

# ANNUAL REPORT 2014

H. R. M A C M I L L A N

SPACE

C E N T R E

## OUR MISSION

To educate, inspire, and evoke a sense of wonder about the Universe, our planet and space exploration.

## Message from the Leadership

# PUSHING THE LIMITS OF ENGAGEMENT



*H.R. MacMillan Space Centre's Board of Directors' Chair Eric K. Pringle and Executive Director Raylene M. Marchand enjoy the successes of 2014.*

The H.R. MacMillan Space Centre uses space and earth science as the lens to inspire and actively engage people in new ways of seeing, understanding and thinking about themselves and the world around them. Our goal is to demonstrate that science is all around us and that science literacy is fundamental to understanding the world. We want our visitors to become an active part of the evolving dialogue between society, culture, science and the community.

The Directors of the H. R. MacMillan Space Centre were excited this past year with the many successes seen. The board, leadership team and staff made great strides as the organization moved to implement the strategy developed in past years. Our new strategy, vision, and values for the Society, has a strong combination of objectives, delivery goals, and outcomes that will keep us focused and engaged for the next few years.

This year, it was exciting to see our revitalization volunteer program launch and soar into action. The hard work and dedication of many over the past two years was rewarded with another positive financial report card. We are all pleased with an improved financial focus, and see ourselves in a strong position with the ability to launch further improvements through enhanced program offerings and community engagement.

The Board was fully engaged this past year and we accomplished many of our goals. We look forward to pushing further in the coming years... welcome to the new Directors joining our ranks, and a heartfelt sincere "thank you" to those retiring.

Our Space Centre staff worked diligently to feature theatre shows that are relevant to visitors of all ages, and complement them with innovative programming. Over the past year, visitors explored the origins of life in programs such as *Life a Cosmic Story* (examining links between the cosmos and life on earth) and *Dynamic Earth* (a story of the science behind climate change on planets). With *Dark* we discovered how the mystery of dark matter has changed our understanding of the Universe. *Planet Hunters* helped us discover more about techniques astronomers use on their quest for finding signs of life.

Last year, through a variety of access initiatives, we welcomed over 20,000 school children to our on-site programs and over 88,000 people to our public programs. We also continued our community outreach programming with our portable planetarium and our *Sticks and Stars* initiatives. The feedback from students and members of the public - expressed in drawings, cards, photos and stories - demonstrated the sheer joy and wonder that comes from immersion in our fun, interactive learning model.

Our activities are made possible by our many supporters - the City of Vancouver Cultural Services department that provides an annual operating grant, the British Columbia Ministry of Finance that provides an annual programming grant, our corporate sponsors, our individual donors and the participants in the *Star Dedication* funding program. Thank you for supporting our work and sharing our belief in the importance of science literacy. Thank you as well to our 110,260 visitors last year - your questions make us wonder; your enthusiasm for space and earth science inspires us; and your discoveries give us great delight!

**Eric K. Pringle**  
Chair, Board of Directors

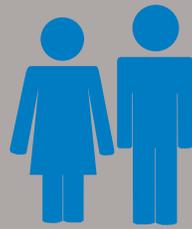
**Raylene M. Marchand**  
Executive Director

# A YEAR IN NUMBERS



**110,260**

Annual Attendance



**1,824**

Annual Membership  
(up 8.5%)



**41,682**

Summer visits  
(up 20%)



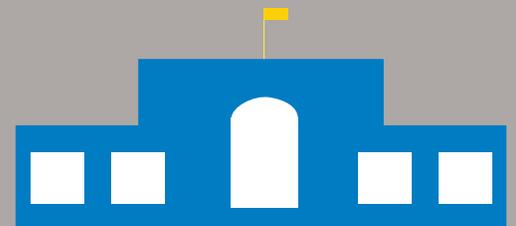
**60**

Volunteers



**2,500**

Volunteer Hours



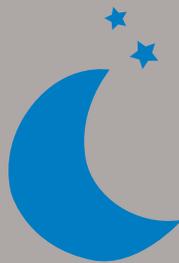
**363**

Schools visited



**26,584**

Students  
and Teachers



**2,264**

Stayed Overnight



**235**

Corporate and  
Social Events



**4,912**

Community Outreach  
Participants

Our Values: Wow • Innovation • Collaboration • Community

# 2014 Highlights

## WOW

We are passionate about adventurous, creative and eye-opening experiences.

### New Shows

#### Planetarium Star Theatre

*Back to the Moon for Good* highlights mankind's history of exploring the Moon, and the Google Lunar XPRIZE: a \$30 million competition focused on its continued exploration.

*Life: A Cosmic Story* tells the 14-billion-year saga of how we came to be by journeying from the microscopic views of plants to the vastness of our universe.

