

VICTORIA CENTRE

*A Centennial History
of the Victoria Centre*

*The Royal Astronomical Society
of Canada*



100 YEARS

**AND
NEVER
FELT
BETTER!**

PREFACE

SOME YEARS AGO a fortuitous rummage through the Victoria Centre's library revealed that an earlier attempt had been made to start a Centre in Victoria in 1907.

We were completely unaware of this unexpected event, buried as it was, and when we next discovered that we were unknowingly on the verge of celebrating our centenary in 2014 it added to the surprise.

Someone had to do a ton of digging into our history. That someone turned out to be me!

Soon, our ever-helpful librarian, Sid Sidhu, presented me with piles of musty, decades old flotsam that had accumulated in the bowels of his library cupboards.

Boxes of papers mixed with stacks of ancient RASC Journals, the Centre's monthly Skynews magazines and assorted bits and pieces, stared me in the face.

Fortunately, 1907 to 1918 had been well documented, along with a few prized photographs. But after 1918 everything we know about those early years has had to be mined from secretaries' annual reports to head office or from Centre newsletters.

Mysteriously, there were very few photographs to be found anywhere in the Centre's archives covering the period from about 1920 through to about the 1990's. It's possible that they could have been abandoned in some librarian's house after he or she died or moved house—and they ended up in the city dump.

We do know that the Centre's records were moved around from place to place over the years, so anything could have happened to them. Today, our records are safe and sound in a permanent and well-stocked library in the Department of Physics and Astronomy at UVic.

An appeal to Victoria Centre members for any available old photographs resulted in a few being generously donated, but we have virtually no portraits of past council members for the years 1914 to the 1990's, and only a handful of early telescopes, observatories and events.

The RASC head office kindly sent copies of whatever they had in their library—mostly copies of early documents—some of which have

been reproduced in this book. Nevertheless, an inclusive historical record has finally emerged.

Also, it stands to reason that the last 20 or so years have been given greater prominence in this history due to the availability of richer and more diversified material.

In a record of this nature it has not been possible to delve into the history of every prominent member or officer, or cover every minor event pursued by the Centre

However, an effort has been made to mention members who have contributed something of value to the Centre's membership.

PRINTED COPIES AND CD'S

It was decided to produce a few printed copies on acid-free paper and burn some CD's for archival and longevity reasons. They will be stored in the Victoria Centre's library, the Provincial Archives, UVic and the DAO.

Computer technology ever advances, so a hundred years from now the CD technology we are familiar with could be long forgotten.

Much of what is stored on today's CD's could be lost forever and equipment for replaying ancient year-2014 digital storage discs may be very difficult to find.

For that reason we expect paper copies will easily survive the test of time even if CD's don't, providing they are properly stored. We still have legible letters from the beginning of this century.

We sincerely hope that the Victoria Centre will still be in existence in 2114. Your world will be vastly different from ours, hopefully for better, not worse. You will have solved the puzzle of dark matter and dark energy.

The Victoria Centre wishes to express its appreciation to R. Peter Broughton, author of the 1994 edition of "LOOKING UP A History of the Royal Astronomical Society of Canada" for his permission to draw from the book's text.

Bill Almond
Victoria Centre Historian
2014

CONTENTS

Section One

1868: A SHORT HISTORY OF THE RASC'S GENESIS

A FALTERING START THEN GREAT SUCCESS

Section Two

1914: AN OPPORTUNE TIME TO FORM A CENTRE

DR. J. S. PLASKETT BRINGS THE VICTORIA CENTRE AND THE DAO INTO BEING
WORLD WAR I AND AN INFLUENZA EPIDEMIC DECIMATES MEMBERSHIP

Section Three

WHAT IS THE VICTORIA CENTRE?

PRIZED WRAY-BRYDON TELESCOPE
VICTORIA CENTRE'S PAST PRESIDENTS
CENTRE'S NATIONAL MEDAL WINNERS
CENTRE'S PERSONAL SERVICE AWARD AND OTHER AWARDS

Section Four

WHAT ARE ALL THOSE PEOPLE DOING OVER THERE?

HIGHLIGHTS ALL THE CENTRE'S ACTIVITIES PAST AND PRESENT

Section Five

THE CENTRE'S LOCATION IN THE UNIVERSE

INDIVIDUAL OBSERVATORIES BUILT BY CENTRE MEMBERS

Section Six

THE VICTORIA CENTRE'S NEW OBSERVATORY

BUILT ADJACENT TO THE DAO ON TOP OF OBSERVATORY HILL

Section Seven

REACHING THE MAIN SEQUENCE

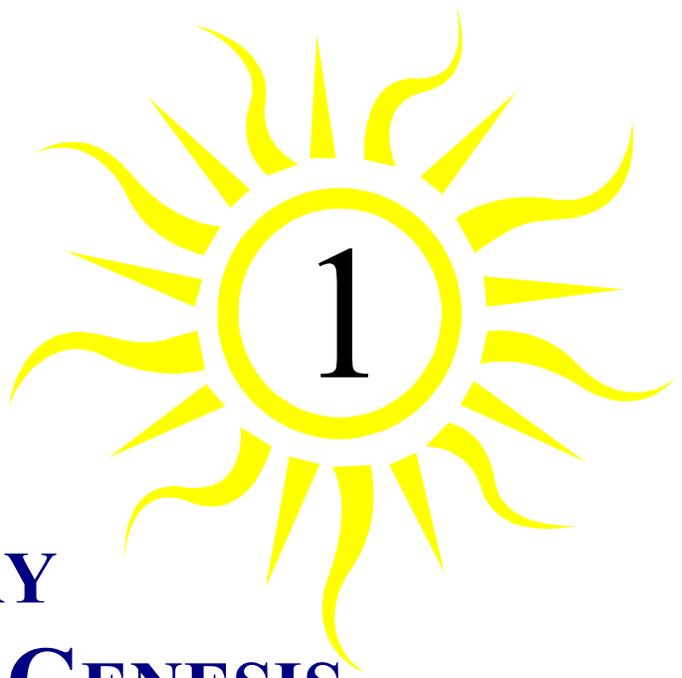
SELECTED CENTRE HIGHLIGHTS FROM 1914 TO 2014

Section Eight

ANNUAL SECRETARIES' REPORTS FROM 1914 TO 2014

*When I see your heavens, the work of your fingers,
The moon and the stars that you have prepared,
What is mortal man that you keep him in mind?
And the son of earthling man that you take care of him?*

PSALMS 8: 3, 4



A SHORT HISTORY OF THE RASC'S GENESIS

ANDREW ELVINS is credited with founding the first astronomical club in Canada in 1868, named the Toronto Astronomical Club. It underwent varying fortunes for a number of years, never being successful or fully functional. Then, in 1884, Elvins and a few interested amateur associates formed another club and named it The Astronomical and Physical Society of Toronto.



Andrew Elvins emigrated from England to Canada at 12 years of age. Moved to Toronto in 1860.

The revamped Society was more successful and in 1890 it resulted in a decision to incorporate the Society under Ontario law. A constitution and bylaws were drafted on Tuesday, February 25, 1890, and “two weeks later, the committee reported that they had appeared before Judge MacDougall and that he had made the necessary declarations recognizing the society as a legal entity.”

However, George Lumsden, one of the charter members and the secretary, tried on numerous occasions to have the name changed on account of persistent objections raised by the prim and proper Mrs. Lumsden. Like many other refined Victorian ladies of the day, she took great pains never

to discuss or display anything to do with bodily functions and so she wanted the offensive word “physical” removed from the name.

In 1900 George was successful in having the offensive word dropped, thereafter becoming known as the Toronto Astronomical Society. However, during the following year, in 1901, circumstances were once e again destined to change the course of the Society—and its name.

A ROYAL ASTRONOMICAL SOCIETY NEEDED

In September and October, the Duke and Duchess of York made a coast-to-coast tour of Canada, setting off a great wave of patriotic sentiment, so much so that the members of the newly-named Society decided that it would be highly desirable and fashionable to become a Royal Society. The minutes read: “After considerable discussion concerning the expediency of making application to the Crown for the privilege of styling the Society ‘Royal’ and



The Duke and Duchess of York visit Toronto City Hall in 1901.

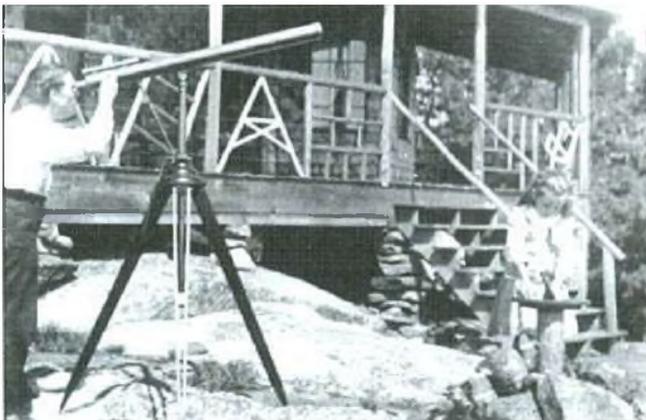
in the event of doing so whether of “Toronto” or of “Canada” should be asked for.” The request was approved.

THE NEWLY MINTED ROYAL SOCIETY

What was next required was a Royal Seal to adorn its majestic, elevated status and its printed matter. Accordingly, two years later, in 1905, the original Royal Seal design was completed. Over the years modifications have been made to keep the design modern looking.

In the Seal’s centre a seated woman is shown with stars arrayed above her head—the woman is Celestial Urania, the Greek muse of Astronomy, or more accurately, she should be called the muse of astrology since the science of astronomy, as such, was unknown to the Greeks.

The motto over her head reads: Quo Ducit Urania, meaning, “Where Urania leads, we follow.”



Dr. Chant with his daughter, Elizabeth, in front of their summer home in Go-Home Bay in 1904. Note the geometrical design in the railing.

CALL FOR CENTRES FROM “SEA TO SEA”

Dr. Clarence Chant, the then president in 1903, next proposed to evolve the royal society into a truly national one in character. His vision was to multiply the membership by encouraging interested ones to form Centres from sea to sea in affiliation with the new society headquartered in Toronto.

It was decided that half of the \$2.00 individual membership fee should be returned to any Centre that was formed and as a result Centres began springing up across the land.

FIRST CENTRES ESTABLISHED

By 1908 Ottawa and Hamilton were well established and after that came Regina and Winnipeg. By the time the

First World War assailed the world in 1914 some five Centres were active and growing.

Dr. Chant, also proposed name, bylaws and guiding objectives in order to enhance governance and the promotion of astronomy.

Many Centres across the country have incorporated under Provincial Society Acts, principally for tax purposes, as did the Victoria Centre in 1981.

That landmark year saw our Centre incorporated under the B.C. Society Act on September 22, thanks to the efforts of Robert Bryden a lawyer and Centre member.

RASC CENTRES

1906 to 1918

Ottawa

Hamilton

Winnipeg

Regina

Victoria

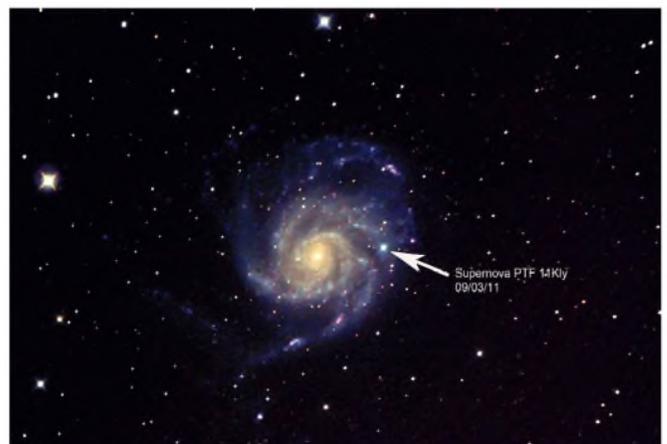
Montreal

A once in a lifetime image!

In December 2011 Victoria Centre member Guy Walton imaged a rare supernova in M101.

Orion SSPro camera, Astrotech AT8RC telescope, EQ6 mount. Lights: 7X900 seconds.

Excellent seeing at Pearson College Observatory.



*Those potentates blazing in the heavens
Marking the conclave of all the night's stars,
That brings winter and summer to mortal men
The constellations, when they wane, when they rise.*

AESCHYLUS (1525-456 B.C.E.)



1914: AN OPPORTUNE TIME TO FORM A CENTRE

VICTORIA was very early on the scene as far as Centres go. In fact, as early as 1907 a meteorologist by the name of E. Baynes Reed, who was working for the federal Meteorological Service weather station in Victoria, joined the RASC at the suggestion of his assistant, F. Napier Denison, who looked after the seismic equipment and the data.

Reed began establishing a Centre on the Island, arranging for meetings in 1907 with a small group, which consisted of the more influential citizens in the Victoria community.

A FAILED ATTEMPT

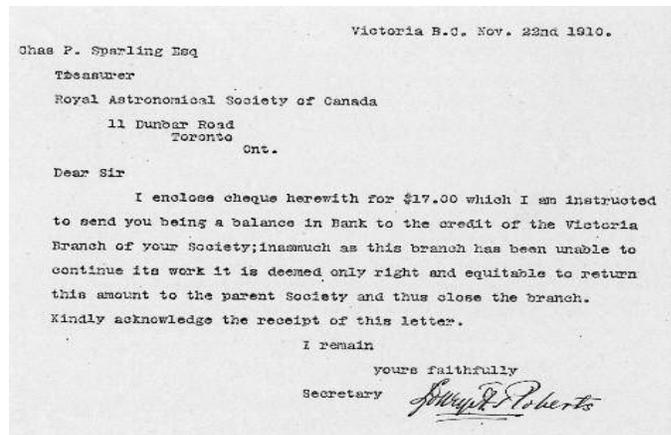
In 1907, a Victoria Daily Times article of June 28 carried a report that a Centre of the RASC had been formed with the following officers: Mr. E. B. McKay, president; Mr. S. A. Roberts, secretary; and Mr. E. Baynes Reed, acting treasurer.

Other members were: C. Wenger, F. W. Denison, W. F. Challenor, F. P. Colley, O. C. Hastings, Rev. J. Grundy, W. W. Carter, C. M. Lugin, C. Holmes, J. Nicholson, A. Gibson, A. W. McCurdy, Miss B. Peers, C. J. Burnett, Rev. P. Jens and F. W. Nolte.

By 1909 some 20 members in the Victoria area were on record with the RASC but they were members in name only and for some unknown reason never met together. Consequently, in 1910 a letter was sent to head office in Toronto by the secretary, S. A. Roberts, stating that the Centre was closing down and all fees collected by the Centre were being refunded.

Shortly after this had taken place, Napier Denison was made the Superintendent of Meteorology and he quickly set about the task of securing better facilities for his scientific work. Denison met up with Arthur McCurdy, who was a member of the Natural History Society. He took up Denison's cause and succeeded in appropriating \$20,000 for a new meteorological and seismological observatory. It was to be built on Gonzalez Hill, overlooking Victoria and Juan de Fuca Strait, with work on it starting in 1913 and completion

coming in 1914. Thus, the founding of the Gonzalez and Dominion Astrophysical Observatories paved the way for the final establishment of the Victoria Centre.



Letter closing the failed Centre sent to Toronto in 1910.

THE TIME IS RIPE TO START ANEW

In 1914 Mr. W. E. Harper and Dr. J. S. Plaskett of the Dominion Observatory in Ottawa had visited Victoria in connection with the establishment, on Little Saanich Mountain, of a great observatory enclosing a 72-inch reflecting telescope, destined to become the largest in the world.

All these matters were receiving avid attention in Victoria's and the world's daily press.

Another telescope, an 11.5 cm equatorially mounted refractor, was built in Victoria around this time by Mr. Oregon C. Hastings, a member of the original 1907 group. He ground the lenses, fashioned the mounting and used it in a small observatory on his property, situated where the city water tower once stood.

After Mr. Hastings's death in 1913, the telescope was acquired by Mr. Denison, the superintendent of Gonzales Observatory, and was erected in the observatory in 1914.

“Beginnings Are Not Spontaneous”



1914 Victoria Centre Council

: Back row, left to right: E. H. Cotterell, C.E.; Secretary-Treasurer; A. W. McCurdy, Vice-President; Major C. B. Simonds, C.E.
Front row: W. J. Sutton, M.E.; Dr. J. S. Plaskett, P.R.A.S. of C., Honorary President;
T. Napier Denison, President; G.G. Aiken.

CONDITIONS favourable for the formation of the Victoria Centre did not come easily. They were the result of the energy and initiative of a few public-spirited men, notably Mr. F. Napier Denison, Mr. W. J. S. Sutton and Mr. W. A. McCurdy, a past president of the Natural History Society of B.C. and a member of the RASC.

In a letter dated December 31, 1913, when returning a ballot for the general executive for 1914, McCurdy wrote to the general secretary, Mr. J. R. Collins: “The names on the ballot belong to Ontario and Quebec and it occurs to me that this might be a good time to recognize the west” and suggested the inclusion of Mr. F. Napier Denison on the society’s board.

In the meantime, Dr. Plaskett, who was then visiting Victoria, was invited to address a public meeting held on the 4th

March, under the auspices of the Natural History Society. In his address Dr. Plaskett spoke of the cultural advantages accruing to the city from its becoming a Centre of the RASC. The idea was enthusiastically received and at a second public meeting, held on Friday, March 6, the present Victoria Centre was formed. The minutes of this historic meeting read as follows: “The meeting being called to form a Centre of The Royal Astronomical Society in Victoria and as Dr. Plaskett was present, the chairman called upon him to explain the objects of a Centre of the Royal Society.

“Dr. Plaskett addressed the meeting giving a review of the history of the RASC and proposed that a role of those present, wishing to become members of the Society, should be taken and that the necessary officers should be appointed.”

TWENTY DECIDE TO JOIN NEW CENTRE

“Twenty of those present indicated that they would like to become members of RASC whereupon “the chair announced that the creation of officers would now take place.”

The election resulted as follows:

Honorary President: Dr. J. S. Plaskett

President: Mr. F. Napier Denison

Vice President: Mr. A. W. McCurdy

Secretary-Treasurer: Mr. Ernest H. Cotterell

Executive Committee: Mr. W. S. Drewry, Mr. W. J. Sutton, Mr. G. G. Aitken and Major C. B. Simonds.

It was proposed by Mr. McCurdy and Mr. Sutton “That the Society meet on Friday evening at 8 p.m., 3rd April, 1914, and on the first Friday in each month for future meetings and that the Secretary make arrangements for the use of the King’s Daughter Rest Room on the corner of Douglas and Courtney Streets (long since demolished). The General Council meets in about a week’s time when official recognition will be given to the formation of the Victoria Centre of The Royal Astronomical Society of Canada”.

48 CHARTER MEMBERS BY APRIL 14, 1914

Other members quickly joined and 48 became charter members and by April 14, 1914 the secretary was able to write to Mr. McCurdy: “I have today received a letter from Mr. Cotterell announcing the formation of the Victoria Centre together with a list of 58 members and a draft of \$116 covering their fees for the current year.

The National Council gave its blessing on April 28 and the new Victoria Centre was duly launched, with an announcement appearing in The Journal 8, p.122, 1914.

“I am writing Mr. Cotterell in detail in reference to matters mentioned in his letter. Victoria is to be congratulated on the formation of such a strong Centre, as your membership list shows it to be. This must be particularly gratifying to yourself as I believe you are the man chiefly responsible for the successful issue of the affair.”

The official authorization of the Centre, as drawn from the Minutes of Meeting of Council of The Royal Astronomical Society of Canada, Meteorological Office, Toronto, April 8, 1914, at which were present: Mr. R. F. Stupart, Prof. Chant, Mr. A. Duncan, Dr. A. D. Watson, Prof. L. S. Stewart and Mr. J. R. Collins, reads as follows:

“Moved by Mr. Stupart, seconded by Mr. Duncan, that a Centre of the Society at Victoria, B.C., be authorized forthwith and the General Treasurer be instructed to forward the local treasurer, Mr. E. H. Cotterell, the sum of \$90.00 as a grant from the general funds of the Society, for the year 1914 (this sum being estimated by themselves as sufficient for the expenses of the year) the local treasurer, Mr. Cotterell, having forwarded the names of 59 members together with a cheque covering the amount of their fees for the year.”

STARTING WITH A SPARK OF INTEREST

Some of the best things happening often start off in a small way and grow to greatness: think of a tiny seed that grows into a forest giant. That just about says it all for the Victoria Centre. After a faltering beginning in 1907 we sud-

denly found ourselves jumpstarted into existence in 1914 by a set of circumstances that decided on Vancouver Island, and Little Saanich Mountain in particular, being chosen by the Canadian government as the location for a great 72” telescope—which would eventually become the largest mirror in the world for a mere six months.

The other circumstance brought in the man chosen to lead the observatory and telescope to completion, Dr. J. S. Plaskett, who happened to be President of the RASC in 1914.

Sites across Canada had been thoroughly examined for suitability and it had been determined that the lower Island offered the best seeing of all.

VICTORIA: THE CENTRE OF THE UNIVERSE

People living in the Greater Victoria area reveled in the worldwide acclaim that this favourable decision bestowed on the southern Island. In fact, Victoria instantly became the centre of the universe with newspapers worldwide following every development in the new observatory’s progress.

DR. PLASKETT PROMOTES THE RASC

Dr. Plaskett’s influence was also instrumental in a different direction: he brought together and motivated the same group of amateur astronomers who had earlier tried to establish a Centre in Victoria but whose efforts were doomed. Now the Victoria Centre found itself on the main sequence! And for decades the observatory was the place where everything happened and where everyone gravitated, like dust and gas to a prepubescent star.

THE PLASKETT TELESCOPE’S CONSTRUCTION

A Vancouver firm, the McAlpine Robertson company, built the building that houses the dome for \$75,000. Warner & Swasey in Cleveland, Ohio built the telescope.

The 1.8-m crown glass disk, weighing 2000 kilograms, was made by the Saint-Gobain company in their Antwerp, Belgium, glass works and was shipped to America only one week before the outbreak of World War I.

Mirror grinding for the 1.8-m was undertaken by the John



Pleiades, M45, by Guy Walton.

Excellent detail. Victoria Centre Observatory. Camera: Orion SS Pro Colour. Exposures: 19 light frames, 5 dark frames at 300s. Digitally developed with Images Plus, colour balance and curves in PSCS3.

A. Brashear company in Pittsburgh. However, it had to be reground on two more occasions, once due to an unexplained scratch and another due to a grinding flaw. Regrinding delayed first light for two years until May 6 1918. Eventually, the completed mirror was hauled on a wagon by a team of horses up the winding Little Saanich Mountain road.

The Plaskett Telescope's first light was delayed by two years caused by flaws requiring regrinding of the mirror.

Unfortunately, by then the 100-inch Hooker Telescope in Mount Wilson Observatory had seen first light six months earlier on November 2 1917!

INVITATION TO INSPECT THE NEW TELESCOPE

Earlier, in 1916 Dr. Plaskett sent out an invitation for everyone, including those involved in its construction and the public, to visit the nearly completed telescope, at this time minus the mirror, of course. RASC members and the public flocked there to inspect it. They marveled at the ease with which 45 tons of steel could be moved at will.

In later years many professional astronomers visited the observatory, some of them well known and renowned in their

field, which gave Centre members many good reasons to travel up the Hill to meet them.

Picnics were held at the observatory on those occasions, lectures were given and visitors attended "At Home's", which was in keeping with social customs of the day.

TELESCOPE BUILDERS VISIT VICTORIA

In October of 1916, Dr. John A. Brashear, whose firm figured the telescope's mirrors, and Mr. Ambrose Swasey, of the firm of Warner & Swasey, who built the telescope's mountings, visited Victoria to inspect the telescope's engineering and construction.

The Centre's president, Mr. McCurdy, and other members of the Victoria Centre were invited to entertain them; such was the close relationship Dr. Plaskett fostered. On their departure they sent the following telegram to Dr. Plaskett:

"Vancouver, Nov. 29, 1916. Delightful visit to observatory with McCurdy, Denison and others. Scenery grand. Engineer gave every opportunity to study telescope. With you in this great work. Sail tomorrow. Swasey-Brashear"

Ambrose Swasey died June 1937, at the age of 90. Dr. John Alfred Brashear died on April 9, 1920.

RECOGNITION OF VICTORIA CENTRE APPROVED BY RASC COUNCIL

APRIL 28, 1914

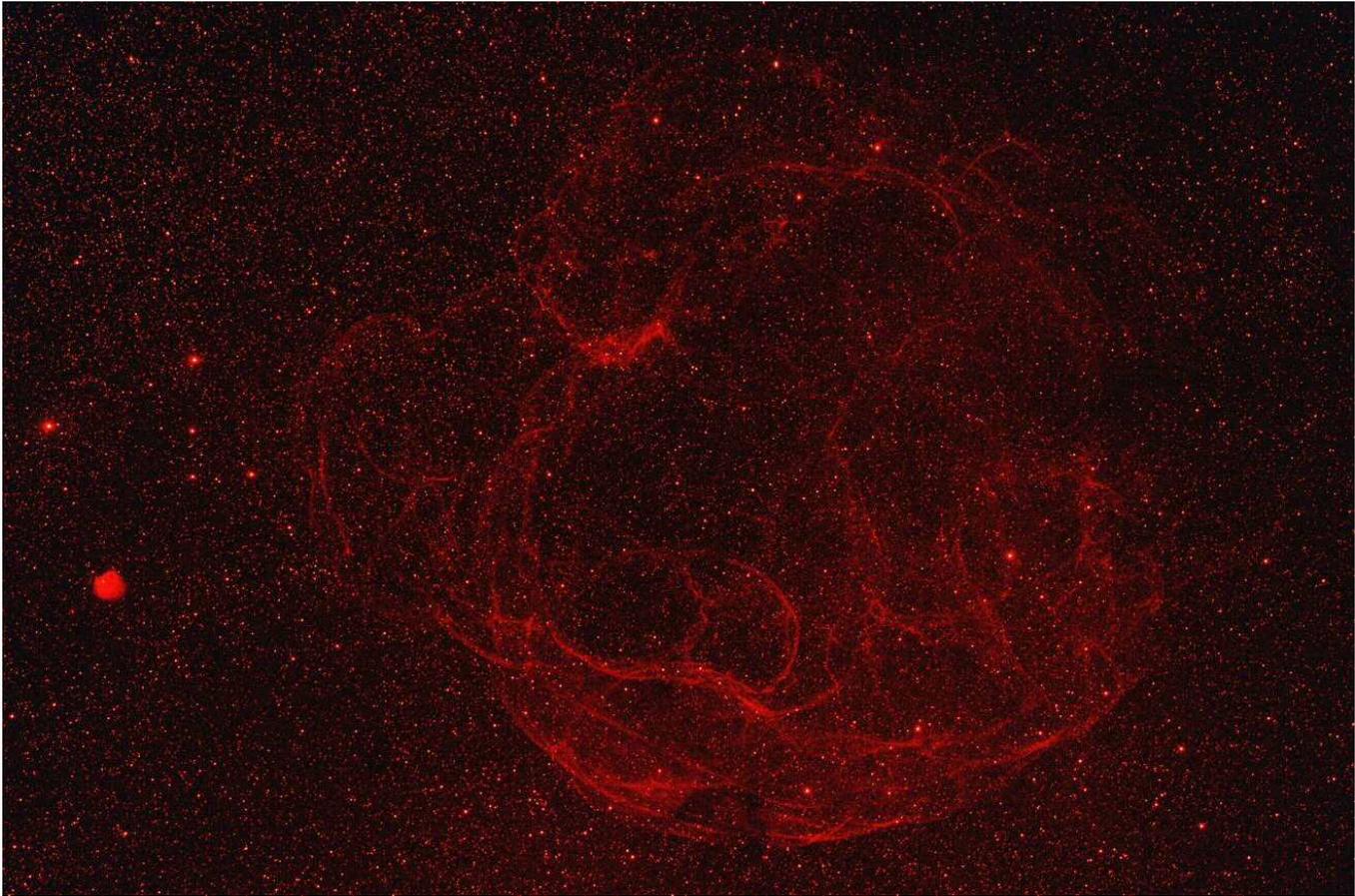
This memorable event placed the Victoria Centre into eighth place in the list of Centres across Canada

EXTRACT FROM MINUTES OF MEETING OF COUNCIL OF THE ROYAL
ASTRONOMICAL SOCIETY OF CANADA ..

Meteorological Office, Toronto Apl.28,1914

Present:-
Mr. ^{R.T.} Stupart, Dr. A.D. Watson
Prof. ^{C.P.} Chant, Prof. Stewart
Mr. ^{F.} Duncan Mr. ^{J.B.} Collins

".....
Moved by Mr. Stupart, seconded by Mr. Duncan, that a Centre of the Society at Victoria, B.C. be authorized forthwith and the General Treasurer be instructed to forward the local Treasurer -E.H. Cotterell, the sum of \$90.00 as a grant from the general funds of the Society, for the year 1914 (this sum being estimated by themselves as sufficient for the expenses for the year) the local Treasurer, Mr. Cotterell having forwarded the names of 59 members together with a cheque covering the amount of their fees for the year. Carried."



Simeis 147

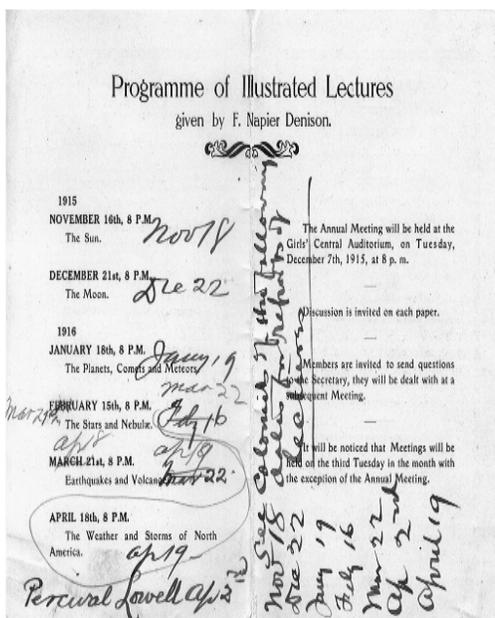
The large and extremely dim supernova remnant Simeis 147 is also known as Sh2-240. East of the supernova remnant is the small and bright emission nebula Sh2-242.

Date: March 2, 2013

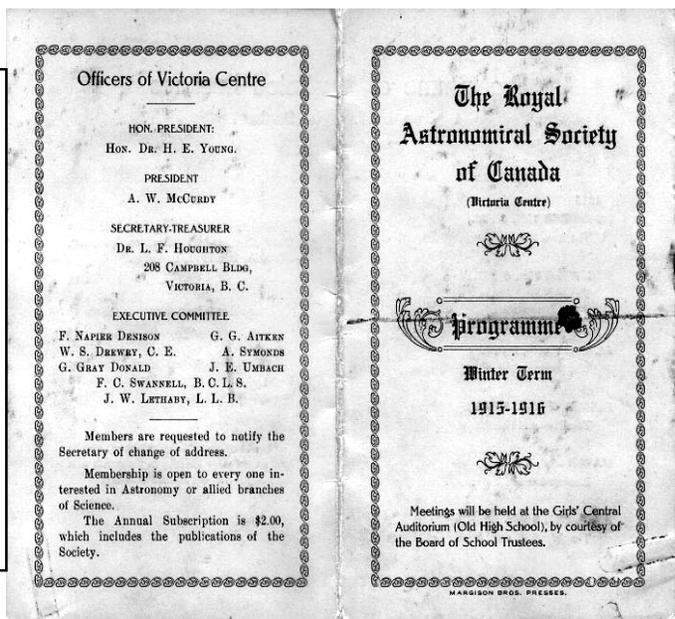
Image by Charles Banville, with imaging and processing details found at victoria.rasc.ca

LETTER FROM DR. PERCIVAL LOWELL WITH REFERENCE TO MARTIAN CANALS

Dr. Denison gave a lecture on Planets, Comets and Meteors during which he read a letter from Dr. Percival Lowell regarding the existence of the much-disputed Martian canals. Dr. Lowell's statement was published in the Daily Colonist of Sunday, April 2, 1916.



Inside-outside pages of the Winter Term programme showing a handwritten date, April 2, 1916, when a letter sent from Dr. Percival Lowell to Dr. Denison, was published in a Victoria Newspaper.



World War I, the Influenza Epidemic

And our Outreach to the Public

WORLD WAR I dealt Victoria a hard blow. Attendance at meetings dropped from 60 to 30. Paid membership dropped from 101 to 40 by 1916. And as the war drew to a close a worldwide influenza epidemic hit Victoria hard.

Authorities cancelled all public meetings after May 13, 1918 and it wasn't until some time in 1919 that the restrictions were lifted. Only six meetings were held during those difficult years.

On June 11, 1918, many distinguished visitors were on hand, including many who had been in Goldendale, Washington, for the solar eclipse on the 8th. After 1918 the Centre was well supported by the four astronomers at the DAO. They hosted open houses and frequently spoke at meetings, but it was the public meetings at the DAO that gave hundreds of thousands of visitors a glimpse of astronomical science.

JAPANESE BASEBALL PLAYERS VISITED

In 1919 some 39,000 visitors, including a team of Japanese baseball players, visited the DAO. Bi-weekly radio talks and newspaper columns hosted by Dr. William Harper, stimulated much public interest.

All of this avid attendance resulted in a huge growth in the 1920's. On one occasion, in 1926, some 300, including students from Victoria and Brentwood Colleges attended a meeting at Victoria High School to hear UBC Professor Gordon Shrum speak about the "Fundamental Concepts of the Atom".

At the Centre's annual meeting held in the Girls' Central School in December 1927, all of 350 attendees enjoyed 10 engrossing reels of astronomical motion pictures intermingled with audience discussion. Sometimes fierce debates were held on provocative subjects such as the habitability of Mars.

