



**RASC, Halifax Centre
Annual General Meeting - December 9, 2016**

AGENDA

Welcome & Opening Remarks

- 1- Approval of 2016 Agenda
- 2- Approval of Minutes of December 11, 2015 AGM
- 3- Appointment of Auditor for 2016-2017 Audit

Reports

- 4- President's Report – Paul Gray
- 5- 1st VP Report – Dave Chapman
- 6- 2nd VP Report – Ian Anderson
- 7- Secretary's Report– Judy Black
- 8- Auditor's Report – Gregg Dill
- 9- Treasurer's Report – Jim Millar
- 10- National Council Representative Report – Pat Kelly

Committee Reports

- 11- Observing Chair Report– Sean Dzafovic
- 12- St. Croix Observatory (SCO) Report – Tony McGrath
- 13- Nova Notes – Tony Schellinck
- 14- Nova East Report – Quinn Smith
- 15- Librarians' Report – Andy & Elli Hasler
- 16- Outreach – Paul Heath

Matters to Be Determined by Special Resolution

- 17- Bylaw Review Presentation - Judy Black
 - a- Special Resolution re approval of revised objectives
 - b- Special Resolution re approval of bylaws

Call for Nominations and Election of 2017 Council

- 18- Nominating Committee Report - Paul Gray, David Chapman, Chris Young
 - a- Nominations for positions
 - b- Elections for positions

Regular Business

- 19- What's Up? – Sean Dzafovic
- 20- Presentation: An Unexpected Solar System – Pat Kelly
- 21- Date of next regular Members' Meeting – January 20, 2017 in Room AT101, 7:30 PM
- 22- Adjournment

Royal Astronomical Society of Canada - Halifax Centre
Annual General Meeting (AGM)
Friday, December 9, 2016

President Paul Grey welcomed the 19 members in attendance and provided opening remarks.

Welcome and Opening Remarks

1. Approval of 2016 Agenda

161209AGM-Mot01:

It was moved by Mary Lou Whitehorne and seconded by Chris Young to approve the 2016 AGM agenda as circulated.
CARRIED.

2. Approval of 2015 AGM Minutes

The minutes of the 2015 AGM had been pre-circulated to members.

161209AGM-Mot02:

It was moved by Jim Millar and seconded by Jerry Black to approve the minutes of the 2015 AGM as circulated.
CARRIED.

3. Appointment of a New Auditor

Jim Millar stated that Gregg Dill had re-offered to stand as auditor for 2016-2017.

161209AGM-Mot03:

It was moved by Chris Young and seconded by Tony Schellinck to appoint Gregg Dill as Auditor for 2016- 2017.
CARRIED.

Council Reports

(Note: All reports will be in the Jan/Feb edition of Nova Notes)

4. **President's Report** – Paul Gray said he couldn't speak highly enough about Halifax Centre. The Council works well together and steps up when needed. He stated Tony Schellinck should be applauded for the wonderful work he does in producing Nova Notes, and that Paul Heath had done an incredible job overseeing outreach. Nationally, Halifax Centre is the most active in outreach. He also thanked Judy Black for her work in overseeing the bylaw review.
5. **1st Vice-President's Report** – Dave Chapman stated he had been appointed to Council in January 2016. During his time with Council he developed the communications strategy agreed to by Council. He was involved with the bylaw review and filled in for Paul Gray when he was unable to attend Council meetings. He had been busy fulfilling other commitments for RASC (personal and organizational) and agreed with Paul that it is a very good Centre.
6. **2nd Vice-President's Report** – Ian Anderson read the report he provided and noted that this was his last year as 2nd Vice-President. He did note that calendar sales were up from the previous year and that there was only one 2017 calendar left for sale. Ian was thanked by members for his work on Council by a round of applause.
7. **Secretary's Report** – Judy Black stated what her general duties entailed. There were 9 meetings in 2015-2016, including the informal members' BBQ at SCO. Members were notified 3 times about each of the meetings. There were numerous motions made by Council that had budgetary implications such as funds required for the Dark Sky Week-end at Kejimikujik and repairs to the library cart. The nomination of Martin Hellmich and Halley Davies for the Simon Newcomb Award resulted in the winning of that award. Halifax Centre also donated the Unihedron Sky Quality Meter to Tim Doucette's Deep Sky Eye (DSE) Observatory in Yarmouth. As required in the current bylaws, she advised members of the make-

up of the Halifax Centre membership. She thanked the Centre and Council members for their support in the past year, and extended a special thank you to her mentor, Past-Secretary Chris Young.

8. **Auditor's Report** – Jim Millar read the Auditor's letter as Gregg Dill could not attend the meeting. There were two recommendations:
 - a) Clause 12.01(1) of Bylaw #1 (1995) requires cheques to be signed by two people. If cheques are to be signed by the treasurer only, the necessary documentation needs to be put in place. I understand this will be incorporated in the revised Bylaw #1 (2016)
 - b) The Board may want to consider becoming a registered charity to encourage further donations. Fourteen Canadian RASC Centres are currently registered.
9. **Treasurer's Report** - Jim Millar spoke to the financial report he provided and explained the changes in revenue and expenses. He noted that calendar sales and donations had increased; a bequest of \$1000.00 had been received from the estate of Harry Roberts. Revenue was \$7360.90 with expenses at \$7070.40. Profit for the year was \$290.50. He then explained the assets of \$35,091.06, liabilities of \$230.35, and capital of \$34,860.71. As was recommended by the Auditor the previous year, he provided an income statement for Nova East that had a net profit of \$1815.32. Jim had asked Council to consider way to be revenue neutral at Nova East such as reducing registration fees and camp fees, and purchasing more prizes.
10. **National Council Representative Report** – Pat Kelly noted that much of the Society's work was accomplished in its Committees. If Halifax Centre members want to know how they can become involved, go to the national website to find the committees and the types of work they do. RASC had recently undergone a SWOT analysis (strength-weakness-opportunities-threats). Two committees were getting a push. Fund-raising committee members are to get training on how to approach corporations for sponsorship. Membership promotion committee was to examine ways to reverse the high turnover rate (approximately 20% per year). They are considering mentoring of new members who typically join to learn about observation.

161209AGM-Mot04:

It was moved by Mary Lou Whitehorne and seconded by Tom Crossman to accept the Council Reports as presented.
CARRIED.

