

**IYA 2009 Report to the CASCA Board
December 2008 - May 2009**

www.astronomy2009.ca ou www.astronomie2009.ca

Overview: *At the 40% mark of IYA 2009, this report summarizes selected highlights, indicates progress on legacy projects, updates the funding situation, and presents thoughts on the importance of capitalizing on the good will IYA 2009 activities are generating in Canada, including a continuation of the partnership between CASCA, FAAQ and RASC.*

By (very) conservative estimates, over a quarter million Canadians have enjoyed a 'Galileo Moment' of personal astronomical discovery since 1 January. Several millions more have been exposed to media created events or to media coverage of IYA activities. 1,340 events have occurred and, as of mid May, 394 are posted as planned in the near future. There have been events in every province and territory. Materials produced by RASC members (and translated by FAAQ members) have been extremely well received by members of the public, especially school-age children. With continued efforts from volunteers in the last seven months of 2009, it seems possible to achieve-or even exceed-our target of 1 million Galileo Moments. More importantly, it will be possible to consolidate the legacies or pathways thereto.

For the full picture of CASCA's involvement in EPO (education and public outreach), please read this report side by side with that of the Education and Public Outreach Committee, which includes John Percy's triennial report to IAU Commission 46.

1. Organization

Through the generous support of the Trottier Family Foundation we have been able to hire Program Manager Kim Breland (FYs 08-10) who has helped to bring all of our projects to life and to co-ordinate activities among our partnership of professional (the Canadian Astronomical Society-CASCA) and amateur (Fédération des astronomes amateurs du Québec-FAAQ, The Royal Astronomical Society of Canada-RASC) astronomers.

The IYA Executive Committee comprised of seven people [Jim Hesser, Doug Welch (CASCA), Rémi Lacasse, Damian Lemay (FAAQ), Kim Hay, Dave Lane (RASC) plus Kim Breland] meets biweekly via telecon.

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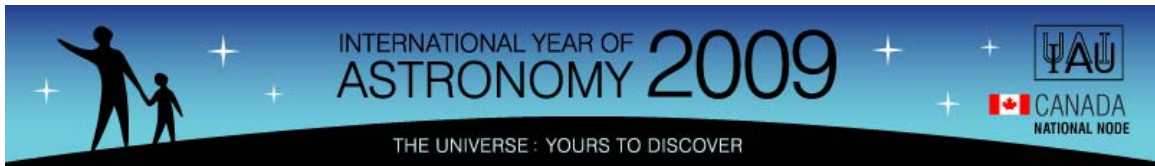
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An Advisory Board of 17 members and 3 consultants is available for insightful advice as well as consultation on specific issues. Efforts are made to keep the Directors and appropriate committees of the partner organizations informed.

A set of list-servers (hosted by the RASC) enable communications with the liaisons in the partner organizations, as well as science centres. For the past year a monthly newsletter was provided on our website (maintained by Marc Jobin and Andy Woodsworth); it has been discontinued in favor of more News items and directed communications via the list-servers.

2. Significant Accomplishments to Date

Our IYA projects aim to create long-lasting legacies by focusing on public education, with emphasis on reaching out to children and youth. Our goal is for 1,000,000 Canadians to experience a “Galileo Moment” of personal astronomical discovery sometime this year. In January alone (when the weather made it difficult to do any outdoor astronomy activities), over 16,000 Canadians participated in IYA events. The two tables below highlight selected examples of IYA 2009 activities with widespread reach.

Two major accomplishments of a different nature deserve mention:

1. Our partnership submitted a successful NSERC PromoScience proposal (PI John Percy) under CASCA’s name. The allocated \$24K/yr X 3 yrs will allow us to contract a part-time EPO coordinator and to support in a modest way some of the volunteer activities. The hiring process is, with a bit of luck, nearing completion. (See §3 for additional thoughts.)
2. The Trottier Family Foundation provided CASCA with the second half of their \$100K (total) commitment that allows the partnership to benefit from the services of Kim Breland.

A. New Education and Public Outreach Materials

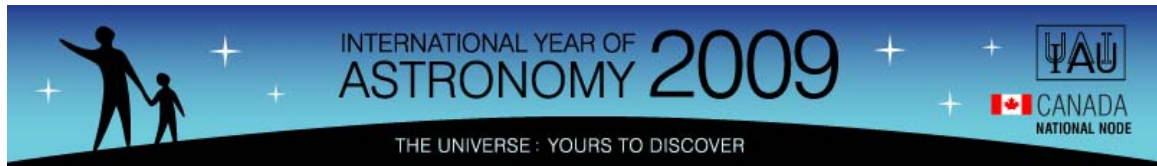
The following selection of items to illustrate accomplishments of the hundreds of volunteers to date is of necessity highly selective, thereby omitting many wonderful projects. A number of items in the following table constitute early legacy contributions.

