

Education and Public Outreach Committee Report – for the CASCA Board at CASCA 2010

Submitted by Dennis Crabtree (Chair).

This report covers the period from May 2010 to May 2011.

Current Committee Members

Chair:	Dennis Crabtree	(2005-13) NRC-HIA
Vice-Chair:	Joanne Rosvick	(2005-11) Thompson Rivers University
Members:	Julie Bolduc-Duval	(2010-13)
	Jan Cami	(2008-11) University of Western Ontario
	Eric Chisholm	(2010-13) NRC-HIA
	Yvan Dutil	(2008-11) T3E
	Louise Edwards	(2008-11) Caltech/IPAC
	Nathalie Martimbeau	(2001-12) Montréal Planetarium
	Peter Newbury	(2009 – 2012) University of British Columbia
	Gordon Sarty	(2008-11) University of Saskatchewan
	Ian Short	(2009-13) St. Marys University
Board Representative:	James Di Francesco	NRC-HIA
Education Co-ordinator:	Heather Theijsmeijer	

Committee Activities

CASCA EPO Reporting Form

The Committee implemented an on-line EPO reporting form to allow CASCA members to record their outreach activities. This data will allow CASCA to track the number of outreach activities reported (in several categories) as well as track the number of people reached by these activities. Thus far in 2011, 39 events have been submitted using the form reaching a total of 4,302 Canadians. The breakdown is as follows:

Astronomy course (for non-science majors)	2264
Day-time observing	10
Other	117
Public talk	905
School visit (K-3)	691
School visit (4-8)	285
School visit (9-12)	30

It would be helpful if a link to the EPO Reporting Form was more prominent on the CASCA website. (I also note that the website still has IYA prominently displayed even though IYA ended almost 1 ½ years ago).

National Canadian Astronomy Communications, Public Education and Outreach Awards

Last year this Committee made a request to the CASCA Board to create an EPO award. It was subsequently suggested that the award be joint with the RASC and/or FAAQ. The goal of a single award to be shared by all three societies proved elusive given the significant difference in approaches to making awards. However, this past year CASCA, the FAAQ and the RASC came to an agreement on the establishment of National Canadian Astronomy Communications, Public Education and Outreach awards, one for each society. The awards will be announced simultaneously in order to maximize the publicity for all three societies.

The most difficult aspect of the achieving agreement on this series of awards was the name. CASC, the FAAQ and the RASC finally agreed to the name ***Qilak Award for Astronomy Outreach and Communication***. Qilak is Inuit for *sky* or *celestial sphere* and evokes Canada's vast northern skies.

PromoScience Grant - À la Découverte de l'Univers / Discover the Universe

Under the auspices of the PromoScience grant held jointly with the FAAQ and the RASC, an on-line pilot program to train outdoor interpreters (such as in the parks) has been developed. The program is modeled after a similar successful program run by the Astronomical Society of the Pacific. The pilot will be held in June, 2011 and will be French only. There are currently 35 participants registered (not all from Quebec) who will participate in two groups (license limitation of the software being used). The program will be held again in the fall in both French and English.

New Members:

During the past year two new members were added to the committee in an effort to broaden the experience and scope of activities of committee members. Added were Julie Bolduc-Duval, currently hired by the PromoScience grant and who has experience in public outreach during her time at HIA in Victoria. Also added was Eric Chisholm, currently the Manager of the Centre of the Universe (quite a job title!) and active in national activities such as National Science and Technology week.

Committee members' EPO reports/ IYA 2009 activities:

Jan Cami:

Many astronomy outreach activities at Western are centered around the on-campus Hume Cronyn memorial observatory. This year, we celebrated the 70th anniversary of the observatory. As the Cronyn coordinator, I had an active role in these outreach events. This includes organizing (and contributing to) the public nights at the observatory (in collaboration with the local RASC chapter) that run each week in the summer and once a month in winter. For such events (and in support of astronomy course projects), I have also offered telescope training for graduate and undergraduate students. The astronomy graduate students further acquired a solar telescope for daytime outreach activities and a CCD camera and filter wheel for use with the 10 inch Schmidt-Cassegrain telescope. In addition, I secured funding through the Science Student Donation Fund for a spectroscopy demonstration setup. I manned such a setup at the Fall preview day. I also became the acting coordinator for the Exploring the Stars program, which offers evening astronomy programs for youth groups. For that program, we explored future program expansions in collaboration with Planetary Science.