Committee Reports

(Note: Committee reports will be in the Jan/Feb edition of Nova Notes)

11. **Observing Chair Report** – Sean Dzafovic reported the six members who received RASC certificates in the past year – Mary Lou Whitehorne, Bruce Hamilton, Melody Hamilton, Tony Schellinck, Paul Evans, and Jim Millar. He also noted that the NOVA program is being rewritten using the Explore the Universe Guide.
12. **St. Croix Observatory (SCO) Report** – The report to be provided by Tony McGrath will be included in Nova Notes.
13. **Nova Notes Report**- Tony Schellinck provided an overview of Nova Notes, including both regular contributors and those who provided special articles, and members who provided photos for the cover and to enhance articles. He gave a special thank you to Dave Chapman for taking photos at members' meetings. He thanked all the members of his large team that produced 5 issues of Nova Notes per year.
14. **Nova East Report** – Quinn Smith was the Chair of Nova East. In his absence, Paul Gray provided the overview of his report. He noted that there is a change from the regular date in August to a week0end in July due to many members attending the Solar Eclipse in the United States.
15. **Librarian Report** – The report to be provided by Andy Hasler will be included in Nova Notes.

16. **Outreach Report** – Paul Heath could not attend the meeting and had sent his regrets at not being able to present his report and to not having a poem ready for the meeting; however, Chris Young provided an overview of his report.

161209AGM-Mot05:

It was moved by Chris Young and seconded by Pat Kelly to accept the Committee Reports as presented.
CARRIED.

Matters to be Determined by Special Resolution

17. **Bylaw #1 Review Presentation** – Judy Black explained the process of the review and provided an overview of the major changes to the current bylaw. It was noted that the Objectives of RASC Halifax Centre were to be removed from Bylaw #1. Because of the objectives being circulated to members, there were suggested changes to the second and fourth objective. These were cited and discussed. Members were then presented with the following Special Resolution:

SPECIAL RESOLUTION OF MEMBERS

WHEREAS the RASC Halifax Centre objectives were removed from the RASC Halifax Centre Bylaw #1 (1995) to be included in Schedule A: Memorandum of Association as per the legislative requirements of the Nova Scotia Societies Act; and
WHEREAS the Objectives were revised by the Council on 18 November 2016; and
WHEREAS the RASC Halifax Centre Objectives (2016) was pre-circulated to all members on 19 November 2016 for consideration;

BE IT RESOLVED AS A SPECIAL RESOLUTION THAT:

1. RASC Halifax Centre Objectives (2016) be approved at this Annual General Meeting (AGM) as presented;
2. The existing objectives are repealed and are replaced with the RASC Halifax Centre Objectives (2016);
3. RASC Halifax Centre Objectives (2016) be forwarded to the Registry of Joint Stock Companies in Schedule A for approval prior to enactment.

161209AGM-Mot06:

It was moved by Mary Lou Whitehorne and seconded by Tony Schellinck to adopt the Special Resolution related to adoption of the modified RASC Halifax Centre Objectives (2016).
CARRIED UNANIMOUSLY.

Judy Black then presented the proposed changes to Bylaw #1 (2016). In addition to those presented, the following changes were suggested by members in attendance. Each suggestion was discussed.

- a- In 5.3.1.2: Change the phrase "notify the Executive Director" to "notify the Society". This provides clarity as to which body should be notified.
- b- In 6.2.2: It was noted the word "of" was duplicated, one of which should be removed.
- c- In 10.3.2: Remove the phrase "in accordance with generally accepted accounting principles (GAAP)".
- d- In 11.1.1: Leave the phrase as "may be signed", not "shall be signed" as suggested in the presentation.

Given there were no other comments or questions regarding changes to the proposed Bylaw #1 (2016), members were then presented with the following Special Resolution:

SPECIAL RESOLUTION OF MEMBERS

WHEREAS modifications to RASC Halifax Centre Bylaw #1 (1995) were desired to reflect current RASC bylaws and policies; and
WHEREAS modifications to RASC Halifax Centre Bylaw #1 (1995) were required to meet the legislative and regulatory requirements of the Nova Scotia Societies Act and the Registry of Joint Stock Companies; and
WHEREAS the Bylaw Review Committee of RASC Halifax Centre completed their mandate to revise

the RASC Halifax Centre Bylaw #1 (1995) on 22 October 2016; and
WHEREAS the RASC Halifax Centre Bylaw #1 (2016) was pre-circulated to all members on 30
October 2016 and 19 November 2016 for consideration;

BE IT RESOLVED AS A SPECIAL RESOLUTION THAT:

1. RASC Halifax Centre Bylaw #1 (2016) with the amendments made at this Annual General Meeting (AGM) of December 9, 2016 be approved;
2. The existing bylaws are repealed and are replaced by the approved RASC Halifax Centre Bylaw #1 (2016);
3. RASC Halifax Centre Bylaw #1 (2016) be forwarded to the Registry of Joint Stock Companies for approval prior to enactment.

161209AGM-Mot07:

It was moved by David Lane and seconded by Mary Lou Whitehorne to adopt the Special Resolution related to adoption of the RASC Halifax Centre Bylaw#1 (2016).
CARRIED UNANIMOUSLY.

Call for Nominations and Election of 2017 Council

18. There was a call for nominations from the floor for the 2016 Executive and there were none. The slate of volunteers for the 2016 Council was as follows and included four new members:

President – no nominees
1st VP – Paul Gray
2nd VP – left vacant to accommodate approval of Bylaw #1 (2016)
Recording Secretary – Judy Black
Treasurer – Jim Millar
Nova Notes Editor – Tony Schellinck
National Representative – Pat Kelly
Librarian – Andy Hasler
Outreach Chair – Paul Heath
Observing Chair – Sean Dzafovic
SCO Manager – Tony McGrath
Councillor – Melody Hamilton
Councillor – Art Cole
Councillor – Andrew Frank
Councillor – John Read

There being no further nominations, the 2017 Council positions were approved by acclamation. Paul Gray stated that according to both the current and proposed Bylaw #1, he as Vice-President would fulfill the role of President until a person could be appointed to the position.

161209AGM-Mot08:

It was moved by Jim Millar to adjourn the AGM.

Regular Members' Meeting

19. **What's Up?** – Sean Dzafovic provided the overview of what to look for in the coming month.
20. **Presentation: An Unexpected Solar System** – Pat Kelly had visited Iceland this past summer and while visiting the southeastern community of Breiðdalsvík, a small fishing village on the large Breiðdalsvík cove, he found a scale model of the sun and all the planets, plus Pluto. Each location had a scaled model of the sun or planet along with a sign describing the features of the body, such as size, mass, distance from the sun, radius, and rotation duration. There was no explanation as to why the small town decided to provide the astronomical model. Pat described his journey of discovery on foot and by car in this small town.
21. **Date of Next Members' Meeting: January 20, 2017:** 7:30 – 9:30 PM in AT101. Kirsten Bonson will be addressing the membership on hot topics in astrophysics.