Table 1: Selected EPO Materials

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| Item | Initial Print Run | Status |
|---|-------------------|---|
| Une année astronomique | 70,000 | FAAQ; a 2008-09 school-year calendar of astronomy and space engineering distributed throughout Québec schools, libraries and subscribers to two children's magazines |
| 7 Astronomy Trading Cards | 700,000 | RASC, FAAQ. Primary tool for registration of names for launch by CSA in 2010 |
| Mary Lou's New Telescope | 20,000 | RASC, FAAQ. First print run was extremely popular; can be downloaded from RASC web site: http://www.rasc.ca/education/mlnt.shtml |
| Star Finders (planispheres) | 90,000 | RASC, FAAQ. 175,000 reprint under way (RASC fund raising) |
| Event Posters | 14,000 | RASC, FAAQ. IYA poster with space for event hosts to insert information about their event. |
| Sidewalk Astronomy Handbook | 24,000 | RASC. Targeted at motivating and helping RASC centre members undertake sidewalk astronomy (English only). |
| Canadian astronomy images | N/A | Collection of Canadian images available at http://www.galaxydynamics.org/iya2009/ ; complements IAU FETTU collection |
| <i>Muin and the Seven Bird Hunters</i> (Trilingual video, Cape Breton University) | N/A | Beautifully illustrated video of a traditional Mi'kmaq story relating activities on Earth with circumpolar motions, appearances of stars, etc. during different seasons available from our website, www.astronomy2009.ca (Mi'kmaq, French, English) |
| <i>The Galileo Project</i> (Tafelmusik) | N/A | Music Galileo & Newton's eras with their words spoken by an actor and with beautiful astronomical imagery. Teacher's guide combining astronomy, music: http://www.tafelmusik.org/education/teacherstudy.htm |
| <i>Music of the Spheres</i> (Victoria Symphony) | N/A | Teacher's guide (K-3, 3-7) combining music and astronomy http://www.victoriasymphony.ca/interact/school_programs.html |
| <i>Galileo Live!</i> | N/A | Planetarium show with live actors, now open in Calgary, |

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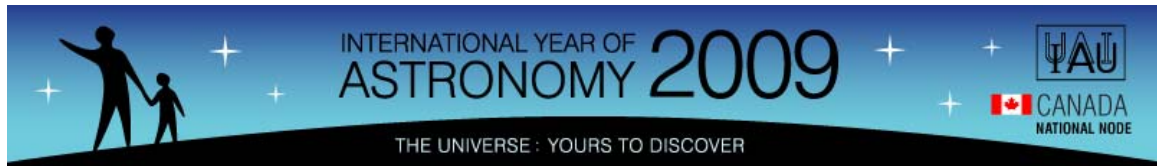
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| | | Vancouver, and coming soon to Winnipeg and Montréal; http://www.calgaryscience.ca/index.php ; http://www.hrmacmillanspacecentre.com/ |
| Postal stamps | 6,000,000 | Canada Post issued two stamps on 2 April 2009; http://www.canadapost.ca/cpo/mc/personal/collecting/stamps/2009/2009_apr_astronomy.jsf?LOCALE=en |
| <i>Hawaiian Starlight</i> (Video from CFHT) | N/A | Exploring the universe from Mauna Kea; http://www.cfht.hawaii.edu/HawaiianStarlight/trailer.html |
| 9 Light pollution cards | 9 X 2,000 | RASC Victoria Centre; basic facts about energy and impacts on biological systems modeled after the Astronomy Trading Cards (English only) |

B. Notable outreach events involving media

Strong and gratifying media involvement and support is greatly extending IYA's Canadian impact. In addition to sustained and appreciated support from CBC's Bob McDonald, other hosts of CBC and RC programmes have created IYA programming that has reached many thousands of Canadians. The University of Toronto's newly formed Dunlap Institute for Astronomy & Astrophysics created a Journalist-in-Residence programme, with the initial incumbent being the celebrated science journalist Ivan Semeniuk, who is creating new materials throughout IYA. Once again, the following selection of items illustrating accomplishments to date is of necessity highly selective. These samples represent hundreds of thousands of 'Media Moments', which have great value in getting the public aware and excited about IYA and about astronomy. Although our volunteers are great at sharing their media coverage with us, we believe that there are hundreds more radio shows, newspaper articles, etc. about IYA of which we're unaware.

