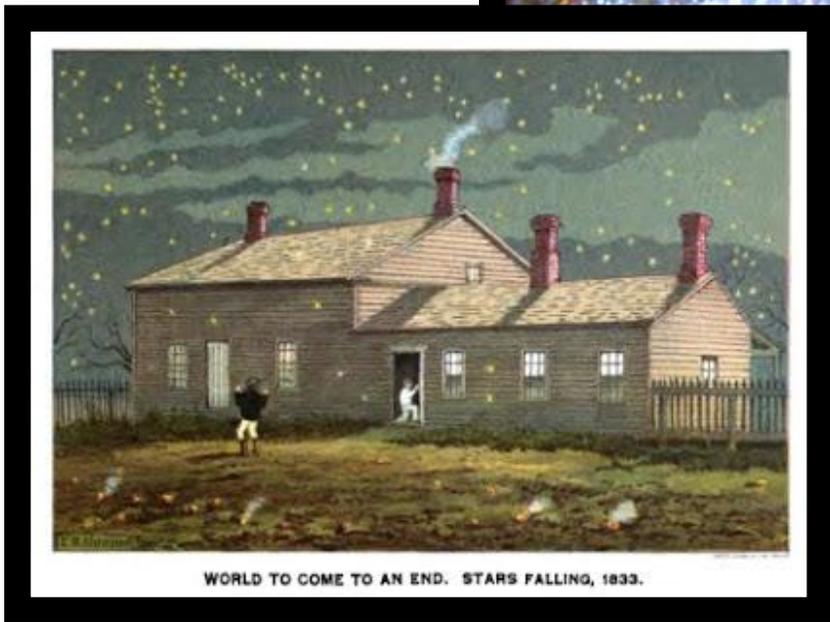
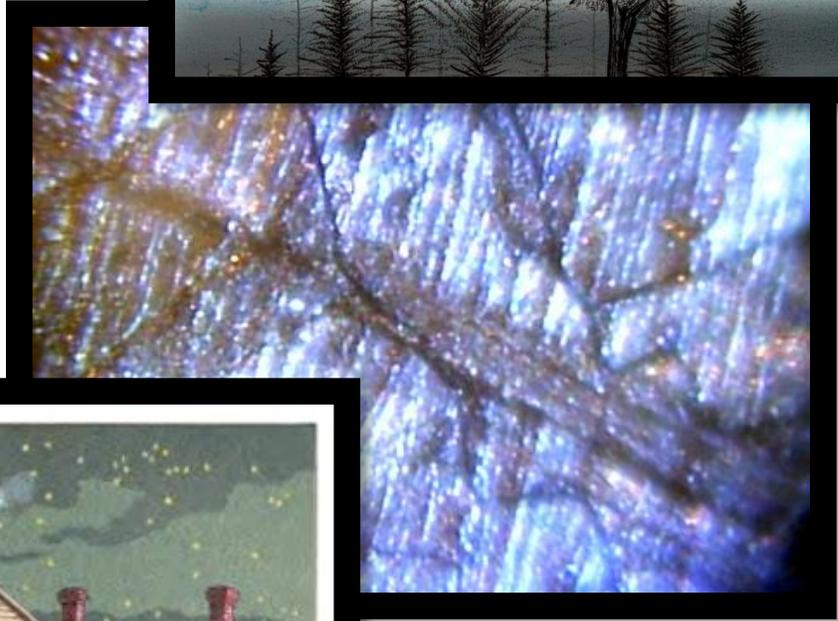
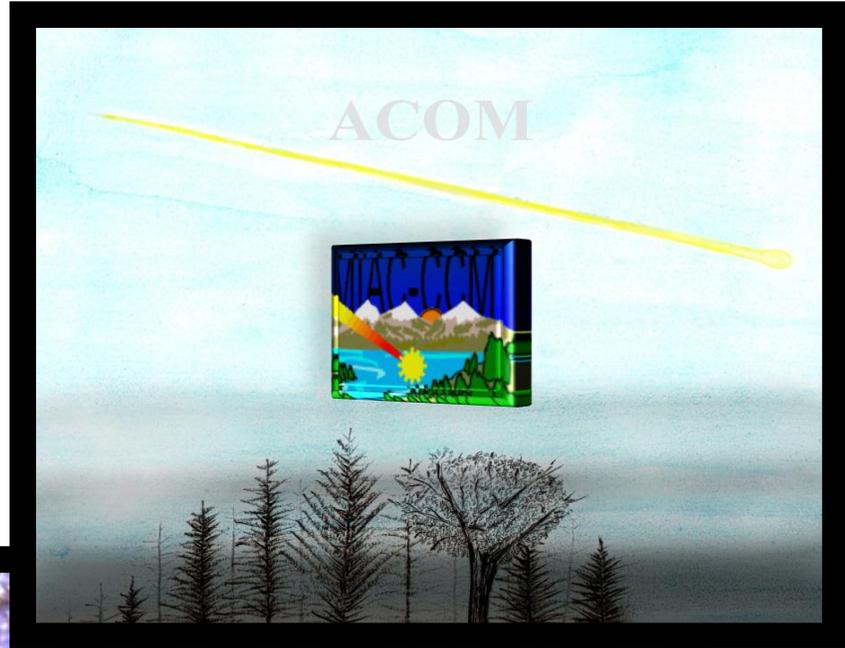