22. Adjournment at 10:09 PM.

Below are the Reports as presented in the January/February edition of Nova Notes.

Halifax Centre President Report, 2016

Well, 2016 is almost over and my where has the time gone. I will be ending my two-year term as President in less than a month from now. Has it really been two years already? It seems like just yesterday that I chaired my first meeting and my, what a wonderful two years it has been. It has been a pleasure to work with so many dedicated RASC members that the Halifax Centre is blessed to have in its membership. As your President, I must thank all of you for all your efforts in the past two years. This past year was a busy one that think we can call successful.

Nova East was a huge success once again. We must thank Quinn Smith first and foremost for stepping up to chair the event to make sure that it would all come together. Just for note, we are seeking a chair for the 2017 Nova East so, if you are interested, please contact me. Nova East this year was a hit again with some clear skies and no rain! Observing was done and enjoyed by many. Great talks by the speakers with observing being the theme, surrounded good food and company throughout the weekend.

Nova Notes again had a banner year with Tony and his great work. Content has been awesome, and the look is a pleasure to read. Tony is always looking for more stories, articles and photos so please consider submitting.

Outreach events at the Halifax Centre again was staggering in reach. Elsewhere you can read Paul Heath's report on outreach and see just what he and the Centre has done. Congrats to Paul and to all of those who volunteered time at outreach events.

The big behind the scenes work this year was our Bylaws. Last revised in 1995, they have become dated with new laws. Judy Black volunteered to lead this task and I cannot thank her enough or praise the work she had done for us on this front. It truly was amazing to see her take such ownership to see this through. Please be sure to thank her when you see her! By now you should have seen the new bylaws and see the interesting changes coming. It should make 2017 a very interesting year in our Centre.

Throughout the year and previous year, I had tried to tweak the meetings a little as well as work with the executive in finding interesting speakers and topics. I feel we have done that and thank all our speakers and those who helped find them and provide ideas. We are typically having 35-50 members at monthly meetings, roughly ¼ to 1/3 our membership. That is pretty good when I talk to other centres and hear what their numbers are like. Thank you all for coming out and I look forward to joining you in the seats next year.

Clear skies.

Respectfully Submitted,

Paul Gray, President
RASC, Halifax Centre

Halifax Centre 1st Vice-President Report, 2016

As 1st Vice-President, I stood in for President Paul Gray to chair meetings of the Council on 2 occasions. My prime activity was to develop a communications plan for the Centre, in consultation with other Councillors, and distributed it to Council. This plan details both internal and external communications responsibilities.

I also contributed to bylaw review, recruitment of speakers, *Nova Notes* content, applications for observing certificates, and planning for Nova East. Communications-wise, I continued to co-manage the Astronomy Nova Scotia website, Facebook Page, and Twitter account, promoting both earthly and celestial events, and supervised the volunteer managing the RASC Halifax Facebook Group.

As NC representative, I attended the RASC General Assembly in London, where I participated in Strategic Planning, and displayed the "25 Years of Hubble" award won by Centre members Halley Davies and Martin Hellmich, who also won the RASC's Simon Newcomb Award this year for their animated video. I also participated in two National Council (NC) teleconferences. See the report of NC Co-chair Pat Kelly for more details.

As an active RASC member, I coordinated the Keji Dark Sky Weekend, assisted Quinn Smith in the biennial lighting audit of Keji, served on the RASC Observing Committee, made several TV, radio, and internet "appearances" promoting astronomy, made several classroom visits, and created the new RASC "Explore the Moon" observing program with certificate.

On a personal level, I continued to work with Cathy LeBlanc on our Mi'kmaw Moons project, publishing an essay in the November 2016 issue of the Griffith Observer. The essay won 2nd prize in their science writing competition and earned us a little prize money. We have started a new project, advising Glooscap First Nation on a sky-viewing installation.

Respectfully Submitted,

David Chapman, 1st Vice-President
RASC, Halifax Centre

Halifax Centre 2nd Vice-President Report, 2016

This is the final report from the Centre's 2nd Vice President. It is also my last report as an executive of the Centre. Presuming an acceptance of the new Centre By-laws which have been drawn up this quarter, the position of Halifax Centre's Second Vice President is being retired. The position has long been a function of a by-gone era when sales responsibilities were assigned to this position. In the days before the internet and purchasing on-line from National Office was the norm, an organizer was needed to keep tabs of things we used to have on hand for resale and profit. In the current days of simplification, and downsizing of the Executive, it was wisely decided to reduce the Executive to four officers by eliminating this position.

In addition, I've served as 2nd VP for two years, and I now step off the stage of directors to become once again, Member at Large.

Calendar sales found a price point of \$15 for 2016 and we were able to sell out by the end of the AGM meeting last December which was a record. Assuming the 2017 production would liquidate as quickly at that price, we were surprised to hear how poor sales have been this current period. We did attempt to sell 50% more, and had the benefit of an earlier start, but the hint that there was less interest in the calendar this year has become clear.

At the national level, calendar sales have been disappointing as well, suggesting a broadening of cash strapped buyers not just in the east here but across the entire society. As of this writing, I don't know if I will be handing over unsold inventory into the new year.

The question of merchandizing a broader range of products has not been discussed lately, and I suspect would only become an issue if revenue was really needed, and a way to save members' shipping costs by taking bulk delivery was advantageous enough to do it. The new Explore the Universe publication, available tonight for \$20 is our first foray into a new line of merchandize in many years. It will be available from the Centre as long as it is in publication. Otherwise, calendar sales will probably be the main activity and hopefully remain at 2016 levels. The responsibility for merchandizing will be passed on to some director, but not necessarily an Executive.

Respectfully Submitted,

Ian R. Anderson, 2nd VP
RASC, Halifax Centre

Halifax Centre Secretary Report, 2016

The principal duty of the secretary is to provide minutes, agendas, and meeting announcements to the Council and members of the Centre. An additional duty is to book meeting rooms through SMU for meetings. We were welcomed back for another year and are grateful to Saint Mary's University for their very significant support related to meetings and special speaker events held at their institution.

There were 9 Council Meetings in 2015-2016 which usually occurred during the hour before the Centre Meeting. Members are welcome to attend Council meetings if they wish. There were no Council meetings held in June, July and August.