I also did a big outreach effort following our discovery of buckyballs in space. In collaboration with the Spitzer Science Center, NASA/JPL and the media relations office at Western, a press release was issued that included illustrations, animations and a short movie clip that was posted on the NASA web site and on YouTube. I did about 30 interviews for various TV and radio programs, as well as for newspapers, web sites, journals and magazines, and wrote a popular article for the main astronomy magazine in Belgium. I did three different podcasts; the first with EarthSky Communications, which was delivered to 15 million (!) subscribers worldwide. Later on, I was a guest for the T-WiSe podcast by VROC, and for a Jodcast (podcast by the Jodrell Bank centre for Astrophysics).

Eric Chisholm:

April 2010

NRC-Marsville asteroid event. Dave Balam and I ran a cross-Canada asteroid naming contest. The winner was a grade 6 student from Ottawa named Timothy Nemet (I presented it to him in front of 800 students at Steve MacLean School in Ottawa in June 2010)

Participated in a First Nations community science celebration in Cowichan (this was actually on astronomy day last year)

May 2010

Partnered with the IMAX theatre in Victoria for their screening of the film Hubble – delivered 4 or 5 talks to between 600-800 students and public

Held an open-access event at HIA for APEGBC. About 60 of their engineers joined for an evening of talks, tours and viewing.

June 2010

CSA Julie Payette event. About 50 students were here (I recall you were as well) for her to return the spectra and close-out the IYA partnership.

September 2010

Chinese lunar celebration in Richmond. Coordinated an astronomy event (near the international observe the moon day) designed to celebrate Chinese cultural attachment to the moon (about 500 people)

October 2010

Coordinated an astronomy themed evening in Vancouver for the 80 top science fair winners in Western Canada. Brought in Jaymie Matthews to give a talk on the Mayan calendar.

December 2010

Bob Thirsk IYA event at the RBC museum. Coordinated the return of Mary Lou's new telescope in front of about 600 kids.

February 2011

Partnered with UVic and NRCan to launch a series of "government facility tours". About 40 graduate students from physics and engineering visited HIA for an evening of behind the science tours.

Tapestry teacher fair. Attended and presented at the largest Vancouver Island teacher Pro-D event. About 500 teachers in attendance.

Dennis Crabtree:

Dennis is President of IAU Commission 55 – Communicating Astronomy with the Public (2009-2012). He is also Chair of Commission 55's Working Group on the Washington Charter.

I served on the BIYA Executive Committee along with James Di Francesco and two members from each of the FAAQ and RASC.

I am a member of the SOC of the Communicating Astronomy with the Public (CAP2011) conference to be held in Beijing in October. I have been actively promoting this meeting in Canada.

IAU Commission 55 submitted a proposal for a Special Session (SpS) at the IAU GA in Beijing. The SpS will be run as a workshop and is intended to provide training, by communication professionals, to astronomers on many aspects of communicating astronomy to the public.

Yvan Dutil

Yvan participated in the conference of his local astronomy club and gave several interviews to local journalists.

Louise Edwards

- June '10) Volunteered with PasadenaLEARNs, where I ran interactive physics demos with middle-school age students.
- (September '10) Gave a guest lecture to Pomona College astronomy lab class. Took the students with me for part of my Palomar Observatory run
- (January '11) Interview with the Times Colonist (Victoria) and the Downtown Blog (Los Angeles) newspapers about being an Astronomer and new scientific results
- (December '11) Worked with NASA/Spitzer outreach centre to create a press release about scientific results (appeared on Canadian and US blogs)
- (May '11) Closing ceremonies keynote speaker at Imhotep's Legacy (Dalhousie University's outreach program for African-American high-school students across Nova Scotia)
- (June '10 -May '11) Mentor two astronomy students in Honduras for undergraduate research

Nathalie Martimbeau:

- Made a presentation to the Société d'astronomie du Planétarium de Montréal June 4 called Saturn, beyond the rings.
- As part of my job at the Montreal Planetarium, I designed and produced a planetarium show, for 4-7 year olds, called Une odysée avec Akvo / An Odyssey with Akvo. It has been shown since January, in French and English, with some educational materials (also bilingual). The songs and educational materials are available on the Planetarium's website. I also respond to media inquiries (print, radio or television) about astronomical events, write about twice a year a monthly column for the Journal de Quebec, which also appears on our website.
- With my colleagues at the Montreal Planetarium, we are designing and producing a planetarium show called Fragments de système solaire / Fragments of the solar system, for audiences 9 years and older. It discusses asteroids, comets and dwarf planets. This planetarium show is partly narrated. The other part is conducted

by a live presenter who : demonstrates the vast space there exist between asteroids; explains the 2006 new definition of a planet comparing Jupiter, Ceres and Pluto; and finally making a comet nucleus live in the theater.