Table 2: Selected Media Activities

| Item | Initial Reach | Status |
|-------------|---------------|---|
| IYA website | | Our bilingual website, developed and maintained by volunteers Marc Jobin (technical) & Andy Woodsworth (content management), hosts the national event database and 'Galileo Moment' counter. Volunteers provide translations as needed. See www.astronomy2009.ca ; www.astronomie2009.ca |
| SkyNews | | Bimonthly articles on IYA 2009 activities, and an image |

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| | | archive hosted at http://www.skynews.ca/ |
| CBC Radio 1 | | 28 December - Singer and Physics Professor Diane Nalini speaking with Michael Enright about the upcoming IYA: http://www.cbc.ca/radioshows/THE_SUNDAY_EDITIO N/20081228.shtml |
| CBC Radio 2 | | 1 January - Tempo - featuring music related to Astronomy: http://www.cbc.ca/radio2/playlists.html?/radio2/includes/playlists/daily/daily-20090101.html |
| Podcasts | | <i>Slacker Astronomy</i> , http://www.slackerastronomy.org/wordpress/ , and <i>The Universe in Mind</i> , http://di.utoronto.ca/journalist/index.html , offer podcasts with high Canadian content |
| Cool Cosmos Transit Ads | 1,500,000 | Five colourful, thought provoking ads on all public transit in Toronto & Mississauga during January: http://www.di.utoronto.ca/coolcosmos/ Now appearing in Montréal: http://craq-astro.ca/ |
| <i>The Galileo Project</i> (Tafelmusik) | | See Table 1; audio available at: http://www.cbc.ca/radio2/media/20090109tafel/all.asx |
| Weather Network TV | | 6 Feb. 2009: IYA-Canada related content runs monthly on its astronomy segment "The Night Sky" with astronomy correspondent Andrew Fazekas. 'Night Sky' segments are posted online at: www.TheNightSkyGuy.com |
| Around the World in 80 Telescopes | | ALMA, CFHT, Gemini North & South, JCMT and the Rothney Astrophysical Observatory all participated in this 100 Hours of Astronomy international event; archive: http://www.100hoursofastronomy.org/component/webcast/webcast/6 |
| Radio Canada | | 5 April: "Les Années Lumière" dedicated their broadcast to IYA, with a number of interviews with amateur and professional astronomers. http://www.radio-canada.ca/actualite/v2/anneeslumiere/niveau2_liste13_200904.shtml#4 |
| CBC Radio 2 | | Inside the Music, Night Sky Stories: |

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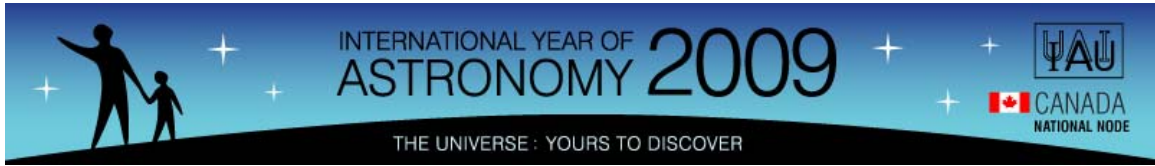
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| | | http://www.cbc.ca/radio2/archives_ITM.html |
| CBC Radio 1 | | Quirks 'n Quarks IYA limerick contest results: www.cbc.ca/quirks/archives/08-09/limericks.html |

C. Illustrative future activities planned or being explored

- EPO co-ordinator being sought based upon the award of a 3-year NSERC PromoScience grant to be administered by CASCA (PI: John Percy)
- A 3 June workshop on external illumination for city engineers and managers presented by the FAAQ in Montréal
- Efforts continue to establish long-term partnerships with representatives of Canada's Aboriginal communities and educators. A December 2008 workshop in BC spawned implementation proposals, a list-server of >40 individuals throughout Canada has been established to share ideas and grow the network, etc.
- Astronomy Kit components, both physical and downloadable, are under design with the goal of releasing prototypes in the fall
- Canada Parks Day on 18 July includes IYA 2009 as a focus; the Canadian Parks Council is expressing strong interest in increasing the presence of astronomy in parks throughout the country from 2009 forward
- A major event during National Science & Technology Week in Ottawa coinciding with the new IAU IYA cornerstone *Galilean Nights*, 23-24 October (<http://www.astronomy2009.org/news/updates/251/>)
- ...and 100s more.