RASC History Committee



[2014 NOVEMBER 8 COMMITTEE REPORT]

Donations

In the period since the last committee report (http://www.rasc.ca/sites/default/files/2014_June_20_HCReport.pdf) the Society's Archives have received two significant donations, which as it happens both pertain to the field of meteoritics, in which Canada has long enjoyed an enviable reputation.

ACOM/MIAC Archive

In the very early morning of the 4th of March, 1960, one of the most spectacular bolides witnessed in modern times detonated over the Canadian prairies, producing the Bruderheim (L6) fall¹, and in its wake the formation of the Associate Committee on Meteorites (ACOM) of the National Research Council (1960-*ca.* 1985)².

ACOM consisted of leading Canadian meteoriticists, and was the inspiration of Peter M. Millman (1906-1990), then serving as RASC National President (1960-1962; <http://www.rasc.ca/peter-millman>). In time ACOM metamorphosed into the Meteorites and Impacts Advisory Committee (MIAC, *ca.* 1988-*ca.* 2007) to the Canadian Space Agency (CSA). Institutional activity is famously productive of records, and ACOM/MIAC was no exception, although, like the RASC, the creation of an ordered, formal archive came relatively late in the life of both entities.

Professor Phil McCausland (Centre for Planetary Science and Exploration [CPSX], Western), meteoriticist and member of the Astromaterials Discipline Working Group (ADWG), along with the distinguished historian of meteoritics and former MIAC member, Professor Howard Plotkin (emeritus Western), sought an institutional home for this trove of documents chronicling significant Canadian scientific achievements. They turned to the RASC, which through its Archives offers a measure of institutional stability, a commitment to the preservation of the stuff of astronomical history and heritage, and encouragement to reasonable access. We are pleased and honoured to assume the curation of the ACOM/MIAC Archive, and RASC members should take pride that the Society has earned a reputation as a trusted custodian of material of national importance for the material memory of Canadian astronomy. A brief description of the genesis of the ACOM/MIAC Archive, and its nature can be found here http://www.rasc.ca/sites/default/files/ACOM-MIAC_collection.pdf, and the material is available for consultation by qualified researchers. For any inquiries about the ACOM/MIAC, Archive please contact the RASC Archivist (<http://www.rasc.ca/contact/history>).