MUSIC, SONGS AND PROFESSOR WHOSIS?

Sometimes the public meetings resembled Victorian stage pantomimes and were vastly different from what we expect today. At the Centre's annual meeting held on December 13, 1939, this is what happened:

"As the dinner concluded, Mr. James Petrie, father of astronomer R. M. Petrie, sang two bass solos and an instrumental trio composed of Mr. and Mrs. Darimont and Mr. Gordon Shaw performed two enjoyable numbers.

The business part of the meeting was dealt with in short order, and then Mrs. Beals played two excellent piano solos. After a brief recess, considerable banging and commotion was heard backstage as a man identifying himself as Professor Whosis, the astrologer, entered the room."

OUTREACH OUTSTRETCHED

1927 and '28 saw some impressive outreach. At the annual meeting on December 6, held at the Girls' Central School, some remarkable astronomical movies were shown by Past President Elliott for the first time in Victoria, to an

audience of about 300. The films were obtained from the Department of Education in Ontario. Total membership of the Centre at the end of the year was 81, 34 of whom resided outside the city.

At that time very few members had bought or made their own telescopes or tried making observations. To remedy this the Centre introduced observing sessions at the conclusion of the meetings in 1929.

FIRST MIRROR-GRINDING GROUP

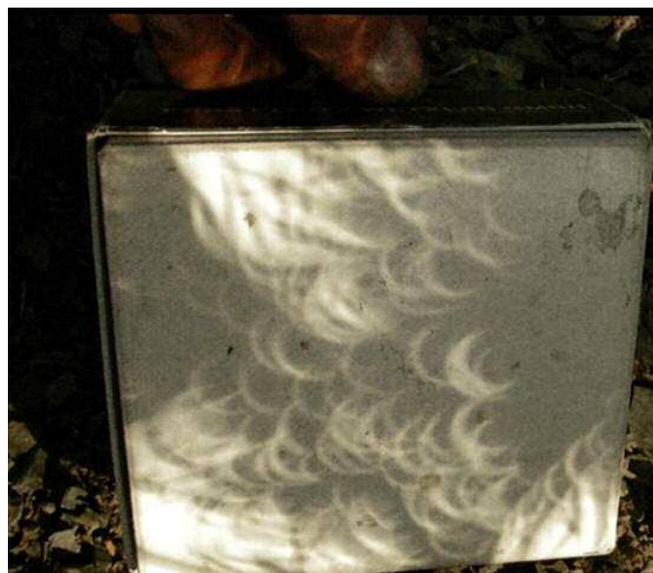
Then in 1934 the first group in any Centre got together under the direction of W. R. Hobday and began the process of grinding mirrors and making their own telescopes. Various members spoke to local institutes and clubs as far away as Tacoma, Washington, and both Victoria newspapers regularly covered the Centre's events and meetings.

The very popular weekly summer course "Summer Evenings With the Stars" began in 1931 and was intended for members during July, August and September at Boyd Brydon's home in Oak Bay.

Once the doors were opened to the public the location had to be switched to the Victoria College and by 1934 some 60 people attended the nine-session course.

Using Summer Course fees the Centre found enough cash to purchase the Wray-Brydon refractor from Brydon in 1944 and for three years it was used in Brydon's Oak Bay observatory. When the home was sold in 1947 Robert Peters took it to his property in Gordon Head in 1950.

However, with the passing of time Vancouver, Edmonton and Calgary established new Centres in their localities and Victoria Centre members living there switched allegiances.

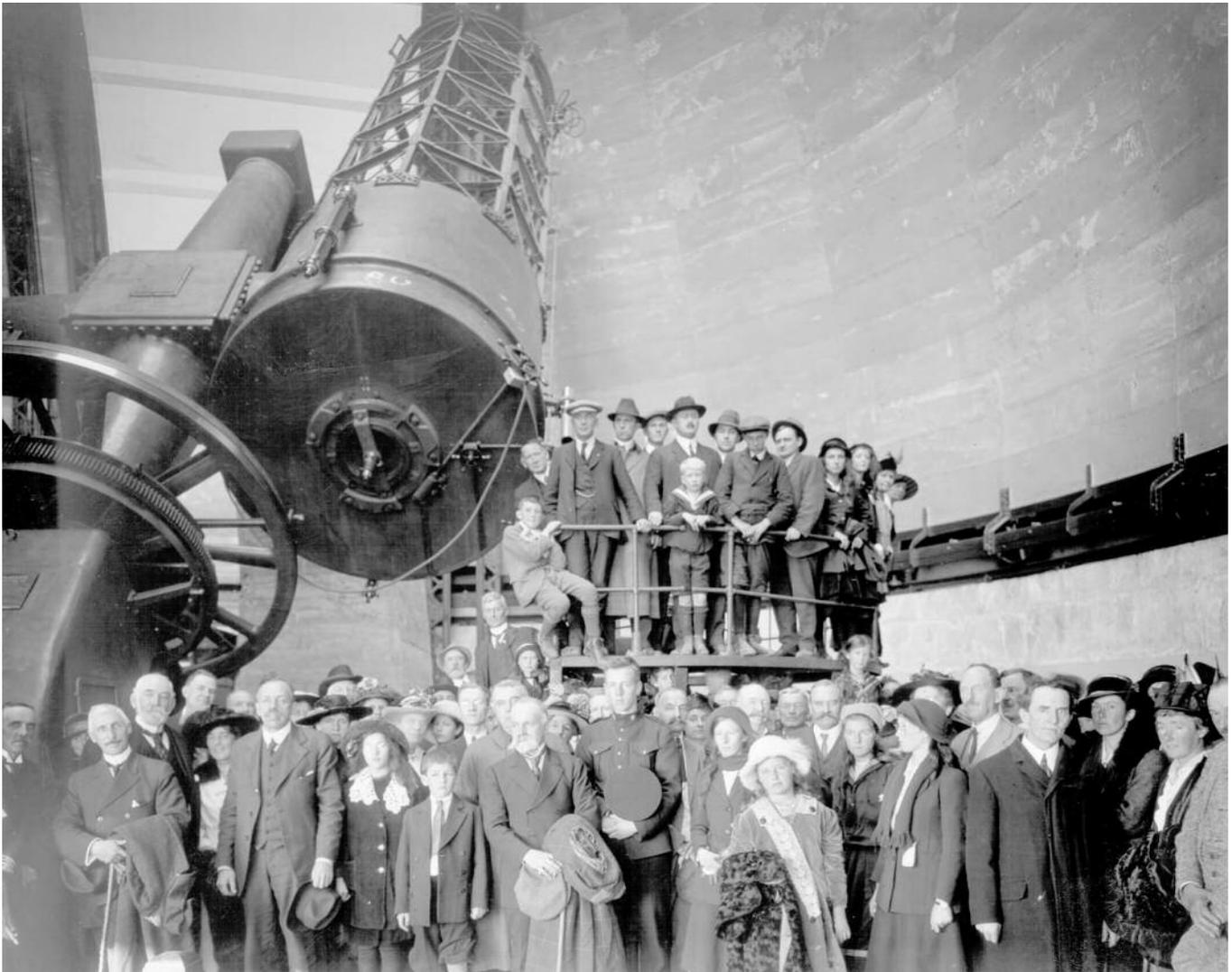


Crescent images of eclipsed sun projected through bush leaves. Taken by Centre member Dorothy Paul at annular solar eclipse, May 20, 2012 In Grand View Campground, White Mountains in California.

Dr. John S. Plaskett, FRS

An Appreciation

THE NEXT TWO PAGES HONOUR DR. JOHN S. PLASKETT, PRESIDENT OF THE RASC, TORONTO, WARNER & SWASEY SCIENTIFIC CONSULTANT AND HONORARY PRESIDENT OF THE VICTORIA CENTRE IN 1914, WHO PLAYED A PIVOTAL ROLE IN THE CENTER'S FOUNDATION.



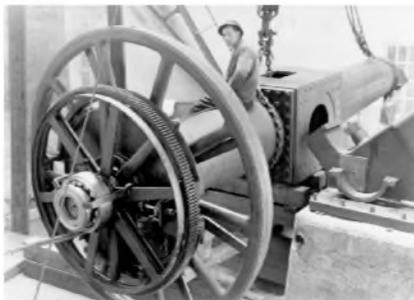
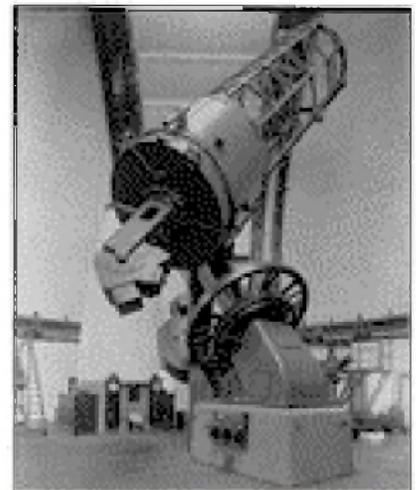
After the installation of the 72-in. mirror the Lieut-Governor of British Columbia, Sir Frank Barnard (bottom left, with a coat over his arm), opened the observatory officially on June 4, 1918. A great crowd of visitors, among them many Centre members, attended this notable occasion at the opening of what should have been the largest telescope in the world at that time. Unfortunately, flaws in the mirror caused repeated grindings lasting two years thereby permitting the larger 100" Hooker Telescope on Mt. Wilson to have first light six months before the DAO.

Dr. John S. Plaskett (third from the left with hat in hand, front row) is accompanied by a number of dignitaries, observatory staff, their families, and members of the Victoria Centre. Earlier, on January 8, 1918, Dr. Plaskett announced that the Geographic Board of Canada had approved his suggestion to rename Little Saanich Mountain as Observatory Hill.

THE ARDOUS PROCESS OF HAULING AND ASSEMBLING MATERIALS AND PREFABRICATED TELESCOPE UNITS TO THE TOP OF OBSERVATORY HILL WITH TEAMS OF HORSES



BC ARCHIVES



Dr. James Hesser, Director, and Faculty at the NRC/HIA/DAO

An Appreciation

FOR A LIFE MEMBER AND COUNCIL MEMBER OF THE VICTORIA CENTRE, RASC, WHO, ALONG WITH HIS STAFF, HAVE CONTINUED THE DOMINION ASTROPHYSICAL OBSERVATORY'S ONE HUNDRED YEAR LEGACY OF HIGHLY APPRECIATED SUPPORT FOR THE VICTORIA CENTRE.

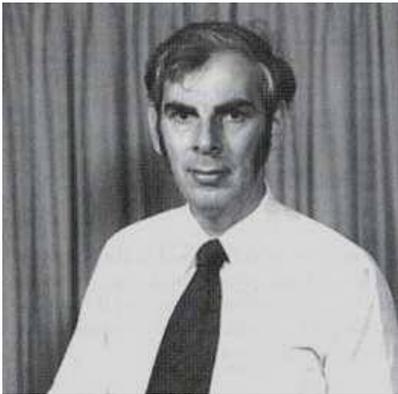


Thank
You,
Jim!

For faculty of the DAO and UVic who have given many invaluable years' service to the RASC and the Victoria Centre

An Appreciation

Alan Batten

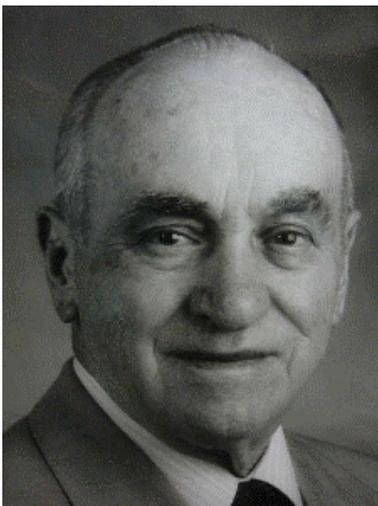


Alan joined the Victoria Centre in 1962. This was the start of a long and very active association with the Society, including a term as President of the Centre in 1970-72 and of the national Society 1976-78, and as Editor of the RASC's Journal 1980-88.

Alan received the RASC Service Award in 1988 for his extensive and energetic contribution to the well being of the Society.

He gave his first of many interesting talks to the Victoria Centre in 1964: "The Galactic System." He was appointed President in 1971-72, 1st Vice President in 1969 and 2nd Vice President in 1967-68.

John Climenhaga



In 1949, John joined the faculty of Victoria College, a precursor institution to UVic. At Victoria College, he carried a heavy teaching load in Physics.

In his early years at Victoria College he began research in Astronomy at the Dominion Astrophysical Observatory, work that would lead to a M.A. in Astronomy and, in 1960, his PhD from the University of

Michigan in Ann Arbor.

In the late 1950s John was appointed Head of the Physics Department at Victoria College, a position he would hold un-

til 1969. Upon retirement in 1982, John was honoured with the establishment of a scholarship in his name for a senior student in Astronomy. He was further honoured the same year when the observatory located on the roof of the University of Victoria's Elliott Building, where the Physics Department is located, was named the Climenhaga Observatory.

John was involved in many activities of the Victoria Centre. His presentations to the membership were always well received. He was Honorary President of the Victoria Centre for 1974-76 and 1992-98; President 1960-61; 1st Vice President 1959; 2nd Vice President 1958; Librarian 1951-54; Councilor 1957, 56, 66, 69, 71, 72 and 84-91.

A SMILING FACE TO THE STARS

One of the more familiar — and whimsical — sights on the UVic campus is the happy-face observatory dome on the roof of the Elliott building. The observatory is named after astrophysicist John Climenhaga, the founding head of UVic's physics department and later dean of arts and science

Climenhaga championed the creation of UVic's astronomy program and was adamant that an on-campus observatory be part of the package. Telescopes are rated by the size of their mirrors, which determine how much light they can gather. Over the years, the observatory has housed a succession of telescopes. The current 50-cm telescope, installed in 1976, has been used by countless students and has been routinely used by researchers to study the brightness variations of distant stars and to track the motions of near-Earth objects.

Student pranksters painted the two eyes on the dome in 1969, and the smile was added later — with the university continuing to keep fresh paint on the old joke begun by students to celebrate and encourage the UVic rugby team. The dome continues to smile even with the introduction of a second observatory — housing Canada's largest on-campus telescope — atop the nearby Bob Wright Centre.

Meanwhile, Climenhaga's vision has paid off — UVic astronomers are now world-renowned for their research on the formation of galaxies, stellar structure and evolution, and theoretical and observational cosmology.

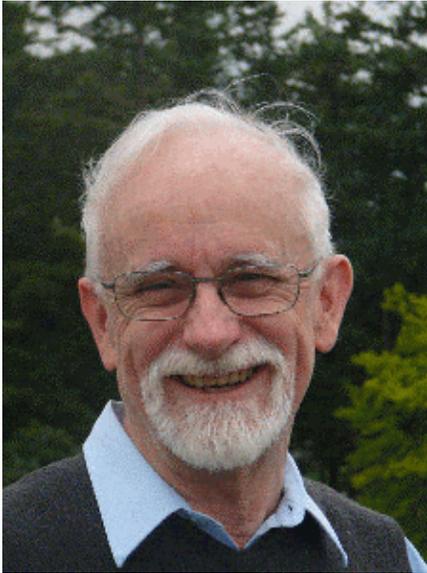
Colin Scarfe

Colin joined the faculty at UVic in January 1965, coming straight from completing his Ph.D. at Cambridge.

He has had the privilege of using the 1.2-m telescope at the DAO since later that year, and continues to do so, even

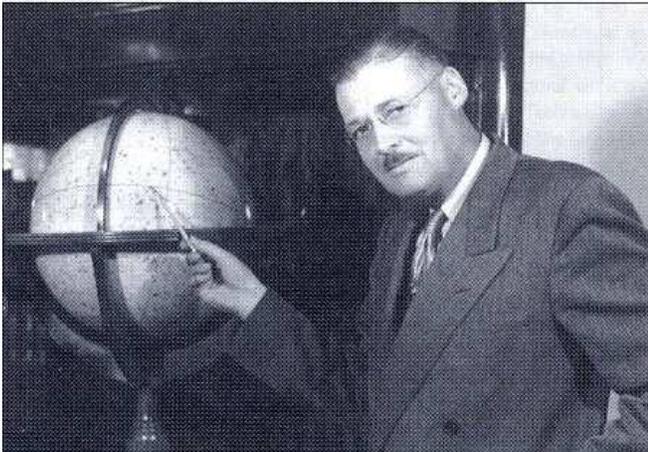
though he retired in June 2006, after 41.5 years. Colin taught many Astronomy courses as well as most of the first- and second-year physics courses offered at UVic.

In 1995 Dave Balam at the DAO discovered a main-belt asteroid on January 4 1995, which was dedicated to Colin. It was designated 6532 Scarfe (1995 AC).



Colin's widespread involvement with the Victoria Centre included being President for 1975-76 and 78; 1st Vice President 1973-74; 2nd Vice President 1971-72; Recorder 1969 and Councillor 1967-68, 77 and 2003-09.

Robert M. Petrie



Robert was born in Scotland in 1906 and at the age of five came to Canada. He grew up in Victoria B.C. and joined the Victoria Centre at the age of 18. Within two years he became the Centre's recorder and wrote his first paper "Variable Star Observing for Amateurs" for the *Journal*.

During his undergraduate years he worked summers at the DAO observing and measuring spectra and determining orbits of spectroscopic binaries. On graduation from UBC in 1928 he went to the University of Michigan on a secured scholarship for his AM and PhD degrees. In 1935, after working three years at the Detroit Observatory, he returned to the DAO.

A BETTER UNDERSTANDING OF THE GALAXY'S STRUCTURE

His long-term study of spectroscopic B-stars led to a better understanding of the galaxy's structure. During World

War II he became a Lieutenant-Commander in the Navy. His excellent administrative skills led to his appointment as Dominion Astronomer in 1964. At home and abroad he received many honours.

Robert's talents benefited the Victoria Centre on many occasions when he spoke to them and also several other Centres. He published numerous papers in the *Journal* and as Associate Editor he introduced an enlightening series called "Canadian Scientists Report".

Robert held office in the Victoria Centre from 1936-41, including President. In 1953-57 he was national Vice-President and President. He had a younger brother, William, who specialized in auroral research. He also was an active member of the RASC, serving at different times on the Councils of Victoria, Vancouver and Saskatoon Centres.

The crater "Petrie" on the Moon is named after him.



Horsehead Nebula image by John McDonald

This image is a blend of colour and H-alpha captures.
H-Alpha image: 2011-02-01 in backyard, Victoria, B.C.
Clear, poor transmission, no wind. Equipment: Orion ED80TC refractor. Modified Canon Ti camera with Ha filter, Astrovac travel mount.
Exposure: 26 4 min. images with Ha filter.

Below:

M42 The Orion Nebula image by Matt Watson.

Image was taken at the Victoria Centre's Observatory, 2012-01-10.
Calm, some haze, near full moon.
Equipment: QSI583cs on NP127is and Paramount ME.
Exposure: 60x60 sec. Lights with dark, flat and bias frames.
Processed with Deep Sky Stacker and Photoshop.



*The most beautiful thing we can experience is the mysterious,
It is the source of all true art and of all science.
He to whom this emotion is a stranger,
Who can no longer pause to wonder and stand wrapt in awe,
Is as good as dead: his eyes are closed.*

ALBERT EINSTEIN (1879-1955)



WHAT IS THE VICTORIA CENTRE?

WE are a group of men, women and sometimes youths, from varied backgrounds, who meet in the Bob Wright Centre building of the University of Victoria, at 7:30 p.m., every second Wednesday in the month.

New members joining the Centre often have little practical astronomical knowledge. If they attend meetings regularly, ask questions, get involved, borrow one of our telescopes and read astronomy magazines that problem will often take care of itself in no time at all.

We all benefit from enjoying association with professionals and knowledgeable amateurs, along with attending educational monthly presentations given frequently by speakers from UVic's Department of Physics and Astronomy and the NRC-HIA Dominion Astrophysical Observatory.

And in recent years the Centre was very privileged to be given permission to build an observatory for their own use on NRC-HIA land, next door to the DAO. An account of this unique event is given later in Section 6.

Our new observatory is equipped with up-to-date instrumentation for observing and digital imaging. The members are proud of their achievements. as you will discover from examining the Centre's website.

WHAT WE ARE STILL AIMING TO ACHIEVE

The Centre is diligently pursuing another important matter: the controlling of light pollution by promoting dialogue with city and district councils.

WHAT WE HAVE ACCOMPLISHED

The Victoria Centre's Sid Sidhu and assistants have developed a very successful program with regional school districts, promoting astronomy by taking our telescopes and expertise into dozens of schools during daytime and into the evening.

Our members are becoming more involved than at any time in our past history to accomplish our aims. To this end the pages of this 100th centennial publication will highlight the Centre's progress in these and many other areas throughout past years.

For example, we have developed a superb Web site and built a splendid, well-equipped observatory on previously untouchable land, NRC/HIA property. When communication problems have been resolved it is planned to have public goto capability.



*Plaskett image courtesy of Centre member Charles Banville.
Created 9 June 2013.*



*Early picture of Bob Peters with
THE CENTRE'S SHOWPIECE—see also the next and last pages.*

THE WRAY-BRYDON TELESCOPE

THE CENTRE'S prized telescope is a clock-driven 100 mm refractor on an equatorial mount. It goes without saying that it has an interesting history. We know a great deal about its provenance thanks to Dr. Kenneth Wright, a staff member at the DAO and a Victoria Centre president from 1964-66. Dr. Wright's typewritten notes are stored in the Centre's archives and the following description and history are drawn from his work.

Who Made the Telescope?

Wray, a famous London lens maker, made the 4-inch main lens, and marked it "Wray, London". It gives beautiful definition. James Foster made the telescope tube and engraved it with his mark: "J. Foster, 40 Colbourne St., Toronto. "Stewart of London" made the equatorial mounting and the drive clock.

The Telescope's History



H. Boyd Bryden

Alan Frederick Miller, a past president of the Astronomical and Physical Society of Toronto bought the telescope in 1882. That society was the predecessor of the Royal Astronomical Society of Canada, which obtained its royal charter in 1903, with Miller as one of the charter members. The telescope is 20 years older than the RASC. In 1931 Millar lost his eyesight and he sold the telescope to H. Boyd Bryden, who was Centre president from 1934-36. Miller used the telescope for serious research and published several papers on his spectroscopic studies.



Bryden's observatory at 2390 Oak Bay Ave. around 1931.

Boyd Bryden mounted the telescope in his observatory and added the spectroscope and grating in order to observe solar prominences.

On October 1, 1943, the Victoria Centre purchased the refractor, accessories and observatory from Boyd Bryden, but it remained on his property until he died in 1947.

At that time the observatory and the telescope were moved to Robert Peter's home in Gordon Head. Later, in 1949, the Centre renamed the telescope the "Wray-Bryden" telescope in Bryden's honour. Robert Peters died aged 93 in

1965 and the Center moved the telescope to the Sooke home of another member, Norman Rogers.

Another move took place the next year when the telescope was mounted in the Climenhaga Observatory on the Elliott Building's roof at UVic. Then, in 1973 it was moved into storage inside the Elliott Building.

Installed in the Centre of the Universe

On June 9, 2001 it was agreed by the Victoria Centre and the Centre of the Universe that the historic scope should be taken out of storage and placed on permanent public display alongside other exhibits in the Centre of the Universe's main hall.

Telescope and Mount

The telescope tube is brass and its equatorial mount is a mix of gunmetal and brass. It also has a clock drive. A massive 5'6" cast-iron pillar guarantees the telescope's stability, enabling rock-steady viewing.

When it was originally set up in Victoria, the mount was completely overhauled by S. S. Girling, a former instrument maker at the DAO. At that time a ball thrust bearing was fitted to the polar axis and new clamps and slow-motion mechanisms provided better control from the eyepiece location.

Clock Mechanism

Hour and declination circles are graduated on silver and are provided with verniers to read to five seconds of time and one minute of arc respectively. The hour circle is of Airy's design, which permits setting the telescope on the desired object without calculation.

The telescope is then swung about the axis until the fixed mark on the meridian reads the sidereal time on the same circle. Both circles are fitted with microscopes and illuminated by low voltage lights. An equatorial mount and clock drive permits tracking celestial objects. The clock drive is weight driven—just like a grandfather clock—and an adjustable governor controls its speed.

The silver setting circles allow an observer to find any object with ease. The astronomer reads the fine right ascension and declination markings with small, illuminated magnifying lenses. Clamps and slow motion knobs make it easy to control the telescope without moving from the eyepiece.

Accessories

Seven eyepieces giving magnifications of 30, 60, 120, 180, 210, and 300 with a Barlow lens doubling the magnification.

The finder scope has illuminated cross hairs (illuminated cross hairs were still a luxury in Dr. Wright's day); a Herschel wedge diagonal for solar observation, several neutral filters, an adjustable neutral-tinted glass wedge; a prism star diagonal making it convenient to observe stars that are high in the sky; a Hilger 5-prism McLean spectroscope fits on the eyepieces; a Simms filar micrometer and a Browning spectroscope with Roland-Brashear grating ruled with 14436 lines on metal.



THE WRAY-BRYDON TELESCOPE
AS DISPLAYED IN THE
CENTRE OF THE UNIVERSE



On left, pictured outside the CU on closing day, Dr. James Hesser, director HIA/NRC/DAO, alongside two Centre members ,Bruno Quenneville and Brian Robilliard.

VICTORIA CENTRE'S PAST PRESIDENTS

1914	Dr. F. N. Denison	1965-66	R. K. Lee
1915	E. H. Cotterell	1967-68	D. G. Stoddart
1916-17	A. W. McCurdy	1969-70	E. E. Bridgen
1918	W. S. Drewry	1971	K. O. Wright
1919-20	R. K. Young	1972	A. H. Batten
1921	J. E. Umbach	1973-74	R. S. Napier
1922-23	W. C. Harper	1975-76	D. C. D. Scarfe
1924-25	J. Duff	1977-78	D. Dundee
1926-27	P. H. Elliott	1979	D. B. Harris
1928-29	J. A. Pearce	1980-81	J. Newton
1930-31	Dr. C. S. Beals	1082-83	L. Van der Byle
1932-33	P. H. Hughes	1984-85	P. J. Garnham
1934-35	H. Boyd Bryden	1986-87	Mrs. M. J. Enock
1936	Lt, Cmdr. H. R. Tingley	1988-89	E. A. Steeves
1937-38	G. Shaw	1990-91	J. Newton
1939	R. Peters	1992-93	D. Dundee
1940-42	R. M. Petrie	1994-95	G. Shearman
1943-44	O. M. Prentice	1996	D. Moffatt
1945-46	K. O. Wright	1997-98	B. Almond
1947-48	A. McKellar	1999-2000	Mrs. S. Barta
1949-50	Dr. J. S. Stevenson	2001-02	D. Lee
1951-52	Mrs. J. R. Noble	2003-04	C. Gainor
1953-54	R. Evans	2005-06	S. Mair
1955-56	Miss J. McDonald	2007-08	J. Carr
1957-58	N. Rogers	2009-10	J. McDonald
1959-60	J. A. L. Muir	2011-12	L. Roche
1961-62	Dr. J. L. Climenhaga	2013-14	N. Walker
1963-64	G. J. Odgers		

THE CENTRE'S NATIONAL MEDAL WINNERS



CHANT MEDAL

The Chant Medal is awarded based on a significant body of work of lasting value to the astronomical community and is named after C. A. Chant who was a noted astronomer at the University of Toronto and helped to found the David Dunlap Observatory there

2006	Ed Majden
1989	Jack Newton
1988	Chris Spratt
1941	H. Boyd Bryden

KEN CHILTON PRIZE

Established in Memory of Ken Chilton, this prize was awarded for a specific piece of astronomical work carried out or published recently.

1988	Philip Teece
1983	Chris Spratt
1979	Jack Newton



SERVICE AWARD

The Service Award, established in 1959, is awarded to members of the RASC who have made significant contributions at either the National and-or Centre levels.

1988	Alan Batten
1983	Chris Aikman
1968	George Ball
1962	Joseph A. Pearce

continued...

THE CENTRE'S PERSONAL SERVICE AWARD

THIS AWARD IS PRESENTED AT THE
ANNUAL GENERAL MEETING AND DINNER



NEWTON-BALL SERVICE AWARD

The Newton-Ball Service Award, introduced in 2001, was named after two Centre members, Jack Newton and George Ball, for their valuable contributions to the Centre over many years. The award honours nominated Centre members who have given outstanding service benefiting all Centre members.

2001	Dr. James Hesser
2002	Mr. Sid Sidhu
2003	Mr. Bill Almond
2004	Mr. Don Dundee
2005	Mrs. Sandra Barta
2006	Mr. Bruno Quenneville
2007	Mr. David Lee
2008	Mr. Joe Carr
2009	Mr. Scott Mair
2010	Dr. Chris Gainor
2011	Dr. W. John McDonald
2012	Mrs. Sherry Buttnor
2013	Mrs. Lauri Roche
2014	

THE QUEEN'S SILVER JUBILEE MEDAL

1977 Jack Newton

ASP AMATEUR ACHIEVEMENT AWARD

1988 Jack Newton

ASTEROID "JACKALICE"

Also in 2006 Jack and his wife Alice, were awarded another honour: the tiny asteroid 30840, discovered by Caroline Shoemaker and David Levy on April 15, 1991, was renamed "JackAlice" in recognition of their contributions to astronomy.



NGC 6946

Chris Gainor took three images with red, green and blue filters on the evening of September 11-12 2002 on the two-meter Plaskett Telescope at the Dominion Astrophysical Observatory. His telescope operator that night was Julie Bolduc-Duval.

John McDonald processed the three images into colour in 2010.

NGC 6946 is a galaxy 10 million light years away in the constellation Cepheus.

*The most beautiful thing we can experience is the mysterious.
It is the source of all true art and all science.
He to whom this emotion is a stranger,
who can no longer pause to wonder and stand rapt in awe,
is as good as dead: his eyes are closed.*

ALBERT EINSTEIN (1879-1955)



WHAT ARE ALL THOSE PEOPLE DOING OVER THERE?

THE Victoria Centre has matured into a technologically proficient group that can handle anything that comes its way with impressive skills. RASC members skilfully handle the digital equipment and maintenance at our new observatory on the Hill. Today we have access to advanced digital astronomical cameras, GOTO telescopes and imaging accessories that would have stunned our grandfathers, whose highest ambition back then was to own a two-inch refractor.

What we now take for granted would have been the vision of wildly imaginative science fiction writers 100 years ago. And what RASC members living in 2014 will have at their disposal will make what we prize today also seem primitive.

Until the late 1980's the Centre barely advanced technologically. The old entrenched ways of doing things saw some small improvements but nothing earth shattering came along until the digital age dawned and brought with it an avalanche of innovations. We unwittingly plunged into a technological era that forges ahead at breakneck speed. Yes, the Large Hadron Collider might have revealed dark matter.

Over the next number of pages we trace out the various activities that this Centre has been involved in from the earliest days. In Section 5 find coverage of our superb new observatory and the equipment we have installed in it.

CENTRE'S TELESCOPES

All telescopes listed below are stored on Sid Sidhu's property in the Highlands District, which is where he gives them the maintenance they require.

Reflectors:

1. 150 mm Orion XT6 - SkyQuest, (Dob).
2. 150 mm Orion XT6 - SkyQuest, (Dob).

3. 200 mm Orion XT8 - SkyQuest, (Dob).
4. 200 mm reflector – f/8 (Dob).
5. 254 mm reflector – f/6 (Dob). Under construction.
6. 500 mm reflector (Dob).
7. 114 mm Tasco reflectors (2). Flimsy mounts.
Will be converted to Dobs.
8. 114 mm Omcon reflector – (Equatorial)
9. 120 mm reflector – f/9 (Equatorial).
10. 150 mm Criterion reflector with equatorial mount.
11. 220 mm reflector, wooden tube, equatorial mount.
Requires a new mount.
12. 500 mm reflector (located on loan at Pearson College).

Refractors:

- 60 mm "Polarex" refractor -- f/15.
- 100 mm Takahashi refractor

DIRECTORS OF TELESCOPES

1948-61	R. Peters (first director)
1962-82	G. Ball
1983-84	B. Whittaker/M. Scrimger
1985-86	D. Kopriva
1987	D. Kopriva/A. E. Steeves
1988	P. Thomas
1989	M. Scrimger/S. Rayner
1991-2014	J. S. Sidhu

The early position of Director of Telescope Making was first added to Council in 1942 when W. Hobday was appointed to assist those wanting help to grind mirrors and construct telescopes. Nowadays it's a rare soul who grinds his mirror. He would have to start from scratch and learn every step of the way. It's easier to buy a telescope, ready to go.

In recent times, in order to provide first hand experience in using a telescope, new members are invited to borrow the Centre's telescopes to take home and practice with. We own various types and sizes of telescopes to suit most needs. The most recent acquisitions are three Orion SkyQuest Dobsonians, which are popular and easy to set up and use.

OUR LIBRARY AND LIBRARIANS

Until recently Centre libraries were vital necessities. They were the only source of hard-to-find star atlases and many of the books that were donated were old cast offs. A new book would have been a treasure.

On March 12, 1929, Centre President, J. A. Pearce announced that Victoria was to become the first Centre in Canada to possess a library, thanks to the generosity of members and friends who made gifts of 36 astronomical books.

Those 36 books mentioned above gradually reached the "astronomical" number of 65 and W. T. Bridge was appointed to fill the position of librarian. He stored the books in his home. In 1934 Council made a decision to relocate the library to the YWCA where the monthly meetings were being held. Then on April 11, 1935 the president announced that Mira Oliphant had been appointed librarian.

From that point on through to 1941 the library remained at the YWCA, then it was transferred to Victoria College in 1942, where it remained until 1962. From then on the library has been stored on the top floor of the Elliott Building in the Dept. of Physics and Astronomy at UVic.