D. CASCA Galileo Lectures

Doug Welch is managing this major CASCA IYA contribution very well and supplied the information in the table below. Response to the Galileo Lectures programme has been good. For better or for worse the possibility of being overwhelmed with requests did not materialize, so that the accepted lectures and budget appear to be more or less in balance. Some of the lecturers are adapting their material for presentation in other venues (e.g., schools, special functions) such that the impact of the GL programme is greater than the lectures approved through CASCA. Formally, the ten lecturers have completed 7 presentations and are booked for 16 more in 6 provinces.

| Date | Host | Location | Lecturer |
|------|-----------------------------------|----------|----------|
| | Completed Galileo Lectures | | |

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|----------|--|-------------------|-------------------|
| 10 Jan | Ontario Science Centre | Toronto, ON | Ray Jayawardhana |
| 13 Mar | NRC & Royal Society of Canada | Ottawa, ON | Christine Wilson |
| 3 April | Astronomy Nova Scotia | Halifax, NS | Ray Jayawardhana |
| 6 April | Trent/PAA | Peterborough, ON | Ray Jayawardhana |
| 16 April | Pangnirtung High School | Pangnirtung, NU | Stéphane Courteau |
| 1 May | Ontario Science Centre | Toronto, ON | Laurent Drissen |
| 14 May | Science North | Sudbury, ON | Stéphane Courteau |
| | | | |
| | Approved Galileo Lectures | | |
| | Ontario Science Centre | Toronto, ON | Jene-René Roy |
| | Ontario Science Centre | Toronto, ON | Vicki Kaspi |
| | UWO/London RASC | London, ON | Chris Pritchett |
| | Astronomy Nova Scotia/Halifax RASC | Halifax, NS | Christine Wilson |
| | Ottawa RASC | Ottawa, ON | Roberto Abraham |
| | Calgary RASC | Calgary, AB | Laura Ferrarese |
| | UNBC | Prince George, BC | Luc Simard |
| | Lakehead U./Thunder Bay RASC | Thunder Bay, ON | Laurent Drissen |
| | Telus World of Science | Calgary, AB | Chris Pritchett |
| | HR McMillan Space Centre | Vancouver, BC | Laura Ferrarese |
| | McMaster U./Hamilton Amateur Astronomers | Hamilton, ON | Roberto Abraham |
| | U. Waterloo/Waterloo RASC | Waterloo, ON | Laura Ferrarese |
| | Mississauga Centre, RASC | Mississauga, ON | Roberto Abraham |
| | UWO/London RASC | London, ON | Luc Simard |
| | Okanagan Science Centre | Vernon, BC | Chris Pritchett |
| | Le Musée du Fjord | La Baie, QC | Luc Simard |

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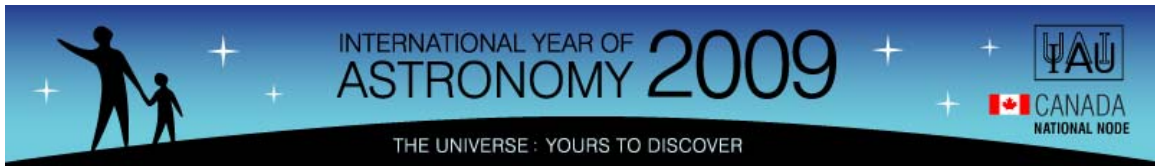
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3. Fund Raising and Future CASCA Efforts

An Appendix provides a report on fund raising efforts to date. Some of us are embarrassed and disappointed by the response of professional Canadian astronomers to the IYA fund raising appeals. As a community, we stand to gain the most from success at achieving Canadian IYA goals. I can only speculate why the response has been lackluster.

Jim Hesser
21 May 2009

Appendices:

In the following pages appendices prepared by Kim Breland for the Trottier Family Foundation report provide additional IYA status information.

1. Major Canadian IYA Themes
2. Fundraising
3. Sample Feedback from IYA Events in IYA Q1

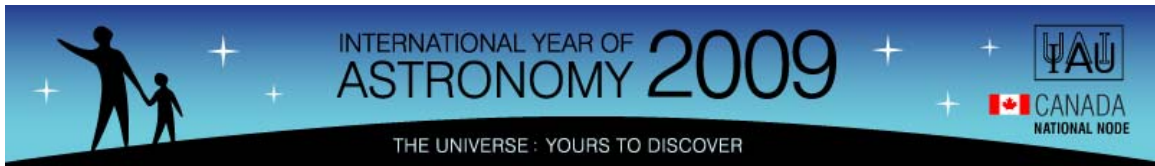
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Appendix 1: Major Canadian IYA Themes

(Extracted with minor edits from the April report to the Trottier Family Foundation)

1. Galileo Moment

Our over-arching theme is to offer every Canadian a ‘Galileo Moment’ during 2009. Our goal is to achieve one million Galileo Moments throughout the course of the year.