Rare retrospective lithograph of the 1833 Leonid Storm

The Great Leonid Storm of 1833 was among the most awesome of 19th-century celestial events, with a ZHR > 6x10⁴ according to some, an instance of the astronomical sublime from a period

¹ A.J. Whyte, *The Meteorites of Alberta* (Edmonton: The University of Alberta Press, 2009), pp. 57-91.

² G.C. Wilson & P.J.A. McCausland, "Canadian Meteorites: a Brief Review", in *Canadian Journal of Earth Sciences* 50 (2013), 4-13, at pp. 7-8.

much taken with the cinema of nature³. The cultural impact of the storm has been outlined for the United States, but its Canadian impact had been much less known until the recent work of Clark Muir (KW Centre) of our Committee⁴. Subsequent to the publication of his 2014 article, Clark revisited the account in Millman & McKinley⁵ of an eyewitness account of the storm by Daniel Conant taken at second (and third hand) by his son, the author Thomas Conant (1842-1905), who published it towards the close of Victoria's reign⁶. Millman & McKinley quote Conant *in extenso*, which might have been sufficient for most researchers. Clark, however, following the dictum *ad fontes*, thought it advisable to go to Millman & McKinley's source, the 1898 book. His diligence was rewarded by the discovery that Conant's account was illustrated by a painting of the event reproduced as a lithograph, a fact curiously omitted by Millman & McKinley. The artist was the notable Canadian watercolourist Edward Scrope⁷ Shrapnel (1847-1920); <http://www.artnet.com/artists/edward-scope-shrapnel/past-auction-results>; <http://tinyurl.com/mhj8q9l>).

Conant's publication is relatively scarce (<https://www.worldcat.org/title/upper-canada-sketches-by-thomas-conant/oclc/457957359?ht=edition&referer=br>), and the lithograph outside the publication scarcer still, but Clark was able to obtain an original copy of the 1898 lithograph for our Archives from the Oshawa Historical Society (OHS)⁸. Clark remarks on the image:

"The painting is unusual from most other depictions in that it does not show the meteors appearing to come from a radiant point. It also shows the meteors falling to the ground. This is consistent with the eyewitness report. At daybreak after the meteors fell Daniel Conant checked the field for debris and damage thinking the event was local. A wonderful description is included in the book and includes the reaction of a few others that were in and near the home⁹...This is the first Canadian depiction of the 1833 Leonids that I have found...The storm was just as stunning in Canada as it was in the U.S. yet Canadian reports are rarely referenced"¹⁰.

We are grateful to be able to add this rare image to our collections, a gift we owe entirely to Clark's enterprise, research acumen, and generosity.

³ M. Littmann, *The Heavens on Fire: The Great Leonid Meteor Storms* (Cambridge: Cambridge University Press, 1999), p. 83. ZHR=zenithal hourly rate.

⁴ C. Muir, "Canada and the 1833 Leonids", in *JRASC* 108, 2 (2014 April), 66-69, 72-73.

⁵ P.M. Millman & D.W.R. McKinley, "Stars Fall Over Canada", in *Astronomy in Canada: Yesterday, Today and Tomorrow* (Toronto: RASC, s.d. [ca. 1967]), pp. 277-294, at 277-278=*JRASC* 61, 5 (1967 October), same pagination.

⁶ Thomas Conant, *Upper Canada Sketches* (Toronto: W. Briggs, 1898).

⁷ Shrapnel's middle name is given variously as "Scrope" and "Scope". The former is probably the correct version; it appears thus in C.S. MacDonald, *A Dictionary of Canadian Artists*, 1-8 (Ottawa: Canadian Paperbacks, 1967-2006; now online and completed at <http://www.gallery.ca/en/publications/a-dictionary-of-canadian-artists.php>); <http://tinyurl.com/kn87ow8>.

⁸ The OHS were given the unbound lithographs by a member of Conant's family, and are selling those surplus to their collections to raise funds.

⁹ The entire book can be read online at <https://archive.org/details/uppercanadasketc00cona>.