- I am currently working on designing and producing an outreach program for K-6 with a portable planetarium. It will go into schools in the province of Quebec from September 2011 to June 2012. Three presentations will be available for grade levels (K-2, 3-4, 5-6) and are based on the Ministère d'Éducation du Québec's essential knowledge. Pre- and post-visit activities will be available for the teachers to do in the classroom.
- I will participate in a panel on "New ways of presenting programs under the Planetarium dome" at the CASC (Canadian Association of Science Centers) annual meeting to be held in Sudbury June 9-11. My participation is "virtual" since I can't go in person, I have sent an 8 min mp3 video of my presentation.

Peter Newbury:

I am very fortunate that astronomy education is my job. Through the CWSEI, I bring astronomy education research and best practices to our astronomy instructors. This year, I shared results, experiences and materials in The Physics Teacher, at ASP2010 and AAS217, on Twitter as @polarisdotca and through my blog, blogs.ubc.ca/polarisdotca. I participate in my Department's Faraday Christmas lecture (our physics and astronomy show for families) but most of my public outreach revolves around keeping my community, geographic and virtual, aware of exciting events in astronomy and space exploration.

Joanne Rosvick:

Joanne Rosvick continued to give observatory tours to school groups and other children's groups (Brownies, Scouts etc) over the past year. She was interviewed last August by the local television station regarding the Perseid meteor shower, and again by one of the local radio stations in October regarding the Orionid meteor shower. She also offered technical advice, and the use of some small telescopes, to the university's 4th year theatre students who were putting on a play with an astronomical theme (their 4th year project prior to graduation).

Gordon Sarty:

I gave a talk to the Saskatoon RASC on March 21 on my research that used space telescope data (MOST, Spitzer, RXTE) and on my trip to Algeria in the summer of 2010 to an Astronomy Workshop there. In April, using funds awarded by the University of Saskatchewan, I brought in my collaborator, Kinwah Wu, from University College London's Mullard Space Science Laboratory for a public talk at Saskatoon's Frances Morrison Library.

Kinwah talked on "Studying the X-ray Universe From Space: From the Solar System to Stars and Galaxies." In April also, I gave a telephone interview to a CBC reporter about my DAO observations

that supported Kepler observations of a triple star that was published in the journal Science. I brought my Coronado H-alpha telescope to the Saskatoon Farmer's Market for Astronomy Day on May 7; it was mostly cloudy so I spent the morning chatting with visitors who passed by our RASC setup.

Ian Short:

Ian gave a talk on the solar activity cycle and Earth's climate to a group of 30 graduate students at the Nova Scotia Agricultural College in Truro in March. Although the group did not have a strong physics or astronomy background, they asked many good questions. Short taught for the first time at Saint Mary's a section (70 students) of the first year Astronomy course for non-science majors ("The Sky and Planets"). Lectures were based around multimedia images and video clips harvested from the Web, and occasionally YouTube. He intends to further re-orient the course to Web-based astronomical tools such as Google Earth's "Sky view" mode when he next teaches the it.

Heather Theijsmeijer – CASCA Education Coordinator:

A Teachers' Workshop has been organized in conjunction with the CASCA assembly in London. It will take place Wednesday, June 1 from 4-6pm and will include talks/workshops on current topics in astronomy, teachers' resources, telescope demonstrations, the Explore the Stars program at UWO and astronomy visualization software.

After a long period of inactivity, more and more names are being submitted for the Canadian Junior Astronomer Program (hosted on the <http://www.cascaeducation.ca> website). In the past few months, 13 students from Ontario, Alberta and Manitoba have completed various levels of the program through both school programs, or on their own/with their families. There have also been a couple of inquiries about the program. Names of all students who have completed the different program levels can be found at http://www.cascaeducation.ca/files/cjap_completed.html

I continue to maintain the CASCAEd website and the twitter account (@canadastro) on a regular basis, contribute talks to STAO (2010 and upcoming in November 2011) as well as CASCA2011, research and write e-Cass articles, as well as create and edit teacher resource documents (most notably the recent STAO grade 9 curriculum resource).