Halifax)
2002 Vance Petriew (Regina)
2003 Doug George (Ottawa), Peter Ceravolo (Ottawa), Paul Boltwood (Ottawa), Jon Buchanan (Ottawa), Glenn LeDrew (Ottawa)

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 Ontario)
2002 Edward W. Thommes (Queen's)
2003 Tracy Webb (Toronto)

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)
Garry 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)

2003 David McCarter (London)
* 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)

2002 David Levy (Kingston)

2003 Alister Ling (Edmonton)

HONORARY MEMBERS OF THE RASC

Dr. R.B. Baldwin (United States)

Dr. F.M. Bateson (New Zealand)

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. Jean Meeus (Belgium)

Dr. Patrick Moore (United Kingdom)

Dr. Jay Pasachoff (United States)

Dr. P.J.E. Peebles (United States)

Mr. Leif Robinson (United States)

Dr. Carolyn Shoemaker (United States)

Dr. A.R. Sandage (United States)

PAST ELECTED OFFICERS OF THE RASC

Below are lists of former Honorary Presidents, Presidents, Secretaries, and Treasurers of the RASC. 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

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

2002-2004 Rajiv Gupta

Secretaries

1987-1993 David Tindall

1993-1996 Randall Brooks

1997-1999 Raymond Auclair

1999-2005 Kim Hay

Treasurers

1989-1992 Karl Miller

1992-1994 Terry Hicks

1994-1998 Rajiv Gupta

1998-2004 Michael Watson

GENERAL ASSEMBLIES – 1990 - 2005

The following Centres hosted the General Assembly from 1990 to 2003:

1990 Ottawa Centre

1991 Vancouver Centre

1992 Calgary Centre

1993 Halifax Centre

1994 St. John's Centre

1995 Windsor Centre

1996 Edmonton Centre

1997 Kingston Centre

1998 Victoria Centre

1999 Toronto Centre

2000 Winnipeg Centre

2001 London Centre

2002 Montreal Centre

2003 Vancouver Centre

The following Centres will host the General Assembly in the future.

2004 St. John's Centre

2005 Okanagan Centre

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1100 Chestnut Street
Vancouver BC V6J 1P9
www.pcis.com/rascvan
(604) 738-2855

VICTORIA

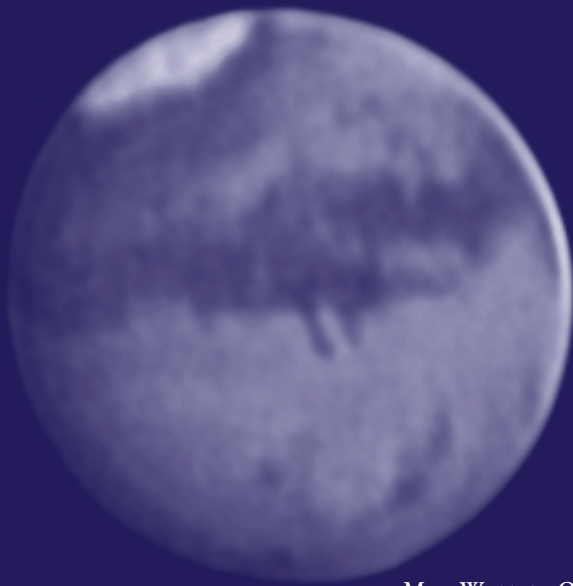
8581 Sentinel Place
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WINDSOR

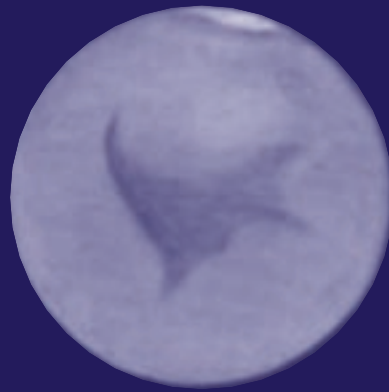
c/o Ken Garber
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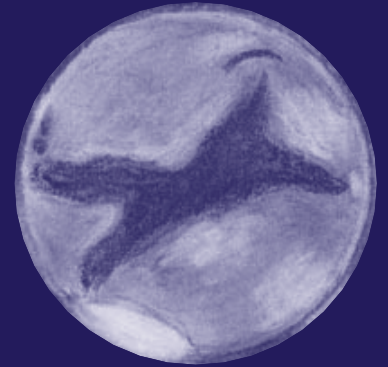
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MIKE WIRTHS - OTTAWA CENTRE



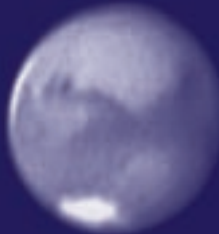
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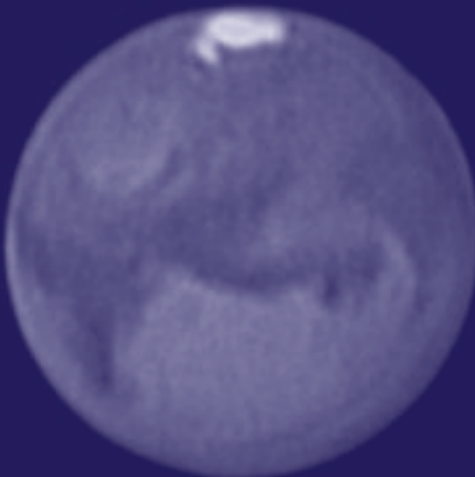
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ROLF MEIER - OTTAWA CENTRE



GARRY DYMOND - ST. JOHN'S CENTRE



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