To date we have around 700 books and many magazines and new books are continually being added. Some older books have been marked as "surplus" and are being sold on eBay. We have a good selection of atlases, astronomy books, magazines, RASC Journals and our monthly Skynews.

Sid Sidhu holds the distinction of being our longest serving librarian, from 1986 to 2006.

1929-34	W. T. Bridge (first librarian)
1935-37	Miss M. Oliphant
1938-42	Miss C. Hailstone
1943-48	Miss Y. Langworthy
1949-50	E. H. Pope
1951-54	J. Climenhaga
1955-57	O. Smith
1958-65	D. C. Wyatt

1966-77	Mrs. L. Bridgen
1978-79	N. Rogers
1980-81	Mrs. G. Griffin
1982-83	J. B. Fraser
1984-85	Ms. L. Ferris
1986-06	J. S. Sidhu
2007-10	C. Banville
2011-14	M. Michaud

SUMMER COURSES

"SUMMER EVENINGS WITH THE STARS"

In 1932 the Centre introduced a public summer course of weekly lectures and observational meetings, to be held at Boyd Bryden's Oak Bay observatory. That proved to be far too small to accommodate the large crowds that showed up and it was decided that the rest of the course should be held at the Victoria College, where a laboratory was made available.

**ROYAL ASTRONOMICAL SOCIETY
OF CANADA
VICTORIA CENTRE**
*Presents their Popular
Annual Series of Public Lectures*
"SUMMER EVENINGS WITH THE STARS"

JULY 30 ~ "TELESCOPES IN ORBIT"
Dr. G. J. Odgers .. Dom. Astrophysical Obs....

AUG. 6 ~ "WHY STUDY 'EMPTY SPACE'?"
Mr. E. K. Lee .. Dom. Astrophysical Obs...

AUG. 13 ~ VISIT TO DOMINION ASTROPHYSICAL OBSERVATORY

AUG. 20 ~ "STORMS ON THE SUN"
Prof. J. L. Climenhaga .. Victoria College...

AUG. 27 ~ "GAS & DUST IN SPACE"
Dr. G. Walker.. Royal Greenwich Obs....

Everyone Welcome

LECTURES ARE HELD IN THE
VICTORIA COLLEGE AUDITORIUM
Richmond Rd. & Lansdowne Ave.
at 8:30 P.M.

FEE FOR THE SERIES / 1.00

Show cards like this one were located around town. Many people came to listen to the presentations. Card is circa 1959.

Courses had been so well attended by the public that the Centre decided it was time to charge a fee. The minutes of a council meeting held on June 6, 1933, stated "After discus-

sion it was decided to charge \$1.00 for adults.” At each Summer Course meeting Phoebe Riddle would explain methods of finding the positions of stars and planets. Summer Evenings with the Stars was popular until 1987 when it was discontinued. In 1939 radio station CFHT aired 15-minute programs sponsored by Centre members and were called Evenings with the Stars.

CENTRE PICNICS

The earliest picnic and the only one recorded from 1914 to 1992 was the occasion of the visit in 1914 by Dr. W. F. King, Dominion Chief Astronomer and Dr. J. S. Plaskett to Victoria in July. The Centre held a picnic at the new DAO site for the purpose of meeting Dr. King. Unfortunately no one recorded what happened or was said on that day.



Barbeque and picnic at Pearson College, July 1999. The site adjoins the observatory at the top of the Milky Way trail.

In 1992 Centre members decided that a picnic would fill the void in mid-summer. Jean Godin, a Pearson College director, was asked if we could meet at the grassy location of the College observatory seeing that the students were not on campus at that time. Jean welcomed the idea and from then on it became an annual and welcome summer break with all the facilities we could possibly imagine.



In the Warm Room: Jean Godin, wearing vertical striped shirt; Bill Almond at farthest right; seated in front, Jack Newton with arms crossed; next to him Alice Newton; in front of her David Lee.

RASC NATIONAL ASSEMBLIES IN VICTORIA

Three Assemblies have been held over the years:

1981

The first assembly was held at the University of Victoria from June 26 to 29. There were 154 registrants.



1981 AGM at UVic.

1988

Once again we met at the University of Victoria from June 25 to July 3 and over 300 delegates attended. It was a joint meeting of the Victoria Centre, the Astronomical Society of the Pacific and the Western Amateur Astronomers.

Over 600 delegates attended and the organizers reported that it was overwhelming to have to make arrangements for such a crowd. The highlight was a chance to attend a reception at the stately Government House Mansion, hosted by their Honours Lieutenant-Governor and Mrs. Robert Rogers. Hundreds were shuttled to the event on double-decker tour buses.



1988 AGM at UVic.

1998

The venue was Pearson College in Metchosin and what made this a standout was the extraordinary lineup of speakers. Dr. Jim Hesser secured Dr. David Crampton as the Helen Sawyer Hogg Memorial Lecturer and also Dr. Geoff Marcy, who gave an update on his latest extra-solar planet finds, thrilling everyone by announcing that we were the first to hear the news of his latest discovery.

Douglas George, president of the RASC, was the Banquet and Awards speaker and Dr. Dean McLaughlin, the 1998 CASCA/RASC Plaskett Gold Medal Winner, spoke on star formation. Uvic Professor Dr. Jeremy Tatum, spoke on the near-Earth problem and Jack Newton talked about astro-photography.

Another brilliant highlight was the very likeable astronaut Dr. Julie Payette, who flew into Victoria to address the assembly, thanks to Jean Godin, a director of Pearson College, who arranged it with the Canadian Space Agency. Julie gave a vivid account of her experience training to ride the shuttle Endeavour as a mission specialist to visit the orbiting Space Station on a re-supplying mission in 1999.



1998 AGM at Pearson College and United World Colleges flag.



1998 AGM, NASA/JSC astronaut Julie Payette (centre) and Jean Godin at Pearson College.

THE CENTRE OF THE UNIVERSE . . .

Is (was) an interpretive centre adjacent to the National Research Council's Dominion Astrophysical Observatory.

The centre features interactive exhibits and curriculum-linked educational experiences, including a behind-the-scenes tour of the Dominion Astrophysical Observatory dome and Plaskett telescope.

The Centre first opened its doors on June 9, 2001 and closed in June 2013. It quickly evolved into a first-class interpretive centre that introduced astronomy to families, with hands-on displays designed to teach basic science. Visitors included locals and tourists visiting the Island, school bus

tours and other groups eager to enjoy a superb learning experience. In the summer the public were also allowed into the Plaskett dome to view the 1.8-m Plaskett telescope. Inside the Black Hole auditorium the audience was treated to a 30-minute visual and auditory event involving still images, video, music and audience participation.

On Saturday and Sunday evenings our Victoria Centre members positioned telescopes out on the forecourt in front of the Centre's main entrance, for public viewing of bright celestial objects. Regrettably, the federal government closed the interpretive centre for financial reasons.



Some of the Centre's members with telescopes outside the C.U.



Staff members in the CU's main entrance hall desk on closing day.



Centre of the Universe Interpretive Centre with observing deck.



Rapt children watch a demonstration of making artificial comets.

Two months later, on August 24th, the final day arrived and the C.U. closed its doors. However, during those previous two months many voices were raised in opposition to the move. Proposals to find a way to permit the C.U. to continue operating on a volunteer basis were suggested. Only time will tell if anything useful can come from future discussions.



The original 1914 mirror of the Plaskett telescope stands on display inside the entrance of the C.U.

VICTORIA CENTRE'S ANNUAL STAR PARTIES

The first Star Party organized by the Centre was held in 1939. In that year the DAO's Dr. J. Pearce arranged to make members' telescopes available to the general public. Scopes were set up in Beacon Hill Park and hundreds flocked to see Mars and other easily viewed objects.

This was the first time most of them had looked through a telescope and it was considered to be a great adventure. Entire families showed up.

After the war ended star parties were held infrequently and invariably were associated with Astronomy Day.

Many were held on the Dallas Road waterfront, but few details are available. Parties were revived after the Evans-van der Byl mobile telescope was completed in 1983, when it was taken to Dallas Road and a lot of interest was shown in the set-up in spite of poor weather.

WEEKEND RACALS STAR PARTIES BEGIN

The Centre's first weekend-long star party was held in 2001 on the Victoria Fish and Game Association grounds, high up on the Malahat. It was an excellent field with a large, warm clubhouse. Unfortunately this arrangement came to an end in 2009.

2010 STAR PARTY MOVES TO METCHOSIN CRICKET FIELD

By 2010 ever-increasing costs at the Fish and Game grounds forced the Centre to look for a different location. After much searching an excellent, level, dark site was located in the District of Metchosin, on the southern tip of Vancouver Island.

We use the open area completely surrounding the central cricket pitch which has plenty of parking space surrounding it. Metchosin is primarily a farming region facing the Salish Sea, so it's dark, especially to the south. Street lighting is minimal or non-existent everywhere in the district. If all goes well with this location it should be ideal for many years to come. Nearby there is a country shopping centre with a fine restaurant.



2002 Star Party held at Fish and Game Association grounds.

2013 STAR PARTY



Visitors to the Metchosin cricket pitch setting up their equipment in beautiful weather.

MESSIER MARATHONS

FIRST ANNUAL MARATHON: 2009

Thanks to Charles Ranville we have a nice description of the Centre's First Annual Messier Marathon held at the Vic-

Victoria Centre Observatory (VCO) and its environs on West Saanich Road, March 25/26, 2009. This was an all night session. Several hardy members attended this "baptism by icy air." This is the first of what is hoped will be the annual Messier Marathon for the RASC Victoria Centre.

The date March 28, 2009 was the predicted best weekend of the year for a marathon, however March 25 gave us the best weather.

Those who braved the ordeal were Nelson Walker, Joe Carr, John McDonald, Bruno Quenneville, Rand Collins, Li-Ann Skibo, Paul Dickson and Miles Waite.

2010 and 2011 were unsuccessful marathons – clouded out.

2012

The 4th Annual Messier Marathon was held on March 23-24 and was a modest success. In attendance were myself, John McDonald, Greg Higgs, Janet Wallace, Liz Davidson, Dorothy Paul, Jim Stilburn, Jim and Micah Aalders, and Michel Michaud.

All were set up on the pad outside the VCO, except those with only binos, and Michel, who was inside working on his latest project.

The conditions were somewhat variable, although always in large part clear (5/7). Readings on the SQM were in the low 20's. Observers described it as a "bit milky." We plugged away until at least 2:00 AM, by which time all had left, except for Micah and his dad, and your humble narrator.

We were off the hill by 6:00 AM.

Nelson Walker.

2013

The Centre's Fifth Annual Messier Marathon was held on March 8-9, 2013 at the VCO. In attendance were myself, Micah, Jim, Greg, Urmila and Michel. We had perfect weather conditions with clear skies from sunset to sunrise. Greg, Micah, and Charles had our Dobsonian telescopes set up on the observation pad by 18:30 and awaited darkness.

By 19:15 I had my first observation, M74 the galaxy in the constellation of Pisces, and the race was on. I kept M79 in the back of my mind as I missed this object in 2009. By 23:30 all three runners had observed the galaxies in Virgo and were ready to move on to the lower parking lot.

After setting up we carried on with our hunt. Light pollution from the city definitely slowed things down, especially for objects low in the sky. Greg and I struggled with M83, the Southern Pinwheel in Hydra. It took me an hour to locate it.

Meanwhile, Micah charged ahead, helped I'm sure with larger eye pupils. By 4:00 my gear was covered with dew and had to be warmed up in my vehicle. At around 5:20 we witnessed a beautiful moonrise and gave up a few minutes later as it was getting too light to observe. In the end I came short of my goal of observing 100 Messier Objects by 7 for a personal best of 93 Messier Objects. Micah observed and logged a remarkable 102 Messier Objects.

Congratulations Micah! I went to bed at 7:00 and got up three hours later to find the sky covered with clouds...our lucky break.

Charles Banville

THE CENTRE'S ANNUAL GENERAL MEETINGS

Annual general meetings have been held for almost all of the Centre's 100 years. Members review the previous year's activities and their financial status and are afforded an opportunity to choose new officers for the coming year. It also gives us an excuse to socialize, receive awards, enjoy a good meal and an after-dinner presentation by an invited speaker.

They are important events that give the Centre a chance to reward members who have shown their skills at astrophotography, drawing, teaching and dedication to a worthy cause. Besides awards for skills we have a special award called the Newton-Ball Service Award that was instituted in 1998 and named after Jack Newton and George Ball. Jack and George are remembered for their exemplary service to the Centre for many years, setting a fine example for others to follow. The nominated Centre member, who has given commendable service benefiting all Centre members during the previous year or years, has his or her name engraved on a plaque on the award.

SIDEWALK ASTRONOMY

In 2003 Blair Pellatt and a few other members took their telescopes to the Oak Bay and Victoria libraries on a few evenings and a few Saturday mornings. Many young library patrons, who had looked at views of lunar craters at night and H-alpha views of solar activity during the day, eagerly attended each session.

Sad to say, Blair Pellatt passed away on August 6 2008. He was a keen observer who took great delight in sharing his enthusiasm for astronomy with everyone and anyone.

ASTRONOMY CAFÉ

In 1998 the telescope-making group that met in Sandy Barta's home in View Royal, did a full about turn and re-made itself as the Astronomy Café. Instead of pushing glass they pushed coffee cups and cookies.

The idea was to circulate ideas and have an informal evening among friends who share a common hobby. It was a good idea whose time had come because very few members were bothering to make their own mirrors and this brought them together for informal meetings. We continued to meet in Sandy's home until 2002 when she moved to a dark site in Sooke and the café moved with her.

Two years later in 2004 the café removed closer to Victoria in Bruno Quenneville's home. Two years later it moved again, this time to 1330 Fairfield Rd., where it remains to this day. We meet on Monday evenings in a permanent portable classroom that had been adapted for society services and events by the Community Centre, behind the Fairfield school complex. It has all the necessary facilities and easy access to parking and a next-door field.

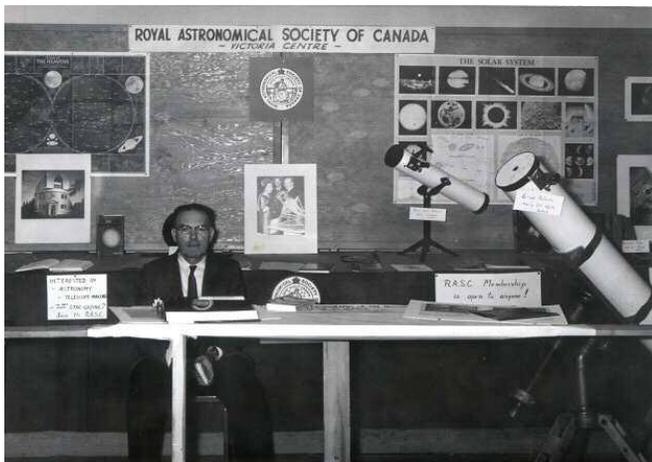
We enjoy coffee, cookies and good company. On clear nights we set up telescopes. Currently Malcolm Scrimger and Charles Banville host the meetings from 7:30 to 11 p.m.

THE ANNUAL HOBBY SHOW

For many years the Centre has participated in hobby shows, which were always held in the Spring. The first on record was the Annual Exhibition of the Junior Chamber of Commerce in 1957, when the Centre set up a booth in the hobby section.

Some years later the Victoria Lapidary Society sponsored an annual hobby show which attracted many clubs and societies, including the Victoria Centre. It was a very popular attraction, drawing hundreds of interested people browsing the dozens of booths set up by hobbyists of every kind.

The Centre's booth featured telescopes and accessories, demonstrations of mirror grinding, celestial photography, charts and diagrams and information about space exploration and NASA.



1966 Hobby show booth manned by George Ball.

Held in the Curling Centre on Quadra St. it ran uninterrupted until it was discontinued owing to a steep drop in participants. Interest in traditional home-based hobbies dwindled as fast as interest in digital entertainment in our homes grew in leaps and bounds!

Interestingly, membership in the Victoria Centre grew to record numbers resulting from greater exposure to astronomy and space flight. The Hobby Show came to an abrupt end in 1993.

WESTSHORE MALL IN LANGFORD

Some year's later unknown hobby fans, maybe the rail-rodgers, succeeded in persuading the West Shore Mall in Langford to host a three-day hobby show in the middle of the wide passage running down the centre of the mall. The suggestion was accepted and that year we, and many others, were happy to get back to talking to the passing crowds.

This revived Hobby Show featured astronomy, model railways, model boats, model military aircraft, show animals and a few other crafts. It has now become a yearly fixture here.

The Centre's set-up displayed light pollution literature, books, magazines and a digital screen displaying various deep-space objects. A 15-cm Celestron refractor on a tripod

was raffled off, with 318 tickets sold. Over three days of the show 880 shoppers stopped at our astronomy booth.



Feb. 1-3, 2013 Hobby Show at Westshore Mall, Langford, displaying light pollution literature.



Feb. 1-3, 2013 Hobby Show at Westshore Mall, Langford, showing main desk and organizer Sid Sidhu talking to passers-by.

NEW OBSERVER'S GROUP

In 1994 Sid Sidhu, our intrepid Director of Telescopes, started a New Observer's group meeting at his home in the rural, dark-sky Highlands District. New members to the Centre as well as more established members pay him a visit if they feel that they could use extra coaching in the subtle art of night sky observing.

This arrangement is ideal for teaching new members basic observing of different sky objects, often requiring different telescopes and eyepieces, besides being taught the constellations and how to navigate one's way around the sky.

His home is in a favourable dark sky location for more than one reason--Sid has a suitable building where the Centre's telescopes are safely stored and he is the Centre's maintenance man. He checks out and repairs the scopes that are regularly used for the school telescope program.

THE CENTRE'S SCHOOL TELESCOPE PROGRAM

In early 1996 at a council meeting of the Victoria Centre, a motion was passed to initiate the Victoria Centre's School Telescope Program, under the capable leadership of Sid Sidhu. The intent was to provide an opportunity for school-age children to look through a telescope and enjoy the wonders of the night sky with the aid of enthusiastic Victoria Centre volunteers, who frequently take along their personal telescopes. The program also includes talks and slide presentations in the classrooms for students, teachers and parents.

For 18 years thousands of eager school children have experienced the "wow" factor of seeing with their own eyes the moon and planets that they had only ever seen in pictures.

This outstanding outreach program consists of contacting the teachers who had previously used the program, sending introductory faxes and emails to other schools in the three School Districts, scheduling the lending of telescopes, classroom visitations, night sky viewing sessions, liaison with Pearson College, maintaining the quality of the telescopes on a monthly basis and finding enough volunteers for the night sky viewing sessions. Lots of work but well worth it!

THE PROGRAM NOW REACHES 1,500 TO 2,000 STUDENTS EACH YEAR

The program involved constructing a 15 cm Dobsonian telescope to be borrowed later by elementary schools in School District #61. In August 1996 a letter was sent to the elementary schools of District #61 and McKenzie Elementary was the first to borrow a telescope in September. In the first year, eleven schools used the only telescope available for loan. However the word slowly spread to other school districts and this required the building of two more 15 cm Dobsonian telescopes.



Braefoot School students and staff take turns at the telescopes.

There are three Dobs for the elementary schools, one for each of three school districts and one C-8 to be shared by high schools. The program has changed slightly from the first year of simply offering the use of a telescope, to now including slide presentations in the classrooms and make easy night sky viewing for the students, teachers and parents.



Hold me steady, Dad! The little guy studies the moon as twilight approaches at Prospect Lake Elementary School.



A Prospect Lake student assisted by David Lee as shadows lengthen.

INTERNATIONAL ASTRONOMY DAY

In Victoria, Astronomy Day has invariably been celebrated over the years ever since its inception in the 1920's, by arranging for one-day indoor-outdoor public observing sessions. There are no records of anything held indoors on that day until recently, although a few outdoor locations around the city were used, mostly in Beacon Hill Park where a number of refractor telescopes were set up.

These events were such a novelty that hundreds would line up to get a glimpse of a planet or the moon. And they would talk about it for days afterwards.

In the year 2000 the Centre decided to restart a well-organized Astronomy Day and we approached the Royal B.C. Museum to see if they would consent to a one-day indoor-outdoor session for families, modelled around astronomical interests.

They agreed and Astronomy Day took on a new perspective. We were given the large ground-floor area used for exhibitions and were allowed to set up telescopes outside the main entrance. All this activity facing the inner harbour drew in the crowds and the museum hummed with activity.

April 21 2001 saw a temporary move to St. Ann's Academy instead of the B.C. Museum. Stelly's School was in-

volved with setting up the children's activities and Sid Sidhu and his willing crew of volunteers made this event another great success.



2006 - This young lady really gets into mirror grinding.

Everything went well at the museum location until 2007 when management changed hands and we were told they had plans that would not allow us to use the main hall any further.

Looking around for a suitable location pointed us to the Centre of the Universe and in 2008-9 we held our next two Astronomy Days on "the Hill".

2010 found us at yet another temporary location: the Swan Lake Nature Centre in Saanich.

OUR PARTNERSHIP WITH UVIC'S ASTRONOMY DEPARTMENT

Yet another location change in 2011 developed from a partnership the Centre created with the Astronomy Department of the University of Victoria.

This permitted access to the Bob Wright Centre, where we were given the spacious main lobby to use for Astronomy Day and there we have remained for the past two years.

A TYPICAL PROGRAMME FOR ASTRONOMY DAY

Each year we follow a similar pattern when setting up our booths with the programme shown below for 2013, this being typical of most years:

Ask an Astronomer booth -- get that burning question answered by the experts!

Solar observing -- outside, weather permitting

Telescope making -- demonstration

Astro kids activities -- fun projects for kids of all ages

Walk among the planets -- outside interactive display of our solar system

Astrophotography -- slide shows of local astrophotographs, and find out how your camera can take photos of the night sky.

Activities & exhibits from the students of Science Venture and Pearson College

Six Astronomy Talks were given in the Lecture Theatre of the Bob Wright Building.



For now celestial viewing only is possible through the new 32" telescope (shown above) in the rooftop dome on the Bob Wright Building. As of February 2014 the Victoria Centre was granted permission to use the facility. Imaging capability is planned for.



2013 -- Moms, dads and kids all enjoying a great event.

INTERNATIONAL YEAR OF ASTRONOMY 2009

In 2009 the International Year of Astronomy (IYA2009) was planned as a yearlong celebration of astronomy to coincide with the 400th anniversary of the first recorded observation by Galileo Galilei. It was combined with the publication of Johannes Kepler's *Astronomia nova* in the 17th century.

One hundred and thirty countries committed themselves to supporting the Year in any way possible and bring the universe down to Earthly eyes to help them rediscover their

place in the universe. In Victoria booths were set up in malls and at Victoria International Airport. Shoppers were given information about the IYA and a look through telescopes which were pointed at images of planets and moons set up high on a wall, in lieu of the real thing which couldn't be seen in daylight.

114 EVENTS ORGANIZED



Top: Replicas of Galileo's telescopes.
Below: The IYA launch at Mayfair Mall with members and public.

Telescopes for solar and stellar viewing were taken to schools for day and night sessions. And in the course of the year over 114 events were organized where people congregate, such as malls, the Victoria International Airport, Symphony Splash in the Inner Harbour, Butchart Gardens and Beacon Hill Park.

The Year was declared by the 62nd General Assembly of the

United Nations. UNESCO, which is the UN body responsible for educational, scientific, and cultural matters, also endorsed a global scheme laid out by the Astronomical Union.

In Canada Dr. James Hesser organized the event.



This initiative was an opportunity for many citizens to gain a personal sense of discovery. It served as a platform for informing the public about the latest astronomical discoveries while emphasizing the essential role of astronomy in science education.

When the year ended an impressive tally of 23,272 men, women and children had enjoyed a personal moment of discovery. Our dedicated volunteers had put in an exceptional effort. Well done!

PEARSON COLLEGE OF THE PACIFIC

Eight United World Colleges are located in various nations around the globe. They exist to provide a full scholarship for selected gifted students in every country.

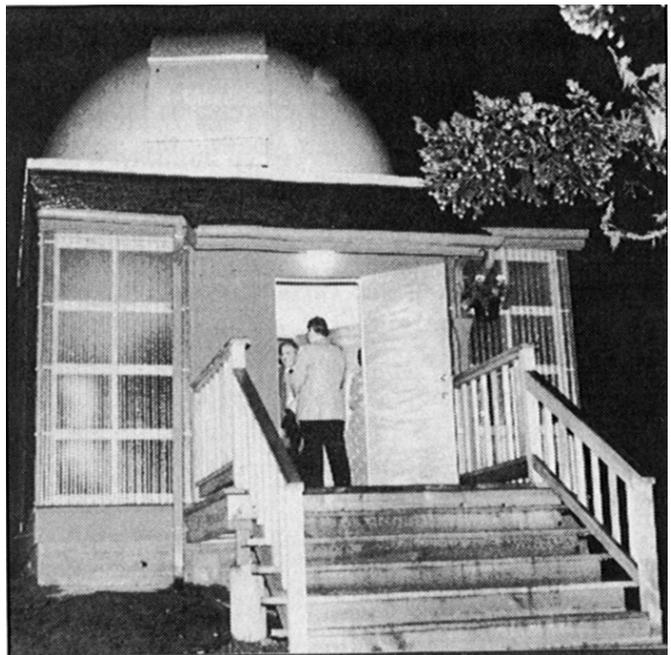
The District of Metchosin, near Victoria, is the home of one of the world colleges, the Lester B. Pearson College of the Pacific. It is set in splendid forested and ocean surroundings on the southern tip of Vancouver Island. Pearson College is a dynamic international college where 200 young people from over seventy countries live, study and serve together. Students learn about them selves and our world, allowing them to transcend nationalism, respect diversity and promote international understanding.

The two-year baccalaureate academic curriculum and the College's intense community programs help to develop outstanding students who are socially committed and will return to their homes with a global vision.

In 1993, Centre members Jack and Alice Newton heard that one of the College's Chinese students had approached the acting director, Jean Godin, with the idea of setting up an astronomy program.

COLLEGE ASTRONOMY PROGRAMME

After talking to Jean Godin, who is also a Centre member, Jack approached the Victoria Centre with an idea: would we be interested in permanently loaning our 500 mm telescope to Pearson College as the basis for a new observatory. This particular telescope had been mounted in a closed trailer for hauling with a truck but had been little used over the years.



Below: Observatory warm room and office.

The Centre enthusiastically adopted the idea and a subsequent ripple effect brought aboard a number of college patrons and foundations to provide the necessary funding for an



Garry Shearman, Past Victoria Centre President, unveiling the Pearson College Observatory plaque.

observatory house it. An architect drew up the plans and work soon began on the observatory's construction on college grounds, on the side of a mountain overlooking the ocean. Centre members Jack Newton, John Pazder and other members provided the necessary expertise to install the telescope and upgrade its ancient electronics.

By early April 1995 everything was ready. A 16-foot dome arched across a splendid office and warm room. The telescope had been equipped with an SBIG ST6 CCD, which, in turn, was connected to two computers. Also a winding connecting road, appropriately named The Milky Way, had been cut into the steep hillside from the main road below.

Centre members Jack Newton, John Pazder and others provided the necessary expertise to install the telescope and upgrade its ancient electronics.



Past Director Jean Godin

Invitations to the official opening of the Lester B. Pearson College Observatory were sent out for the big day.

TELESCOPE SOON REPLACED

Shortly afterwards, when Jack and Alice sold their house before moving to Osoyoos, Jack donated his enormous 24" Newtonian to the college's observatory.

A helicopter removed the dome and lifted out the 500mm and smoothly dropped Jack's long tube onto its mount, followed by replacement of the dome.

The 500mm was later reinstalled inside a rolloff roof auxiliary observatory located next to the dome.



... it may not be amiss to point out some other very remarkable Nebulae which cannot well be less, but are probably much larger than our own system; and being also extended, that inhabitants of the planets that attend the stars which compose them must likewise perceive the same phenomena. For which reason they may also be called milky ways . .

SIR WILLIAM HERSCHEL (1738-1822)



OUR CENTRE'S LOCATION IN THE UNIVERSE

THE heart of any organization is its meeting place—where we enjoy getting together with members and visitors and have easy access to a library, a well-equipped room to meet in, and a comfortable lounge for social gatherings and council meetings.

The Centre has had the good fortune of enjoying facilities in the Elliott Building at UVic for many years from 1963 to 2010. In 2011 we moved into the neighbouring Bob Wright Building.

We are very grateful to the University's administration for providing us with excellent facilities and equipment for so many years.

1915 - 1963

The first meetings of the Centre, in 1915, were held in the Kings Daughters Rooms on Courtney Street. The building was demolished many years ago and is now a car park. So, in the following year, 1916, we moved to the auditorium of the Girl's Central School on Fort Street and stayed there for nine years. Then, in 1924 there was another change, this time to the Victoria College.

That lasted until 1932 and for the next two years meetings were held in the Amphion Hall on Yates Street, with a short spell at the Unity Centre Hall. From 1934 to 1941 another move took the Centre to the Parlours at the YWCA on Blanchard Street.

In 1942 we moved to a more permanent location, the Victoria College, and that lasted for twenty years taking us to 1962. During that time certain special meetings were also held at the Provincial Normal School.

1963 TO THE PRESENT

In 1963 the University of Victoria opened its doors having received degree-granting status and, for the next forty-eight years from 1963 to August 2011 we occupied rooms 061 and 060 in the Elliott Building, depending on which

room was available for our Wednesday meeting night. The rooms were equipped with projection equipment.

At the end of each monthly meeting we enjoyed the convenience of using facilities in the Astronomy and Physics meeting room located on the top floor of the Elliott Building, where we enjoyed coffee and cookies and sat around talking and relaxing. Our council meetings were also held there.

Then, in September 2011, we were offered the use of the newly built Bob Wright Building and we moved into room A104 on the ground floor for our monthly meetings.

INDIVIDUAL MEMBERS' OBSERVATORIES

Some members build an observatory and equip it with bought equipment. This member didn't ...

George Ball

One of the earlier observatories to be built, starting in the early 1980's, was George Ball's observatory, located in his back garden on Maddock Ave. West. It was unusual in that the entire dome and base rotated on a ground-mounted track, making it possible to use a standard sized door.

The observatory housed a beautifully crafted 12 inch Schmidt-Cassegrain telescope that George hand built, piece-by-piece, in his basement workshop. He made every part of the telescope himself. All the RA and Dec. dials were hand inscribed, the tracking was superb and the controls as smooth as butter.

FOUCAULT TESTING DEVICE

George ground and polished his own mirror; built a Foucault testing device and the resulting diffraction-limited mirror and telescope were his pride and joy. Unfortunately, the observatory's location limited his horizon.

George spent many hours enjoying the result of his labour and produced some good images. He is fondly remembered for his discreet, unassuming manner and encyclopedic knowledge. His patience and willingness when explaining how best to do something was legendary.

PIONEERING COLD FILM CAMERA

Jack Newton, who pioneered the use of film cold cameras to overcome reciprocity failure, owed the development of the device to George's skilful abilities. Purchasing a manufactured cold camera was simply out of the question; they just weren't available, so Jack asked George if he could make one.

George took up the challenge and crafted one in his workshop. The result was well suited to its purpose but it required the application of far too many steps, so no more than two or three images could be obtained in a night's work.

However, Jack immediately put it to good use.



Good friends: Jack Newton and George Ball.

With advancing years George, a long service life member of the RASC, moved into a retirement home and his equipment was donated to the Centre. George, ever a gentleman, was highly respected for his love of astronomy and willingness to assist anyone, anytime, anywhere.

George died on 19 January 2007. He is fondly remembered and was chosen, along with Jack Newton, to be named for a new Victoria Centre award, the Newton-Ball Award.

This highly regarded award is given annually to a nomi-

nated member who has given outstanding service to the Centre thereby benefiting all of its members.



George's completed observatory in his backyard in 1970.

Jack Newton

Jack's home, built in the late 1980's (see below) on top of a mountain, housed a 20 ft. wide observatory and it quickly became a mecca for all the Centre's members. They flocked to his home every third Wednesday in the month to peer through his home-built 24-inch Newtonian.

After Santa Barbara Instruments introduced the first astronomical CCDs, the ST 4, 5 and 6, in the early 1990's, Jack immediately switched to digital imaging from film. He closed his dark room and relegated his cold camera and film to obscurity.



Jack's home on Matheson Mountain in East Sooke.

1992: A YEAR OF RAPID ADVANCES

Jack took to digital imaging like a duck takes to water. He had been using a cold camera for some time, but when the first CCD appeared on the market (an SBIG ST4) he bought one. The observing group that came to his home were introduced to CCD imaging for the first time.

Jack pioneered CCD imaging for amateurs, even developing a way of making RGB images using those early monochromatic CCD cameras which he coupled with coloured film filters he installed in a hand-made holder. This was the

breakthrough manufacturers needed to produce quality RGB cameras for the growing amateur market.



Comet
Halley,
December 30,
1985.

Jack was officially named as being the first amateur in North America to have photographed Halley on its return. This image was taken with the cold camera made by George Ball.

4 minutes, f5,
VR 1000

Early CCD cameras had poor signal to noise ratios with readout hotspots. Imaging chips were very small, pixels were very large, processing programs were primitive and the resulting images were grainy.

Eventually computers evolved from black and white text display to simple graphics and Jack took advantage of their improving ability to display his images for members to look at in his warm room.

Digital printers had not yet been developed so Jack would photograph the monitor, using film, to obtain his hard copies. Naturally, everyone was eager to see how this could be done and we jammed into his home office beneath the dome to ooh and aah at these new marvels.

Jack's reputation rapidly broadened and his images encouraged many advanced amateurs to take up digital imaging.

FIRST OF A SERIES OF MOVES

Eventually, Jack decided to sell his home and he moved to Osoyoos. On a mountain overlooking the city the Newton's built a bed and breakfast hotel with a built-in observatory and called it the Observatory B&B. He advertised it on his web site and it was an instant success!