¹⁰ C. Muir to historical@lists.rasc.ca 2014 October 2. The Archivist can add that the lithographers, Barclay, Clark & Co., were not in the same league as Shrapnel as craftsmen; note the registration of successive impressions of the stone are slightly off (but this is a common fault of 19th-century commercial lithographers).

Historic Canadian astronomy videos for the RASC YouTube channel

We are happy to report that progress has been made on this project (for a description see http://www.rasc.ca/sites/default/files/2014_June_20_HCReport.pdf, p. 4). After numerous trials and assays to ameliorate the quality of the videos, and develop a unified presentation, the first video is ready to be released on <http://www.youtube.com/user/RASCANADA>. We wish to thank Bill Wagstaff (Ottawa Centre) for his hard work and technical expertise, and Rob Dick (Ottawa Centre) for originally shooting the videos, and generously making them available to us. We also acknowledge the cooperation of the Membership and Development Committee through its Chair, Roland Dechesne.

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Stay tuned over the coming year for releases of these videos featuring speakers such as Gene Shoemaker, Halton Arp, Clyde Tombaugh, Leif Robinson, Richard Jarrell, Richard Herd, Alan Guth, Geoff Marcy, and Bob Garrison.

Presentations

On 2014 June 26th committee members R.P. Broughton and R.A. Rosenfeld took part in The Plaskett Panel Discussion with Dr. Jim Hesser (happily retired former Director of the DAO and Victoria Centre member), and Daniel Posey (historian and also a member of Victoria Centre). This was part of the opening events of the RASC 2014 General Assembly hosted by the Victoria Centre, which was celebrating its (first) centenary (victoria.rasc.ca/media/VictoriaGAConferenceGuide-1.4Small.pdf). Committee member Dr. Chris Gainor was part of the GA organizing committee. The Archivist was truly touched that so many members would put up with hearing him just to get a piece of commemorative cake. It should be put on record that the cake was indeed memorable (<http://rascvic.zenfolio.com/2014ga/h3D8EA80D#h25eff9c8>).

The Archivist was responsible for perpetrating "What's in the constellation Crater, how Newton got fifty bottles of champagne, and when Halley drank brandy and swore – the surprising history of astronomy and alcohol" on both the London Centre (July 18), and the Kingston Centre (October 9). In both cases theory was put into practice after the meetings.

On October 2 at the International Astronautical Congress in Toronto Dr. Chris Gainor delivered a talk on "Bruce Aikenhead: Canada's Most Versatile Space Pioneer" (<http://www.iafastro.org/wp-content/uploads/2014/09/final-programme-updated-30-09.pdf>, p. 161).

Publications

R.P. Broughton, "Brown, Robert Hanbury", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 322-325

R.P. Broughton, "de Billy, Jacques", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), p. 529

R.P. Broughton, "Downing, Arthur Matthew Weld", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 605-607

R.P. Broughton, "Dubiago, Aleksandr Dmitrievich", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 614-615

R.P. Broughton, "Gautier, Jean-Alfred", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), p. 791

R.P. Broughton, "Norwood, Richard", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 1591-1592

R.P. Broughton, "ten Bruggencate, Paul", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 2135-2137

R.P. Broughton, "Watson, James Craig", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 2295-2297

Chris Gainor, "American Intelligence on Soviet Missile Programs, 1945-1954", in *Quest: The History of Spaceflight Quarterly*, 21, 3 (2014), 37-46.