A Galileo Moment is “an engaging astronomy experience” during IYA2009

It reminds people of how our perceptions of the Universe, and our place in it, were forever altered by Galileo’s first views through a telescope, 400 years ago. It makes a complex science real and accessible, through reminding people of the child-like wonder of looking at the heavens, and through building bridges between the scientific community and other communities (such as schools, artists, music lovers, and children.).

More specifically, a Galileo Moment is the participation in, or attendance at, an event that is officially sanctioned as an IYA2009 ACTIVITY – posted on www.astronomy2009.ca. It includes – for example - looking through a telescope (sidewalk astronomy, star parties, at a science centre or observatory, etc.); attending an IYA event, show, lecture or display; visits by amateur and professional astronomers to schools and youth groups; or attending a concert, art exhibit or public display that both entertains and educates around a theme inspired by astronomy

2. Aboriginal Participation

The Canadian Aboriginal Legacy Projects are envisioned as a heritage of IYA2009 unique to Canada. Indeed, few of the 137 nations celebrating IYA are planning Aboriginal components. The Aboriginal projects recognize the unique heritage of traditional ways of knowing about the Universe. They address the risk that these ways of knowing, handed down orally for millennia, are in danger of disappearing, as are the Aboriginal languages of those who hold the knowledge. IYA provides a unique opportunity to discover and celebrate that knowledge alongside that of modern science.

To enable others to appreciate their vision for IYA 2009, Mi’kmaq Elders and Cape Breton University have released a beautiful 25-minute video, Muin (the Great Bear) and the Seven Bird Hunters, narrated in English, French and Mi’kmaq. This sky story has been brought to life in a creative blending of art, modern technology and the oral teachings of Mi’kmaq Elders. It can be viewed on our website at www.astronomy2009.ca. The story links the annual cycle of the seasons as observed by the Mi’kmaq with the movement of stars about the North Celestial pole. This is the first time this story has been transferred into the realm of the visual arts.

Summer camps are envisioned as places where Elders, youth, educators and astronomers could come together to learn from each other. Participants will share their mutual fascination and delight in the night skies while learning about stories from traditional knowledges and modern astronomy. Such gatherings would result in much exchange of culture, values, education and connectedness through the sharing of Sky Stories. They would also promote awareness of the importance of Dark Sky Preserves for each young

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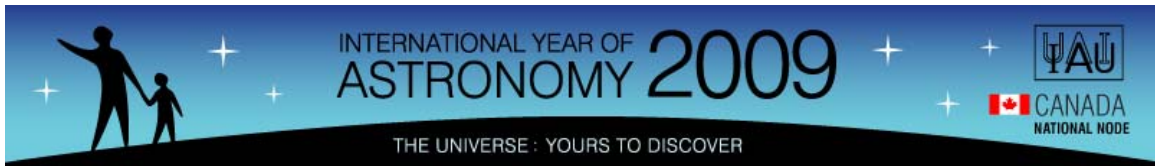
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person to bring back to their communities, and help Aboriginal youth to pathways to careers in science and technology. .

3. Astronomy Kit

This educational resource will provide science teachers across Canada with tools and activities that teach basic astronomical concepts. A team of scientists and educators are developing the Kit, ensuring that it is appropriate to different curricula and school boards throughout the country. The Kit will contain a DVD with lessons and resources, a sundial, a Star Finder, and other materials. The teacher training program is an important part of the project, making sure that the kits are used to their best advantage and helping teachers to feel both confident and enthusiastic about teaching astronomy to school-age children.

The Astronomy Kit is currently in development. In addition to a physical kit, virtual or Internet-based components are being designed. These will be excellent resources for Canadian schools for years to come. The development of the Kit and the teacher-training program will be an important part of the work of the EPO Coordinator. We have received a PromoScience grant from the federal government to cover part of the salary for this important position.

A whole suite of school-education projects, in addition to the Kit, are underway. Projects for teachers have a huge, long-lasting impact.

4. Galileo Lecture Series – Discovering the Universe in the 21st Century: Outstanding Lectures by top Canadian astronomers

The Galileo Lecture Series (GLS) enables communities large and small to bring excellent Canadian researchers to present their outstanding science in an engaging and compelling way.

Ten of Canada's most active and articulate leading researchers are delivering high-impact public lectures on topics at the forefront of astrophysics. The GLS is introducing the excitement and reach of modern astronomy to non-traditional audiences, and providing a legacy for the host and their community. The Galileo Lecturers have each repeatedly demonstrated that they can make forefront research accessible and can engage the audience in a fun, stimulating manner.