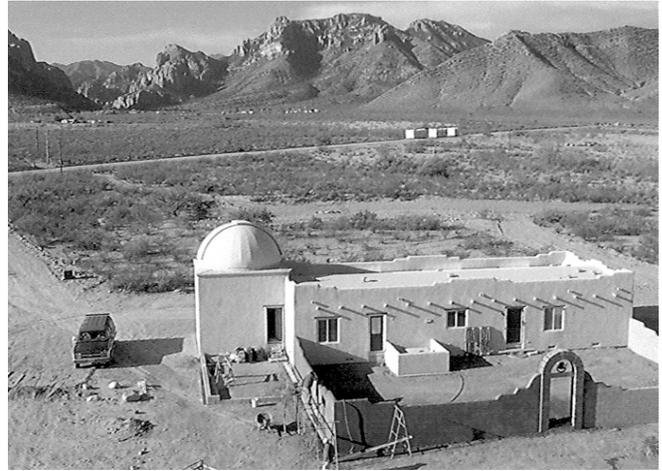
He then bought a piece of property in Florida, where he and Alice spent warm winters, on a dark site reserved solely for astronomers. He set up a home and observatory and invited amateurs to visit and learn CCD imaging.

After a few years they tired of twice annually making long hauls back and forth from Osoyoos to Florida so they bought some remote dark-sky property in Arizona.

INTERNATIONALLY RECOGNIZED

Jack is now an internationally recognized author and noted astroimager. In 1996 he undertook a successful astronomy tour in the U.K, visiting numerous cities. Jack's photographs are well known to readers of *Astronomy*, *Sky &*

Telescope, and *Sky News* magazines. His work has been featured in such publications as *Newsweek*, the *Canadian Geographic*, *Photo Life*, and *The Audubon Society Field Guide to the Night Sky*.



Jack and Alice Newton's winter home and observatory set in Arizona Sky Village, Portal, amidst the Chiricahua Mountains. The dark skies are reserved for astronomers. Not a light to be seen.

AWARDS

In 1977 Jack was awarded the Queen Elizabeth Silver Jubilee Medal by the Governor-General of Canada for his contributions to science. In 1988 he received another prestigious Amateur Achievement Award from the Astronomical Society of the Pacific.

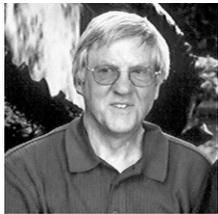
Also in 2006 Jack and Alice were awarded yet another honour: the tiny asteroid 30840, discovered by Caroline Shoemaker and David Levy on April 15, 1991, was renamed "JackAlice" in recognition of their contributions to amateur astronomy.



By John McDonald. Arp 273

This false color image was his first done at the 1.8m Plaskett telescope. It is of one of the unusual galaxies Halton Arp catalogued. Sensor: E2V operating at -110 C. Processed with flats, Images Plus and Photoshop. False colour red for r, blue for LPS and green for g filters. Dave Balam, telescope operator.

Bill Almond



His observatory in Colwood was built in 1992 on 16-ft. 6"x6" posts surrounding a 16-ft. high cement block pier on which the telescope sits, giving a 20-foot-high clear view over most of the surrounding trees, houses and streetlights.

Bill said, "When I first thought of building it I had visions of Colwood City Hall throwing up their hands in horror at the very thought of a free-standing observatory towering over the adjacent houses and a school. With my amateurish plans clutched in my hot little hands I went to the front desk and showed the counter lady what I had in mind."

"The lady took the plans and disappeared into a back room and I spent an agonizing five minutes waiting for her to return, fully expecting both me and my precious plans to be thrown out of the front door."



Bill's image of comet Hale-Bopp 1997 C/1995 O1 imaged with an SBIG ST6 digital camera, ST4 guider and a Meade 10-inch f/10 SCT.

"When she came back I was astonished to see a smile on her face."

"Yes," she said, "go ahead and build it".

"Really?" I replied, "but what about height restrictions?"

"No problem," she said, "it can be classified as a watch-tower, so, no restrictions. Everyone thought it was a great idea. We usually get ordinary stuff like add-ons or garage additions. We've never had anyone wanting to build an observatory. We'll send the building inspector around to check things out first."

"She handed me my permit and I walked out of the office floating on cloud nine."

EARLY TELESCOPES, IMAGERS AND COMPUTERS

Originally the 12-ft. dome was equipped with a Meade Classic 10" f/10 Schmidt-Cassegrain. Images were made with a SBIG 1993 version ST6 CCD camera fitted with an integral RGB filter wheel, one of the first on the market anywhere, and the scope was guided with an ST4 CCD sited in the eyepiece holder of a small piggybacked f/13 Celestron.

In the dome a gargantuan 17-inch cathode ray tube monitor with its attendant dinky computer grabbed, processed and

stored the images. Some years later another Classic replaced the first scope along with a laptop computer.

Then in 2012 everything was updated with a 12" Meade LX200 ACF GPS with mirror lock, and a Ha modified Canon 40D DSLR replaced other imagers.



Bill's home and observatory in Colwood.

Sid Sidhu



Sid's observatory houses an 8-inch f/10 Celestron Schmidt-Cassegrain, and he also has the use of many of the Centre's scopes which he keeps in a building on his property in the Highlands.

His home is where all the Centre's equipment is stored and maintained.

Sid has devoted many years to the New Observer's Group, which he hosts at his home each month. Those who attend, with the intention of learning more about the night sky and how to find their way around it, are not just the new members. Some are long-established members who only now want to satisfy their urge to learn more.



Sid's roll-off roof observatory at his home in the Highlands has an 8" f/10 Celestron Schmidt-Cassegrain and boasts dark skies.

Sid has been active in many areas in the Centre taking the lead in setting up observing activities such as the annual Astronomy Day when the public is invited to see what we do and how we do it.

Whenever an opportunity to take astronomy to the public arises Sid is always there to organize and assist. He structured and maintained a very successful and needed school observatory program for all ages groups, which became sought after by all the region's school districts.

His observatory, a slide-off roof design, is well made and can accommodate a larger telescope, which he hopes to install in the near future. Ever since Sid joined the Centre, many years ago, he has been interested with the observing end of things. Along with maintaining the Centre's library he has held the position of Director of Telescopes longer than anyone else and will likely continue ad-in-finitum!



Ed Majden

is a retired electronics armament systems technician for RCAF/CAF. He was first introduced to meteor studies and spectroscopy while a student

member of the Regina Astronomical Society in the 1960's.

He set up his own program of meteor spectroscopy in 1972. Ed is a life member of the Victoria Centre, an AMS affiliate and a Meteorological Society member. He was elected an associate member of the Meteorites and Impacts Advisory Committee and was also part of Jeremy Tatum's (UVic) fireball interviewing network on Canada's west coast.



Ed Majden's observatory in Courtnay is dedicated to a highly specialized branch of astronomy: meteor spectroscopy.

Ed explains: The study of minor particles such as meteors and asteroids provide a better understanding of our solar system and its astronomical origins. When meteors were first observed they were thought to be an atmospheric phenomenon not caused by something entering our atmosphere from space. Further studies proved this not to be the case.

To understand this better, early astronomers tried to observe the spectra of meteors to find out what was creating the light. Visually they saw spectra of bright meteors but due to

the short duration and fleeting nature of the meteor this was difficult to do. The first photographic spectrum was secured in 1897 during a routine stellar spectra patrol program carried out at Harvard.

S. N. Blazhko secured further spectra during a pioneer program set up by him between 1904 and 1907 in Russia. He obtained three photographic spectra. In 1931 there were only 11 known meteor spectra.

METEOR SPECTRA CAPTURED WITH CONVENTIONAL FILM

Ed said: As an amateur I capture meteor spectra with conventional film spectrographs and I also take image intensifier spectrographs to secure the spectra of faint meteors. I also operate a Sandia All-sky Fireball Camera at my backyard observatory, which is identified as NMSU Meteor Network node53, Courtnay. This is part of the B.C. Meteors Network set up to triangulate a possible meteor fall zone. I, along with a couple of other members on the B.C. Meteors Network, will soon be setting up a new computer system called ASGARD, which is a program set up by NASA/UWO and the Czechs.

The hope is to get a spectrum of a fireball that has dropped a recovered meteorite. Meteor spectra created by a high velocity entry of a meteoroid in our atmosphere is not yet fully understood and requires much more study. Hopefully I can still make a small contribution to this effort. My snag is getting clear skies. And I'm getting old, 73, and don't know how long I will be able to continue doing this.

Eventually I would like to pass on my spectrographs to someone that would carry on with this work. Know anyone? Not today, but a few years down the road.



This spectrum was secured using simple equipment. An experimental grade type MX9944/UV 2nd generation 25 mm diameter image intensifier purchased on the surplus market was used.

A standard Canon F-1.4 - 50 mm lens fitted with a precision 600 g/mm blazed B&L replica transmission diffraction grating imaged the spectrum on the image intensifier input screen.

The Leonid meteor spectrum shown above was secured on the night of June 8/9, 1997, at 00:18 PST, from Courtnay, B.C. The spectrum was obtained using an f/2.8 75-mm focal

length lens (set at f/4.0) on a Bronica roll film camera using Tri-X film. The meteor was a slow-moving fireball with several bursts along the trail.

Of special interest in this spectrum is the so-called forbidden line of oxygen recorded at 557.7 nm, which is clearly recorded trailing the main spectrum. Earlier film spectra were reviewed and this was also found in an early Leonid spectrum designated as Number 29 on Millman's World List of Meteor Spectra.

Origon C. Hastings

His home was on Laurel Lane, off St. Charles Street, Victoria, with his observatory very likely being built well before 1900. Hastings made the telescope, a 4.5-in. refractor, for which he ground his own lenses and built an equatorial mount. He was one of the original few who started a Centre of the RASC in 1907.

In 1907 the City of Victoria inconsiderately decided to build a water tower to provide water to some 35,000 residents in Victoria and Oak Bay, with water coming from Elk Lake in Saanich.



The city water tower completely dominated Origon Hastings' home and observatory,

The choice of location was adjacent to Hasting's observatory, which meant that after the tower had been completed on April 1 1909, its huge bulk dominated his home and observatory, totally ruining his view over the ocean.

Origon died of unknown causes in 1913. Hasting never saw his dream realized. His friend, Napier Denison, who was Superintendent of Meteorology at Gonzalez Observatory, acquired his telescope and erected it in the Gonzalez Observatory in 1914.

Gonzales Observatory



This observatory, built in 1914, overlooking the ocean at Juan de Fuca Strait, is one of the oldest buildings in Victoria and is part of the School of Earth and Ocean Sciences Biogeochemistry Facility at the University of Victoria. Originally it was constructed for geophysical measurements but was adapted by meteorologist and Centre member Napier Denison for astronomical observations.

It was from there that the time ball, located on the top of the Belmont Building, on Humboldt and Government Streets, was activated every day at noon. As mentioned earlier, Denison acquired Origon Hastings's 4.5-inch refractor and installed it in the new observatory.



Daniel Posev created this detailed image of M106 on 21/5/13. This is 1h 30m of 5 minute exposures of a spiral galaxy in Canes Venatici captured with the QSI 583c through the Meade 14" guided on the Paramount ME. The image was calibrated with dark, bias and flat frames. Processing was accomplished using Pixinsight.

The Evans-Vanderbyl Mobile Telescope



Leo Vanderbyl and the 50-cm reflector and trailer he completed in 1983.



Members of the Victoria Centre gathered around the truck and trailer.

In 1976 the Centre received a bequest of \$11,700 from the estate of the late R. S. Evans. What to do with it occupied the next three years until it was finally decided to build a mobile telescope on a trailer drawn by a truck.

Starting in 1980 Leo Vanderbyl employed his metal working skills and in 1983 the project was completed.

A year later, after a previously planned star party was clouded out, the telescope made its public debut at the May 5 Astronomy Day star party on the Dallas Road waterfront.



In 1986, Astronomy Day was May 10, being changed locally from an April date to try to avoid bad weather but even then, the weather was not very good. The EVBT was present, but only operated one hour before the intermittent clouds became a totally overcast sky.

The EVBT was also in use at several of the Saturday Visitors' Nights at the Dominion Astrophysical Observatory during July and August.

The presence of the EVBT at various functions had a positive effect on membership. However, it became obvious after a couple of years that it was too unmanageable. Members lost interest in it and it sat unused in a field for a good number of years. Eventually the telescope was removed and loaned to Pearson College, where it still remains.

Eric Schandall's Unusual Observatory

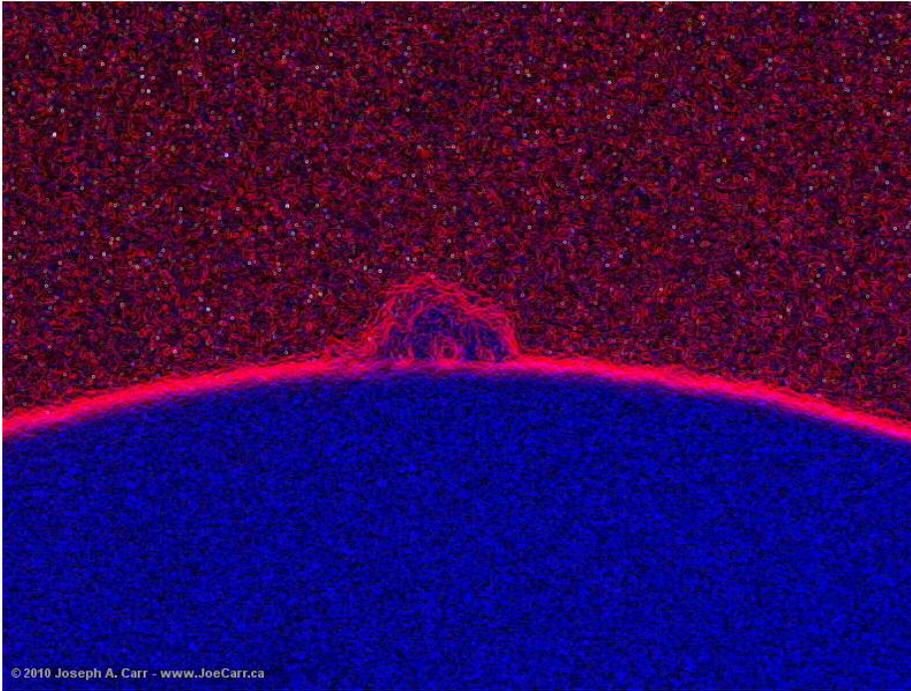


Unlike a normal roll-off roof, this roof splits in two.

Grooved channels guide each piece into position while concrete counterweights minimize the effort needed to open the observatory.

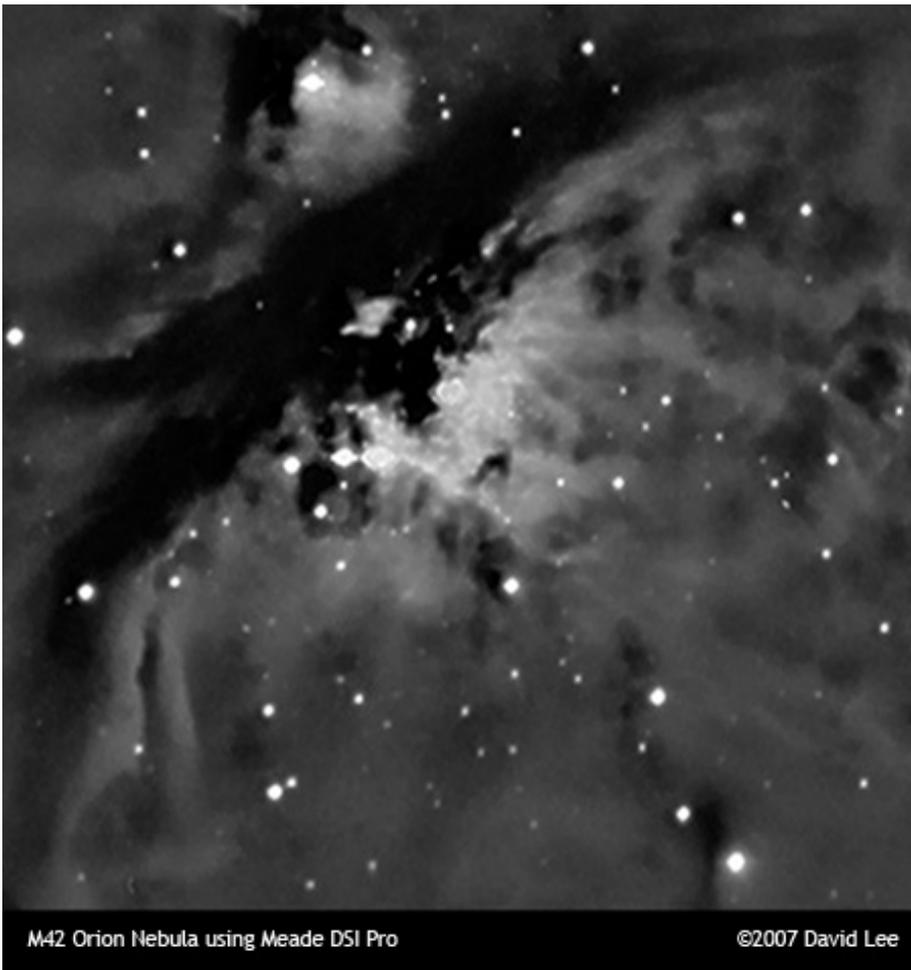
Since the roof sections can be positioned independently of each other Schandall could configure them for maximum blockage of wind and stray light when he wants to view a particular part of the sky.

In addition, one of the gables can be removed to provide a view of the western sky.



Sun in Ha-a Large Prominence

Date: May 8, 2010 2:10pm PDT
Location: Victoria, BC, Canada
 There were multiple solar prominences visible on the Sun this afternoon. This was the most spectacular, and featured a little hole in the prominence near the Sun's surface - visible through the eyepiece as well as in this photo. The solar disk also displayed a large plague, however it is not visible in this cropped image.
Exposure: 1/15 second at ISO 800
Bandpass: <0.55 A
Equipment: Canon 7D dSLR a-focal through a 2.5x Powermate & Lunt LS60THa + LS50FHa solar telescope mounted on an HEQ5 tracking mount.
Processing: ACDSee Pro 3 - Sobel edge detection; aggressive contrast stretch, crop.



M42 Orion Nebula

This was imaged very early in the morning in September and is a preview of what we will see in a few months. So for those of us who can't wait you just need to stay up late or get up earlier. This is a very familiar object in colour amongst amateur astronomers but the black and white imagery reinforces the shape and form. The small chip size of the CCD imager makes the use of mosaics necessary to include the whole object. I now have a future project.
Imager: Meade DSI Pro
Telescope: Televue NP101is
Exposures: 8 light frames of varying exposures from 5 to 30 seconds.
Light frames were auto dark frame subtracted at the time of exposure.
Capture: MaxDSLR with final processing Adobe Photoshop CS2

*It is nightfall; the clouds have vanished;
The sky is clear,
Pure and cold ...
Silently I watch the River of Stars,
Turning in the Jade Vault ...
Tonight I must enjoy life to the full,
For if I do not,
Next month, next year,
Who can know where I shall be?*

SU T'UNG-PO
(11TH Century Sung Dynasty)



THE CENTRE'S NEW OBSERVATORY ON "THE HILL"

ON August 18 2008 the Victoria Centre inaugurated a newly-built observatory on the former site of a NRC-operated 16" telescope on Observatory Hill in Saanich. The National Research Council had very generously agreed to give Victoria Centre use of this site, which is next door to the Dominion Astrophysical Observatory's 1914-built Plaskett telescope. They also agreed to contribute \$5,000 to our observatory project and they further agreed to provide telephone and electrical services at no cost to us on an ongoing basis.

The NRC and the Victoria Centre also mutually agreed to the building of a 10'x14' roll-off-roof design observatory on an approved site.

PRIZED LICENCE-TO-USE AGREEMENT

The Centre wishes to extend its deep gratitude for the splendid support that the National Research Council gave to the Centre by providing us with an observing site and a License to Use Agreement, which was signed on 18 October 2005 by the NRC/HIA and on 27 October 2005 by the Victoria Centre.

ULTIMATE AIM

The Centre has a long-term plan to make this observatory available to the public through online access. Currently we do not have that capability. At present, our members manually operate equipment until we pull together the systems enabling fully automated online service. Active observers make good use of the site for observing and astrophotography. Approved members can take advantage of any clear night that comes our way.

We must adhere to strict regulations and every approved member accessing the site must state that they have read and will fully comply with all the restrictions.

"Today is an historic occasion for the Victoria Centre, since in its long history this is the first observatory that the Victoria Centre can call its own. The project would not have been completed on time and under budget without help from our corporate partners, generous donations of funds and labour from Victoria Centre members, and especially without the goodwill and support from the National Research Council. Victoria Centre members put their hearts into this project, and can be justifiably proud of the result. Thank you everyone!"

**Joe Carr, President (2008)
RASC Victoria Centre**

PREPARATION OF SITE AND BUILDING

Preparing the site and building of the observatory could not have been done without dozens of volunteers who willingly stepped forward to bring it all to completion.

WHAT DONATIONS BOUGHT

The first piece of equipment we wanted was a good reliable mount. Expenditure on the Paramount ME mount came under budget saving us \$1,383.28 and a fundraising project yielded \$11,475, which exceeded our budgetary target of \$9,800 by \$1,675.

This kept the projected budget in good shape and allowed us to purchase a used but well-cared-for Meade 14" f/10 Schmidt-Cassegrain optical tube, along with other essential equipment the observatory needed.



2008

President Joe Carr thanks Dr. Jim Hesser

Director of the NRC/HIA/DAO, for his support and dedication for the Observatory project.

Bruno Quenneville

Victoria Centre member and Project Manager.

At the Victoria Centre's Astronomy Café held on May 26, 2008, John McDonald presented Bruno with a token of our appreciation for his pivotal role as Project Manager for the building of our observatory.





2005. Former site of the 16" telescope.



Taking a break: Sid Sidhu in red and Bruno Quenneville.



That's the outside done—now for the inside.

2008: Members gathering for the opening ceremony.



2008: Nelson Walker (president 2013-14) gives a smile of approval!



2008: Visitors inspecting the Paramount ME and the inside arrangement of the observatory.

Equipment as of 2013:

Meade 14" SCT Optical Tube

Paramount ME

TeleVue NP 127 apochromatic refractor

**80mm guide scope and Orion
StarShoot Autoguider**

**QSI 583 CCD camera, computers and
building systems**

PERMIT AND TERMS FOR VICTORIA CENTRE MEMBERS TO USE THEIR NEWLY COMPLETED OBSERVATORY ON NRC PROPERTY

 National Research Council Canada Conseil national de recherches Canada Licence to Use Land for Recreational Purpose

THIS AGREEMENT made under the laws of the Province of British Columbia, Canada.

BETWEEN: National Research Council of Canada (called "NRC")
 Head Office: 1200 Montreal Road, Ottawa, ON K1A 0R8
 Participating Institute: NRC Herzberg Institute of Astrophysics, 5071 West Saanich Rd, Victoria, BC V9E 2E7
 Contact person: Kevin Farns – Manager, Administration and Communications, kevin.farns@nrc-cnrc.gc.ca

AND: The Royal Astronomical Society of Canada, Victoria Centre (called the "Licensee")
 whose address is: 1329 Franklin Terrace, Victoria BC V8S 1C8
 Contact person: W. John McDonald – 2nd Vice-President, VP2@victoria.rasc.ca

In consideration of the mutual covenants contained hereunder, the parties agree as follows:

LU-1. PERMIT Subject to the terms of this Agreement, the Licensee is permitted to use, without payment of any licence fee, the following NRC land (Land) on NRC's property at 5071 West Saanich Road, Victoria, BC, during the validity of this Agreement.

Area	Restrictions specific to the area
Observing dock outside NRC Centre of the Universe and environs	Licensee's use of this area during operating hours of the NRC Centre of the Universe is at the discretion of the Centre's manager. Licensee's activities must complement NRC-sponsored activities and be conducted in consultation with NRC staff.
Concrete pad and shed (formerly site of 16" telescope)	Licensee's use of this area must avoid any damage or increased risk to environmentally sensitive areas in the vicinity.
Other paved areas of Observatory Hill site	Licensee's use of these areas must be conducted with due attention to safety, particularly with regard to vehicular traffic.

LU-2. USE The Licensee may use the Land solely for (a) amateur astronomy and (b) public outreach activities carried out in conjunction with NRC Centre of the Universe. The Licensee shall not permit smoking or alcoholic beverages on the Land or anywhere on NRC property. The Licensee shall not sell food or beverages or any other merchandise on the Land or on NRC property, and shall not charge any admission fee to spectators wishing to watch their amateur astronomy activities on NRC property. The Licensee shall be responsible for payment of all persons hired or engaged by the Licensee.

LU-3. PRIORITY NRC reserves its right to exclusive use of the Land at any time for its own purposes. NRC may deny the Licensee access to and use of the Land at any time and without prior notice. NRC and Licensee agree to endeavour to co-ordinate use of the Land through effective communication and regular consultation.

LU-4. ACCESS NRC reserves its right of access to the Land at all times.

 National Research Council Canada Conseil national de recherches Canada Licence to Use Land for Recreational Purpose

accepts all risks and perils to any and all equipment stored there, and agrees to save NRC harmless from all liability for loss or damage to such equipment by any cause, including negligence. NRC may require the Licensee to remove any equipment stored in the shed and, in case of urgency, reserve the right to remove all such equipment in order to effect repairs to the shed.

LU-14. ASSIGNMENT The Licensee shall have no right to assign its rights and obligations under this Agreement.

LU-15. SUSPENSION AND TERMINATION In the event of any default under this Agreement, NRC may withhold access to the Land and put the Land to alternative uses until the default is remedied. NRC also reserves the right to withhold access to the Land if dangerous or emergency conditions arise, whether within or beyond NRC's control. NRC also reserves the right to terminate this Agreement at any time and for any reason upon thirty (30) days' written notice.

LU-16. REVIEW AND AMENDMENT NRC and the Licensee agree to meet at least once annually to review the functioning of this Agreement and to address any concerns of either party. This Agreement may be amended at any time by mutual consent of both parties.

LU-17. COMMUNICATIONS All communications relevant to this Agreement should be directed to the contact persons designated by the parties. Each party agrees to notify the other of any change in contact person or contact address. Communications may be by electronic means and should be promptly acknowledged.

LU-18. TERM OF AGREEMENT Unless renewed by mutual agreement of the parties in writing, and subject to early termination pursuant to LU-15 (above), this Agreement will expire five (5) years after the date of signing.

SIGNED by in duplicate at Victoria, British Columbia, on JULY 11, 2008.

Per: JOSEPH CARR, PRESIDENT RASC VICTORIA CENTRE
 (print name and title)

SIGNED by NRC in duplicate at Ottawa, Ontario, on July 8, 2008.

National Research Council of Canada
 Per: Jerry Robins/Dirctor General
 NRC Administration Services and Property Management Branch



Victoria Centre Annual General Meeting held on Saturday, November 19, 2005.

Certificate of Appreciation presented by President Scott Mair to Dr. James Hesser for his continuous efforts and successes in supporting RASC observers and the development of the RASC/NRC Licence to Use Land Agreement.

*The most beautiful thing we can experience is the mysterious.
It is the source of all true art and all science.
He to whom this emotion is a stranger,
Who can no longer pause to wonder and stand wrapt in awe,
Is as good as dead: his eyes are closed.*

ALBERT EINSTEIN (1879-1955)



REACHING THE MAIN SEQUENCE

THE VICTORIA CENTRE'S SELECTED HIGHLIGHTS

1914

The number of members in good standing was 101, and the work of the Centre during the first year was of an elementary character necessitated by the work of organization, later delayed by the inability of most people to discuss any other subject than the Great War in Europe.

During the nine months that the Centre had operated six meetings had been held. On one occasion, that of the visiting Dr. W. F. King, Dominion Chief Astronomer, and Dr. J. S. Plaskett to Victoria in July, the Centre held a picnic at the new observatory site for the purpose of meeting the two visitors.

During the year the Centre suffered a serious loss with the death of W. J. Sutton, a committee member, who had been instrumental in forming the Centre.

Outstanding events such as the announcement of the DAO's success in demonstrating the rotation of our galaxy in 1930 and other events of note are included in this section.

1915

During 1915 the new Centre was rapidly shaking down into a well-run organization. Activities were well maintained during the year but the war was making itself increasingly felt. At the end of the year 83 were enrolled but only 44 were paid up, due to so many having joined the forces.

At the Annual Meeting held on December 7, 1915, a resolution of thanks was passed by acclamation expressing the indebtedness of the Society to Mr. Denison. The Centre

owed much during these early years to the willing and untiring help given to it by this gentleman and expressed its appreciation by giving him a life membership in recognition of his services.

1916

A notable event of 1916 was the Centre's visit to Little Saanich Mountain, on the invitation of Dr. J. S. Plaskett, to view the great telescope. Although the optical parts were not yet in place the visit was of special interest because the telescope's mounting had a distinct advantage over current practices of that time in that the polar and declination axes are borne in solid wall bearings. Perfect control and ease of movement of the 45 tons of moving parts fully justified Dr. Plaskett's courageous innovation.

Another event was the reading by Dr. Denison, during his lecture on Planets, Comets and Meteors, of a communication to him from Dr. Percival Lowell (elected an Hon. Fellow of the Society on June 1, 1916) regarding the existence of the much-disputed Martian Canals. Dr. Lowell's statement was published in the Daily Colonist of Sunday, April 2, 1916.

In October Dr. John A. Brashear, Pittsburgh, Pa., whose firm figured the new telescope's mirrors, and Mr. Ambrose Swasey, of the firm of Warner & Swasey, Cleveland, Ohio, who built the telescope's mountings, visited Victoria. Mr. McCurdy, the President, and other members of the Victoria Centre entertained these gentlemen.

1917

In 1917 the First World War was taking its toll on the membership. Many were on active service and maintained on the roll as honorary members. With the absence of the President, Vice-President and Secretary meeting attendance was impossible for eight months of the year. In the following

year the great worldwide influenza epidemic swept through Victoria and decimated meeting attendance for many months.

1918

On January 8 the Geographic Board of Canada changed the official name of Little Saanich Mountain to Observatory Hill, following a suggestion by Dr. Plaskett, and on April 29 Dr. Plaskett announced that the mirror for the 72-in. telescope had been hoisted safely to the observatory's observing floor.

After its installation the Lieut-Governor of British Columbia, Sir Frank Barnard, opened the observatory officially on June 4, 1918.

A great crowd of visitors, among them many Centre members, attended this notable occasion at the opening of the largest telescope in the world at that time. Newspapers worldwide carried notices of the event, drawing much favourable publicity to Greater Victoria

1922

1922 saw a notable visit by Prof. C. A. Chant, an RASC board member, who was directing an expedition to Australia to observe a solar eclipse on September 21.

A luncheon in his honor was held at the Empress Hotel, presided over by Centre President, W. E. Harper, during which Prof. Chant gave a talk on the chief object of the expedition, namely, to obtain evidence for or against the Einstein theory of relativity.

Dr. R. K. Young, representing the DAO, accompanied the Chant party to Australia and on the return of the expedition, was entrusted by Dr. Chant with the measurement and reduction of the Einstein plates. Images of star shift were found to be approximately the amount predicted by Einstein.

At the Annual Meeting on December 15, Dr. Young gave an account of the work of the Canadian Eclipse Expedition organized by Dr. Chant.

1927

In 1927 a speaker of picturesque interest addressed the October meeting. Chief Shelton of the Snohomish Tribe appeared in native dress and spoke to a joint gathering of the RASC, the BC Historical Association and the BC Natural History Society on "Legends and Myths of the Pacific Coast Indians." The Chief's lecture was not concerned with the stars but centered around the totem pole, which, he stated, was the basis of all Indian education on the Pacific coast.

1928

W. E. Harper, assistant-director of the DAO, was been elected President of the RASC. He had also started a series of radio talks on popular astronomy and these talks, over Station CFTC, Victoria, were continued until 1938.

1929

On March 12, Victoria became the first Centre in Canada to possess a library after members and friends had gener-

ously donated 36 astronomical books. W. T. Bridge was appointed the first librarian and at a Council meeting on May 28 he reported that 65 books had been donated and they were being kept in his home. This state of affairs continued until the Centre finally acquired permission from UVic to permanently locate two book closets in the corridor of the Astronomy and Physics Department of the Elliott Building.

1930

1930 was a banner year for Dr. Plaskett and the DAO. The Victoria Daily Times of January 29, in a report following a meeting on the 28th, states: "Dr. Plaskett, the speaker of the evening, discussed the success recently attained by the Observatory in demonstrating the rotation of the galaxy. His address was similar to one delivered recently at Des Moines, before the annual convention of the American Astronomical Association, which was the first official announcement of the important calculations and conclusions worked out by the staff of the local observatory."

The Victoria Centre also congratulated Dr. Plaskett upon his being awarded the Gold Medal of the Royal Astronomical Society (London).

1931

During 1931 H. B. Brydon built a small observatory in his garden at 2390 Oak Bay Ave. The Daily Colonist of September 23 listed his equipment as a 4-inch telescope, driven by clock; a star spectroscope; a micrometer and a sidereal chronometer. In the autumn of that year a new Centre of the RASC was formed in Vancouver. Dr. Shrum, 1st Vice-President of the Victoria Centre was elected President of the Vancouver Centre.

1932

On August 8, a dinner was held at the Empress Hotel in honour of 20 European scientists and their wives, who were on a tour of North America en route to the solar eclipse of August 31. The party included Sir Frank Dyson, Astronomer Royal for England and Lady Dyson. President P. H. Hughes occupied the chair and was toastmaster and the entertainment committee consisted of Dr. Plaskett, Dr. Pearce, Mr. and Mrs. W. E. Harper, Mr. Hughes and Mr. Brydon.