R.A. Rosenfeld, "Becker, Ludwig Wilhelm Emil Ernst", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 183-184

R.A. Rosenfeld, "Du Val, Pierre", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 628-629

R.A. Rosenfeld, "Münster, Sebastian", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 1542-1543

R.A. Rosenfeld, "Zamora, Antonio Núñez", in *Biographical Encyclopedia of Astronomers*, ed. T. Hockey *et al.*, 2nd ed. (Heidelberg-New York-Dordrecht-London: Springer-Verlag, 2014), pp. 2407-2408

R.A. Rosenfeld, "The Value of Astronomy for a Civilized Society: Richard Adrian Jarrell 1946–2013", in *JRASC* 108, 4 (2014 August), 156-159, 162-163

R.A. Rosenfeld, "Perception and Reflection: The Earliest Image of Sunspots?", in *JRASC* 108, 5 (2014 October), 211-213

Other Activity

RASC Anniversaries

There is some progress to note on the efforts to have either a RASC stamp issued, or a coin minted.

Regarding the former, an informal working group consisting of Dr. Chris Gainor, the RASC Executive Director Randy Attwood, and the Archivist have approached Canada Post. They were informed that it is difficult to obtain approval for any stamp given the keen competition, and that 4.7×10^3 members is not a significant enough portion of the Canadian population (taken with our presumed cultural significance) to be a compelling argument in itself for the creation of a stamp. And, unlike the case with the Royal Mail in Great Britain which does mark sesquicentenaries (the Royal Astronomical Society was commemorated with a 150th anniversary stamp in 1970; <http://www.ianridpath.com/stamps/1970.htm>), Canada Post does not honour such occasions. We were not, however, told to lose ourselves in the empyrean, so there remains some hope that a stamp commemorating an "aspect" of astronomy may appear in time for our 150th anniversary in 2018. We shall continue to work on the file.

Brendon Roy (Thunder Bay Centre) of the Membership and Development Committee has taken the initiative in pursuing the possibility of a RASC coin with the Royal Canadian Mint. Brendon has our Committee's full support in this undertaking.

After preliminary communications with the Mint, Brendon reports that:

"the mint does not think that it would be economically sound to pursue producing a coin for us. Simply not enough market interest in the idea. It would seem that if we want to continue with this idea that we will need to undertake a letter writing campaign to organizations in order to gain their support and convince the mint there is demand. Or convince the minister in charge of the mint to force the mint to produce a coin"¹¹.

The Mint suggested the following:

"Thank you for your letter proposing that the Royal Canadian Mint produce a coin in 2018 to commemorate the 150th anniversary of the Royal Astronomical Society of Canada...For the reasons stated above, we believe this coin idea is one that would work best as a custom medallion - something which could serve as a special keepsake for the RASC's many members. If this is of interest, please do not hesitate to contact...[the] Senior Sales Manager at the Mint. He will be able to discuss with you the feasibility of creating such a medallion and will be able to answer any questions you may have such as cost, design and time-lines"¹².

This seems to leave the Society with four possible courses of action:

- 1) undertake a letter writing campaign to organizations in order to gain the support of Canadian citizens and convince the mint there is sufficient demand for a 2018 RASC coin;
- 2) convince the minister in charge of the mint to recommend that the mint produce a coin;
- 3) take the Mint up on their offer to produce a custom medallion;
- 4) abandon the commemorative coin initiative¹³.

¹¹ B. Roy to R.A.R. 2014 October 30.

¹² Message forwarded by B. Roy to R.A.R. 2014 October 30.

¹³ The required numbers alone would make option 1 difficult, and it may not represent the best use of Society members' energy and resources; option 2 is a non-starter unless we have a member who enjoys a personal relationship with the minister; option 3 may be the sole one which could guarantee our having some success at the

It is our recommendation that this matter be turned over to the Society's National Advisory Council and Board of Directors to deliberate.

Members' activities

Heather Laird has devoted much time to evaluating and selecting the WebEx platform for Society business, wearing her other hat as a member of the IT Committee. In a trial run the Archivist was most impressed by the capabilities of the program, and would recommend it for Committee business should it ever become necessary to have a "real-time" meeting. It would, of course, be useful for seminars or workshops for RASC members should we ever be called upon to give them (*e.g.*, topics could include identifying and curating astronomical history in your area, using astronomical history as EPO, "viewing the skies with other eyes: experimental archaeology of the night sky", etc.). Many thanks to heather and her colleagues for their exemplary work on this project.