There were 9 regular Members' Meetings during 2016 along with the informal gathering at the Annual BBQ held in June 2016. All Members' Meetings had a guest speaker; however, there was a Members' Night in March in which members apprised fellow astronomers of special events to attend, special equipment tried out, and projects they completed. There were minimally 3 reminders of meeting for every Council and Members' Meeting held.

Motions were made with a quorum of the Council to provide direction on policy, activities, support of the observatory at St. Croix, our budget, and definition of any spending not covered in the budget. Motions made this past year included:

- Budget adjustments:
 - Up to \$200.00 be provided to the three Handbook contributors to attend the AGM;
 - Up to \$150.00 to repair the library cart;
 - Up to \$650.00 towards RASC Halifax Centre participation in Kejimikujik Dark Sky Week-end;
 - Up to \$600.00 be set aside in the 2016 Centre Budget to support 2 trips to Cape Breton Highlands National Park in support of their application for Dark-Sky Preserve status, with actual expenses subject to prior approval of the Council;
 - \$100.00 for annual thank you gift to Jamie Carmichael.
- Nomination of Martin Hellmich and Halley Davies for the Simon Newcomb Award (which they subsequently won)
- Appointment of Councilor Dave Chapman as 1st Vice-President
- RASC Halifax Centre Council appoint a By-Law Review Committee to carry out a review of the Halifax Centre By-Law #1, and that a report of proposed changes be provided to the Halifax Centre Council for consideration and approval at their September 2016 Council meeting.
- Treasurer to acquire a tax accountant to assist with the T2 submission to CRA.
- Halifax Centre would donate the Unihedron Sky Quality Meter of RASC Halifax Centre to Tim Doucette's Deep Sky Eye (DSE) Observatory.

Both the Burke Gaffney Award and the Murray Cunningham Award for Astrophotography were retired as of March 18, 2016. The rationale for discontinuance was that neither had been exercised for at least 10 years, astrophotography awards continue to be a part of Nova East, and a RASC astroimaging certificate was in development at the time (it is now available to members).

RASC Halifax Centre Bylaw #1 requires that members are advised of the make-up of the membership of the Centre which as of the September 30 totaled 167 members:

[Minutes of AGM \(December 9, 2016\)](#)

- 13 Regular Family
- 121 Regular
- 3 Family Youth
- 4 Youth
- 21 Life
- 2 Regular International
- 3 Regular USA

I had the honour of acting as Chair of the Bylaw Review Committee that was formed in April 2016. As part of the review process, position descriptions were drafted for all Council positions with input from each of the members. They were approved with the understanding that they would require revisions to reflect changes made in the proposed Bylaw #1 (2016). They will be included in what we hope will be the RASC Halifax Centre's Council Policy & Procedure Manual. Development of this manual is to begin in next fiscal year.

This was my first year serving as RASC Halifax Centre Secretary. I would like to thank Halifax Centre members and the Council for their invaluable support over the past year. I would like to extend a special thank you to my mentor - Past-Secretary Chris Young - for his patient guidance while learning this position's responsibilities.

Respectfully Submitted,

Judy Black, Secretary
RASC, Halifax Centre

Halifax Centre Treasurer Report, 2016

Introduction:

The year 2016 was another financial success for the Halifax Centre. We had operational income of over \$850 before depreciation and write offs. To help to keep our surplus from being too large we continued to write off our equipment at approximately 3%. We improved our library quite significantly this year. Our library managers cleaned up the old inventory, fixed the cart and added \$500 in new books. We will continue to upgrade the library in the new year. We continue to write down the library at 10% per year. Nova East had a significant surplus of over \$1,800. We need to look at how Nova East is run to try and reduce the profit to a more manageable amount.

Surplus of \$290.50 for Fiscal 2016

The Centre continues to be successful and solvent. We are holding our own with membership and Nova East continues to be successful. We continue to follow good accounting procedures by depreciating our assets over time. We are continuing to invest in our library and the St. Croix Observatory.

Details of the 2016 Income Statement

REVENUE:

Membership Fees \$2,901.05: We had a slight increase in membership fees this year. At year end we had 167 members, up from 150 the previous year. Total income was up only slightly because we had more family memberships.

Donations \$1,000: We received a bequest of \$1,000 from the estate of Harry Roberts. Mr. Roberts was a past secretary of the club in the 1950s. He always had a passion for astronomy. In addition to our bequest, Mr. Roberts left a large bequest to Saint Mary's to establish a scholarship for astronomy and astrophysics majors hailing from Nova Scotia.

Educational / Outreach: We had no revenue in this category this year as we did not hold NOVA program.

Interest \$80.24: Interest on our investments was down significantly. Part of this is from declining interest rates. I also switched away from the accrual basis for calculating interest. I will only enter interest when we receive it and will no longer predict what interest is on a daily basis.

Sales of Merchandise (Gross) \$1,275: These were mainly RASC calendar and sales of star finders to the Friends of Keji for sale in their shop.

Nova East (net) \$1,815.329: We continue to make significant profits each year. The cost of camping has been reduced and we make significant profit on the T shirts. We need to consider methods of giving the membership better value for their registration fees.

Printed Nova Notes Subscriptions Earned \$289.29: This is what printed newsletters earned this year from members subscribing to hardcopy. It appears to be more than previous years because of another change in accounting. Previously, the accrual method was used for this field. We ended up with an asset for unused portion of the subscription fees. Now the full subscription fee is entered as income when received.

EXPENSES:

Meetings \$244.57: Pat Kelly did well to keep treat spending down again this year. He continues to provide a nice variety of treats for our meetings.

Newsletter \$309.13: NN's expenses are like previous years. We are subsidizing each issue by about \$5.

Cost of Goods Sold \$1,175.87: This is the cost of calendars for two years. We did not purchase the 2016b calendars until November and bought the 2017 calendars in August.

Equipment and Supplies \$442.35: We purchased wireless microphones and some supplies for them this year. The cost was not significant enough to add to our capital equipment.

Office Administration \$484.26: Postage and post office box rentals were up slightly this year. We are also reimbursing the secretary for personal supplies and photocopying that she does for the club.

Educational Activities (Outreach) \$1416.45: This is like previous years. The Keji Dark Sky Weekend continues to be a large portion of these expenses.

Legal Expenses \$31.15: Our cost to register with Joint Stocks of Nova Scotia.

Insurance \$1,231.00: Insurance for SCO was up a further \$23 in 2016.

Awards and Donations \$203.730: We continue to donate to the Clear Sky Clock website and the International Dark Sky Association.

Observatory - Operating \$636: This includes the usual gift to Mr Carmichael. A BBQ, some propane, and the odd item. It also includes taxes to Hants County. We purchased a new BBQ for SCO. It is not included in equipment because they do not last long enough to depreciate.