5. Dark Sky Preserves

These activities and events being led by the RASC's Light Pollution Abatement Committee (www.rasc.ca/lpa) focus on educating communities and governments about the importance of protecting dark skies, and advocating for the creation of Dark Sky preserves throughout Canada – a true legacy project!

Light pollution is becoming an increasingly important concern in the Canadian landscape. Caused largely by inefficient designs in public lighting – both urban and rural - light pollution wastes power, obscures the night sky, affects animals' sleep patterns, and has other detrimental effects. A hundred years ago, people felt a connection with the night sky and the Universe; people everywhere in the world shared a common

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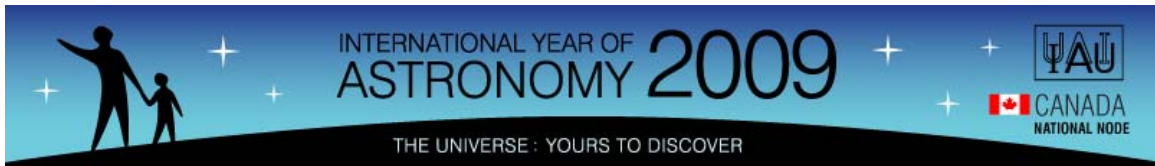
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bond in the simple act of looking up at the stars. Today, many Canadian children have never seen the night sky in all its glory.

Dark Sky Preserves will help to protect the visibility of the heavens as a resource and legacy for all Canadians.

6. Heavenly Arts & Entertainment

Music and theatre events, art and image shows, and multicultural activities all offer opportunities to partner with local astronomers to create Galileo Moments by creatively bridging between art and science.

The Victoria Symphony and Tafelmusik (Toronto) have both premiered new performances in honor of IYA, to enthusiastic sold-out crowds. In February some 6,000 Victoria school children enjoyed concerts of space-themed music conducted by Galileo (aka Maestra Tania Miller). 22,000 more children in BC and Ontario engaged in astronomy through these programs in Spring, 2009. Some 4,000 people have already participated in Tafelmusik's multi-media The Galileo Project. Before 2009 is over, several tens of thousands of people will have connected the scientific works of Galileo and Newton to the social, political and musical events during the dawn of science as we have come to practice it. Many other music, theatre and art activities are being planned during IYA 2009, often drawing upon the inspiration from astronomy images.

When people look for astronomical images, they often use images from the NASA-ESA Hubble Space Telescope or other foreign sources. And yet, Canadians are internationally recognized as being on the forefront of astronomy. The wealth of wonderful images produced in Canada and by Canadians deserves broader exposure. The IYA Image Committee has created an enduring resource for all Canadians.

Our Image Committee consists of professional and amateur astronomers and prominent Canadian artists, who juried hundreds of submissions to create a suite of beautiful Canadian astronomical images. These are available on the Web site www.galaxydynamics.org/iya2009 and are already enhancing IYA events throughout Canada: they were seen by 3,000 people at the Ontario Science Centre's Astronomy Fair in January, and contributed to 1,900 Galileo Moments during the February display at the Bay Centre Mall in Victoria during the month of February.

The images will be on view at IYA events throughout the year, including collaborations with visual artists and displays at festivals and in unconventional public spaces, as well as more traditional astronomical events.

7. And more!

These main projects are not the only IYA activities that will benefit Canada. People are so enthusiastic about IYA that there are many other initiatives taking place, for example:

IYA in Canada will be commemorated with a special object to be taken into space on a Shuttle mission by astronaut Julie Payette.

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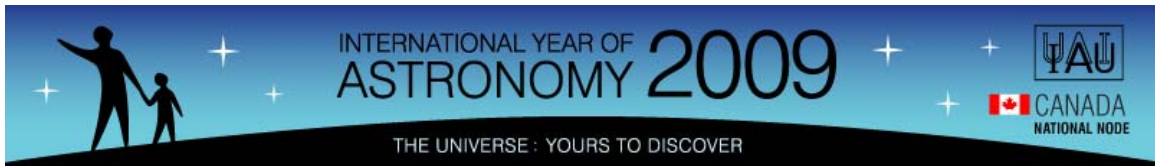
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Canada Post introduced two new IYA postage stamps during 100 Hours of Astronomy (see http://www.canadapost.ca/cpo/mc/personal/collecting/stamps/2009/2009_apr_astronomy.jsf). The First Day of Issue ceremony took place at NRC-HIA on 2 April 2009 (an informal report with images is available at: <http://victoria.rasc.ca/events/iya2009/archive/2009.04.02-IYAstamps.htm>). We remain optimistic that the Royal Canadian Mint will produce a commemorative coin.