Other events included a trip to Butchart Gardens, a garden party at Government House, and an evening visit to the DAO.

On September 22, Mr. Harper described the disappointment of all the Victoria astronomers encamped at Magog, Quebec, when they were clouded out. H. D. Parizeau made an interesting allusion in the course of his undated lecture on "The Hydrographic Survey of the Coast of British Columbia."

1933

A \$1.00 fee was charged for the Summer Courses and an Observers' Section and a Telescope Making Group was begun for those desiring to make telescopes. Mr. Hobday conducted the telescope class.

1934

Meetings places were again changed, this time to the Parlours (YWCA). The Summer Course was held at Boyd Bryden's home, with a Computing Section added to measure star distances. The Library was moved to facilities at the YWCA.

1935

Victoria Centre's Boyd Bryden wrote a letter to the National Council in response to concerns that were being raised regarding the amount of time that was spent on routine matters instead of items that were of genuine concern to Centres. In short order, Bryden was nominated to sit on Council! Inevitably, distances across our country have, until recent years, been a barrier to good communication.

Mr. Bryden would have been hard pressed to attend Council meetings. Representatives would require a week of their time to travel to Toronto by train, so mailing a letter was the only practical communication method available.

The resignation of Mr. Boyd Brydon was accepted with regret with Lt.-Cmdr. Tingley replacing him as Acting President. Mr. C. Hartley, the 1st Vice-President died early in the year. Another vacancy was caused in December when Dr. F. S. Hogg, 2nd Vice-President, accepted a lectureship in the Department of Astronomy, U of T. In March a new Centre of the RASC was formed in Calgary, which meant the loss of six members to the Victoria Centre.

1937

The Journal, vol. 37, p.409, 1937, published an obituary on the life of Ambrose Swasey, by J. S. Plaskett. Mr. Swasey, who died in June 1937, at the age of 90, was one of the heads of the world-famous telescope-manufacturing firm of Warner & Swasey. Dr. Plaskett was for several years associated with the firm in the capacity of scientific consultant.

The first large reflecting telescope constructed by the company is recorded to have been the 72-inch with dome and accessories, erected near Victoria, B.C. for the Canadian government, The grinding and figuring of the mirror (the glass disc of which had been cast in Liege, Belgium) was entrusted to the John H. Brashear Company of Pittsburgh, Pa.

1938

At the regular meeting of February 16, Mr. Boyd Brydon was congratulated on his recent election to the Council of The Royal Astronomical Society in Toronto. On April 12 a farewell dinner was held in the YWCA for Mr. Hobday, who was presented with a barometer. Mr. L. Hopkins replaced him as head of the Telescope-Making Section.

1939

This summer saw the start of a programme, conceived by Dr. J. A. Pearce, to make members' telescopes available to the general public. They were set up in Beacon Hill Park on a few summer evenings and some hundreds of people came to view Mars and other easily viewed objects.

Radio Programs: Early in the summer, several quarter-hour radio programs were given by Council members mainly

to acquaint the public with the forthcoming summer courses. The talks were so well received that station CFHT invited the Centre to sponsor a 15-minute programme each Tuesday evening at 7:30 p.m., called "Evenings with the Stars".

1942

H. A. Reid donated an 8-inch telescope to the Centre and a donation was made by Dr. R. M. Petrie of pamphlets on the life of Dr. J. S. Plaskett. A special vote of congratulations was extended to Mr. Boyd Brydon, who was awarded the Chant Medal.

1945

The final payment for the Wray telescope was made to Mr. Boyd Brydon early in the Spring. On October 1, 1943, the Victoria Centre purchased the refractor, mount, accessories and observatory from Boyd Brydon, but it remained on his property until he died in

1951

185 attended the summer course, realizing a profit of \$93.00. Mrs. Noble, almost unassisted, did a wonderful job of arranging for the Astronomical League convention held in July. High costs and a raise in dues resulted in a loss of 51 members, leaving a total of 74, including three juniors.

1964

On October 16 and 17, the Centre sponsored a display provided by the Manned Space Exhibit of the United States National Aeronautics and Space Administration at the University of Victoria. Exhibits from the Dominion Astrophysical Observatory, private companies and amateur observers were added to this display.

1971

The RASC continued to be the only organization for professional and amateur astronomers until 1971, when professional astronomers realized that they had better organize themselves into a separate scientific society for their own protection, underneath an umbrella organization (SCITEC). Thus the professional Canadian Astronomical Society came into existence (CASCA).

Remarkably, a great number of professionals retained their membership and association with the RASC after joining CASCA and continue to give sterling service to the Centre down to this day.

1972

On Sunday, May 21, the Centre had the pleasure of hosting the delegates to a General Assembly, who came over from Vancouver for the day. Again this year, the Centre maintained a booth at the Hobby Show held in April by the Victoria Lapidary Society.

Observing sessions were held each clear Friday under the direction of George Ball, using the 12-inch reflector at UVic. George also conducted a mirror-making class once a week. By the end of the year, one 6-inch mirror was completed and six others were in the last stages of polishing.

1976

The Centre is extremely grateful for a very generous bequest from the late R. S. Evans, and for the donation of a fully equipped 2.4-inch Unitron refractor by Dr. Gordon H. Grant.

1979

Negotiations began with Fisheries and Environmental Canada to house the Centre's historic 4-inch refractor in the now empty dome of the old Gonzales weather station.

1980

George Ball gave a talk explaining the construction of cold cameras for astrophotography, i.e. those that he made for Jack Newton. The Centre made little visible progress in completing an agreement to use the historic Gonzales weather station observatory as an astronomical site.

Efforts were redirected into construction of a trailer-mounted mobile observatory with a 50 cm diameter reflecting telescope. Leo van der Byl was in charge of this project and considerable progress was made.

1981

1981 was a particularly exciting and rewarding one for our Centre in a number of respects. Foremost was the hosting of our first-ever Annual General Meeting of the RASC, held at the University of Victoria, June 26-29.

This occasion brought us together with members from most Centres coast-to-coast and from south of the border. 154 registrants plus members of their families swelled the attendance at some of the weekend's events to close to 200 people.

Another landmark was the incorporation of the Centre under the B.C. Society Act on September 22. The efforts of Robert Bryden in bringing this to fruition are noted with thanks.

1982

The Centre has been granted tax-exempt status as a charitable organization, effective October 1, 1981. Progress on our mobile 50 cm telescope was complicated by our unsuccessful application for a Lottery Fund Grant, but thanks to the Evans bequest and the dedication of Leo van der Byl in design and construction, the project is virtually complete.

Thanks are also due to Jes Jensen of the DAO for aluminizing the 50 cm mirror for us.

1983

The completed mobile telescope formed a feature attraction in the Centre's displays at two major expositions held in Victoria during the Spring of 1983: The Hobby Show and the Better Living Show.

1984

The Evans-Van der Byl mobile telescope made an appearance at the May 5 Astronomy Day star party on the Dallas Road waterfront. The EVBT was also present on one of

eight Saturday star parties on Little Saanich Mountain, where our telescopes joined those of the DAO at their well-attended public openings in July and August.

1987

We are pleased to have had the opportunity of participating in the Prime '55 Festival. This provided us with an opportunity to participate in community events and lent exposure to our Centre's activities.

1988

Our Centre had a very busy year in 1988. Under the presidency of Gene Steeves we underwent a transition directed towards a more active participation in observing programs and membership-oriented activities. We now have an observers' group which meets monthly, in addition to the already active telescope-makers group.

Our General Assembly, held as a joint meeting with the Astronomical Society of the Pacific, was more than enough to keep us busy and was tremendously successful. Again, our thanks to our local chair, Jack Newton, ASP past president, Jim Hesser and all the volunteers for an extremely well done job!

1989

Under the guidance of President Gene Steeves, a strong emphasis was placed on a number of different activities. For the first time, a strong observer's group was formed. The group meets every third Wednesday of the month, rain or shine.

1990

For most of the spring and summer we enjoyed a spectacular Comet Levy, which, while it did not enjoy the publicity surrounding Halley, actually outperformed its predecessor.

Our special guest speaker, Dr. John Hutchings, demonstrated the HST's impressive contributions thus far. As if all this weren't enough, there was Space '90. This project, run as a cooperative effort between the Royal British Columbia Museum and the Herzberg Institute of Astrophysics (DAO) attracted thousands of participants.

1991

Membership has remained fairly constant between 125-150, even though it is somewhat disappointing that our youth membership continues to be low. Our Education Committee has, however, been very much in demand delivering talks to school classes, Cubs, Brownies, etc.

It is also wonderful to see so many new faces at the meetings and joining in the various centre activities, including allowing their names to stand for nominations to council

1992

Election of a new slate of officers ushered in a number of changes for the centre, including the establishment of electronic mail by vice-president Gary Shearman. A move by the Observer's Group to Jack Newton's new home on Cains

Way at the top of Matheson Mountain in East Sooke, gives members an opportunity to use his 25-inch Newtonian telescope and the observatory he built into his house.

By looking over Jack's shoulder we have delved into CCD computer imaging in colour, which has sparked a growing interest by a few members to get involved in it themselves.

For the first time, we held a picnic at Pearson College during the summer break. It was well attended and we are hoping to make it a regular feature on our calendar of activities.

1993

In April we enjoyed a slide show from Bill Almond, who built an observatory that dwarfs his two-storey house and hilarious videotape made of RASC Journal editor Jeremy Tatum's appearance on the TV program Front Page Challenge.

Jack Newton continues to wow everyone with his incredible colour CCD images. His cold camera has been pushed into the corner of a cupboard and the only time he uses his camera is to photograph his computer screen for hard copy.

CCD software manufacturers occasionally send him their products to "test drive" before marketing them. Some members are getting hooked on CCD imaging and with dedicated software increasingly becoming available; it should soon entice many more.

An almost-new Takahashi 100 mm doublet fluorite refractor was recently donated to the Centre. This, along with a newly completed 20" Dobsonian that Gene Steeves began and George Ball completed, and other, older telescopes, now lets our members take advantage of an excellent arsenal.

1994

We have a newly organized beginners' observing group, which helps many new members to learn the basics of astronomy using simple, manual telescopes. This group meets at Sid Sidhu's home, at a dark site in the Highlands, north of Victoria, which is well suited to this purpose.

A number of members have enthusiastically plunged into the deep waters of CCD making, using various plans, mostly the popular Cookbook version, and most are well on the way to completion. Jack Newton's dome is sardine-packed on CCD observers' nights when he demonstrates CCD integration and image enhancement.

He was recently received on loan a 7-inch Meade refractor and a new 12-inch Meade Schmidt-Cassegrain LX200 to beta-test, along with a Pictor CCD to take the necessary images. Compuscope also loaned him their CCD camera version and the software needed to drive it. Jack made a number of suggestions to improve the software to make it more suitable for amateur use.

1995

By early April 1995 everything at Lester B. Pearson College Observatory was ready. A 16-foot dome sits above a splendid office and warm room. The telescope has been equipped with an SBIG ST6 CCD, which, in turn, was con-

nected to two computers. A winding connecting road, appropriately named The Milky Way, had been built up the steep hillside. Invitations to the official opening of the observatory were sent out for the big day, which was to be held on April 7th, 1995.

Victoria Centre council members were among the fifty patrons and foundation representatives that were present. After a dinner, speeches and ribbon cutting, everyone inspected the facility and expressed their deep satisfaction that the effort to build the observatory had been well worthwhile.

Centre members are very proud to have contributed something of educational value to the young men and women who attend the college. Many students come from third-world nations.

Most have never had an introduction to the wonders of the night sky or looked through a telescope. Much of their astronomical background is rudimentary and it is pleasing to see their interest as they devour their newfound knowledge.

1996

We hold three meetings a month: a regular meeting, a beginners' group, and an advanced bunch who like to call themselves the CCD observers group. We don't all have CCD's, but the interest is there, evidenced by the avid scrutiny they engage in of computer images taken by those who do have CCD's. More members are showing an interest in astrophotography and a number of good slides and prints are making an appearance. A few members are putting their sketching abilities to work.

1997

Next year is going to be the big one. Some on the committee have never attended a GA and don't have the foggiest idea of what is involved in organizing one, while others, who *have* attended GA's spent most of the first couple of meetings patiently explaining what was what. However, the fog soon lifted and we all started to feel confident that we could pull it off.

With Bill Almond voted in as planning committee chairman a committee was formed: Gary Shearman, program and speaker; Frank Jones, registration; Don Dundee, site arrangement; Alice Newton, hospitality and special events; Keith Rawcliffe, Sid Sidhu and David Lee, exhibition and displays and Chuck Filtner, transportation.

1998

We entered 1998 with most of the preparatory work wrapped up. The timeline was completed, speakers were contacted, tours were decided on, accommodation, meals, the wine and cheese party and the banquet were all been taken care of—and an article promoting the 1998 GA in Victoria appeared in the Journal. Registration papers were ready for mailing in January and David Lee posted them on the GA's web site around the same time.

Our president, Bill Almond, with a courageous crew of volunteers put on a great GA. Thanks to Jean and Helene Godin and all the staff at Pearson College for their part in making the facilities accessible to the event.

The line up of speakers was remarkable, including Canadian astronaut Julie Payette; the extra solar planet presentation from Dr. Geoffrey Marcy; the Helen Sawyer Hogg presentation from Dr. David Crampton and the Plaskett Medal presentation from Dr. Dean McLaughlin.

We were very pleased with the arrangements Pearson College made for all the visiting delegates and everyone went home grateful for the peaceful, forested setting they enjoyed right on the waterfront.

For the past three years Sid Sidhu has been operating the school telescope program, which makes telescopes available for loan for each of the three school districts in Greater Victoria and Sooke.

1999

Bill Almond was presented with an Astrophotography Award at the RASC's Annual General Meeting in Toronto for his work with CCD imaging; Eric Schandall made it into the pages of Sky and Telescope with his home observatory; Sid Sidhu's "Teles-Coop" was officially opened this year as well; Jan Wisniewski is to receive an RASC Messier certificate for his work capturing images of every object in the catalogue.

2001

The highlight of the year was the opening of the Centre of the Universe at the HIA/NRC/DAO on Observatory Hill in Saanich on June 9, under the direction of Scott Mair.

This is precisely the kind of thing we need to keep the public interested in astronomy and it is hoped that tour groups will include the stop in their itineraries. We want to give a big thank you to all the folks who were instrumental in bring this facility on line.

2002

Centre members assisted the Centre of the Universe staff in holding a well-attended public viewing of the partial solar eclipse on June 10. This coincided nicely with the Centre of the Universe's first birthday on June 9.

2003

The Centre offered a number of special events and public outreach programs this year. Twenty-four public and private schools, Cubs and Brownie groups took advantage of the School Telescope program.

Last year we were able to reach more than 1,300 youngsters in the Greater Victoria area. Many thanks to our dedicated volunteers for making this program such a success.

2004

The Centre and its members have enjoyed a busy and exciting 2004. Special events for the Centre this year includes: Ninety years have passed since our foundation in 1914. Our regular March meeting honoured this milestone with cake, coffee and a special slide lecture by the Centre Historian, Bill Almond.

Our Hon. President, George Ball, has generously offered his astronomical equipment to the Centre.

This year the Outreach program reached 1600 children in 15 schools. The Centre of the Universe included Saturday Star Parties from April through October and Stargazer Sundays in July and August

2005

Members attended the General Assembly held in Kelowna on May 20-23, and also the Tenth Annual Island Star Party on July 1-3. The Centre's Fifth Annual Star Party was held later on Sept. 2-3.

The Victoria Centre and the National Research Council (NRC) are pleased to announce a Licence to Use Land Agreement which provides Centre members expanded access to NRC/HIA property on Observatory Hill, including access during times which are outside the normal operating hours of the Centre of the Universe Interpretation Centre. Centre members in good standing, who are active observers, qualify to use this excellent site.

This year the Centre purchased a Solar Max telescope, a data projector, an Astrovid Camera and two telescopes for our collection. A Truss Dob telescope was rebuilt by reusing an existing 20-inch mirror.

2006

This year the RASCALs Star Party was held May 26 to 28 at the Victoria Fish and Game Association. Events included presentations by Dr. Patrick Côté and Dr. Brenda Matthews, both from the Herzberg Institute of Astrophysics, Victoria; a workshop on digital astrophotography by David Lee and Joe Carr; a swap meet and door prizes, including a pair of Celestron 20x80 binoculars.

The Victoria Centre has celebrated International Astronomy Day since 1997. We are very fortunate to have developed a relationship with the Royal BC Museum to celebrate Astronomy Day each year on museum grounds.

The Centre of the Universe is the public interpretative Centre at the Dominion Astrophysical Observatory. Dedicated Victoria Centre volunteers joined the friendly staff for Public Observing included Saturday Star Parties from April through October, Stargazer Sundays in July and August, Holiday Star parties, and special events such as Astronomy Day.

This year the Light-Pollution Abatement Committee focused on maintaining a dialogue with local municipalities to convince authorities to regulate outdoor lighting. In addition, the Victoria Centre has collected quantitative data by taking sky brightness readings at various locations around Greater Victoria, with the hope that this data will aid us in convincing decision makers of the seriousness of the problem.

2007

The RASCALs Star Party took place on August 24-26 at the Victoria Fish and Game Association and included daily door-prize draws, three presentations, a swap meet, and, most importantly, solar and nighttime viewing. A picnic at Pearson College hosted by Mark Wheen was on September 1, which gave members a chance to see how Mark is upgrading the Evans Vanderbyl 20-inch Newtonian.

The Light-Pollution Abatement Committee was busy advocating, through local print media, the need for regulation that will encourage installation of quality street lighting. We have provided comments to Saanich Council regarding a new development proposal in the Blenkinsop Valley, and Oak Bay council was approached regarding lighting issues at Cattle Point, one of the Centre's observing sites. Our messages to fight light pollution have focused on not only saving the night sky but also saving energy.

2008

The Victoria Centre Observatory (VCO) was officially opened 2008 August 18, with RASC members, corporate partners, and the National Research Council (NRC) staff helping to celebrate this milestone in the Victoria Centre's history. The project was completed on time and under budget with the generous assistance from our corporate partners, generous donations of funds and labour from Victoria Centre members, and the goodwill and support from the NRC. Victoria Centre members put their hearts into this project and we are all very proud of this achievement.

2009

At last count, RASC Victoria Centre volunteers had participated in, or organized, over 145 days of outreach events associated with IYA. Our IYA goal for the year was to elicit 20,000 "Galileo Moments" with the public attending, or walking by, our events. By our most recent count of these reactions, we have met that goal.

Although our observatory was substantially completed in August 2008, work there has continued, both on the building and the equipment inside.

We have added a Tele Vue 5-inch (127-mm) refractor to the mount alongside the Meade 14-inch SCT, and have obtained a QSI 583 CCD camera for use in the observatory. As far as the building is concerned, we have added a large observing pad to the outside to make room for members and telescopes, and have added an extension to the observatory building to house the club's 20-inch Dobsonian reflector.

2010

As the International Year of Astronomy drew to a close, Victoria Centre could point with pride to its achievements for the year: over 22,000 Galileo Moments recorded at 170 events and engagements, over 2000 hours of volunteer effort, continued work upgrading its observatory, and a whole new format and venue for its annual star party. There was to be no resting on its laurels, however, as President John McDonald declared war on light pollution.

We are proud that Victoria Centre Council member Jim Hesser, Director of the DAO of the HIA, has been selected as Honorary President of the RASC, to serve until 2013. Dr. Hesser is a tireless advocate of public outreach and of bringing the glories of astronomy to the public: he was seen at a recent open house of the Herzberg Institute of Astrophysics, acting as parking lot attendant, dressed as Galileo, complete with a metre-long telescope, and welcoming all comers.

Upgrades continued at the VCO, with the addition of Hyperstar imaging capability to the 14-inch telescope, and

the addition of a video camera to the VCO's arsenal of imaging choices. The 20-inch Dobsonian telescope, now housed in its own addition at the VCO, has been upgraded with new trusses, a hand-made shroud, and a new secondary mirror, all of which will allow us to take full advantage of its large aperture. This large scope can be ready for use literally within minutes of the arrival of an observer. In addition, there is now a 12-inch Dobsonian available for use, courtesy of Charles Banville.

2011

In 2011, we recorded 5520 Galileo Moments and logged 775 hours of volunteer time. I think that these numbers prove that IYA2009 is a force that can be sustained over time and that our club, under the leadership of Lauri Roche, has a commitment to education and awareness about astronomy that is extraordinary.

We set up booths and participated in local community events such as the Hobby Show, Earth Walk, Buccaneer Day, the Saanich Strawberry Festival, and the Saanich Fair. Our Saanich Fair participation was particularly successful with approximately 2000 visitors to our set-up. We also made numerous presentations and conducted night-sky viewing with community groups such as the Beavers, Girl Guides, McGill University Alumni, and several seniors' residences.

Our members made four night-sky presentations in B.C. Parks across southern Vancouver Island this summer. These were held at Goldstream, Miracle Beach, and two locations in Parksville. These events were extremely successful with one event hosting 180 very enthusiastic people. Our group's relationship with B.C. Parks is very strong and we have discussed a potential telescope donation to one of the parks.

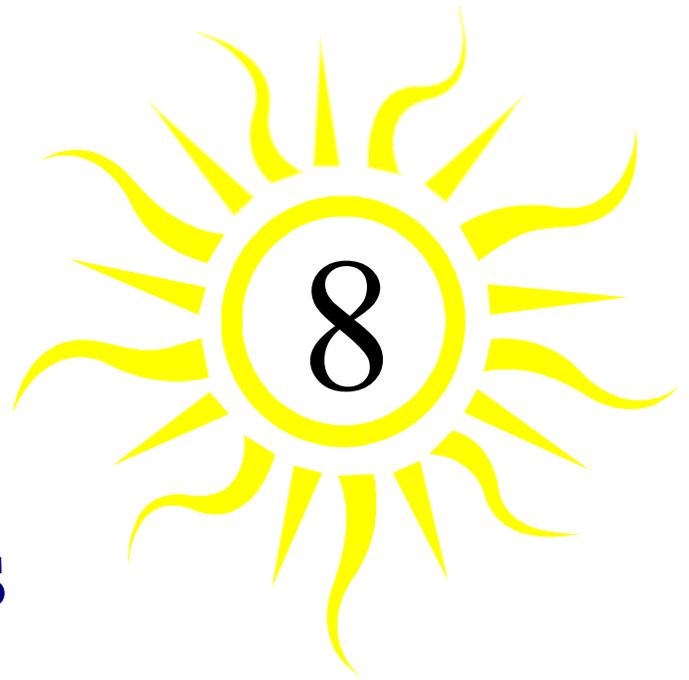
2012

2013

The Newtonian principle of gravitation is now more firmly established, on the basis of reason, than it would be were the government to step in and make it an article of necessary faith. Reason and experiment have been indulged, and error has fled before them.

THOMAS JEFFERSON (1743-1826)

The following pages record the Victoria Centre's history throughout every year of our existence from 1914 to 2014.



ANNUAL REPORTS

1914-2014

1914—THE CENTRE'S KEYSTONE YEAR

The first year's activities of the young Centre are described in the annual report of the Secretary-Treasurer, Mr. Cotterell, and also in The Journal 9, p.71, 1915.

His report contains a number of points that merit consideration. After presenting the financial statement, showing a deficit for the year of \$8.45, the report proceeds: The number of members in good standing at this Centre is 101 and the average attendance has been 60 before the War and 30 afterwards.

Activities of the Centre during our first year have been of an elementary character necessitated by the work of organization and later delayed by the inability of most people to discuss any other subject than the war in Europe; however, now that the public mind has become more settled, it is the intention of this Centre to arrange for a progressive series of lectures for the coming year.

During the nine months that this Centre has operated six meetings have been held:

Some of the Advantages to be derived from the Study of Astronomy, Mr. F. Napier Denison;

The Evolution of the Idea of Astronomy, an illustrated lecture, by Mr. E. H. Cottrell;

Astronomy as Applied to Cartography, an illustrated lecture, by Mr. G. G. Aitken;

A Study of the Moon, an outdoors meeting at the Meteorological Observatory, Mr. F. Napier Denison;

Original Research on Pendulum Movements, Mr. F. Napier Denison;

The New 72-inch Reflector Telescope, Mr. A. W. McCurdy; and the Annual Meeting.

On the occasion of the visit of Dr. W. F. King, Dominion Chief Astronomer, and Dr. J. S. Plaskett to Victoria in July last, the Centre held a picnic at the new observatory site for the purpose of meeting Dr. King.

This was a very enjoyable meeting as the site selected by Dr. Plaskett is not only admirable for its purpose but is endowed with beautiful surroundings.

The Centre has suffered a serious loss by the death of Mr. W. J. Sutton, one of its Executive Committee, who was instrumental in forming the Centre. Mr. Sutton was a gentleman of scientific train-

ing, of broad mind and warm heart, whose loss cannot be estimated and whose good work can only be partly appreciated by the members of this Centre.

The work of the retiring President of the Centre, Mr. F. Napier Denison, should go on record, as he has been at all times in the vanguard in helping along the work of the Centre and his never failing courtesy and advice have done much to enable the Centre to get on a sure foundation for success.

It will be your pleasure to elect officers for the coming year and in that connection your Secretary would recommend that a rule for this Centre be established that all Past Presidents be retained as ex-officio members of the Executive Committee as by that means the Centre will continue to have the advice of its most experienced members.

At the request of your Executive Committee, your Secretary invited the Honorable Dr. Young, Minister of Education, to become our Honorary President for the ensuing year, which position the honorable gentleman has expressed his willingness to accept.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett, P.R.A.S. of C.

President: Dr. F. Napier Denison

Vice President: Mr. A. W. McCurdy

Secretary-Treasurer: Mr. Ernest H. Cotterell, C.E.

Executive Committee: Mr. W. S. Drewry, B.C.L.S., Mr. W. J. Sutton, Mr. G. G. Aitken and Major C. B. Simonds.

1915

During 1915 the new Centre was rapidly shaking down into a well-run organization. Activities of the Centre were well maintained during the year but the war was making itself increasingly felt.

At the end of the year 83 were on the nominal roll but only some 44 were paid up, due, the Secretary remarks (The Journal, 10, p.142) "to a great extent to many having joined the forces."

At the Annual Meeting held on December 7, 1915, a resolution of thanks was passed by acclamation expressing the indebtedness of the Society to Mr. Denison.

Victoria Centre owed much during these early years to the willing and untiring help given to it by this gentleman and expressed its

appreciation by giving him a life membership in recognition of his services.

The officers for the year were:

Honorary President: Hon. Dr. Young, Provincial Minister of Education
President: A. W. McCurdy
Vice-President: E. H. Cotterell
Secretary-Treasurer: Dr. L. F. Houghton
Council: G. G. Aitken, J. E. Umbach, W. S. Drewry, A. Symonds, G. Gray-Donald, F. Swannell, J. W. Lethaby.

1916

Dr. John Alfred Brashear died on April 9, 1920.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: A. W. McCurdy
Vice-President: W. S. Drewry
Secretary-Treasurer: Dr. L. F. Houghton
Auditor: J. Forman
Council: F. Napier Denison, A. Symonds, J. E. Umbach, Rev. Robert Connell, F. C. Green, G. S. McTavish, K. M. Chadwick.

1917

Things were difficult during 1917. The secretary's report says: "Due to the unavoidable absence of the President, Vice-President and Secretary during the greater part of the year, the Society has not been in a position to assemble since the meeting on April 17 until this occasion (January 25, 1918).

Of the 67 names on the nominal roll at the end of the year at least 15 are now known to have been on active service, over 22 per cent of the membership.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: A. W. McCurdy
Vice-President: W. S. Drewry
Secretary: G. S. McTavish
Auditor: J. Forman
Council: K. M. Chadwick, F. Napier Denison, F. C. Green, J. T. Shenton, G. Shotbolt, A. Symonds, J. E. Umbach.

1918

The influenza epidemic had affected meeting attendance during the year; all meetings were cancelled after May 13. Thirteen members were on active service out of a total of 72 on the roll.

On January 8, the Geographic Board of Canada changed following a suggestion by Dr. Plaskett, the official name of Little Saanich Mountain to Observatory Hill and on April 29, Dr. Plaskett announced that the mirror for the 72-in. telescope had been hoisted safely to the observing floor of the observatory. The observatory was opened officially on June 4, 1918, by the Lieut.-Governor of British Columbia, Sir Frank Barnard.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: W. S. Drewry
Vice-President: J. E. Umbach
Secretary: G. S. McTavish
Treasurer: J. P. Hibben
Council: K. M. Chadwick, Rev. R. Connell, A. W. McCurdy, F. Napier Denison, F. C. Green, R. K. Young, Comdr. J. B. Shenton.

1919

Once again meeting attendance was curtailed by the prevailing influenza epidemic. On May 26, at the invitation of Dr. Plaskett, a visit was made to the observatory where the workings of the great telescope were explained and members had an opportunity to ob-

serve the Moon and Saturn. At the end of the year 44 members were carried on the Centre's roll.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: W. S. Drewry
Vice-President: R. K. Young
Secretary: K. M. Chadwick
Treasurer: J. P. Hibben
Auditor: T. Shotbolt
Council: Dr. L. F. Houghton, J. E. Umbach, Miss J. Cann, F. Napier Denison, A. W. McCurdy, F. C. Green, Rev. R. Connell.

1920

An innovation this year was an "At Home" held on April 20, with the view of popularizing the Society. The programme included many photographs taken with the new telescope and among a number of demonstrations shown were: a spectroscope in operation, microscope and mineral collection and a harmonic motion curve tracer, etc.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: R. K. Young
Vice-President: J. E. Umbach
Secretary: K. M. Chadwick
Treasurer: J. P. Hibben
Auditor: T. S. Shotbolt
Council: F. C. Green, W. E. Harper, Dr. Etta Donovan, G. S. McTavish, G. G. Aitken, and Mrs. W. B. Christopher.

1921

There seems to have been difficulty in those days in getting the members to pay their dues and the membership committee was requested to interview all delinquent members to get them to pay up. At the meeting on April 5 a set of slides of the nebulae were kindly presented to the Centre by Mr. Dundas Todd.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: J. E. Umbach
Vice-president: G. I. Burnett
Secretary pro tem: K. M. Chadwick
Treasurer: J. P. Hibben
Auditor: T. S. Shotbolt
Council: Mrs. W. B. Christopher, W. E. Harper, F. C. Green, A. P. Blyth, G. S. McTavish, A. Symonds.

1922

An occasion of special interest was a luncheon at the Empress Hotel given by the Victoria Centre on June 16 in honour of the RASC board member, Prof. C. A. Chant, who, accompanied by his wife and daughter, was directing an expedition to Australia to observe the solar eclipse of September 21. Mr. W. E. Harper presided at the meeting, during which Prof. Chant gave a talk on the chief object of the expedition, namely, to obtain evidence for or against the Einstein theory of relativity.

Dr. R. K. Young, representing the Observatory, accompanied the Chant party to Australia and on the return of the expedition, was entrusted by Dr. Chant with the measurement and reduction of the Einstein plates. The shift of the star images was found to be approximately of the amount predicted by Einstein.

At the Annual Meeting on December 15, Dr. Young gave an account of the work of the Canadian Eclipse Expedition organized by Dr. Chant.

Eight meetings were held during the year:

February 28--The Spectroscope and its Uses, Dr. R. K. Young;
March 20--Wave Motion, P. H. Elliott;
April 25--The Structure of Matter, H. H. Plaskett;

June 16--Luncheon in Honour of Dr. C. A. Chant;
June 30--Open Air Meeting at the Observatory on Gonzales Hill.
October 26--The Personality and Work of Astronomers of Today,
Dr. J. S. Plaskett.
November 21--Exploration of the Upper Air, F. Napier Denison
December 15--Annual Meeting. An Account of the Expedition to
Australia to Observe the Total Eclipse of the Sun, Dr. R. K. Young.

There were 59 members on the roll with 17 new members
elected.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: W. C. Harper
Vice-President: F. C. Green
Secretary pro tem: A. Symonds
Treasurer: J. P. Hibben
Auditor: H. H. Plaskett
Council: K. McChadwick
Mrs. W. B. Christopher, J. Dean, J. Duff, and F. Moore.

1923

No report for the year was submitted.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: W. E. Harper
Vice-President: F. C. Green
Secretary: F. Moore
Treasurer: J. P. Hibben
Auditor: H. H. Plaskett
Council: G. D. Christie, H. H. Smith, Mrs. W. B. Christopher, J.
Duff, M.A., W. H. Christie, J. Dean.

1924

Since Nov. 10, 1915, the regular meetings, when not in associa-
tion with some other group, had been held in the auditorium of the
Girls' Central School, Fort St. But beginning with the open-air
gathering on July 8, 1924, Victoria College became the meeting
place of the Society. Amongst other advantages, its high situation
and broad, level terrace provided a convenient spot for observa-
tional meetings.

With the death of Mr. A. W. McCurdy in September, the Soci-
ety lost one of its most valued members.

The officers for the year were:

President: J. Duff
Vice-President: F. S. Green
Secretary: F. Moore
Treasurer: J. P. Hibben
Auditor: H. H. Plaskett
Council: P. M. Elliott, H. Cameron, R. G. Miller, and W. H.
Christie.
Honorary President: Dr. J. S. Plaskett.

1925

In addition to the regular meetings the Society held a joint
luncheon with the Canadian Club in the Empress Hotel on Septem-
ber 22, at which Dr. and Mrs. Plaskett were the guests of honour.
Dr. Plaskett addressed the meeting, giving an account of his trip to
England during the summer in connection with the meeting of the
International Astronomical Union.

The officers for the year were:

Honorary President: Dr. J. S. Plaskett
President: J. Duff
Vice-President: F. Moore
Secretary: J. A. Pearce
Treasurer: J. P. Hibben
Council: K. M. Chadwick, R. G. Miller, P. H. Elliott, E. E. Black-
wood.