Asset Depreciation \$587.03: We continue to depreciate equipment at 3% per year and library books at 10% per year.

Miscellaneous Expenses \$75: This was for a complementary membership.

Royal Astronomical Society of Canada, Halifax Centre			
Comparative Income Statement			
Years Ending September 30, 2016 and September 30, 2015			
	Years Ended		Amount of
	September 30		Increase or
	2016	2015	(Decrease)
	during 2016		
Revenue	\$ 290.50	Surplus	
Membership Fees	\$ 2,901.05	\$ 2,843.61	\$ 57.44
Donations	1,000.00	400.00	600.00
Educational Activities	-	660.00	(660.00)
Interest	80.24	175.78	(95.54)
Sales of Merchandise	1,275.00	804.50	470.50
Nova East (Net)	1,815.32	424.79	1,390.53
GA 2015	-	1,377.90	(1,377.90)
Nova Notes Print Subscriptions	289.29	120.12	169.17
Total Revenue	\$ 7,360.90	\$ 6,806.70	554.20
Expenses			
Meetings Treats	\$ 244.57	\$ 197.96	46.61
Newsletter	309.13	472.86	(163.73)
Depreciation and write offs	587.03	878.87	(291.84)
GA 2015 and NO Meetings in Toronto	179.62	-	179.62
Equipment and Supplies	442.35	76.18	366.17
Cost of Goods Sold	1,175.87	616.62	559.25
Office Administration	484.26	300.40	183.86
Legal Expenses	31.15	30.25	0.90
Educational Activities	1,416.45	1,590.11	(173.67)
Insurance	1,231.00	1,208.00	23.00
Awards and Donations	203.73	56.62	147.11
National Office Processing	54.24		
Operating Expenses Observatory	636.00	260.80	375.20
Miscellaneous	75.00	168.95	(93.95)
Total Expenses	\$ 7,070.40	\$ 5,857.62	1,212.78
Operational Surplus (Deficit)	\$ 290.50	949.08	\$ (658.58)

Details of the 2016 Balance Sheet

ASSETS:

Cash \$3,638.56: This is the balance in our chequing account. We also had \$457.78 in accounts receivable for September membership fees owing from National Office.

Merchandise Inventory \$201.00: There is only a small change in inventory this year. We had some unsold calendars at year end.

Prepaid Expenses: I have stopped tracking prepaid expenses. I now track expenses as they are paid.

Investments and Accrued Interest \$16,128.05: This is now the value of the principle in our investments. I purchased an additional GIC for \$4,000. We now have four GICs that come due throughout the year and interest is only counted at maturity.

GA2015 Account: The GA2015 account was closed during the year and all assets transferred to the regular chequing account.

Estimated Library \$1,975.77: We spent approximately \$600 on new books this year. We will continue to upgrade the library.

Observatory Equipment \$12,369.85: After depreciation of observatory equipment of \$327.67 and the addition of some small pieces of equipment for SCO.

LIABILITIES:

Accounts Payable \$230.35: This is for bills for Nova Notes received after year end.

Prepaid Nova Notes Printed Subscription: I am no longer tracking prepaid Nova Notes subscriptions. I count the total amount received as income at the time it is received.

EQUITY:

Nova East Reserve Equity \$5,000.00: This reserve is capped at \$5,000.00.

Common Equity \$29,860.71: Common equity rose by \$290.50 from 2015. The statement shows a higher amount that can be accounted for by the change in accrual accounting and differences between actual and estimated accounts receivable and payable in the last year.

Summary and Recommendations:

I was pleased to serve as Treasurer again this year. I have become more comfortable in the role and have made it a little easier for a non-accountant to stay on top of things. Ian Anderson continued to provide support in the back-ground.

I was able to get a budget passed midway through the year. We were under budget in all expense categories and over budget in income categories. I was able to give one update during the year. I will continue to improve on budgeting with experience.

I have enjoyed this year and look forward to serving you for another year as your Treasurer.

Respectfully submitted,
Jim Millar, Treasurer

Assets			
Cash	\$ 3,638.56	\$ 6,260.83	\$ (2,622.27)
Accounts Receivable	457.78	1,062.73	(604.95)
Merchandise Inventory	201.00	152.13	48.87
GA 2015 Account	-	2,773.64	(2,773.64)
Investments	16,128.05	12,000.00	4,128.05
Accrued Interest on Investment Certificates	-	65.07	(65.07)
Prepaid GA 2015 Expenses	-	-	0.00
Library Estimated	1,975.77	1,557.96	417.81
Observatory Equipment	12,369.85	12,342.52	27.33
Miscellaneous Estimated	320.05	303.86	16.19
Total Assets	\$ 35,091.06	\$ 36,518.74	\$ (1,427.68)
Liabilities			
Accounts Payable	\$ 230.35	\$ 2,707.47	\$ (2,477.12)
Prepaid Nova Notes Subscriptions	-	160.41	\$ (160.41)
Capital			
Nova East Working Equity	\$ 5,000.00	\$ 5,000.00	\$ -
Common Equity	29,860.71	27,632.61	2,228.10
Total Capital	\$ 34,860.71	\$ 32,632.61	\$ 2,228.10
Total Liabilities and Capital	\$ 35,091.06	\$ 36,518.74	

Summary and Recommendations:

I was pleased to serve as Treasurer again this year. I have become more comfortable in the role and have made it a little easier for a non-accountant to stay on top of things. Ian Anderson continued to provide support in the background.

I was able to get a budget passed midway through the year. We were under budget in all expense categories and over budget in income categories. I was able to give one update during the year. I will continue to improve on budgeting with experience.

I have enjoyed this year and look forward to serving you for another year as your Treasurer.

Respectfully submitted,

Jim Millar
Treasurer, Halifax Centre RASC
9 Dec 2016

Halifax Centre Library Report, 2016

The Library has received a substantial refresh this year after several years of acquiring few titles. Council gave an allowance of \$600.00 towards the purchase of new books. Two members, Dave Chapman and Chris Young, joined Elli and I in a subcommittee to assemble a list of potential books and arrange their purchase. The membership provided some suggestions, and a master list of potential titles was drawn up. A selection was made to cover a variety of interests including Observing, Binocular Observing, Astrophotography, a Lunar Atlas, Constellation History, Cultural Astronomy, Comet Hunting and Sketching, a total of 21 books were purchased as well as 2 DVDs on Astrophotography. This was further supplemented by donations of 8 additional current books from member's bookshelves – much appreciated!