*Dynamic Earth* explores the intricate systems that help Earth support life, including our oceans, weather patterns and atmosphere.

*Our Night Sky* is an educational program developed for grade 1 visitors to explore the tilt of the Earth and its changing seasons.

#### GroundStation Canada Theatre

*Planet Hunters* explains the techniques astronomer's use to discover exoplanets and what varieties they have already found.

### Special Programming

*Galaxy's Greatest Hits*: Just in time for the Oscar's, we took a journey to the stars set to our favourite classic sci-fi tunes.

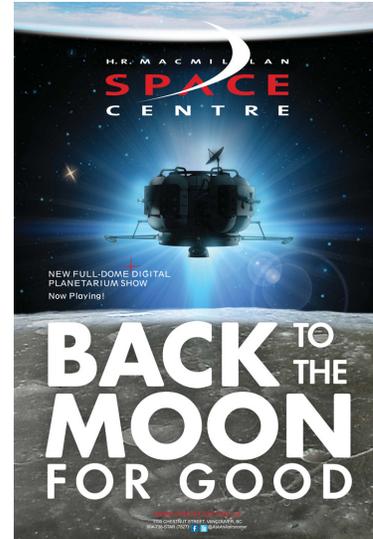
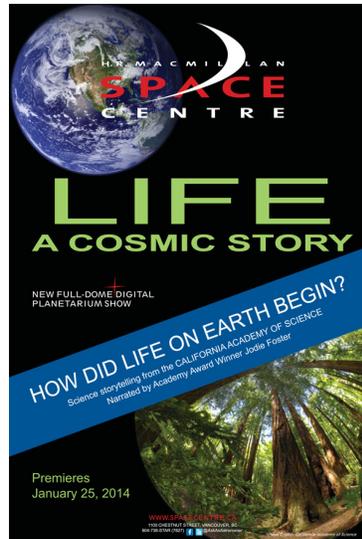
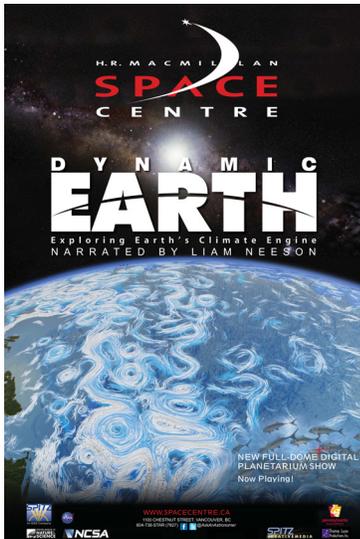
*Lunar Eclipse*: To give our guests a unique viewing experience we showed a special pre-eclipse show followed by a group viewing of the eclipse in the Observatory.



### Cosmic Courtyard New Exhibits

*Our Changing Planet* looks at our climate change from a unique perspective: space. By using satellites that orbit the Earth, we are able to show the effects of melting glaciers and rising water levels.

*Mission to Mars* explores the potential for Mars to support life, including our own. Get a closer look at the Martian landscape, drive a rover around its surface on our touch screen games, or build your very own Lego rover.



## INNOVATION

**We always challenge ourselves to achieve the highest levels of curiosity, learning and performance.**

### Spring Break

**We featured special demonstrations and activities to help students explore their “alien” side**

*Life on Mars:* Might life have existed on Mars? Will humans even colonize it?

*Planet Hunting:* There are more than eight planets in our Universe. We outlined how astronomers hunt for planets beyond our Solar System.

*Extreme Environments:* Freezing, boiling, toxic atmospheres, and extreme pressure were some of the extreme environments we explored on Earth and across our galaxy.

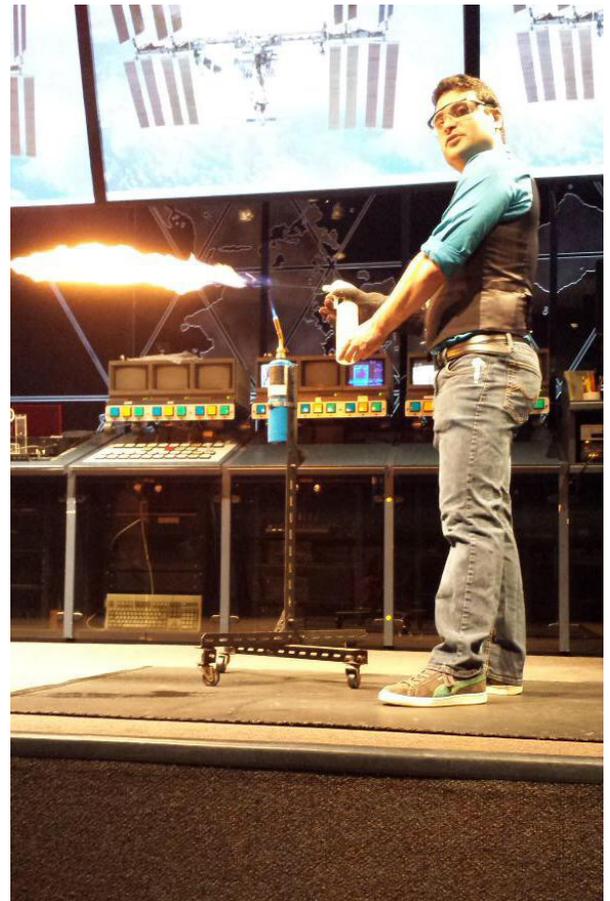
*Alien Life:* We explored the possibility of life beyond Earth.