Ham radio operators in Canada have set up a Special Event Prefix callsign; this will attract hams from around the world to call and find out what the new callsign is, which will promote the IYA. (see www.hamiya2009.info) Canadian astronaut Bob Thirsk, an active ham operator, is expected to make contacts from the Space Station during his long-duration flight this year.

We are working actively with national and provincial Parks organizations to introduce astronomy permanently into Parks programs, and to have an IYA focus for Parks Day on July 18 (www.parksday.ca).

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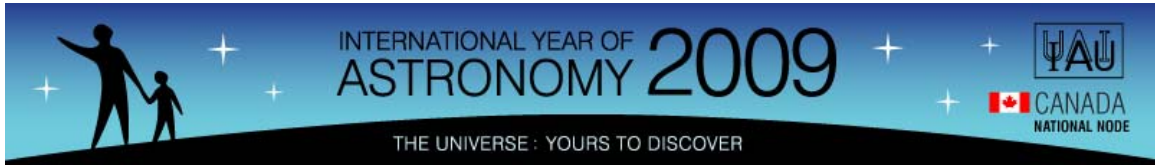
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Appendix: Fundraising

(Extracted with minor edits from the April report to the Trottier Family Foundation)

Among the many tasks of the Program Manager are preparing fundraising packages and strategies, and assisting the partners in their own fundraising campaigns. The following charts summarize funds secured to date, as well as the impressive amount of in-kind support that has been given to IYA so far. Both are indications of the appeal of IYA and the degree of support it attracts.

Funds raised to date: **\$500,080**

| | Received to Date | Confirmed, to Come | Total Funds Raised to Date |
|--|------------------|--------------------|----------------------------|
| Trottier Family Foundation | \$50,000 | \$50,000 | \$100,000 |
| Federal government (Galileo Live! Funding) | 173,270 | | 173,270 |
| PromoScience grant (NSERC) | 24,000 | 48,000 | 72,000 |
| FAAQ | 30,000 | 30,000 | 60,000 |
| RASC | 41,145 | | 41,145 |
| RASC 2008 Funding Campaign | 16,781 | | 16,781 |
| RASC 2008 Commitment and Fund raising goal | 8,000 | 10,000 | 18,000 |
| Lumec, Inc | 12,700 | | 12,700 |
| CASCA members fund drive | 10,484 | | 10,484 |
| University of Calgary | 10,000 | | 10,000 |
| Katlin Mi'kmaq Healing Cultural Centre | 4,500 | | 4,500 |
| TOTALS | 380,880 | 138,000 | \$518,080 |

We are also supported by a strong network of volunteers all across Canada. The members of the various committees are contributing long hours to ensure the success of IYA. There are hundreds of volunteers from the FAAQ and RASC who are doing twice their normal annual number of School Visits and Public Events in 2009. Other programs, such as the symphony shows for schoolchildren and free public astronomy image displays, have had their success ensured by generous donations of time, space and equipment.

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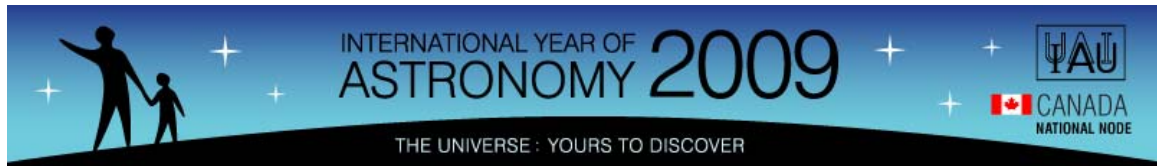
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A conservative estimate of In Kind contributions: **\$4,056,860**

| | |
|--|--------------------|
| Executive Committee hours | \$86,400 |
| Advisory Board hours | 40,320 |
| Other volunteer committee hours | 134,400 |
| Star Finders – design, text, illustrations, translation | 5,000 |
| Mary Lou’s New telescope – design, text, illustrations, translation | 5,000 |
| Astronomy cards – design, text, illustrations, translation | 4,200 |
| Web design and monitoring | 7,200 |
| Data entry January 2009 - January 2010 | 5,600 |
| Administration and Project Coordination | 9,000 |
| Office rental - Program Manager | 7,500 |
| Star Parties (1,232 parties committed in 2009 across Canada) and School Visits (1,262 committed) - volunteer hours | 3,302,400 |
| Heavenly Arts - Music Performances – hours contributed by conductors and musicians, plus halls | 315,000 |
| Gemini Observatory High School Contest | 6,340 |
| International Ceremonies - air fare | 15,000 |
| Aboriginal programs: hours | 60,000 |
| Aboriginal programs: other In Kind | 21,500 |
| Astronomy Kit and committee | 6,000 |
| Retail space donated for Image displays – to date | 12,000 |
| Equipment donated for Image displays – to date | 14,000 |
| TOTAL | \$4,056,860 |