To make some room for the 31 new acquisitions, Dave Chapman and myself went through our library shelves weeding out duplicates and outdated books. These surplus books were donated to Tim Doucette who has set up the "Deep Sky Eye Observatory" in Quinan outside of Yarmouth.

The new books were briefly presented in a Show-and-Tell at the May Meeting and Elli wrote a brief description about each new acquisition in a handout. Most were immediately borrowed by the membership.

I would like to thank the Council for recognizing the value of the Library to our Centre and providing the funds to update the Library and I am hopeful we will continue with new book purchases each year. I would also like to thank Dave, Chris and Elli for all their assistance in acquiring the new books.

Respectively submitted,

Andy and Elli Hasler, Centre Librarians
RASC, Halifax Centre

Halifax Centre National Council Representative Report, 2016

The National Council continues to do most of its work through its many committees: Awards, Constitution, Education & Public Outreach, Finance, Fundraising, History, Information Technology, Light-Pollution Abatement, Membership & Development, Nominating, Observing, and Publications. Committee membership is "reset" at each General Assembly and for anyone interested in helping with any area within the Society, there is likely to a spot for you.

The Fundraising Committee has been given some priority so that the society can get prepared to approach larger donors in a professional manner. The Membership and Promotion committee is also active and looking at ways to attract new members, and just as importantly, keep the members we have.

Despite the increase in total membership, the society still has an annual turnover rate of over 20%. One main problem seems to be that while we (both as centres and nationally) do a lot of outreach, we should be doing more "inreach" at the Centre level to mentor new members, especially in observing, which is why many join the Society.

To keep closer contact between the Board of Directors and the National Council, it was decided that the council co-chair would be invited to attend on-line meetings of the board. While this sort of fell through the cracks initially, we seem to have that worked out now. The Board has also recently just completed a SWOT (strengths, weaknesses, opportunities, and threats) analysis of the society and has asked the Council for advice on how to identify those areas that are the most pressing and to come up with strategies to deal with them.

Probably the best way to see how much work gets done at the national level is to log in to the members' section of the Society web site and look at the reports of the various committees, and if you see something to which you would like to contribute, contact the chair of the committee with an offer to volunteer!

Respectfully Submitted,

Patrick Kelly, National Council Co-Chair
RASC, Halifax Centre

Halifax Centre Nova East Report, 2016

Thanks to everyone who participated and helped organize the 30th Nova East held at Smileys Provincial Park on the weekend of Aug 26th to 28th. I think everyone had a good time, reconnecting with friends and sharing the views of some excellent skies. We had a good attendance with 34 camp sites taken and a total of 54 registrants.

I would particularly like to thank the presenters: Roy Bishop, Melody Hamilton, Tony McGrath, Dave Lane, Chris Becket, Dave Chapman, Paul Evans, Jerry Black, Sherman Williams, Paul Heath and Tony Schellinck.

Minutes of AGM (December 9, 2016)

Also I would like to mention and thank the Nova East organizing committee: Chris Young, Roy Bishop, Paul Heath, Melody Hamilton, Irene Moore, Paul Gray, Jim Millar, Judy Black, Dave Chapman and Michael Gatto.

The weather mainly co-operated this year with clouds and occasional light showers during set-up on Fri- day, but it was dry by the beginning of Roy's presentation at 8 pm. It was still quite cloudy in the early part of the evening but skies partially cleared to allow some observing on Friday night. The biting insects were minimal this year and it was a pleasant change not to have to cover ourselves with mosquito repellent!

Saturday was forecast to be sunny, but there was broken cloud for most of the day. It was warm and was a perfect temperature for the talks and events throughout the day. I must thank Mo and Chris for doing such a great job of feeding the campers with their astronomers' breakfast of delicious pancakes and bannock. New to this Nova East was a noon swap meet, and although it was not well attended, maybe we will try again next year.

The BBQ was the gastronomic highlight of the afternoon, and I think everyone was quite full (over full?) by the end. Thanks to Paul Gray for cooking the pork loins, and to everyone who brought the contributions to the "pot luck". From all the positive accounts of the meal I received I think the BBQ is a keeper! The presentations and door prizes were held a little earlier than usual to allow a unique observing opportunity just after sunset. This observing opportunity replaced the usual Saturday evening talk, although Tony Schellinck had a presentation ready to "go"- just in case!

I would like to thank the participants of the Nova East astro-photo contest and to thank Brian Giffin of Atlantic Photo Supply for donating the winning prize of a framed photo of the winning entry. Congratulations to Jeff Donaldson for his winning submission of M108. All the photos were great, and thank you everyone for participating. There were several great door prizes with the main prize being a fully automated Celestron Sky Prodigy 6 telescope donated by Celestron and Brian Giffin of Atlantic Photo Supply. The main door prize was won by Wilfrid Maillet who only just managed to fit it into his car for the trip home.

Although the skies were cloudy for most of the day, it looked like there was a clearing trend coming in from the west. After the presentations and door prizes, a convoy of cars headed out of the camp site to a nearby location (organized by Roy Bishop) to observe the close conjunction of Venus and Jupiter in the evening sky. The weather co-operated and those watching saw both planets sink below the horizon just after sunset, first Jupiter and then Venus. And as a special treat for those watching, we saw a "green flash" as Venus set in the west. How about that! As Roy Bishop often says, "Good fortune favours the prepared."

It was nearly dark by the time we arrived back at the camp site and many people busied themselves with outreach, to show our guests from other parts of the Park the celestial sights using laser pointers. Skies remained clear for the whole night and some serious observing and photography occurred after the lasers were shut off at 11 PM. In my case, my dew heaters could not keep up with the heavy dew that was present, but I heard the whine of telescopes late into the night.

It was a good weekend and I hope that many of you will be able to attend the 31st Nova East that will be held early next year in late July, again at Smileys Provincial Park.

Income Statement (for period covering 01/10/2015 to 30/09/2016)

Revenues

Nova East Income	C\$0.00	
BBQ	C\$150.00	
Camping	C\$630.00	
Miscellaneous	C\$0.00	
Registration	C\$1,703.55	
T-Shirts	C\$800.00	
Total Revenue		C\$3,284.05

Expenses

BBQ	-C\$228.43
Camping	-C\$264.95

Miscellaneous	-C\$296.75	
Nova East Prizes	-C\$360.16	
T-Shirts	-C\$318.44	
Total Expenses		-C\$1468.73
Net Income for Period		C\$1815.32

Clear Skies,

Quinn Smith
 Chairperson, 2016 NE Planning Committee
 RASC, Halifax Centre

Halifax Centre Nova Notes, 2016

Five issues of Nova Notes were published this year, with a range of 8 to 20 pages per issue, 68 pages in total. Three of them were themed: A Year in the Life of the RASC Halifax Centre, Astrophotography for Everyone!, and Making Summer Memories with special contributions on each of these themes by RASC members. Between 15 and 18 copies printed each issue.