Dr. Roy Bishop remarks that:

"In September I was in London where I visited the Science Museum and also the National Maritime Museum in Greenwich. In the former are some astronomical artifacts, including a copy of Newton's Principia, objective mirrors from Herschel's 40-foot telescope and the Earl of Rosse's telescope, a telescope that Herschel made for his sister Caroline, and a room containing various pieces of "science apparatus" made for George III (one demonstrates the tidal action of the Moon on Earth, of special interest to me). The NMM currently has a first-rate display on the quest for longitude, with Harrison's chronometers (H1, H2, and H3 all running) being the highlight. Back in London, I left an jpeg copy of my photograph of a rainbow over Newton's Woolsthorpe Manor at the Royal Society (they did not have a good copy). Among items on display there is the famous first Newtonian reflector, said to have been made by Newton"¹⁴.

The Archivist and Professor David Turner followed in Dr. Bishop's footsteps. Thanks to a grant from Saint Mary's University, both were able to undertake a research trip to astronomical libraries and archives in England to elucidate the various mysteries surrounding the unusual celestial ceiling in the chancel of St. John's church, in the heart of the UNESCO World-Heritage site of Lunenburg, Nova Scotia. Research was carried out in the London Metropolitan Archives, the Library of the Royal Astronomical Society at Burlington House, the Archives in the Liverpool Central Library, the Archives of the Church of Our Lady and Saint Nicholas in Liverpool, and in the Bodleian Library at Oxford. Excursions were taken to Greenwich, the Science Museum of London (which in addition to the artifacts mentioned by Dr. Bishop, also displays James Nasmyth's revolutionary coudé telescope, surviving plaster casts of his lunar landscapes, some of the most important dividing engines of the 18th century, the Kew Photoheliograph 1857 of Warren de la Rue, & Babbage's difference engines [and brain!]), The Monument to the Great Fire of London (Wren and Hooke's observatory for a zenith telescope), the Radcliffe Observatory, Halley's Observatory, and the Museum for the History of Science in Oxford (a very rich collection, including Jean Fusoris astrolabes, the earliest surviving Gregorian

end of the day, but it would cost the Society money, and reading in between the lines, it is not hazarding too much to suggest that the Mint regularly promotes such an option as a revenue stream.

¹⁴ R. Bishop to R.A.R. 2014 October 4.

telescope, and important RAS and 18th-century Radcliffe instruments). Our meeting at the new Mathematics Institute migrated to Sir Roger Penrose's office! Doubtless in time RASC members will hear about what we uncovered when we weren't doing research in the pub.

Acknowledgements

We wish to thank Renata Koziol and Julia Nesser of the Society Office for their support for the various initiatives and programs presented in this report. We extend our welcome to the new Executive Director, Randy Attwood, and look forward to a fruitful working relationship with someone for whom astronomy is not a foreign country. We also wish to acknowledge Walter MacDonald's crucial continuing work in cooperation with the Committee to digitize our Archival holdings to the benefit of the entire RASC.

Respectfully submitted,

R.A. Rosenfeld (unattached), Chair

Committee Members:

Dr. Roy Bishop, FRASC (Halifax)
Eric Briggs (Toronto)
Peter Broughton, FRASC (Toronto)
Robert Duff (London)
James Edgar *ex officio* (President, Regina)
Dr. Chris Gainor (Victoria)
*Dr. Robert Garrison (Toronto, consultant)
*Renata Koziol (Office Administrator)
Heather Laird (Calgary)
Barry Matthews (Ottawa)
Clark Muir (Kitchener-Waterloo)
Randall Rosenfeld (Unattached), Chair

*=*non-voting members*



1 Astronomer Royal for a day