1926

An open-air meeting held at the Observatory was a somewhat
costly affair. In the treasurer's report for 1926 there appears this
item: "Expenses - open air meeting, 1926 - \$45.00."

The officers for the year were:

Honorary President: F. Napier Denison
President: P. H. Elliott
Vice-President: K. M. Chadwick
Secretary-treasurer: R. G. Miller
Recorder; R. M. Petrie
Council: E. E. Blackwood, J. P. Hibben, H. H. Plaskett, J. A.
Pearce.

1927

An address by Rev. J. C. Goodfellow commemorated the 200th
anniversary of the death of Sir Isaac Newton. A speaker of pictur-
esque interest addressed the October meeting. Chief Shelton of the
Snohomish Tribe appeared in native dress and spoke to a joint gath-
ering of the R.A.S.C., the B.C. Historical Association and the B.C.
Natural History Society on "Legends and Myths of the Pacific Coast
Indians." The Chief's lecture was not concerned with the stars but
centered around the totem pole, which, he stated, was the basis of
all Indian education on the Pacific coast.

At the annual meeting on December 6, held at the Girls' Central
School, some remarkable astronomical movies were shown for the
first time in Victoria, to an audience of about 300. The films were
obtained from the Department of Education in Ontario.

Total membership of the Centre at the end of the year was 81,
34 of whom resided outside the city.

The officers for the year were:

Honorary President: F. Napier Denison
President: P. H. Elliott
Vice-President: J. A. Pearce
Secretary-Treasurer: R. G. Miller
Recorder: H. C. S. Archbold
Council: J. F. Hibben, E. E. Blackwood, H. H. Plaskett, Rev. J.
Goodfellow.

1928

At the February meeting it was announced that Mr. W. E.
Harper, assistant-director of the Dominion Astrophysical Observa-
tory, Saanich, had been elected President of the Royal Astronomical
Society of Canada. Mr. Harper initiated a series of radio talks on
popular astronomy in 1928. These talks, over Station CFTC, Victo-
ria, were continued until 1938, and were published in the Journal.

By the end of 1928, the membership had reached 100. There
were 21 new members, 7 of whom had been transferred to Victoria
from other Centers.

The Secretary, Dr. Beals, stated in his annual report that: "The
practice has been adopted of devoting a short period of time at the
close of each meeting to observation of heavenly bodies. It is hoped
to continue this practice in the future."

The officers for the year were:

Honorary President: Dr. D. Buchanan
President: J. A. Pearce
1st Vice-President: H. H. Plaskett
2nd Vice-President: R. G. Miller
Secretary-Treasurer: Dr. C. S. Beals
Auditor: H. H. Plaskett
Council: J. P. Hibben, Rev. J. C. Goodfellow, A. Waring Giles, F. S.
Langton, G. A. Bucklin.

1929

Rev. A. H. Priest, J. Duff, P. H. Hughes, and J. A. Pearce gave a
lecture entitled "Our Wonderful Universe", in 14 different places

throughout B.C., splendidly illustrated by Dr. C. C. Chant's slides, On March 12 the President announced that Victoria was the first Centre in Canada to possess a library, thanks to the generosity of members and friends who made gifts of astronomical books. At a Council meeting held on May 28 the President stated that 36 books had already been donated and the president thought it was time to appoint a Librarian.

Mr. W. T. Bridge was appointed Librarian. At the end of the year he reported that 65 books had been donated and the books were being kept at his home.

The officers for the year were:

Honorary President: Prof. Daniel Buchanan, U.B.C.

President: J. A. Pearce

1st Vice-President: Dr. C. S. Beals

2nd Vice-President: Dr. G. M. Shrum

Secretary-Treasurer: Prof. W. Gage

Auditor: W. T. Bridge

Council: G. A. Bucklin, T. W. Bridge, Rev. J. C. Goodfellow, J. P. Hibben, P. H. Hughes.

1930

The Victoria Daily Times of January 29, in a report following a meeting on the 28th, states: "Dr. Plaskett, the speaker of the evening, discussed the success recently attained by the Observatory in demonstrating the rotation of the galaxy. His address was similar to one delivered recently at Des Moines, before the annual convention of the American Astronomical Association, which was the first official announcement of the important calculations and conclusions worked out by the staff of the local observatory."

The Victoria Centre also congratulated Dr. Plaskett upon his being awarded the Gold Medal of the Royal Astronomical Society (London).

The officers for the year were:

Honorary President: Prof. H. H. Plaskett

President: Dr. C. S. Beals,

1st Vice-President: Dr. G. M. Shrum

2nd Vice-President: W. A. Gage

Secretary-Treasurer: P. H. Hughes

Librarian: W. T. Bridge

Council: G. A. Bucklin, Rev. J. Goodfellow, J. P. Hibben, R. W. Hunter, Mrs. M. A. Kelk.

1931

Observational meetings were held during the summer, but the number of those held is not recorded. A full account of one of them, held on July 24, appeared in the Daily Colonist of July 25. Dr. Beals addressed a group of about 90 persons assembled on the south terrace of Victoria College. The moon and the planet Saturn were the principal objects of study. A three-inch telescope, loaned by the Observatory, was in use under the direction of M. P. H. Hughes. At the January meeting the question of horoscopes in newspapers came up for discussion.

It was "proposed by Dr. Pearce, seconded by M. Boyd Brydon, that a committee be appointed to draw up a resolution to come before the next meeting of the Society expressing to the editors of newspapers our attitude regarding horoscopes. Carried 13 to 6. On this committee the chairman appointed Capt. Hughes, Dr. Pearce and Mr. Boyd Brydon." The resolution was duly drawn up, dated February 27, 1931, and dispatched to the two local editors.

During the year H. B. Brydon built a small observatory in his garden at 2390 Oak Bay Ave. The Daily Colonist of September 23, 1931, listed his equipment as a 4-inch telescope, driven by clock; a star spectroscope; a micrometer and a sidereal chronometer.

In the autumn of that year a new Centre of the RASC was formed in Vancouver. Dr. Shrum, 1st Vice-President of the Victoria Centre was elected President of the Vancouver Centre.

The officers for the year were:

Honorary President: W. E. Harper

President: Dr. C. S. Beals

1st Vice-President: Dr. C. M. Shrum

2nd Vice-President: N. C. Stewart

Secretary-Treasurer: P. H. Hughes

Librarian: W. T. Bridge

Auditor: W. T. Bridge

Council: J. P. Hibben, R. W. Hunter, Capt. J. H. Hughes, H. Boyd Brydon, T. P. C. Menzies.

1932

The regular meetings were held at the beginning of the year at the Amphion Hall, Yates Street, and later, at the Unity Centre Hall, Fort Street.

The Centre introduced two important innovations in 1932, These were the formation of a Junior Membership and the institution of a Summer Course of weekly lectures and observational meetings, to be held at Boyd Bryden's Oak Bay Observatory. According to the Minutes of a Council meeting on December 4: "The Secretary is instructed to prepare a draft of a resolution covering the formation of a new class of member to be known as associate members with fees of \$1.00 per annum including subscription to the RASC Journal, but excluding the right to vote - age limit 21 years."

A committee appointed to look into the matter considered a letter sent to the General Council in Toronto requesting permission to establish the Junior Membership. Their reply stated: "The Constitution of the Society does not provide for such a class of members as suggested." But conceded that the Council would not object to any Centre rebating half the regular fee back to a junior, provided that the full half be remitted to Head Office to cover costs. At a regular Centre meeting on April 22 a resolution to adopt junior membership was read, proposed, seconded and carried unanimously.

On August 8, a dinner was held at the Empress Hotel in honour of 20 European scientists and their wives who were on a tour of North America en route to the solar eclipse of August 31. The party included Sir Frank Dyson, Astronomer Royal for England and Lady Dyson. President P. H. Hughes occupied the chair and was toastmaster and the entertainment committee consisted of Dr. Plaskett, Dr. Pearce, Mr. and Mrs. W. E. Harper, Mr. Hughes and Mr. Brydon.

Other events included a trip to Butchart Gardens, a garden party at Government House, and an evening visit to the DAO. A second trip to the Observatory was made on August 10 when the visiting scientists spoke on astronomical subjects. The Victoria Centre served tea.

At a regular meeting on September 22, Mr. Harper described the disappointment of all the Victoria astronomers encamped at Magog, Quebec, when they were clouded out, saying, "No scientific results of value were secured." However, half of those on the line of totality enjoyed clear skies. By the end of 1932 membership had risen to 118, of whom 59 resided on the mainland. New Centers were being formed at Saskatoon, Edmonton and Vancouver.

The officers for the year were:

Honorary President: Dr. J. A. Pearce

President: P. H. Hughes

1st Vice-President: N. C. Stewart

2nd Vice-President: Capt. J. N. Hughes

Secretary-Treasurer: H. Boyd Brydon

Librarian: W. T. Bridge

W. T. Bridge

Council: C. Hartley, M. A., Rev. J. C. Goodfellow, J. P. Hibben, Dr. F. S. Hogg, J. Dean.

1933

The Summer Courses had been so well attended by the public that the Centre decided it was time to charge a fee. The Minutes of a Council Meeting held on June 6, stated "After discussion it was decided to charge \$1.00 for adults."

On a motion by Mr. Duff, seconded by Mr. Greenway, a recommendation that the Centre establish an Observers' Section to assist members in constructive observational work was adopted. The Secretary was authorized to subscribe for the Centre to the AAVSO to obtain star maps. Mr. Hobday and Mr. Duff, who aroused considerable interest among members desirous of possessing telescopes, gave a symposium on Telescope Making in April. By the end of the year a telescope-making section was inaugurated with Mr. Hobday as instructor.

A review of the membership list at the Annual Meeting, showed that there were 15 junior members included in a total roll of 112, which included 20 lady members.

The officers for the year were:

Honorary President: J. Duff

President: P. H. Hughes

1st Vice-President: N. C. Stewart

2nd Vice-President: C. Hartley

Secretary-Treasurer: H. Boyd-Brydon

Librarian: W. T. Bridge

Auditor: W. T. Bridge

Council: G. Cave-Browne-Cave, W. Burton, T. J. Greenway, Dr. F. S. Hogg, W. F. Holdridge, and H. E. Moore.

1934

From 1934 to 1941 the regular meetings were held in the Parlours of the YWCA, Blanshard Street. A total of 29 meetings were held during the year: 11 regular, 8 council and 10 summer courses. Membership was recorded at 119 and the Centre was recovering financially from the great Depression.

The Summer Course was arranged to be held at Boyd Brydon's private observatory. However, the attendance was so large at the first meeting that the rest of the course was held at Victoria College, where a laboratory was available for use.

The Minutes of the Council Meeting held on April 11 stated: "The Secretary reported that he had been informed by Mr. Hobday that the first meeting of the Telescope Making Section would convene at his residence, 1155 Chapman St. on Thursday evening, April 12, at 8 p.m. and each subsequent Thursday evening." "The President reported that the Computing Section (stellar distances) was meeting regularly. There were eight members attending the class under the supervision of Dr. Pearce who was doing yeoman service in connection with the same."

A decision was made to move the Library books to the YWCA, where meetings were then held, to make them more accessible to members. On April 11 the President announced that Miss Mira Oliphant had been appointed Librarian. She compiled a proper catalogue and instituted a card index system. A new bookcase was bought bringing the total expenses to \$10.76.

The officers for the year were:

Honorary President: J. Duff

President: H. Boyd Brydon

1st Vice-President: C. Hartley

2nd Vice-President: Dr. F. S. Hogg

Secretary-Treasurer: H. E. Moore

Council: G. Cave-Browne-Cave, W. Burton, T. J. Greenway, W. R. Hobday, W. F. Goldridge, Lt.-Cmdr. R. H. Tingley.

1935

The resignation of Mr. Boyd Brydon was accepted with regret with Lt.-Cmdr. Tingley replacing him as Acting President. Mr. C. Hartley, the 1st Vice-President died early in the year. Another vacancy was caused in December when Dr. F. S. Hogg, 2nd Vice-

President, accepted a lectureship in the Department of Astronomy, U of T.

In March a new Centre of the RASC was formed in Calgary, which meant the loss of six members to the Victoria Centre.

At each Summer Course meeting Miss Phoebe Riddle would explain methods of finding the positions of stars and planets. This popular member held the positions of Recording Secretary, Recorder and Secretary-Treasurer from 1938 to 1941. Two radio talks were given announcing "Summer Evenings with the Stars," and 20 different items were printed in local newspapers at no charge to the Centre.

Mr. Hobday reported that the Telescope-Making Section had completed seven mirrors and four new ones had been started. In 1935 a room in the Boys' Central School had been obtained in which to work, where the class consisted of 13 members. Later on the meetings were held in the Central Building, View St.

The David Dunlap Observatory in Toronto was opened this year. The Victoria Centre sent a congratulatory letter to Dr. Chant on the completion of the Observatory and its 72-inch mirror.

The officers for the year were:

Honorary President: J. Duff

President: H. Boyd Brydon

1st Vice-President: C. Hartley

2nd Vice-President: Lt.-Cmdr. R. H. Tingley

Secretary-Treasurer: G. Shaw

Auditor: T. J. Greenway

Librarian: Miss M. Oliphant

Council: W. Burton, A. I. Deacon, T. J. Greenway, W. R. Hobday, W. F. Holdridge, R. Peters.

1936

At the beginning of the year, two \$5.00 prizes, given by an anonymous donor "to promote an interest in the study of astronomy," were offered: 1. For the best essay by an amateur member on an astronomical subject. 2. For a report on the best original observational work by an individual or group or members.

At the Annual Meeting, the judges of the competition, Dr. Pearce and Mr. Boyd Brydon awarded the first prize to Mr. W. F. Holdridge for his paper on "Astronomy and the Atom." The prize for original observational work was awarded to Messrs. R. and L. Hopkins for devising apparatus to demonstrate certain physical phenomena. A special prize was awarded to 12-year-old Teddy Roberts, youngest of the juniors.

Successful Summer Courses ran from July 13 to August 24.

The officers for the year were:

Honorary President: H. Boyd Brydon

President: Lt.-Cmdr. H. R. Tingley

Vice-President: R. Peters

Secretary-Treasurer: G. Shaw

Librarian: Miss M. Oliphant

Auditor: T. J. Greenway

Council: A. I. Deacon, W. R. Hobday, L. Hopkins, Dr. A. McKellar, Dr. R. M. Petrie.

1937

Two prizes were offered to Summer Course members, one for an essay and the other for sketches. Miss Dorothy Humeston won a copy of Norton's Star Atlas for her sketches of constellations. The other winner was not recorded.

The Secretary's report states that "the average attendance throughout the year was in excess of 50 persons," and the membership roll contained 126 names. In the Telescope-Making Section five mirrors were begun, one being completed and eyepieces were constructed.

The Journal, vol. 37, p.409, 1937, published an obituary on the life of Ambrose Swasey, by J. S. Plaskett. Mr. Swasey, who died in

June 1937, at the age of 90, was one of the heads of the world-famous firm of Warner & Swasey. Dr. Plaskett was for several years associated with the firm in the capacity of scientific consultant. The first large reflecting telescope constructed by the company is stated to have been the 72-inch with dome and accessories, for the Canadian government, erected near Victoria, B.C. The grinding and figuring of the mirror (the glass disc of which had been cast in Liege, Belgium) was entrusted to the John H. Brashear Company of Pittsburgh, Pa.

The officers for the year were:

Honorary President: H. Boyd Bryden
President: G. Shaw
Vice-President: R. Peters
Secretary-Treasurer: Dr. R. M. Petrie
Librarian: Miss M. Oliphant
Auditor: Dr. J. A. Pearce
Council: Miss P. Riddle, W. R. Hobday, L. Hopkins, Dr. A. McKellar, W. Petrie, K. O. Wright.

1938

In addition to the regular meetings, a special meeting was held on May 26 at the Girls' Central School, when Prof. Wallace Brode of Ohio State University showed the Harvard-MIT film of the solar eclipse expedition to Siberia.

A motion picture of Solar Prominences, shown on October 5 in connection with a lecture by Dr. R. M. Petrie, was made at the McMath-Hulbert Observatory, with which Dr. Petrie was appointed assistant director in 1934. He is known for his connection with the instrument, which gives moving pictures of explosions occurring on the sun's surface.

At the regular meeting of February 16, Mr. Boyd Brydon was congratulated on his recent election to the Council of The Royal Astronomical Society in Toronto. On April 12 a farewell dinner was held in the YWCA for Mr. Hobday, who was presented with a barometer. Mr. L. Hopkins replaced him as head of the Telescope-Making Section.

Six Summer Courses were held with an enrollment of 45, and an average attendance of 65.

The officers for the year were:

Honorary President: Dr. C. S. Beals
President: G. Shaw
1st Vice-President: R. Peters
2nd Vice-President: W. R. Hobday
Secretary-Treasurer: Dr. R. W. Petrie
Recording Secretary: Miss P. Riddle
Librarian: Miss C. Hailstone
Auditor: Dr. J. A. Pearce
Council: Capt. W. Everall, L. Hopkins, Dr. A. McKellar, W. Petrie, and K. O. Wright.

1939

At the beginning of the year the membership list contained 111 names: 2 life members, 95 ordinary members, 14 junior members, and 19 new members, resulting in a total membership of 114. During the year 10 regular meetings were held starting with the Annual Meeting and Dinner on December 7, 1938, at which Dr. J. A. Pearce gave the after dinner speech in which he related the early history of the Royal Astronomical Society of Canada. In the remaining nine meetings, the lectures covered a variety of topics including astronomy, meteorology, physics and science. 10 Council meetings were held at different times in the year to carry on the business of the Centre.

The Summer Sessions: These were the most successful ever. Six lectures were presented and large numbers were in attendance. This summer saw the start of a programme, conceived by Dr. J. A. Pearce, to make members' telescopes available to the general pub-

lic. They were set up in Beacon Hill Park on a few summer evenings and some hundreds of people came to view Mars and other easily viewed objects.

Radio Programs: Early in the summer, several quarter-hour radio programs were given by members of the Council mainly to acquaint the public with the forthcoming summer courses. The talks were so well received that station CFHT invited the Centre to sponsor a 15-minute programme each Tuesday evening at 7:30 p.m., called "Evenings with the Stars".

The officers for the year were:

Honorary President: Lt. Cmdr. H. R. Tingley
President: Robert Peters
1st Vice-President: R. M. Petrie
2nd Vice-President: Capt. Wm. Everall
Secretary-Treasurer: Miss Phoebe Riddle
Recorder: K. O. Wright
Librarian: Miss C. Hailstone
Council: L. Hopkins, Miss K. Langworthy, Dr. A. McKellar, O. M. Prentice, James Smith, W. A. Thorn, A. H. Young, G. Shaw and H. Boyd Brydon.

1940

Following a policy to drop members for non-payment of fees, the Centre's membership now stands at 107, including eight new members, being divided as follows: three life, eight junior and 96 regular members. It was felt by the Council that a smaller active and paid-up group is preferable to a larger inactive membership.

Meetings: During the year twenty meetings were held: nine regular, five Council and six special summer course meetings. The success of the first dinner in December 1938 warranted the function being made into an annual affair, hence the first meeting of this year was the second annual dinner held in the YWCA dining room, December 13, 1939. Wide ranges of subjects, not only astronomy, were arranged.

Summer Course: Six meetings were arranged for the summer months with an average of 60 members attending. Unfortunately, the weather wasn't favourable for outdoor observing, so little was done. One feature of great interest to both regular summer course members was the visit to the Dominion Meteorological Observatory, made possible through the kindness of Mr. W. A. Thorne, who opened the institution to the Centre the evening of August 19.

Radio Programs: The weekly quarter-hour programs were continued from January to April of this year, but thereafter were discontinued so as not to drain the resources of the Centre.

Lectures to the Forces: Under the sponsorship of the YMCA, Council members gave several lectures to the armed forces, which proved to be extremely popular.

The officers for the year were:

Honorary President: Gordon Shaw
President: R. M. Petrie
Vice-President: Capt. Wm. Everall
Secretary-treasurer: O. M. Prentice
Recorder: K. O. Wright
Librarian: Miss H. Hailstone
Council: Wm. Hobday, Miss Y. Langworthy, J. M. McHutchon, Dr. A. McKellar, Miss M. Oliphant, J. Smith, W. Stilwell.

1941

Membership dropped to 107 members: three life, 96 regular and eight junior. Twenty new members were enrolled bringing the total to 107. During the year 20 meetings were held: nine regular meetings, 5 Council and six special summer course meetings, with a high standard and a wide variety of subjects being presented.

Summer Course: The courses proved to be ever popular with 60 or more attending the six meetings. Many who attended later be-

came members of the Centre rather than temporary summer members.

Lectures to the Forces: These popular lectures were continued at the YMCA hut at McCauley with members of the Council offering their services.

The officers for the year were:

Honorary President: Gordon Shaw
President: R. M. Petrie
First Vice-President: Capt. Wm. Everall
Second Vice-President: O. M. Prentice
Secretary-Treasurer: Miss M. Oliphant
Recorder: Robert Peters
Librarian: Miss C. Hailstone
Director of Telescope Making: W. Hobday
Council: Miss Y. Langworthy, A. McKellar, Mrs. J. R. Noble, W. Stilwell, Mark Truman, K. O. Wright.

1942

Mrs. M. V. Yarwood, the secretary-treasurer, stated that 11 new members were added during the year, bringing the total to 109. Other reports included mention of an 8-inch telescope being donated to the Centre by H. A. Reid and a donation by Dr. R. M. Petrie of pamphlets on the life of Dr. J. S. Plaskett. A special vote of congratulations was extended to Mr. Boyd Brydon, who was awarded the Chant Medal for outstanding contributions to the Society. Sixteen meetings were held: seven regular meetings, four council meetings, and five special summer course meetings.

Summer Course Meetings: Eighteen members enrolled for the course, which included three lectures, a trip to the Observatory, and an outdoor meeting.

The officers for the year were:

Honorary President: Gordon Shaw
President: R. M. Petrie
Second Vice-President: O. M. Prentice
Secretary-Treasurer: Miss M. Oliphant
Recorder: Robert Peters
Librarian: Miss C. Hailstone
Director of Telescopes: W. Hobday
Council: Miss Y. Langworthy, A. McKellar, J. Moulson, W. Stilwell, Mark Truman, K. O. Wright.

1943

Membership increased by 19 new members, with 15 having been lost for various reasons, giving a total membership of 105: three life, five junior and 97 regular members. Seventeen meetings were held in the year.

Summer Courses: The summer courses consisted of three lectures and two outdoor meetings, all marked by an increase in attendance and enrollment. Thirty-one members enrolled and 60-100 attended.

The officers for the year were:

Honorary President: Robert Peters
President: O. M. Prentice
First Vice-President: A. McKellar
Second Vice-President: K. O. Wright
Secretary-Treasurer: Mrs. M. V. Yarwood
Recorder: Miss Elizabeth Walker
Librarian: Miss Y. Langworthy
Director of Telescopes: W. Hobday
Council: G. L. Darimont, H. D. Day, G. T. Freeman, J. Moulson, M. Trueman, Dr. W. P. Walker.

1944

During 1944 membership dropped to 95 members: three life, three junior and 89 regular members. Sixteen meetings were held in the year.

Summer Courses: Twenty-three members enrolled, attending three lectures and two outdoor observational meetings. An average attendance of between 50 and 60 was maintained.

Observing Section: This Fall an Observing Section was formed, as a new activity of the Centre.

The officers for the year were:

Honorary President: R. Peters
President: O. M. Prentice
First Vice-President: A. McKellar
Second Vice-President: K. O. Wright
Secretary-Treasurer: Mrs. M. V. Yarwood
Recorder: Mrs. W. Stilwell
Director of Telescopes: W. Hobday
Librarian: Miss L. Langworthy
Council: Dr. W. P. Walker, J. Moulson, W. Stilwell, H. D. Day, M. Trueman, Dr. J. Stevenson.

1945

During the year 1945, 23 new members were added, giving a net gain of 15, which includes four life members and three juniors. During the year seven regular meetings and five summer meetings were held. Two speakers the Centre was fortunate to secure for the summer courses were Dr. Smith, of University of British Columbia and Dr. Crooker, Prof. Keeping of the University of Alberta. An attempt was made to keep the standard and quality of meetings and lectures as high as possible.

Summer Courses: The programme of Summer Evenings with the Stars was once again a popular series, with an enrollment of 65, in addition to members of the Centre, bringing the average to nearly 100. Of the 65 newcomers to the Centre, 12 were service men and women who were admitted without charge.

Other Activities: The final payment for the Wray telescope was made to Mr. Brydon early in the spring. The Victoria School board was approached concerning the mounting of the telescope on one of the new school buildings. Our request was favorably heard by the chairman of the board and the school inspector who promised that the request would be given full consideration when the plans were drawn up. Mr. Hobday offered to cut a new right-ascension drive for the telescope as the old drive allowed considerable backlash. The new drive was considered completely satisfactory.

Observing Section: 15 members, who also learned to set up an equatorially mounted telescope, attended twelve meetings of the section. In the spring, six mirrors, made by members, were aluminized by the Telescope-Making Section in the 24-inch Vacuum tank of the Dominion Astrophysical Observatory, through the courtesy of Director, Dr. J. A. Pearce.

The officers for the year were:

Honorary President: Lt. Cmdr. R. M. Petrie
President: K. O. Wright
First Vice-President: Lt. Cmdr. A. McKellar
Second Vice-President: W. R. Hobday
Secretary-Treasurer: Miss J. K. McDonald
Recorder: Mrs. W. H. Stilwell
Librarian: Miss Y. Langworthy
Council: Lt. Cmdr. C. A. McDonald, Mrs. J. R. Noble, Lt. Cmdr. A. Scaife, W. H. Stilwell, C. H. Summers, and Dr. W. P. Walker.

1946

A total membership of 119 resulted in a net gain for the year of nine. The total included five life and two junior members. Seven regular meetings and five summer courses were held. For the programme "Summer Evenings with the Stars", there was an enrolment of 59 newcomers to the Centre, with 13 joining as new members. This Summer Course was the largest in its history. The highlight was a visit to the observatory, arranged by the speaker for the evening, Dr. Pearce. An expression of debt to made to Mr. Brydon for

having made the original suggestion fifteen years earlier that such a course would be desirable. During the year Miss Langworthy and Mrs. Yarmouth drew up the constitution for the Centre, which was quickly approved by the Centre.

The officers for the year were:

Honorary President: R. M. Petrie
President: K. O. Wright
First Vice-President: A. McKellar
Second Vice-President: W. R. Hobday
Secretary-Treasurer: Miss J. K. McDonald
Recorder: Lt. Cmdr. A. M. P. Scaife
Librarian: Miss Y. Langworthy
Council: H. J. Chalk, Mrs. J. R. Noble, H. A. Reid, Dr. J. S. Stevenson, M. Trueman, and Mrs. C. S. Yarwood.

1947

The total membership reached 143, with a net gain of 24, including five life members and eight junior members. During 1947 seven regular meetings and five summer meetings were held. For the program of Summer Evenings with the Stars there was an enrolment of 144 newcomers to the Centre. Of these, 28 have since joined the Centre as regular members.

The officers for the year were:

Honorary President: R. M. Petrie
President: A. McKellar
First Vice-President: W. R. Hobday
Second Vice-President: J. S. Stevenson
Secretary-Treasurer: Miss J. K. McDonald
Recorder: G. L. Darimont
Director of Telescopes: R. Peters
Librarian: Miss Y. Langworthy
Council: R. S. Evans, Mrs. J. R. Noble, E. H. Pope, H. A. Reid, M. Truman, and Mrs. C. S. Yarwood.

1948

During 1948, 39 new members were added to the Centre, giving a total of 127 members, with a net gain of 21. Six regular meetings were held in the auditorium of the Provincial Normal School and Victoria College. During the summer the Centre sponsored a series of five lectures. Sixty non-members took advantage of these meetings. Five of them joined the Centre.

The officers for the year were:

Honorary President: R. M. Petrie
President: A. McKellar
First Vice-President: J. S. Stevenson
Second Vice-President: Mrs. J. R. Noble
Secretary-Treasurer: Miss J. K. McDonald
Recorder: G. L. Darimont
Director of Telescopes: Robert Peters
Librarian: Miss Y. Langworthy
Council: J. Jervis, E. H. Pope, H. A. Reid, R. S. Evans, M. Truman and Mrs. C. R. Yarwood.

1949

During 1949, six regular meetings of the Victoria Centre were held in the Provincial Normal School and Victoria College. In August the Centre sponsored a series of five lectures. These meetings were very successful with a record enrolment of 152 people. Fifteen of these applied for regular membership in the Centre.

The officers for the year were:

Honorary President: R. M. Petrie
President: Dr. J. S. Stevenson
First Vice-President: Mrs. J. R. Noble
Second Vice-President: R. S. Evans
Secretary-Treasurer: Mrs. J. H. Williams
Recorder: R. C. Fairall

Director of Telescopes: R. Peters

Librarian: E. H. Pope

Council: Mrs. E. Chesman, G. L. Darimont, J. Jervis, Rev. T. Taylor, M. C. Truman, F. R. Williams and Mrs. C. S. Yarwood.

1950

During the year six meetings of the Centre were held. In the spring, Dr. Opechowsky, Professor of Physics at UBC, was invited to speak on "The Fundamental Particles of Nature." The lecture was very well received. In the fall, the opening meeting featured the Technicolor movie "The Story of Palomar," and many of our members and friends enjoyed the film. 136 people attended summer courses and 14 eventually became members of the RASC. The courses realized a profit of \$38.60. Membership stands at 106 with 16 more becoming members in January 1950. Of this number six are junior and four are life members.

In June the National Council ruled that those members who were six months delinquent in their dues were automatically off the mailing list, which explains the decrease in membership over the previous year.

The officers for the year were:

Honorary President: R. M. Petrie
President: Dr. J. S. Stevenson
First Vice-President: Mrs. J. R. Noble
Second Vice-President: Mrs. R. S. Evans
Secretary-Treasurer: Mrs. J. H. Williams
Recorder: R. C. Fairall
Director of Telescopes: R. Peters
Librarian: E. H. Pope
Council: G. L. Darimont, Major E. R. Gibson, John Jervis, Miss Y. Langworthy, Rev. I. Taylor and Dr. Anne B. Underhill.

1951

Although 1951 was a year in which the Centre lost members, it had not been an inactive one. Under the guidance of president, Mrs. J. R. Noble, six regular meetings and the summer course were held. The April meeting was in the form of a debate given by four members and which the members seemed to enjoy.

185 attended the summer course, realizing a profit of \$93.00. Mrs. Noble, almost unassisted, did a wonderful job of arranging for the Astronomical League convention held in July. High costs and a raise in dues resulted in a loss of 51 members, leaving a total of 74, including three juniors.

The officers for the year were:

Honorary President: A. McKellar
President: Mrs. J. R. Noble
First Vice-President: R. S. Evans
Second Vice-President: E. H. Pope
Secretary-Treasurer: John Jervis
Recorder: Major E. R. Gibson
Librarian: J. Climenhaga
Director of Telescopes: R. Peters
Council: S. H. Draper, D. P. McAlpine, F. T. Naish, N. G.

1952

During the year the Victoria Centre held seven regular meetings:

January 8--N. Rogers: Origin of the Universe, Early Conceptions
February 13--R. Evans: Origin of the Universe, Current Conceptions

March 12--J. Cunningham: Life Succession on Earth

April 9--Symposium of the Stars: A. Stocks, Their Composition; J. Jervis, Their Size; S. Draper, Their Distance

October 8--G. Odgers: The Expanding Universe

October 12--N. Rogers: Space Travel

December 3--Miss J. McDonald: The Sun's Turbulent Surface.

Summer Evenings with the Stars attracted 199 persons, the largest enrolment to date. Five meetings were presented, which included lectures and observational periods:

July 28--J. Pearce: The Starry Heavens

August 4--J. Climenhaga: Our Planetary Neighbours

August 11--Miss A. Underhill: Jewels in the Sky

August 18--R. Trumpler: The Milky Way

August 25--Visit to the Dominion Astrophysical Observatory.

The officers for the year were:

Honorary President: A. McKellar

President: Mrs. J. R. Noble

First Vice-President: R. S. Evans

Second Vice-President: E. H. Pope

Secretary-Treasurer: J. L. Jervis

Recorder: Major E. R. Gibson

Director of Telescopes: R. Peters

Council: S. H. Draper, D. P. McAlpine, N. G. Rogers, O. W. Smith,

Miss A. Underhill and F. R. Williams.

1953

The membership stands at 87 including six life members and four junior members.

The Centre offered its twenty-second annual summer course "Summer Evenings with the Stars", to an enrolment of 199 persons. The six meetings included lectures followed by observational periods:

July 27--A. McKellar: Learning to Know the Stars

August 8--G. Odgers: The Universe of Galaxies

August 10--J. Stebbins: The Stars in Their Spaces

August 17--G. Shaw: The Sun and His Family

August 24--E. Gibson: Mountaineering on the Moon

August 31--Visit to the Dominion Astrophysical Observatory.

The officers for the year were:

Honorary President: A. McKellar

President: R. Evans

First Vice-President: E. Pope

Second Vice-President: Miss J. McDonald

Secretary-Treasurer: J. Jervis

Recorder: E. Gibson

Director of Telescopes: R. Peters

Librarian: J. Climenhaga

Council: G. Odgers, N. Rogers, G. Shaw, O. Smith, Miss A. Underhill and F. R. Williams.

1954

During the year 1954 the Centre held seven regular meetings: January 13--A. Underhill: The Development of the Reflecting Telescope

February 10--A. Hill: Applications of Radar

March 10--A. McKellar: Probing the Atmospheres of Giant Stars

April 7--H. Bondi: Modern Trends in Cosmology

October 13--J. McDonald: Ferut—Canada's Electronic Computing Machine

October 10--J. Muir and N. Hutchings: Amateur Telescope Making

December 8-- Annual Dinner: Observatory Film.