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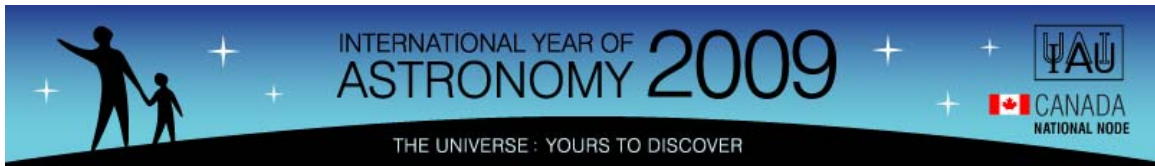
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Appendix: Sample Feedback from IYA Events in IYA Q1

(Extracted verbatim from the April report to the Trottier Family Foundation)

We have heard from folks in communities across the land - from young children to elderly neighbors, people from all walks of life have thrilled to look through a telescope for the first time, or discover fascinating facts about the universe. Here are some of the comments from members of the public who attended IYA events, and from the volunteers who organized events:

“The set up was totally awesome, can't wait for this year in astronomy!”

“My favorite Galileo moment was when I went on a field trip and we watched a video about space travel that made us feel like we were actually moving. It was really cool!”

“I participated in watching Venus move across the night skies for almost a week in my grandpas telescope”

“An extraordinary viewing of Venus through a magnificent 7 inch scope. I just happened upon this event during a visit to Wal-Mart in Miramichi. The event hosts were very friendly, professional and more than willing to answer any questions. I thank them and the RASC for the Galileo Moment. P.S. First time I enjoyed a trip to Wal-Mart!”

“Fantastic in all respects. The type of Galileo Moment event for non-traditional audiences we can only hope happens again and again this year! This event exceeded our expectations in attendance, duration, A/V success and quality of discussion”.

“A sold out performance. Beautiful music and images, and moving words from Galileo himself. Many in attendance looked through telescopes for the first time”.

Fantastic event! Weather was good. We had 20 telescopes set up inside ranging from 4" refractors to 25" Newtonian and a solar telescope outside the front entrance, and our observing deck was open. We had meteorite display showing fragments of the November 20 fall at Buzzard Coulee, information booths (handing out national goodies) and dark sky preserve, and a formal kick-off event where Galileo himself visited us from the past.

“The lecture hall was packed by a mixed audience. Marcin Sawicki's talk was excellent and there was a lively discussion about infinite expanding universes. Trading cards were handed out to all that wanted them”.

“Our first excursion into the classroom for IYA was a great success. The Grade 5 students were enthusiastic and full of great questions. I started by talking about Galileo and why we were celebrating his use of the telescope 400 years ago. We started with how to get a universe (Dr. Rob Thacker's cosmic recipe), then we went on to how big is big. With a basketball size earth and tennis ball moon, I explained how the sun would be 4X the size of the classroom at the scale we were using. I explained how we used Astronomical Units to measure the solar system and light years to measure the universe. We discussed the phases of the moon and if the moon rotated. Heading into the hallway we unrolled the toilet paper solar system. An understanding of how big our solar system was excitedly discussed. Questions led us into habitable life zones, what would happen as the sun aged, what would happen to our solar system if another

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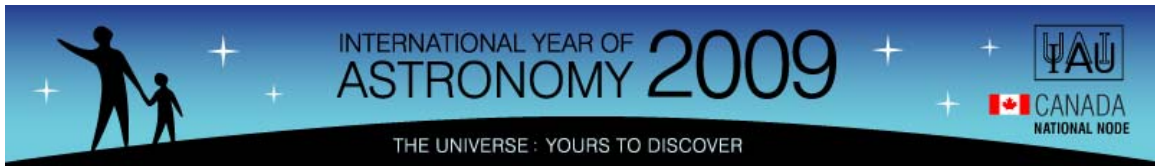
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planet appeared, rings around planets, which planet floats, how big are other stars, why is Pluto not a planet now. We discussed how to measure the sky with our outstretched hand.”

“The event was *tremendously* successful. Due to plentiful media coverage, we had many more guests than we had planned for and had to turn people away due to lack of space (we signed them up for other planetarium shows instead). We handed out IYA Galileo Moment cards and brochures advertising IYA events in Hamilton. As a result, most of our free IYA planetarium shows for the year are already booked to capacity. The success of the event has stimulated volunteer interest in organizing other IYA events.”

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