There were seven regular contributors to Nova Notes this year: Dave Chapman, Art Cole, Paul Heath, Jim Millar, Matt Payne, Chris Young and myself. I would like to thank them all for their timely submission of interesting and well written articles. They made my job as editor much easier (that was the plan).

These were not the only members who submitted articles to Nova Notes; we also had special articles written by Michael Boschat, Quinn Smith, Sherman Williams, Dave Chapman, Jerry Black, David Lane, Keith Walker, and David Griffith. Several other RASC Members agreed to have their photographs printed on the front page of the issues: Michael Boschat, Barry Burgess, Blair MacDonald and David Chapman.

Each issue was thoroughly edited before release by Pat Kelly, Michele Arenburg and Heather Schellinck. Pat Kelly posted the issues promptly on the Halifax RASC site when submitted to him and he has maintained the Nova Notes archives on the site. Judy Black put out the notification to all Halifax RASC members that the issue was ready. Paul Gray displayed the latest issue of Nova Notes at the next available RASC meeting to promote readership. As you can see, I am just one member of a very large team dedicated to producing a quality issue five times a year.

On a personal note, I have been quite busy with outreach this year. I have put on nine shows at the Halifax Planetarium, six SCANS classes, two Liverpool Astor Theatre flat screen planetarium shows with Wayne Mansfield and two similar shows at the Margaret Hennigar Public Library in Bridgewater with Jerry Deveau. I set up my binoculars table for three nights at Keji DSW and two nights at Nova East. I mounted the play The Star Trek Universe: Where Empires Exist at the Halifax Central Library on the fiftieth anniversary of Star Trek, and then again at CaperCon in Sydney. There was also a Breakfast Morning segment associated with these plays. I was guest speaker at a Sunday Assembly held at the Halifax central Library,

Other observing nights – four with SCANS students, Smiley's Park post Nova East, and Privateer Days in Liverpool. I manned the table at Hal-Con for Sunday afternoon. Perhaps one of the more unusual nights was working with professional photographers from Quebec who were using Keji as a backdrop for a cover photo of a Subaru in the foreground and the Milky Way in the background.

All told, I gave 36 outreach presentations/shows/sessions this year with audiences ranging from 3 to 85 each time. Many of these shows required days of preparing and coordination to put on. When you add on the number of days required to put out Nova Notes and tend to RASC council matters, not to mention the nights I go out to my observatory in Port Mouton, you begin to get an idea why my spouse is starting to kindly suggest I may be spending too much time on astronomy.

ISSUE / COVER PHOTO	CONTENT
<p>January / February 2016</p> <p>Cover: Young Moon, less than 24 hours after new moon (David Chapman)</p>	<p>20 pages - theme: A Year in the Life of the RASC Halifax Centre</p> <ul style="list-style-type: none"> • Member profile: Larry Bogan • Reports from 2015 AGM • General Assembly report • Nova East 2015 Report • Intensifying Cosmic Rays by Michael Boschat • The Great American Eclipse, a play entitled "The Milky Way Galaxy: Where Empires Exist as reported by Jim Millar • Guest speaker David Lane address <i>You, too, Can Use a 0.6-m Planewave CDK (or Cleestron 14) Telescope for Imaging</i> as reported by Jim Millar • RASC Halifax Centre Annual reports (from the December 2015 AGM) • Young Moon Hunting by David Chapman • The Benefits of Masks by Art Cole
<p>March / April 2016</p> <p>Cover: The Horse Head Nebula RA 5:41:00 Dec -2:27:00 at SCO (Blair MacDonald)</p>	<p>12 pages</p> <ul style="list-style-type: none"> • Stretching the Image's Histogram by Art Cole • May 9 Transit of Mercury, time lapse photography, and Dr. Roy Bishop's <i>What's Up?</i> as reported by Jim Millar • <i>In Praise of Smaller Scopes (or Arthritis happens)</i> by Paul Evans as reported by Chris Young • <i>Empire of the Stars – Friendship, Obsession and Betrayal in the Quest for Black Holes</i>: book review by Tony McGrath • Nova East 2016 by Quinn Smith • Memories of Dark Sky Week-ends by Sherman Williams • Member profile: Karl Hudson • Food for the Soul: <i>Between a Breath</i> • In & Out of the Shadows by Dave Chapman
<p>May / June 2016</p> <p>Cover: A bird's eye view of the Burke-Gaffney Observatory with its Planewave 24-inch telescope looking skyward (Burke-Gaffney Observatory)</p>	<p>12 pages – theme: Astrophotography for everyone!</p> <ul style="list-style-type: none"> • Two Nova Scotia Robotic Telescopes that you can use: BGO or ARO by David Lane • Tweet yourself to an Astrophoto by David Chapman • Processing the BGO Images by Art Cole • Finding a quasar using BGO by Keith Walker • Ralph captures M51 in colour by Jerry Black • Canada's radio Telescope by Matt Payne • <i>Parallax - The Race to Measure the Cosmos</i>: book review by Tony McGrath • Size Matters: The Case for Small Telescopes by David Griffith • Food for the Soul: <i>Midnight Marble</i>

<p>September / October 2016</p> <p>Cover: Sandstone arches on Fundy shore at Medford, NS (Barry Burgess)</p>	<p>16 pages – theme: Making Summer Memories</p> <ul style="list-style-type: none"> • Keji Dark Sky Week-end 2016 by Dave Chapman • The pleasures of looking at the night sky by Art Cole • Hello Alien? by Mat Payne • Excerpts from Blair MacDonald’s Summer Viewing AstroBlog • 30th Nova East by Quinn Smith • <i>Galactic Encounter - Our Majestic & Evolving Star System</i>: book review by Tony McGrath • <i>A Matter of Some Gravity</i> presentation by Dr. Roy Bishop reported by Chris Young • <i>Seeing the Universe in X-Ray</i> and the Hitomi mission presented by Dr. Luigi Gallo as reported by Jim Millar • <i>Moose-Calling Moon</i> – a poem by Joseph Bruchac & Jonathan London as read by Dave Chapman • Food for the Soul: <i>Open Cluster</i>
<p>November / December 2016</p> <p>Cover: The Moon Tonight, Nov 11, 2016 (Michael Boschat)</p>	<p>8 pages</p> <ul style="list-style-type: none"> • Star Wars Meets RASC at the 2016 Hal-Con Weekend by Paul Heath • <i>Black Hole - How an Idea Abandoned by Newtonians, Hated by Einstein and Gambled on by Hawking Became Loved</i>: book review by Tony McGrath • The Inventor of the Original Digital Camera Sensor was Born in Nova Scotia and Won the 2009 Nobel Prize in Physics by Art Cole • The Super Moon and Radio Astronomy by Matt Payne • Mountains and Prominent Craters on the Moon by Dave Chapman • Outreach in the US, starry ceilings in an old church and building your own observatory presentations reported by Jim Millar