The 1954 membership stood at 92 including six life and five junior members.

Summer Evenings with the Stars enrolled 107 persons. The five meetings included lectures and observational periods:

August 2--N. Rogers: Introduction to Astronomy—Stellar Constellations

August 9--Mrs. J. Noble: The Solar System

August 16--E. Gibson: The Moon

August 23--A. Joy: Families of Stars

August 30--Visit to the Dominion Astrophysical Observatory.

The officers for the year were:

The officers for the year were:

Honorary President; A. McKellar

President: R. Evans

First Vice-President: J. McDonald

Second Vice-President: Major E. Gibson

Secretary-Treasurer: D. Edmonds

Recorder: F. Williams.

Director of Telescopes: R. Peters

Librarian: J. Climenhaga

Council: N. Hutchings, J. Jarvis, N. G. Rogers and Miss A. Underhill.

1955

During the year 1955 the Centre held seven regular meetings and one special meeting, held at 8:00 p.m. in the auditorium of the Normal School in the Victoria College Building:

January 12--K. Wright: Eclipse of the Sun

January 26--O. Struve: Life on Other Planets

February 9--D. McLay: Radio Astronomy

March 9--J. Warren: Nuclear Astronomy

April 13--G. Shaw: Einstein and the Universe

October 12--R. Petrie: Clocking the Stars

October 9--J. Muir, R. Evans, and D. Andrews: Telescopes to Make and to Use

December 7--Annual Dinner, A. McKellar: World Astronomers Meet

Membership stood at 80 including 6 life and 7 junior members.

110 persons enrolled in the Summer Evenings with the Stars summer course. The five meetings included lectures and observational periods:

August 1--Mrs. J. Noble: The Panorama of the Sky

August 8--R. Redman: The Sun

August 15--Visit to the Dominion Astrophysical Observatory

August 29--S. Hacker: Some Aspects of Cosmogony and Cosmology.

The officers for the year were:

Honorary President: K. Wright

President: Miss J. McDonald

First Vice-President: Major E. Gibson

Second Vice-President: N. Rogers

Secretary-Treasurer: Mrs. R. Edmonds

Recorder: N. Hutchings

Director of Telescopes: R. Peters

Librarian: O. Smith

Council: E. Brown, J. Jervis, J. Muir, W. Stillwell, Miss A. Underhill and F. Williams.

1956

The Centre's activities during 1956 were confined mainly to the seven regular meetings, five summer lectures and a fund-raising campaign as an adjunct to the Society's national appeal for funds for a new building.

The officers for the year were:

January 11--F. Kaempffer: Is Space Travel Feasible

February 8--D. Craven: Navigation

March 14--N. Rogers: Time and its Measurement

April 11--G. Shaw: The Red Planet

October 10--P. Argyle: The Artificial Satellite

November 14--W. Stilwell: Time and its Measurement;

December 5--Annual General Meeting. W. Morgan: Galactic Structure.

The following lectures were given at the 25th Annual Summer Evenings with the Stars to an enrolment of 42:

July 30--J. Pearce: The Starry Heavens

August 6-- A. Underhill: Satellites and Stars

August 13--Visit to the Dominion Astrophysical Observatory;

August 20--J. Muir: Would You Like to Make Your Own Telescope?

August 27--K. Wright: Mars, The Red Planet.

During 1956 the Centre's membership increased from 80 to 86 and comprised 67 members, 11 junior members, 7 life members and 1 honorary life member.

The officers for the year were:

Honorary President: K. Wright

President: Miss J. McDonald

First Vice-President: Major E. Gibson

Second Vice-President: N. Rogers

Secretary-Treasurer: D. Andrews

Recorder: J. Jervis

Director of Telescopes: R. Peters

Librarian: O. Smith

Council: E. Brown, N. Hutchings, C. Maunsell, J. Muir, W. Stillwell, F. Williams.

1957

Six regular meetings of the Victoria Centre were held at Victoria College. We are indebted for the facilities so generously made available to us. A booth in the hobbies section at the Annual Exhibition of the local Junior Chamber of Commerce was one activity of the Centre and auroral observing groups were formed under the chairmanship of R. S. Evans to participate in the IGY programme. The annual Summer Evenings with the Stars were not held. Instead, nineteen members attended a course in astronomy presented at the Victoria College Summer Session. Several members assisted Dr. R. M. Petrie and Dr. Anne Underhill by making their telescopes available for observing periods after the lectures.

Under the able guidance of J. Muir, N. Hutchings and C. Wyatt, a number of student members are making telescopes. The council is making a concerted effort to bring more members into active participation by organizing groups in telescope making, astronomical photography, constellation lore, observing and elementary computation. We are looking forward to the reports of these groups next spring.

Membership increased from 86 to 90 during the year and now stands at 89, comprising one hon. life member, eight life members, 62 ordinary members and 18 student members.

Meetings for the year were as follows:

January—Variable Stars: G. Odgers

February—Radio Sources in the Milky Way: B. Bok

March—Living Stars: A. Underhill

April—The Red Giant Stars: Prof. J. Climenhaga

October—From Atoms to Galaxies: P. Merrill

November—Stellar Populations: Rev. M. McCarthy.

The officers for the year were:

President: N. Rogers

First Vice-President: E. Gibson

Second Vice-President: J. Muir

Secretary-Treasurer: D. Andrews

Recorder: J. Jervis

Director of Telescopes: R. Peters

Librarian: O. Smith

Honorary President: O. M. Prentice

Council: E. Brown, J. Climenhaga, C. Maunsell, W. Stilwell, A. Underhill, and F. Williams.

1958

The regular meetings of the Centre were held at Victoria College. We are grateful to them for their generosity in making facilities available to us. Activity Night featured interesting and well-illustrated reports by student members on telescope making and astronomical photography. After an absence of one year, the annual

Summer Evenings with the Stars were again held. Exclusive of members, 58 attended the following lectures:

July 28—An Introduction to the Heavens: Mrs. J. Noble

August 4—The Earth and the Planets: Miss J. McDonald

August 11—The Sun and the Stars: Miss A. Underhill

August 18—Visit to the Dominion Astrophysical Observatory

August 25—Artificial Satellites: K. Wright.

The speakers and topics for the year were:

January—Ripple Rock and Seismology: H. White

February—Between the Stars: R. Wilson

March—Some Aspects of the IGY: Sir C. Wright

April—Activity Night

October—The First Observatory at Alexandria: J. Pearce

November—Double Stars: E. Ebbinghausen

December—The Annual General Meeting and Dinner." Impressions of Russia": G. Odgers.

The officers for the year were:

President: N. Rogers

First Vice-President: J. Muir

Second Vice-President: J. Climenhaga

Secretary-Treasurer: D. Andrews

Recorder: J. Jervis

Director of Telescopes: R. Peters

Librarian: C. Wyatt

Honorary President: O. Prentice

Council: G. Ball, E. Brown, G. Odgers, M. Trueman, Miss A. Underhill and F. Williams.

1959

No report was submitted for the year.

The officers for the year were:

Hon. President: O. M. Prentice

President: J. A. L. Muir

First Vice-President: J. L. Climenhaga

Second Vice-President: A. B. Underhill

Secretary: J. D. Francis

Treasurer: F. R. Williams

Recorder: J. L. D. Jervis

Director of Telescopes: R. Peters

Librarian: D. C. Wyatt

Council: G. R. Ball, P. E. Bomford, E. R. Brown, P. Dixon, G. J. Odgers, W. Simpson-Beikie.

1960

No report was submitted for the year.

1961

The regular meetings of the Victoria Centre were held at Victoria College through the kindness of the College authorities. A total of seven regular monthly meetings were held in 1961. The Council met on several occasions to plan the programme and to discuss the business of the Centre. Speakers and topics at the monthly meetings included:

January 11--J. A. Pearce: Hipparchus—Greatest Astronomer of History

February 8--Norman Rogers: The Surface Features of the Moon

March 8--Sir Charles Wright: Geophysics

April 12--D. C. Wyatt: Telescope Optics

October 11--G. J. Odgers: Observatories of Russia

December 8--M. Plavec: Astronomy on Czechoslovakia

December 6--Annual Dinner, film presentation: Universe.

Membership of this Centre for 1961 consisted of 1 honorary life member, 9 life members, 26 student members and 63 regular members, making a total of 96 active members. Forty-four people registered for the successful "Summer Evenings with the Stars" series of lectures.

The officers for the year were:

Hon. President: R. S. Evans

President: J. L. Climenhaga

First Vice-President: Anne B. Underhill

Second Vice-President: G. Odgers

Secretary: A. Andersen

Recorder: J. L. D. Jervis

Treasurer: F. R. Williams

Director of Telescopes: R. Peters

Librarian: D. C. Wyatt

Council: D. H. Andrews, G. R. Ball, P. E. Bomford, E. K. Lee, C.

D. Maunsell, W. Simpson-Baikie.

1962

The meetings of the Centre were held at Victoria College, through the kindness of the College authorities. The Council met on several occasions to plan the programs and to confer on the business of the Centre.

Speakers and topics were:

January 10--K. O. Wright: Evolution of the Stars

February 14-- A. H. Batten: The Story of Stellar Parallax

March 14--W. H. Mackie: A Weather Eye in the Sky

April 11--Activity Night.

The officers for the year were:

Hon. President: R. S. Evans

President: J. L. Climenhaga

First Vice-President: Anne B. Underhill

Second Vice-President: G. J. Odgers

Secretary: A. Andersen

Recorder: J. L. D. Jervis

Treasurer: F. R. Williams

Director of Telescopes: R. Peters

Librarian: D. C. Wyatt

Council: D. H. Andrews, G. R. Ball, P. E. Bomford, E. K. Lee, C.

D. Maunsell.

1963

The Victoria Centre held seven regular meetings during the year. The Council met on several occasions to plan the programs for 1963 at the University of Victoria and conduct other business of the Centre. A special meeting was held at the Dominion Astrophysical Observatory on the presentation of the R. S. Evans telescope.

Speakers and topics during the year were:

January 9--E. H. Richardson: The Atmospheres of the Planets

February 13--W. R. H. White: The Internal Structure of the Earth, Moon and Planets

March 13--G. Walker: Gas and Dust in Space

April 10-- Activity Night

October 9--R. A. Ghobros: Astronomy in Egypt from the 5th Dynasty to the Present Day

December 13--G. Ball, J. Climenhaga, D. Ingham and G. Walker: The Solar Eclipse of 1963

December 6--Annual Dinner and General Meeting.

Membership in the Centre was 68, consisting of 1 honorary life member, 12 life members, 46 regular and 9 student members

The officers for the year were:

Hon. President: Mrs. Phoebe Noble

President: G. J. Odgers

First Vice-President: E. K. Lee

Second Vice-President: G. R. Ball

Secretary: W. R. Damer

Recorder: D. G. Ingham

Treasurer: F. R. Williams

Director of Telescopes: R. Peters

Librarian: D. C. Wyatt

Past President: J. L. Climenhaga

Council: J. L. D. Jervis, C. D. Maunsell, J. H. Moore, J. C. Parsons, W. Simpson-Baikie, D. G. Stoddart.

1964

Regular meetings of the Centre were held at the University of Victoria, with Council meeting on a number of occasions to plan the Centre's activities.

Lecture meetings were held, with the following speakers and topics:

January 8--H. Richardson: Astronomy in Czechoslovakia

February 12--T. Jacobson: Stellar Eclipses

March 11--R. M. Pearce: The Canadian Atomic Energy Establishment

April 8--Activities Night

October 14-- A. B. Underhill: Astronomy in Europe

Nov. 18--B. Kaner: The Earth's Magnetic Field

December 16--Annual Dinner and Annual Meeting

The Summer Evenings With the Stars programme included these weekly lectures:

August 3--S. C. Morris: The Solar System

August 10--A. H. Batten: The Galactic System

August 17--Visit to the Dominion Astrophysical Observatory

August 24--G. J. Odgers: The Universe of Galaxies

August 31--E. H. Richardson: Atmospheres of the Planets

On October 16 and 17, the Centre sponsored a display provided by the Manned Space Exhibit of the United States National Aeronautics and Space Administration at the University of Victoria. Exhibits from the Dominion Astrophysical Observatory, private companies and amateur observers were added to this display. We regret the loss to our membership of Mr. M. C. Trueman, Mr. P. H. Hughes and Mr. D. G. Ingham.

The officers for the year were:

Hon. President: Mrs. Phoebe Noble

President: G. J. Odgers

First Vice-President: E. K. Lee

Second Vice-President: G. R. Ball

Secretary: W. R. Damer

Recorder: D. G. Ingham

Treasurer: F. R. Williams

Director of Telescopes: R. Peters

Librarian: D. C. Wyatt

Past President: J. L. Climenhaga

Council: J. L. D. Jervis, E. E. Bridgen, J. H. Moore, J. C. Parsons,

W. Simpson-Baikie, D. G. Stoddart.

1965

There were six regular and eight Council meetings held at the University of Victoria. The programs included:

January 13--J. Tatum: Why is it Dark at Night?

February 10--H. M. Sullivan: The Twilight Sky

March 10--W. G. Milne: Earthquakes in Canada

April 14--Activities Night

October 13--E. E. Bridgen: The Importance of Amateur Work in Astronomy

December 10--M. Plavec: Stars with Rings.

The Centre's proposed construction of a planetarium as a community Centennial Project was well received but not accepted; the model was displayed in the Spring at a Hobby Show. A Friday evening observing program and an instrument-making section were begun under the direction of G. Ball and L. Gerrath.

The officers for the year were:

Hon. President: R. Peters

President: E. K. Lee

First Vice-President: D. G. Stoddart

Second Vice-President: W. Simpson-Baikie

Secretary: W. R. Damer

Recorder: E. E. Bridgen
Treasurer: F. R. Williams
Director of Telescopes: G. R. Ball
Librarian: D. C. Wyatt
Council: A. H. Batten, J. L. Jervis, L. E. Gerrath, J. H. Moore, J. C. Parsons, P. Kohl.

1966

The Centre held eight regular, five Summer Course, and four Council meetings during the year. All meetings, as well as the Friday evening observational program, were held in facilities of the University of Victoria. The Centre also participated in the annual Spring Hobby Show.

The Centre regrets the loss through death of Mr. R. Peters, Mr. W. Simpson-Baikie and Dr. R. M. Petrie.

The regular and summer programs included:

January 12-- R. Dancy: Tools, Pitch and Patience
February 9--S. C. Morris: The Evolution of Stars
March 9--C. D. Scarfe: Spectroscopic Parallaxes
March 23--J. F. Heard: Personalities in Astronomy, Past and Present
April 13--L. Binnendijk: Eclipsing Binaries
August 1--E. K. Lee: Introduction to the Heavens
August 8--E. H. Richardson: The Sun's Family
August 15-- E. E. Bridgen: Beyond the Solar System
August 22--Visit to the Dominion Astrophysical Observatory
August 29--S. C. Morris: Recent Developments in Space Exploration
October 12--W. R. H. White: Explosion Seismology
December 9--S. Wigen: Tides and Currents of the B.C. Coast
December 7--Annual Dinner, election of officers. K. O. Wright: The Mount Koban Observatory.

The officers for the year were:

Hon. President: R. Peters
President: E. K. Lee
First Vice-President: D. G. Stoddart
Second Vice-President: W. Simpson-Baikie
Secretary: W. R. Damer
Treasurer: F. R. Williams
Recorder: E. E. Bridgen
Librarian: Mrs. L. Bridgen
Director of Telescopes: G. R. Ball
Council: A. H. Batten, L. Gerrath, J. L. Jervis, P. Koel, J. H. Moore, J. C. Parsons, J. L. Climenhaga.

1967

No report was submitted for the year.

The officers for the year were:

Hon. President: Mrs. J. K. Petrie
President: D. G. Stoddart
First Vice-President: E. E. Bridgen
Second Vice-President: A. H. Batten
Secretary: W. R. Damer
Treasurer: F. R. Williams
Recorder: N. b. Manson
Librarian: Mrs. L. Bridgen
Director of Telescopes: G. R. Ball
Council: A. H. Batten, L. Gerrath, J. L. Jervis, P. Koel, J. H. Moore, J. C. Parsons, D. C. Wyatt, C. D. Scarfe.

1968

The Victoria Centre held seven regular meetings during 1968. The Council met on several occasions to plan the programs and other business of the Centre. All meetings were held in the University of Victoria and the Centre is very grateful to the University authorities for providing this accommodation. Enrolment at the Centre

was 60, consisting of 6 local life members, 32 adult members and 22 student members.

Speakers and topics during the year were:

January 10--Mrs. J. W. E. Harris: Single Ionized Calcium Lines
February 14--A. H. Batten: Comets
March 13--J. B. Hutchings: Astronomy at Cambridge
April 10--Activities Night: Exhibits and Films
October 9--G. J. Odgers: The Queen Elizabeth II Telescope
November 13--G. Wallerstein: Galaxies
December 13--Annual Dinner and Annual Meeting. Speaker: J. A. Pearce: Early Days at the Dominion Astrophysical Observatory.
Missing Council list for 1968.

1969

The Victoria Centre held seven regular meetings during 1969, with Council meeting on several occasions to plan the programs and other business of the Centre. All meetings were held at the University of Victoria and the Centre is very grateful to the University authorities for providing this accommodation. Enrolment in the Centre was 94, consisting of 7 local life members, 56 adult members and 38 student members.

Speakers and topics during the year were:

January 8--E. Lee: Stars and Seamen
February 12--Mrs. O. Phoebe Noble: Astronomy in Russia
March 12--J. L. Climenhaga: The Carbon Stars and the c12/c13 Abundance Ratio
April 9--Activities Night
October 8--G. Hill: The Distance Scale of the Universe
November 12--R. G. Napier: Radio Astronomy
December 12--Annual Dinner and Annual Meeting – films.

The officers for the year were:

Hon. President: G. J. Odgers
President: E. E. Bridgen
First Vice-President; A. H. Batten
Second Vice-President: R. Napier
Secretary: N. B. Manson
Treasurer: F. R. Williams
Recorder; C. D. Scarfe
Director of Telescopes: G. R. Ball
Librarian: Mrs. L. Bridgen
Council: J. L. Climenhaga, D. Crampton, H. Grayson-Smith, J. H. Moore, L. Gerrath, J. C. Parsons L. V. Stanley-Jones, J. Melsness, D. G. Stoddart.

1970

Regular meetings of the Victoria Centre were held at the University of Victoria through the kindness of the University authorities. Seven meetings were held in 1970, and the Council met on several occasions to plan the lectures and to discuss the business of the Centre. Membership of this Centre for 1970 consisted of 17 student members, 42 regular members and 7 life members, making a total of 66.

The speakers and topics at the regular meetings were:

January 14--J. Penfold: Short Period Pulsating Variable Stars
February 11--Dr. P. W. Hodge: Evolution of Galaxies
March 11-- Dr. J. Grygar: Meteor Observations in Czechoslovakia
April 8--Activities Night
October 14--Dr. J. Smolinski: Turbulence in Stars
November 18-- Dr. Jeremy B. Tatum: Asteroids
December 9--Annual Dinner and Meeting. Speaker: Dr. A. H. Batten.

In addition, a series of five lectures in July and August made up this year's Summer Evenings with the Stars, as follows:

July 27--Mrs. Phoebe O. Noble: Introduction to the Heavens
August 3--Dr. John Hutchings: Orbiting Astronomical Observatories

August 10--Chris Aikman: The Planets in the Space Age
August 17--Dr. Colin Scarfe: Our Galaxy and Beyond
August 24--F. Younger: Planetary Probes
August 31--Visit to the Astrophysical Observatory.

1971

No report submitted for the year.

The officers for the year were:

Hon. President: K. O. Wright
President: A. H. Batten
First Vice-President: R. G. Napier
Second Vice-President: C. D. Scarfe
Secretary: N. B. Manson
Recorder: M. A. Shepherd
Director of Telescopes; G. R. Ball
Librarian: Mrs. C. L. Bridgen
Council: J. L. Climenhaga, J. H. Moore, V. L. Stanley-Jones, R. Dundee, J. C. Parsons, F. Younger, Mrs. S. Ingram, E. E. Bridgen.

1972

The regular meetings of the Victoria Centre were held at the University of Victoria. A total of seven meetings were held in 1972, and the Council held six meetings to plan the lectures and to conduct the business of the Centre. On Sunday, May 21, the Centre had the pleasure of hosting the delegates to the General Assembly, who came over from Vancouver for the day.

Again this year, the Centre maintained a booth at the Hobby Show held in April by the Victoria Lapidary Society, and also looked after a booth at the Dominion Astrophysical Observatory on Saturday evenings when the observatory was open to the public.

Observing sessions were held each clear Friday under the direction of Mr. George Ball, our Director of Telescopes, using the 12-inch reflector at the University of Victoria. Mr. Ball also conducted a mirror-making class once a week in a room made available for this work by the University of Victoria. By the end of the year, one 6-inch mirror was completed and six others were in the last stages of polishing.

Membership of this Centre for 1972 consisted of 17 students, 41 regular members and 15 life members, making a total of 73.

The speakers and topics at the regular meetings were:

January 14--Annual Meeting and Dinner. George Ball showed slides of his recent trip to England.
February 9--Dr. J. A. Burke, University of Victoria: Interstellar Clouds
March 8--Dr. J. Anderson, Copenhagen University Observatory: Practical Work with the Schmidt Telescope
April 12--Activities Night. Exhibits and Films
October 11--Dr. D. Brownlee, University of Washington: Clues to Genesis of the Solar System
November 12--Dr. J. L. Locke (National President): Joint meeting in Vancouver with the Vancouver Centre
December 13--Dr. G. J. Odgers: Problems in Design of Large Telescopes.

The officers for the year were:

Hon. President: K. O. Wright
President: A. H. Batten
First Vice-President: R. G. Napier
Second Vice-President: C. D. Scarfe
Secretary: N. B. Manson
Recorder: M. A. Shepherd
Director of Telescopes; G. R. Ball
Librarian: Mrs. C. L. Bridgen
Council: J. L. Climenhaga, J. H. Moore, V. L. Stanley-Jones, R. Dundee, J. C. Parsons, F. Younger, Mrs. S. Ingram, E. E. Bridgen.

1973

The Victoria Centre had the pleasure of hearing Dr. W. Iwanowska speak on two occasions, January 22 and 23. She came to Canada by invitation of the RASC in the occasion of the 500th Centenary of Copernicus.

Again this year the centre maintained a booth at the Hobby Show held in the Spring by the Victoria Lapidary Society and also looked after a booth at the DAO on Saturday evenings when the observatory was open to the public.

George Ball was on duty at the University of Victoria each Saturday evening, weather permitting, for observing sessions. Also, through his leadership, several members have completed mirrors during 1973.

The regular meetings of the Victoria Centre were held at the University of Victoria. A total of seven meetings were held in 1973, and the Council held three meetings to plan the lectures and to conduct the business of the Centre.

Speakers and topics at the regular meetings were:
January 12--Annual General Meeting and Dinner. Dr. Batten showed slides of and described his recent trip to South America.
February 14--B. W. Baldwin, University of Victoria: Black Holes.
March 14--Panel discussion consisting of Dr. A. H. Batten, Dr. J. Tatum, G. Ball and M. Hale.
April 11--Activities Night: Exhibits and short talks by members.
October 10--Dr. C. D. Scarfe, University of Victoria: Timing the Minima of Eclipsing Variables.
November 14-- R. Dancey, DAO: Figuring Mirrors for Large Telescopes.
December 12--Panel discussion: Dr. J. Climenhaga, Dr. M. Fletcher and R. Williams.

The officers for the year were:

Hon. President: Dr. J. A. Pearce
President: R. J. Napier
First Vice-President: C. D. Scarfe
Second Vice-President: Mrs. C. L. Bridgen
Secretary: M. A. Shepherd
Treasurer: F. R. Williams
Recorder: Mrs. S. Ingram
Director of Telescopes; G. R. Ball
Librarian: E. E. Bridgen
Council: D. B. Dundee, Dr. J. H. Moore, V. L. Stanley-Jones, R. Williams, H. S. Leeder, F. Younger.

1974

The regular meetings of the Victoria Centre were held at the University of Victoria. A total of seven meetings were held in 1974, and the Council held eight meetings to plan the lectures and to conduct the business of the Centre. In addition, a series of lectures in July and August made up this year's Summer Evenings Under the Stars.

Again this year, the Centre maintained a booth at the Hobby Show and also looked after a booth at the DAO on Saturday evenings when the observatory was open to the public. George Ball was on duty at the University of Victoria each Saturday evening, weather permitting, for observing sessions.

Also, through his leadership, several members have completed mirrors during 1974. Membership of this Centre consisted of 11 life members and 71 regular members.

The speakers and topics at the regular meetings were:
January 11--Annual Meeting and Dinner. Dr. J. L. Climenhaga showed slides of his recent trip to Poland and Japan.
February 13--Dr. A. Gower: Radio Galaxies.
March 10--Joint meeting in Victoria with the Vancouver Centre, which included a visit to the DAO. Dr. J. B. Tatum: Of Comets and Condors.
April 10--Activities Night. Exhibits and Films.

October 6--Joint meeting with the Vancouver Centre at the H. R. McMillan Planetarium. Mr. T. Dickinson, editor of Astronomy Magazine: A New Look at Jupiter.

November 13--Dr. A. P. Cowley: Are There Black Holes in Binary Systems?

December 11--Panel discussion. Members: Dr. F. I. Cooperstock, Dr. B. Harris, E. E. Bridgen and F. Younger.

The officers for the year were:

Hon. President: Dr. J. L. Climenhaga

President: R. G. Napier

First Vice-President: C. D. Scarfe

Second Vice-President: Mrs. C. L. Bridgen

Secretary: M. A. Shepherd

Treasurer: F. R. Williams

Recorder: F. Younger

Director of Telescopes: G. R. Ball

Librarian: Mrs. E. E. Bridgen

National Council Representative: E. E. Bridgen.

Council: R. Dundee, Mrs. B. Harris, V. L. Stanley-Jones, R. Williams, H. S. Leeder, Miss J. Regan.

1975

Regular meetings of the Victoria Centre were held at the University of Victoria. Seven meetings were held in 1975 and were as follows:

January 10--Annual Meeting and Dinner, held at the University of Victoria. Elections were held and Dr. E. H. Richardson showed slides of his European travels.

February 12--Dr. C. H. Costain, DRAO: Aperture Synthesis in Radio Astronomy.

March 12--D. Dundee, Victoria Centre: Legends of the Stars.

April 9--Activities Night: Exhibits and Films.

September 10--Dr. B. Harris, Victoria Centre: Celestial Spheres.

October 5--Joint meeting with the Vancouver Centre in Victoria. Dr. D. Crampton, DAO, The Hawaiian Telescope.

November 12--Panel discussion.

December 10--E. Pfannenschmidt, DAO: Hints and Wrinkles on Amateur Telescopes.

Again this year the Centre maintained a booth at the hobby show held in the Spring by the Lapidary Society and also looked after a booth at the DAO on Saturday evenings when the observatory was open to the public.

George Ball was on duty at the University of Victoria each Saturday evening, weather permitting, for observing sessions. Also, through his leadership, several members have completed mirrors during 1975. Membership of the Centre for 1975 consisted of 18 life members and 93 regular members.

The officers for the year were:

Hon. President: Dr. J. L. Climenhaga

President: Dr. C. D. Scarfe

First Vice-President: D. B. Dundee

Second Vice-President: Dr. B. L. Harris

Secretary: P. F. Younger

Treasurer: F. R. Williams

Recorder: Miss J. Regan

Director of Telescopes: G. R. Ball

Librarian: Mrs. E. E. Bridgen

National Council Representative: E. E. Bridgen

Council: N. Rogers, P. Teece, R. Williams, G. C. Aikman, J. M. Fletcher, M. A. Shepherd.

1976

Our Centre once again administered a display booth at the Victoria Hobby Show held in the Spring by the Victoria Lapidary Society. The Centre was also active at the DAO during the Saturday evening public nights, providing an opportunity for visitors to view

the heavens through various small telescopes. The popular series Summer Evenings with the Stars was a hit again this year.

The 5-lecture session ended with a visit to the DAO. George Ball conducted the weekly observing programme and the mirror-grinding class, both held at Uvic.

The Centre is extremely grateful for the very generous bequest of the late R. S. Evans, and for the donation of a fully equipped 2.4-inch Unitron refractor by Dr. Gordon H. Grant.

Our agenda was:

January 9--Annual General Meeting and Dinner.

February 11--Dr. W. H. McCutcheon, Physics Dept., UBC: The Millimeter Wave Radio Telescope at UBC.

March 10--Philip Teece: Observational History: Some Footnotes.

April 4--Amateur Night: Members' Activities During the Year.

September 8--R. I. Williams, Uvic: Messier and His Catalogue.

October 5--Joint Meeting with the Vancouver Centre. Dr. D.

Crampton, DAO: The Hawaiian Telescope.

November 12--Panel discussion.

December 10--E. Pfannenschmidt, DAO: Hints and Wrinkles on Amateur Telescopes.

Membership of the Victoria Centre presently stands at 17 life and 69 regular members.

The officers for the year were:

Hon. President: Dr. J. L. Climenhaga

Past President: R. G. Napier

President: Dr. C. D. Scarfe

First Vice-President: D. B. Dundee

Second Vice-President: Dr. B. L. Harris

Secretary: P. F. Younger

Treasurer: J. M. Wozny

Recorder: Miss J. Regan

Director of Telescopes: G. R. Ball

Librarian: E. E. Bridgen

Council: C. Aikman, M. Fletcher, N. Rogers, M. Shepherd, P. Teece, R. Williams.

National Council Representative: G. R. Ball.

1977

No report was submitted for the year.

The officers for the year were:

Hon. President: E. E. Bridgen

President: D. Dundee

First Vice-President: Dr. B. L. Harris

Second Vice-President: M. A. Shepherd

Secretary: P. F. Younger

Treasurer: J. M. Wozny

Recorder: Miss J. Regan

Director of Telescopes: G. R. Ball

Librarian: N. Rogers

National Council Representative: G. R. Ball.

Council: C. Aikman, A. Cook, J. M. Fletcher, K. Haslam, P. Teece, R. Williams, C. Scarfe.

1978

Eight meetings were held in 1978 by the Victoria Centre, including the Annual General Meeting and Dinner held in the University of Victoria's Gold Room. Regular meetings were held in UVic's Elliott Building. Meeting topics included talks by R. Napier, S. van den Bergh, R. Williams, J. Snyder and R. Colberg, as well as a panel discussions, activities night and a movie. Mrs. K. Haslam hosted a reception for Dr. van den Bergh.

R. Williams conducted mirror-grinding classes, and weekly observing sessions were under the charge of G. Ball. Victoria Centre once again helped out at the DAO Saturday evening public observing periods. Our popular Summer Evenings With the Stars program

included lectures by J. Bonfonti, D. Dundee, K. Hewitt-White and A. Gower, and a trip to the DAO.

The officers for the year were:

Hon. President: E. E. Bridgen
President: D. Dundee
First Vice-President: Dr. B. L. Harris
Second Vice-President: M. A. Shepherd
Secretary: P. F. Younger
Treasurer: J. M. Wozny
Recorder: Miss J. Regan
Director of Telescopes: G. R. Ball
Librarian: N. Rogers
National Council Representative: G. R. Ball
Council: C. Aikman, A. Cook, J. M. Fletcher, K. Haslam, P. Teece, R. Williams, C. Scarfe.

1979

The Victoria Centre held eight general meetings during 1979, with topics and speakers as follows: January 12--Annual General meeting and Dinner at the Princess Mary Restaurant. Dr. J. Hesser: A Decade Under the Galactic Centre—Astronomical Recollections of Chile.
February 14--P. Dawson: M Dwarfs, Cepheid Variables and Stellar Taxonomy.
March 14--Chris Aikman: Solar eclipse reports by various members and Cosmic Prospecting.
April 11--Activities Night, including presentations by F. Shinn, D. Fallows, M. Hale, G. Ball and J. Newton.
September 12--Dr. R. P. Kraft: Globular Clusters and the Formation of the Galaxy: New Anomalies in an Old Problem.
October 10--J. Newton: Astrophotography.
November 14--L. van der Byl and T. Lomas: Voyager's View of Jupiter.
December 12--Dr. J. Percy: Life on Other Worlds.

All of the above meetings except the first were held in the Elliot Building of the University of Victoria. Additional to the above, the council met eight times during the year to conduct the Centre's business.

Other highlights during the year included the resurrection of the Centre's newsletter, under the editorship of Dr. L. Orr. Skynews Victoria now circulates monthly to a distribution of 150. As usual, the Centre was well represented at the annual Victoria Hobby Show, April 19-22. About this time also, negotiations began with Fisheries and Environmental Canada to house the Centre's historic 4-inch refractor in the now empty dome of the old Gonzales weather station.

Negotiations are continuing with some progress to date. This year, the Centre's astronomy Book Prize was awarded for the first time. The recipient was Geoffrey Edwards, who graduated from UVic with first class standing in Arts and Science.

Friday evening observing sessions with UVic's 50 cm reflector continued through most of the year under G. Ball's direction. The mirror-making group, under R. William's direction, completed the polishing of five mirrors. The 1980 council was elected by acclamation at the December meeting.

Plans are under way to host the 1981 RASC General Assembly on May 16-18 of that year.
Paid-up memberships numbered 91 at the close of 1979.

The officers for the year were:

President: Dr. E. H. Richardson
Past President: D. Dundee
President: Dr. B. Harris
First Vice-President: P. Teece
Second Vice-President: Chris Spratt
Secretary: C. C. Aikman
Treasurer: A. Capper

Recorder: Mrs. C. Crittenden
Director of Telescopes and National Council Representative: G. R. Ball
Librarian: N. Rogers
Editor: Dr. W. L. Orr
Council: J. Wozny, B. F. Shinn, D. Smith, L. van der Byl, Dr. L. Orr, R. Williams.