*Rovers and Robotics:* Humans haven't travelled any further than the Moon, but we've sent plenty of rovers, orbiters and other craft to explore the Solar System for us.

### Off-site Education

*ISS Link-Up:* We joined Cambie Secondary School for a live feed link-up with the International Space Station and provided special programming to prepare the students.

*Applied Science:* We provided science education and classroom management training for SFU students delivering community outreach programming.



## COLLABORATION

**We work and make decisions as a team and as such, we honour transparency and show respect for each and every opinion.**

### Special Events

#### Pavilion Lake Research Project

*Partner - Vancouver Maritime Museum, NASA, Nuytco Research*

The first in a series of collaborative events to highlight the research occurring at Pavilion Lake, which uses underwater exploration as an analog for Mars exploration. Our first program immersed the audience in the lake by using underwater panoramic images and connecting with key research personnel.

#### Cosmic Love Connections

*Partner - The Georgia Straight*

Working with Astrologer Rose Marcus and Astrophysicist Jaymie Matthews, we provided a lighthearted look at the night sky through the eyes of both an astrologer and an astronomer.



## COLLABORATION CONT'D

### Through the Lens

*Partner - City of Vancouver Archives*

Returning for its second installation, historian Michael Kluckner and John Atkin looked at how Vancouver's unique communities have changed over the past century by comparing archival panoramas and contemporary photos of the same location.

### Bob McDonald Talk

*Partner - Douglas & McIntyre, ZG Communications*

We hosted Bob McDonald for his *Canadian Spacewalkers* book launch talk and offered a special meet and greet for our members prior to the event.

### Laniakea Supercluster Lecture

*Partner - Dr. Brent Tully*

Dr. Tully, astronomer at University of Hawaii at Manoa, held a lecture on his studies of galaxies and their interrelationships in the cosmic web, with particular emphasis on the dark matter that holds these structures together.

### Franklin Lecture

*Partner - Vancouver Maritime Museum*

Parks Canada Chief Underwater Archaeologist Marc-Andre Bernier held a lecture about the discovery of Franklin's lost ship Erebus, using the planetarium to provide arctic images for the lecture.

### Conferences

*BC Science Outreach Workshop*

We helped plan this workshop conference that focused on bringing innovative and engaging science experiences to the public.

*BC Mining Week Event*

We participated in this mining event by bringing our own unique look at mining, including mining on other planets and how to identify meteorites.



## COMMUNITY

**We are all about sharing our love of space with the community, aiming to serve, teach and inspire them.**

### Accessible Programming

#### Sticks and Stars

*Partner - Surrey School District, SFU Applied Sciences*

Sticks and Stars provides much needed programming for at-risk boys in grades 5 – 7 by providing the opportunity to participate in science programming in an inclusive, supportive environment with positive male role models

#### Science 101:

*Partner - UBC Faculty of Science*

Science 101 is a program we eagerly participate in each year to give back to the Downtown Eastside community and provide residents the opportunity to participate in a barrier free learning environment.

#### Mission to Mars

We visited Brock House Society Senior Centre to provide their residents a lecture on current missions to Mars and other astronomical topics based on their interests.

#### Friends of the Archives

We hosted the Friends of the Vancouver City Archives annual fundraising event that included a presentation showing WJ Moore's panoramic collection paired with our own contemporary images of the same locations.