Columnists/Regular Contributors

- Lunatic Ramblings* by Dave Chapman
- Starlight and Semiconductors* by Art Cole
- The Universe’s Symphony of Sound* by Matt Paine
- Member Profile* by Tony Schellinck
- Book Reviews* by Tony McGrath
- Food for the Soul* by Paul Heath
- Meeting Reports* by Jim Millar and Chris Young

Respectfully Submitted,

Tony Schellinck, Nova Notes Editor
RASC, Halifax Centre

Halifax Centre Observing Report, 2016

Congratulations to the Halifax Centre members who completed RASC Observing Certificates this year:

- Mary Lou Whitehorne – Explore the Universe Certificate
- Bruce Hamilton – Astroimager (Wide Field)
- Tony Schellinck - Messier Certificate
- Paul Evans - Explore the Moon (Binocular)
- Jim Millar - Explore the Moon (Telescope)
- Melody Hamilton - Explore the Moon (Telescope)
- Paul Evans - Explore the Moon (Telescope)

The NOVA Program is being rewritten using the new Explore the Universe Guide as reference material, to replace the out-of-print Beginner's Observing Guide.

Respectfully Submitted,
Sean Dzafovic, Observing Chair
RASC, Halifax Centre

Halifax Centre Outreach Report, 2016

We have once again had a busy year at outreach events. This year a number of our volunteers have stepped up their game and ventured into new outreach events connected to the communities they are in. It is very rewarding to see outreach spreading throughout Nova Scotia. In particular, Tony Schellinck's DSO with binos, the indoor theatre program he has been doing at the Astor theatre in Liverpool, along with his bino table at major outreach events and his Star Trek Universe play, have spread our outreach to new groups. Teaching an intro astronomy class for SCANS, helping with Privateers Days in Liverpool, HalCon, CaperCon, library talks, Keji Dark Sky, Nova East and the Halifax Planetarium, Tony is almost as busy as I am with outreach events.

I would like to thank the other members of the Queens County Astronomy group for their hard work as well – Privateers Days in Liverpool, InOMN in Annapolis Royal, park presentations, library talks, and school presentations. Tony Schellinck, Wayne Mansfield, Bruce and Melody Hamilton, Jerry Deveau, Dave Griffith and the others from the South Shore who helped out, many thanks for your hard work.

Our members helped with Planetarium shows, Quinn Smith, Chris Young, Pat Kelly and Tony Schellinck presented 30 shows to almost 800 people. Thanks to Stephen Payne of the Dalhousie Department of Physics and Atmospheric Science for supplying these numbers

A lot of our events this year were repeats of past events, our success stories. Dave Chapman again organized the Keji Dark Sky weekend, as well as a new event, an ART Walk at Citadel Hill. Dave also did classroom talks (Galileo scope) and library presentations, and helped with a Mercury Transit event on the water front, with the help of Karl Penny, Quinn Smith and Jason Adams. Roy Bishop covered the Mercury Transit from Avonport. Dave Griffith, Blair MacDonald and Art Cole covered the transit from their respect job sites, and I was at the Halifax Independent School.

Saltscapes and the APS sidewalk event were also very successful again this year. With the Halifax Art Walk, Ross Creek Arts Centre event, AST conference, SCANS, YNC and Astor Theatre we have expanded our connection with the Arts, Youth Projects and Teaching communities in Nova Scotia, to our mutual benefit.

I have been again very busy with outreach this year. I am again the RASC board member for YNC and organized a talk and observing session for them. I have repeated Gr.6 talks at nine schools and have picked up three new schools. Evening school presentations for Kings County Academy and Chester Middle School outdoor programs were a great success again this year, 60/20 students. Special thanks to Bruce and Melody for their help at Kings. The early part of the year I did presentations at BGO, and the Discovery Centre and have done nine presentations for Cubs, Beavers, Brownies and Sparks. The Shubie Wildlife presentation went well as one at the Ross Creek Arts Centre and Art Walk at Citadel Hill. Did two library talks and again helped at Keji Dark Sky Weekend, Nova East, Saltscapes, HalCon, AST conference and the McLennan Lecture. I am the Outreach Coordinator for the Centre and have a few requests still to set up for the New Year.

The Halifax Centre can be proud of its outreach again this year. We participated in the following: Library talks, school presentations, park presentations, Youth group talks, outreach events: InOMN (three venues), Privateers Days on Liverpool waterfront, Keji Dark Sky, Nova East, Saltscapes, Transit of Mercury (four venues), APS sidewalk, AST conference, Intro Astronomy classes both classical (SCANS) and Theatrical (Star Trek Universe, Ross Creek Arts Centre). We expanded our connection with the Arts Community (Astor Theatre, Ross Creek, Halifax Arts Walk) Supported local astronomy venues with BGO and Planetarium talks. Members also did astronomy presentations in support of other groups events.

Overall, between October 2015 and September 2016 the Halifax Centre did just over 92 Events with roughly 700 youth and just under 4,000 adults participating. A tremendous effort from all the Outreach Volunteers!

My sincerest thanks go out to all the Halifax Centre members that helped with these outreach events. This of course does not include all the times we set up our telescopes to show neighbours, friends, and family the night sky, because that too is Outreach.

Again, many thanks to all who helped support our outreach events over the past year. Let us continue to show the night sky to any and all who 'look up and wonder'.

Respectfully Submitted,

Paul Heath, Outreach Coordinator
RASC, Halifax Centre

Planetarium Presentations Report, 2016

Public shows January to November, 2016 (by RASC)

30 shows to 159 Children, 605 Adults (double shows counted as "2")
Total: 30 shows to 764 people

Contributors:

Pat Kelly	11 shows
Tony Schellinck	12 shows
Quinn Smith	4 shows
Chris Young	5 shows

Thanks to Stephen Payne of the Dalhousie Department of Physics and Atmospheric Science for supplying these numbers and working with the RASC volunteers to mount an impressive array of shows.