“Your staff and your organization deserve the highest praise for offering a supportive and understanding environment for kids. ”

-Shannon Kelly  
Space Centre Member



## Financial Summary

REVENUES	2014	2013	EXPENDITURES	2014	2013
OPERATING REVENUE	\$	\$		\$	\$
Public Admissions	506,468	418,022	Learning Services	449,976	423,051
School Admissions	179,971	195,649	Administration	351,708	369,326
Rentals and Corporate Sales	84,073	107,116	Guest Services	182,076	215,129
Outreach Programmes	30,252	27,294	Marketing	173,186	181,577
Other	13,715	15,598	Technical Services	107,622	79,413
Memberships	5,144	17,749	Director's Office	68,942	110,527
	<u>819,623</u>	<u>781,428</u>	<b>TOTAL EXPENDITURES</b>	<b>1,333,510</b>	<b>1,379,023</b>
OPERATING GRANT	519,400	519,400			
City of Vancouver	75,000	75,000	Excess (deficiency) of revenue over expenditures before amortization	179,125	74,330
Gaming and Direct Access	<u>594,400</u>	<u>594,400</u>	Amortization of deferred capital contributions	94,954	57,310
FUNDRAISING AND DONATIONS	78,522	58,636	Amortization of property and equipment	(96,433)	(63,920)
Interest			Excess of revenue over expenditures	<b>177,646</b>	<b>67,720</b>
Vancouver Foundation	19,739	18,777			
Other	351	112			
	<u>20,090</u>	<u>18,889</u>			
<b>TOTAL REVENUES</b>	<b>1,512,635</b>	<b>1,453,353</b>			

The financial statements presented here (for the year ended December 31, 2014) are based on the audited financial statements of the Society.

## OUR VISION

**AN INSPIRED AND IMAGINATIVE  
COMMUNITY CONNECTING SOCIETY,  
CULTURE, AND SCIENCE TO FACILITATE  
EXPERIENCES THAT ARE... LIKE  
NOTHING ON EARTH**

### GOVERNMENT PARTNERS

Province of British Columbia  
City of Vancouver  
Western Economic Diversity

### PROGRAM PARTNERS

Bard on the Beach  
Canadian Museum Association  
City of Vancouver Archives  
City of Surrey  
Douglas and McIntyre  
Dr. Brent Tully  
Museum of Vancouver  
NASA  
Port Metro Vancouver  
Rocky Mountain Flatbread Co.  
Simon Fraser University  
Studio 58  
Theatre Under the Stars  
University of British Columbia  
Vancouver Maritime Museum  
Vancouver Academy of Music  
Vancouver Symphony Orchestra  
White Spot Restaurants  
ZG Communications

### CORPORATE PARTNERS

APEG-BC (*Association of Professional  
Engineers and Geoscientists*)  
Chevron Canada Ltd.  
MacLaren McCann  
NSERC  
SCISS

### DONORS

Matthew Anthony  
Erin Green  
Raylene Marchand  
Lisa McIntosh  
Surendra Prakash  
Eric K. Pringle  
Deborah Parente  
Andrew Woo

*Anonymous and  
Point of Light (98)*

### FOUNDER

H.R. MacMillan

### PATRON

Mrs. G.T. (Jean) Southam, C.M.

### ENDOWMENT FUND

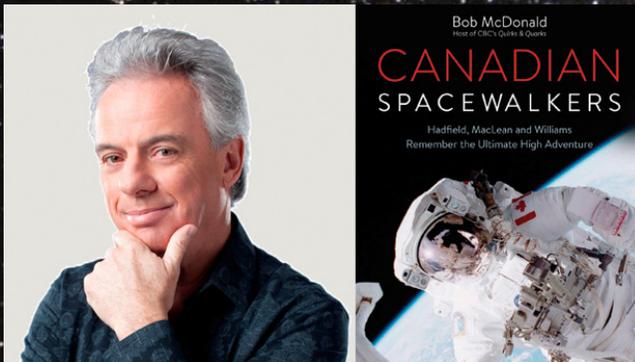
Vancouver Foundation



*New exhibits offer an innovative approach to learning.*

### MEDIA SPONSORS

The Georgia Straight  
Outfront Media Canada  
Virgin Radio



*Strategic collaborations brought unique events and programming.*

### BOARD OF DIRECTORS

Eric K Pringle, Chair  
Matthew Anthony  
Tony Fogarassy  
Deborah Louvier  
Kenton Low  
Dr. Jaymie Matthews  
David J. Miller  
Trish Pেকেles  
Andrew Woo  
Devon Ross  
Shakeel Velji

### MANAGEMENT

Raylene M. Marchand  
*Executive Director*  
  
Lyndsey Barton  
*Director of Community  
Engagement*  
  
Lisa McIntosh  
*Director of Learning*

**WWW.SPACECENTRE.CA**

1100 CHESTNUT STREET, VANCOUVER, BC  
604-738-STAR (7827) @AskAnAstronomer

The H.R. MacMillan Space Centre is a non-profit community resource that brings the wonders of space to Earth, while providing a personal sense of ongoing discovery. Through innovative programming, exhibits and activities, our goal is to inspire sustained interest in the fields of Earth science, space science and astronomy from a Canadian perspective. Charitable Registration Number 10681 2183 RR0001