1980

The Victoria Centre held seven general meetings during 1980, with topics and speakers as follows:
February 13--A. Dyer: Activities of the Edmonton Centre.
March 12--Annual General meeting and Dinner, at the Green Room, UVic. Dr. C. Scarfe: An Astronomical Tour of Australia and New Zealand.
April 9--Members' Night, with presentations by J. Newton, L. van der Byl and A. Donnelly.
September 10--Members' Night, with presentations by J. Newton, L. van der Byl and A. Donnelly.
October 8--E. Pfannenschmidt: Observatory Site Selection in Saudi Arabia.
Nov. 12--G. Ball: Construction of Cold Cameras for Astrophotography.
December 10--Annual General Meeting and Dinner, at Holyrood House Restaurant. Dr. B. Harris: A Visit to New China.
In addition, the bi-annual series of lectures under the theme of Summer Evenings With the Stars, was held as follows:
July 30--J. Newton: The Night Sky.
August 6--T. Lomas: Exploration of the Solar System.
August 13--C. Aikman: Windows on the Universe.
August 20--P. Teece: Film and commentary: The Crab Nebula.

Observing sessions using members' telescopes on the UVic campus followed each of these talks. The series concluded with an observing session on the 1.85 metre telescope of the DAO on August 27. Two other star parties were held in Beacon Hill Park on the nights of August 2nd and 9th. Also, the council met four times during the year to conduct the Centre's business.

As the Centre has made little visible progress in completing an agreement to use the historic Gonzales weather station observatory as an astronomical site, the Centre has redirected its efforts into construction of a trailer-mounted mobile observatory with a 50 cm diameter reflecting telescope. L. van der Byl is in the forefront of this project and considerable progress has been made to date. As usual, the Centre was active at the annual Victoria Hobby Show, April 17-20. Friday evening observing sessions with the UVic telescope continued under G. Ball's capable direction. This year's Centre Book Prize was awarded to graduating UVic student Alan Busch of Campbell River.

The 1981 council was elected by acclamation. The Centre looks forward to 1981 with enthusiasm as we host our first-ever General assembly in Victoria.

The officers for the year were:

Hon. President: Dr. E. H. Richardson
Past President: Dr. B. Harris
President: J. Newton
First Vice-President: L. van der Byl
Second Vice-President: T. Lomas
Secretary: C. C. Aikman
Treasurer: A. H. Capper
Recorder: Mrs. C. Crittenden
Director of Telescopes: G. R. Ball
Librarian: Mrs. G. Griffin
Editor: Dr. W. L. Orr
National Council Representative: D. B. Dundee.
Council: G. Ball, R. Bryden, B. F. Shinn, N. Rogers, C. Spratt, R. Williams, J. Wozny.

1981

This year, 1981 was a particularly exciting and rewarding one for our Centre in a number of respects. Foremost perhaps was the hosting of our first-ever Annual General Meeting of the RASC, held at the University of Victoria, June 26-29. This occasion brought us together with members from most Centres coast-to-coast and from south of the border. 154 registrants plus members of their families swelled the attendance at some of the weekend's events to close to 200 people.

The highlights of this gathering are probably as numerous and as individual as those in attendance, but we were left with the satisfaction that our long preparations were more than repaid by the enthusiasm that the delegates brought with them.

Another landmark this year was the incorporation of the Centre under the B.C. Society Act on September 22. The efforts of Robert Bryden in bringing this to fruition are noted with thanks. Our major construction project, a 50 cm mobile trailer-mounted telescope, came close to completion thanks to Leo van der Byl's guiding hand on the optics and many of the mechanical parts.

Star parties were held May 9 and 24, the latter being rained out. As part of "Recreation Discovery Week" an RASC display was held at Mayfair Mall on September 26. George Ball and Philip Teece directed the Friday evening public observing sessions with the UVic telescope.

This year's Centre Book Prize was awarded to graduating UVic student Geoff Fraser. An election was held at the Annual Meeting in October to approve incorporation under the new constitution and for a representative and alternate representative to National Council. All other council positions were filled by acclamation. The council met eight times during the year and there were 10 general meetings, as follows:

January 14--P. Teece: Mirror Testing.

President: J. B. Olmstead and Ebenezer Mason: Forgotten Astronomers of the Nineteenth Century.

February 11--M. Fletcher: The Canada-France-Hawaii Telescope.

March 11--J. Newton and L. van der Byl: Voyager's View of Saturn.

April 8--Members' Night, with contributions by J. Newton, L. van der Byl and G. Ball.

May 13--S. Mochlaki: New Ideas on how Binary Stars Evolve.

June 10--B. Whittaker and B. Harris: The Space Shuttle Columbia's Flight and Chris Spratt: The Tucson AAVSO Meeting.

September 9--Members' Night with contributions by L. van der Byl, P. Teece, P. Belfield, G. Ball, C. Scarfe, R. Napier and J. Newton.

October 14--Annual General Meeting and Dinner at Holyrood House. J. Newton: Eclipse Over Siberia.

November 4--P. Paquin: Moon Rocks.

December 9--L. van der Byl: Facts and Fallacies.

The officers for the year were:

Hon. President: Dr. J. A. Pearce

Past President: Dr. B. L. Harris

President: J. Newton

First Vice-President: L. van der Byl

Second Vice-President: T. Lomas

Secretary: C. C. Aikman

Treasurer: A. H. Capper

Recorder: Ms. M. J. Enock

Director of Telescopes: G. R. Ball

Librarian: Mrs. G. Griffin

Editor: Dr. W. L. Orr

Asst. Editor: Ms. M. J. Enock

National Council Representative: D. B. Dundee.

Council: R. Bryden, J. Kinnear, N. Rogers, C. Spratt, R. Williams, Dr. J. Tatum.

1982

1982 has been a particularly active and rewarding one for the Victoria Centre. At year's close we had a membership list numbering 123 persons, significantly above the 80-100 level which has been the norm for most of the Centre's 69-year history. We've also enjoyed perhaps the most extensive program of lectures at our regular meetings, 14 in all, including the monthly meetings September through June and four lectures in August under the Summer Evenings With the Stars program.

These presentations were as follows:

January 13--L. Stryker: Probing the History of the Magellanic Clouds.

February 10--J. Clarkson: Astronomical Navigation.

March 10--P. Stooke: Maps of the Planets.

April 14--P. Massey: Supermassive Stars and their Nebulae: a Chicken and Egg Problem.

May 12--Members' Night, with contributions by P. Garnham, A.

Capper, L. van der Byl, J. Newton, L. Friss and T. Lomas.

June 9--J. Newton and L. van der Byl: Riverside Telescope Makers' Conference and the Saskatoon General Assembly.

August 4--P. Dawson: Astronomy and the Universe.

August 11--T. Lomas and P. Stooke: Close Up of the Planets.

August 18--J. Newton: The Sky by Telescope.

August 25--F. Younger: A Visit to the Dominion Astrophysical Observatory.

September Movie night: Apollo Moon Landing and STS-2 Post flight Press Conference re. the Second Flight of the Space Shuttle Columbia.

The Centre held star parties at Beacon Hill Park on May 1, July 5 and July 24. This year's Book Prize, a copy of the new Tyrion Sky Atlas 2000, is being awarded to graduating UVic student Robert von Rudolf. The Centre has been granted tax-exempt status as a charitable organization, effective October 1, 1981. Progress on our mobile 50 cm telescope was complicated by our unsuccessful application for a Lottery Fund Grant, but thanks to the Evans bequest and the dedication of L. van der Byl in design and construction, the project is virtually complete. Thanks are also due to Jes Jensen of the DAO for aluminizing the 50 cm mirror for us.

Council met seven times during the year to conduct the Centre's business. The new council was elected by acclamation.

The officers for the year were:

Hon. President: Dr. J. A. Pearce

Past President: J. Newton

President: L. van der Byl

Vice-President: R. Williams

Secretary: C. C. Aikman

Treasurer: A. H. Capper

Recorder: Ms. M. J. Enock

Director of Telescopes: G. R. Ball

Librarian: J. B. Fraser

Editor: Ms. M. Enock

National Council Representative: J. Newton

Liaison Rep. To North American Interplanetary Society: T. Lomas.

Council: B. Belfield, P. J. Garnham, J. Kinnear, N. Rogers, Dr. J. Tatum, B. Whittaker.

1983

1982-83 has continued the tradition of increased activities and membership totals that became apparent in the previous year. Membership total was 119, slightly below last year's. The completed mobile telescope formed the feature attraction in a Centre/RASC display at two major expositions held in Victoria during the spring of 1983: The Hobby Show and the Better Living Show. Both helped increase awareness of the Centre's activities to the public, with the result that we have been able to maintain our record-breaking mem-

bership totals. Ten regular monthly meetings were held as well as several star parties.

Our regular meetings were:

September 14-- A Film Show featuring the Apollo 17 Lunar Mission and the STS-1 Orbital Flight Test of the Space Shuttle.
October 12--Annual General Meeting and Dinner held at Norway House. Chris Aikman: Stars Over the Aegean—A 3000-Year Legacy.
November 10--Dr. J. Gower: Satellite Oceanography.
December 8--J. Newton: Astrophotography.
January 12--Dr. Pim Fitzgerald: Probing the Edge of the Milky Way.
February 9--Dr. D. Crampton: LMC-3—The Newest Black Hole.
April 13--P. Stooke: Ex Lunia Scienta—a talk on lunar geology.
May 11--Ms. M. Enock: Astronomy 1851 Illustrated—An historic talk.
June 8--Members' Night.

The officers for the year were:

Hon. President: Dr. J. A. Pearce
Past President: J. B. Newton
President: L. van der Byl
First Vice-President: P. J. Garnham
Second Vice-President: R. K. Bryden
Secretary: T. A. Lomas
Treasurer/Editor: Ms. M. J. Enock
Recorder: Ms. S. E. Godkin
Librarian: J. B. Fraser
Directors of Telescopes: B. Whittaker and M. Scrimger
National Council Representative: J. Newton.
Council: G. R. Ball, L. Friis, J. K. Kinneer, N. C. Rogers, R. Robb, J. Stilburn.

1984

Membership continued to increase in the past year with 92 general, 12 youth and 23 life members for a total of 127. There appears to be increased activity in astronomy right across the country and our extended program last year introduced us to more people in Victoria.

After a previously planned star party was clouded out, the Centre's Evans-Vander Byl mobile 0.5 meter telescope made its public debut at the May 5 Astronomy Day star party on the Dallas Road waterfront. The EVBT was also present on one of the eight Saturday star parties on Little Saanich Mountain, where our telescopes joined those of the Dominion Astrophysical Observatory at their well-attended public openings in July and August.

During August, we also ran our biannual "Summer Evenings with the Stars" on Wednesday evenings. The four lectures were: Our Island Sky at Night, John Howell and Frank Younger; The Planets and their Exploration, Philip Stooke; Variable Stars and Deep-Sky Objects, Bob Brydon and Jack Newton; The Comets and the Return of Halley's in 1986, Chris Spratt and Dave. The last night, Chris Aikman hosted an introduction to the 1.86 m telescope at the DAO and participants observed several objects with that instrument and with the 0.4 m telescope.

We had a display at the Victoria Hobby show in April, to which several members contributed both time and display materials.

Apart from the above, our regular ten meetings attracted good attendance. All but the Annual Meeting are advertised and open to non-members as part of our public education effort. We were particularly happy to have our Honorary President, 91-year-old Dr. Joe Pearce, speak to us at the October meeting.

September 14-- Whispers from Space: Astronomical videotape.
October 5--Annual Meeting and a trip to Java for the 1983 Eclipse: Jack Newton.
November 9--Some Interesting Supergiants: Dr. John Climenhaga.
December 14--Quasar-Galaxy Association: Dr. Howard Yee.

January 11--Cepheid Variables as a Means of Determining the Scale of the Universe: Dr. Claudio Solazzo.

February 8--The Canada-France-Hawaii Telescope at the Frontier: Dr. Bruce Campbell.
March 14--A New Look at Cold-Camera Photography—The VR-1000 Colour Film: Jack Newton.
April 11--Activities Night with talks by members on observing, instrumentation, etc, and demonstrations on an Apple II+ computer of several members' programs—keenly watched by everyone.
May 9--Unveiling Venus, the Shy Planet: Philip Stooke.
June 13--Galaxies Discovered by the Infrared Astronomical Satellite—Highly obscured Galaxies or Star Bursters?: Dr. Edward Olszewski.

The officers for the year were:

Hon. President: Dr. J. A. Pearce
Past President: L. van der Byl
President: P. J. Garham
First Vice-President: F. J. Howell
Second Vice-President: R. K. Bryden
Secretary: T. A. Lomas
Treasurer/Editor: Ms. M. J. Enock
Recorder: Ms. S. E. Godkin
Librarian: Ms. L. Friis
Directors of Telescopes: B. Whittaker and M. Scrimger
Comet Coordinator: C. Spratt.
National Council Representative: L. M. J. van der Byl
Council: G. R. Ball, Dr. J. L. Climenhaga, J. B. Fraser, J. B. Newton, N. G. Rogers, J. Stilburn.

1985

Membership continued to increase in the past year, with 112 general, 10 youth and 23 life members, for a total of 145. Of the overall increase of 35 new members, many of them joined as a result of our activities at the Hobby Show and the Summer Evenings with the Stars.

April 27 was Astronomy Day this year and the Star Party at the Dallas Road waterfront area was well attended. The Centre's Evans-Vander Byl Telescope was present as well as individual members' telescopes. The EVBT was also in use at several of the Saturday Visitors' Nights at the Dominion Astrophysical Observatory during July and August.

Only a few of the members brought their telescope for these evenings as some of them were occupied with research being done on the occultation of Jupiter's moons.

Because of the increasing public interest in astronomy, we held our Summer Evenings with the Stars again this August. If interest continues, this event will remain an annual rather than biannual event. The first evening was held at DAO, hosted by Dr. David Crampton. The other evenings consisted of lectures at UVic: A Photo Tour of the Sky, Jack Newton; Our Neighbour Worlds, a film lecture given by Dr. Jeremy Tatum—entitled Twinkle, Twinkle Little Star.

We had a display at the Victoria Hobby show in April, to which several members contributed both time and display materials. Apart from the above, our regular ten meetings were well attended; all but the Annual Meeting being advertised and open to non-members as part of our public education effort.

September 12--The Space Telescope: Dr. Chris Prichet.
October 17-- Annual Meeting and Eclipse of the Midnight Sun: Dr. John Climenhaga.
October 30--A special lecture by Dr. Sidney van den Burgh: The Age and Size of the Universe.
November 14--Starlife and To the Edge of the Universe—films plus a talk by Lewis Knee on the Pine Mountain private observatory in Oregon.
December 12--Nova Vulpeculae 1984: Russell Robb.

January 9--Star Gazing: Philip Teece.
February 13--The Structure of Quasars: Dr. John Hutchings.
March 20--Orderly and Disorderly Stellar Motions in Giant Galaxies: Dr. Martin Schwarzschild.
April 10--Extragalactic Radio Jets: Dr. Anne Gower.
May 8--Members' Night, with talks and demonstrations by members on their various projects.
June 12--The Galilean Satellites: Philip Stooke.

The officers for the year were:

Hon. President: Dr. J. A. Pearce
Past President: L. van der Byl
President: P. Garnham
First Vice-President: Ms. M. J. Enock
Second Vice-President: R. Belfield
Secretary: Ms. J. E. Stringer
Treasurer: Mrs. Phyllis Belfield
Recorder: Ms. Maureen Parker
Director of Telescopes: David Kopriva
Librarian: Ms. L. Friis
Editor: Ms. M. J. Enock
Observation Coordinator: C. Spratt
National Council Representative: G. R. Ball
Council: R. Bryden, Dr. J. Climenhaga, Dr. D. Crampton, J. Newton, P. Stooke, R. Williams.

1986

Membership once again increased during the year, with 116 general, 7 youth and 23 life members for a total of 146. Most of the new members joined as a result of our activities at the Hobby Show and the Summer Evenings With the Stars.

May 10 was Astronomy Day this year, being changed locally from an April date to try to avoid bad weather. The Star party at the Dallas Road waterfront area was well attended, but even then, the weather was not very good. The Centre's Evans van der Byl Telescope was present, but only operated one hour before the intermittent clouds became a totally overcast sky. There were some individual members' telescopes set up also. The EVBT was also in use at several of the Saturday Visitor's Nights at the Dominion Astrophysical Observatory during July and August.

A few of the members brought their telescopes for some of these evenings.

Because of the increasing public interest in astronomy, we held our Summer Evenings with the Stars again this August. If interest continues, this event will remain an annual rather than biannual event. The first evening was held at DAO, hosted by Dr. David Crampton. The other evenings consisted of lectures at UVic: A Photo Tour of the Sky, Jack Newton; Our Neighbour Worlds, a film lecture given by Dr. Jeremy Tatum—entitled Twinkle, Twinkle Little Star.

August 6--An Astronomer's Notebook: Jack Newton
August 13--Tour of the Dominion Astrophysical Observatory: Alan Batten
August 20--The Solar System—It's Origin and Evolution: Philip Stooke
August 27--Exploring Space and Time.

We had a display at the Victoria Hobby show in April, to which several members contributed both time and display materials. Apart from the above, our regular meetings were well attended; all but the Annual Meeting being advertised and open to non-members as part of our public education effort.

September 11--The Riddle of the Wolf-Rayet Stars: Dr. Anne Underhill.
October 9--Annual Meeting and IAU's from Dublin to Hamburg: Dr. Kenneth Wright.
November 13--Film Night—3 films: Chasing the Eclipse, telling of the preparations and activity during solar eclipse observations in

Brandon, Manitoba; Comet, with some mention of Comet Halley but mainly explaining what is known about comets in the solar system; Rhythmic, a light-relief film dealing with those items an astronomer knows best—figures.

December 11--Halley's and Other Comets—*isti mirant stella*: Dr. Chris Aikman.
January 8--The Future in Space—USA and USSR: Jeremy Preston and Tim Lomas.

February 12--A visit by our President, Dr. Roy Bishop, who gave a lecture entitled SS433—A Stellar Spectacle.

March 12--Globular Clusters—What They Are Made Of and How They Look: Dr. Carlton Pryor.

April 9--The Search for Planet X: Dr. Douglas L. Welch.

May 8--Members' Night, with talks and demonstrations by members on their various projects.

June 11--On the nature of Quasars: Randall Pyke.

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Past President: P. J. Garnham
First Vice-President: P. Stooke
Second Vice-President: W. J. Howell
Secretary: Ms. J. E. Stringer
Treasurer: Ms. L. Friis
Recorder: Ms. S. Godkin
Director of Telescopes: D. Kopriva
Librarian: J. S. Sidhu
Observation Coordinator: C. Spratt
National Council Representative: G. R. Ball
Council: R. K. Bryden, Dr. J. L. Climenhaga, Dr. D. Crampton, J. B. Newton, Ms. M. Parker, R. Williams.

1987

Victoria Centre enjoyed an increased membership for the 1986-87 year, with 112 regular, 5 youth and 26 life members, for a total of 143 (up from 127 in the previous year). We continue to reach a wider audience because of such appealing programmes as Summer Evenings Under the Stars and Astronomy Day. As well astronomy is being included as part of the grade 9 and 10 science courses in public schools and interest from the education sector is growing.

We are also pleased to have had the opportunity of participating in the Victoria Hobby Show and the Prime '55 Festival. Both of these events provided us with an opportunity to participate in community events and lent exposure to our Centre's activities. Special thanks to George Ball and the Gene Steeves for their many hours of planning and making themselves available to "man the boat" at the Hobby Show—a job well done.

Our regular monthly meetings were well attended and featured a wide range of topics and interesting speakers.

The year started off with a presentation by Dr. David Crampton, of the DAO, whose topic was the Largest Entities in the Universe. January--Popular member Brian Whittaker treated us to a slide show of his travels throughout the Southwestern United States and showed us slides not only of several of the prominent observatories there, such as Kitt Peak and Mount Palomar, but also stunning photos of the Grand Canyon and surrounding countryside.

February—The meeting featured Dr. Jim Hesser, Director of the Dominion Astrophysical Observatory. Dr. Hesser presented a fascinating talk on the search for extraterrestrial life.

March--Dr. John Kennedy, also from DAO, shared with us information on black holes in the nuclei of galaxies.

April—Members' Activities Night. Many members brought us up to date on their pet projects. In addition to seeing the "last" slides of Halley's Comet, we heard from the telescope making group and got the latest reports on upcoming star parties such as Mount Kobau.

May—Dr. Colin Scarfe, UVic’s resident astronomy expert and specialist on the subject of eclipsing binaries. Dr. Scarfe has been a long-time member of the RASC and his lectures are always very well received.

June—Philip Stooke, our Centre’s acting president and a graduate student of planetology, spoke of the study of the geography and geology of the nucleus of Halley’s Comet.

August—Summer Evenings Under the Stars program. This program has proved very popular with the public, and afforded an opportunity for free participation in tours of DAO, as well as hearing and seeing presentations by Jack Newton and Philip Stooke.

September—The RASC’s National President, Mary Grey, spoke on the history surrounding the building of the Dominion Observatory in Ottawa.

October—Mr. Andy Fraknoi, Executive Officer of the Astronomical Society of the Pacific, discussed the topic of how astronomy deals with astrology. Andy Fraknoi was instrumental in the planning of the joint meeting to be held with our Centre’s General Assembly next summer.

We’re all looking forward to an exciting GA and the opportunity to show off our Centre to astronomers from all over North America.

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1988

Our Centre enjoyed a very busy year in 1988. Under the presidency of Gene Steeves we underwent a transition directed towards more participation in observing programs and membership-oriented activities. We now have an observers’ group which meets monthly, in addition to the already active telescope-makers group.

Our slate of lectures for the past year included:

January—Dr. Doug Welsh: Efficiency in Astronomy.
February—Dr. Bernard Bopp: Automation for amateur Astronomy.
March—Dr. Mike Bolte: Blue Stragglers—Stars that Live Too Long.

April—Members’ Night. The Victoria Hobby Show was held April 14 though 17 and we had an excellent display on site for its duration.

May—Randall Pike: The Antropic Principle.

June—Dr. Andrew Woodsworth: Do Red Giants Flare?

There were n regular meetings for the months of July and August, however, our General Assembly, held as a joint meeting of the Astronomical Society of the Pacific, was more than enough to keep us busy and was tremendously successful. Again, our thanks to our local Chair, Jack Newton, ASP past president, Jim Hesser and all the volunteers for an extremely well done job!

August—Our public lecture series Summer Evenings with the Stars was held weekly and featured a tour of DAO and keynote lectures by Jack Newton: A Colour Portrait of the Universe, Dr. David Crampton: Black Holes, and Dr. Michael Pierce: The Age and Size of the Universe.

September—Members’ night and a number of interesting projects were highlighted.

October—Why Look at RR Lyrae Stars by Horace Smith.

A quick review of the above speakers instantly reveals the fact that the DAO was instrumental in bring to us a large number of top-notch speakers and added tremendously to our meetings. We are very grateful for the assistance provided us by the DAO.

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National Council Representative: Ms. M. Enock.
Observation Coordinator: C. Spratt, J. Fletcher, S. M. Parker, Ms. S. Godkin.

1989

If only one word could be used to describe our Centre’s activities over the past year, it would be “progress”. In past years, the more or less traditional way to prepare the Secretary’s annual accounting of the Centre’s coming and goings has been to provide current membership figures along with a breakdown of the categories into which members fall, i.e. lifetime, youth, etc.

I’m going to depart from that formality this year. Mostly that is because I don’t feel it’s how many members a Centre has (a close guesstimate would be 135 to 150), but rather what those people have been doing that counts.

Over the past two years, under the guidance of President Gene Steeves, a strong emphasis was placed on a number of different activities. For the first time, a strong observer’s group was formed. The group meets every third Wednesday of the month, rain or shine. Members enjoy an evening of stargazing, followed by delicious homemade cookies and other refreshments, compliments of Whelda Steeves. Roger Williams, also in charge of our telescope-making group, fields questions and expands on information found in the Observers’ Handbook.

It should also be noted that a number of members rarely, if ever, miss an opportunity to attend to help familiarize members and the public alike with sky gazing. From the Hobby Show each spring to Saturday evenings assisting at the DAO, these fellows can be found manning telescopes or just generally being helpful. I’d like to have the following people stand up to be recognized: Gene Steeves, George Ball, Malcolm Scrimger, Sid Sidhu, Rick McCrea, Frank Ogonoski, Steve Raynor and Roger Williams.

We look forward to entering a year focusing on public education. Plans for a permanent observing site for the Evans-Vander Byl telescope on the Saanich Artifacts Society’s property are proceeding nicely. By this time next year we look forward to an even more active membership to share the joys of astronomy.

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Editor: Mrs. A. Newton

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Co-Director of Telescopes: J. Padzer
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Observation Coordinator: C. Spratt
National Council Representative: J. Howell.
Council: Dr. J. L. Climenhaga, Dr. D. Crampton, J. Fletcher, Dr. J. Hesser, S. Godkin, J. Newton, M. Parker, P. Thomas and R. Williams.

1990

This year, the so-called “experts” had warned that the hobby was likely to experience a bit of a drop in public interest. There would be no Halley’s comet, no total eclipses. The dates for launching of the Hubble Space Telescope had not yet been determined with any certainty and NASA was still struggling with a public image that reflected a loss of confidence in its ability to successfully carry out its missions. As we all know, what actually happened was quite the opposite!

For most of the spring and summer we enjoyed a spectacular Comet Levy, which, while it did not enjoy the publicity surrounding Halley, actually outperformed its predecessor. The clear skies of late July framed a stunning partial eclipse. And Hubble? Our special guest speaker, Dr. John Hutchings, demonstrated the HST’s impressive contributions thus far.

As if all this weren’t enough, there was Space ’90. This project, run as a cooperative effort between the Royal British Columbia Museum and the Herzberg Institute of Astrophysics (DAO) attracted thousands of participants. The Victoria Center is proud to have been able to assist by participating in some of the panel discussions and the offering of nightly evening observing from Beacon Hill Park.

Our future looks very encouraging. Thanks to the hard work of a number of our members, we have succeeded in establishing an Education Committee. The 15 or so volunteers on this committee are in increasing demand to speak to groups in various elementary and high schools and have made presentations to Cubs, Boy and Girl Scouts and Beavers.

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1991

This will be my last official duty as secretary of the centre, a position that I have enjoyed greatly, but which does not currently receive the time and attention it deserves. I look forward to continuing my participation in activities of a less formal nature, and know that the centre will benefit from the ideas, energy and enthusiasm of my successor.

The membership has remained fairly constant between 125-150, even though it is somewhat disappointing that our youth membership continues to be low. Our Education Committee has, however, been very much in demand delivering talks to school classes, Cubs,

Brownies, etc. It is also wonderful to see so many new faces at the meetings and joining in the various centre activities, including allowing their names to stand for nominations to council.

I hope that members will continue to send information on upcoming events and articles to *Skynews* and will keep the treasurer updated on address changes, etc.

Special thanks to Corporal Brian McNair for allowing our group to enjoy the beautiful Pacific Fleet Club facility. The officers for the year were:

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1992

Election of a new slate of officers ushered in a number of changes for the centre, including a new format for the monthly *Skynews* newsletter by editor Betty Hesser and her assistant Mae Shearman, and the establishment of electronic mail by vice-president Gary Sherman.

At the same time, a move by the Observer’s Group to Jack Newton’s new home on top of Matheson Mountain near Victoria, gave the members an opportunity to use his 25-inch Newtonian telescope and the observatory he built into his house. By looking over Jack’s shoulder we have delved into CCD computer imaging in colour, which has sparked a growing interest by a few members to get involved in it themselves.

The centre participates every year in Victoria’s four day long annual Hobby Show, held in April, where we staff a booth crammed with telescopes and visual aids for the public’s enlightenment. Members spell each other off in shifts answering questions and giving out leaflets.

Jack Braniff, who organizes our education group, has arranged star parties and in-school lectures during the year, besides reaching out to Brownies, Cubs and other junior organizations, with considerable success.

Because of its proximity to the Dominion Astrophysical Observatory and the University of Victoria, the centre has benefited from a goodly number of professional members of the centre, and also visitors to the D.A.O. from the U.S. and overseas, all of whom have shared with us some of the latest information and developments in the field of astronomy, as the following list shows.

The topics of the monthly meetings for the past 12 months were:
October 1991--The Truth About the Great Attractor, by Dr. N. Vis-anathan.
November—Designing and Building the Keck Telescope, by Dr. J. B. (Bev) Oke.
December—Solid State Detectors for Astronomy, by Dr. Rick Murowinsky.
January 1992--N.A.S.A. Select T.V. Programs, by Frank Ogonoski.
February—Columbus’ Voyage and Astronomy, by Dr. Alan Batten.
March—BL Lac Objects: Naked Quasars or Gravitational Lenses? by Dr. Roberto Abraham.

April—Members' Night, by Jack Newton and Gareth Shearman, demonstrating CCD imaging and electronic networking.
May—Distant Galaxies Through the Eyes of C.F.H.T. and HRCam, by Dr. Robert McClure.
June—What's New with Black Holes, by Dr. Anne Crowley.
September—N.A.S.A. Select Program—The Mars Probe by Frank Ogonoski.

For the first time, we held a picnic during the summer break. It was well attended and we are hoping to make it a regular feature on our calendar of activities.

Membership is holding steady at 125, but there is a dearth of younger members and has been for some time. I have wondered whether a junior organization, affiliated to the R.A.S.C., and offering activities more in keeping with their age and needs might be the answer.

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1993

If we overlook the sad news that our membership dropped from 130 a few years ago to 106, we more than made up for it in other ways. Members' nights are always popular. For instance, in April we had a slide show from a member who built an observatory that dwarves his two-story house and hilarious videotape made of Journal editor Jeremy Tatum's appearance on the TV program Front Page Challenge.

Jack Newton continues to wow everyone with his incredible colour CCD images. His cold camera has been pushed into the corner of a cupboard, his darkroom is now a storeroom and the only time he uses his camera is to photograph his computer screen. CCD software manufacturers occasionally send him their products to "test drive" before marketing them.

The centre meets at Jack's mountain-top home for Observers' Nights every third Wednesday in the month, giving us an opportunity to use the 25" Newtonian that takes pride of place in the observatory that he built right into his house. After an observing session, or if the skies are cloudy, everyone gathers in his computer room, located beneath the dome, to examine his most recent images and learn more about the art of tri-color imaging.

Slowly, but surely, some members are getting hooked on CCD imaging and with dedicated software increasingly becoming available; it should soon entice many more.

Most of the monthly speakers we enjoy listening to are due to the efforts of Dr. James Hesser, director of the Dominion Astrophysical Observatory, who is also a member of the Victoria Centre. He arranges for members of his professional staff to come down and address the centre on some current topic.

Some, who were only visiting the D.A.O. were steered our way while others generously donated time out of their busy teaching schedules at the University of Victoria. One June 24th, the annual meeting of the Canadian Astronomical Society, CASCA '93, was

held in Victoria, giving us a unique opportunity to attend public lectures that were held at UVic.

Each spring the centre sets up a booth at Victoria's four-day annual Hobby Show. The show attracts a lot of people, giving our booth staffers a chance to answer questions and also invite people to join the RASC. On the other hand, public star parties have always been a problem. In the past we have had to ask for municipal permits to set up telescopes on a particular day. Invariably it was cloudy or raining.

A break came last year when we were able to obtain permits for three months at a time, which allows us to set up scopes in a favourite waterfront park whenever the skies are clear, on any day we choose, without asking permission first.

About ten years ago the centre built a 0.5 metre computerized telescope, mounted on a large trailer. The contraption proved too unwieldy and it was not very popular. It sat in a field, unused, for years. In 1993, following a suggestion made by members Jack Newton and Jean Godin, a decision was made to put it to good use. We have loaned the telescope to Pearson College of the Pacific, in Metchosin, which is one of a chain of similar colleges around the world.

They have begun building a large, well-equipped observatory to house the telescope on their dark site near the ocean.

The best part is that upon completion the centre members will have access to the entire installation in return for the loan—and we are getting the trailer back to use for something else!

An almost-new Takahashi 100 mm doublet fluorite refractor was recently donated to the centre. This, along with a newly completed 20" Dobsonian that Gene Steeves began and George Ball completed, and other, older telescopes, now lets our members take advantage of an excellent arsenal.

Each year, in October, we hold our Annual Meeting and Dinner. Last year we assembled at the Imperial Inn to meet our new officers for the coming year. Once we had put the business part aside we settled back to listen to Jeremy Tatum tell us about the "killer rocks" that threaten to do us all in and how a University of Victoria study is cataloguing the rogues.

He admits it is not altogether clear what we could do about an asteroid on a collision course with Earth... there may not be enough time.

The topics of the monthly meetings for the past 12 months were:

October 1992--Galaxies—Their Nature and Formation, by Dr. Henrik Vedel.

November—Annual GM and Banquet. The Canada-France-Hawaii Telescope—A Resident Astronomer's View, by Dr. Timothy Davidge.

December—Astronomy and the Cultural Revolution in China, by Linzhuang Gao, Beijing Astronomical Observatory.

January 1993--Cataclysmic Variables by Dr. Peter Garnovich, Dominion Astrophysical Observatory.

February—Pre-main Sequence Evolution and Lithium Burning, by Dr. Fritz Swenson, University of Victoria.

March—Binaries—Cooking and Feasting, by Dr. Graham Hill, Dominion Astrophysical Observatory.

April—Members' Night.

May—Awesome, Stupendous Astrophotography, by Jack Newton.

June—The Mountains of Chile—Observations and Observatories, by Dr. Doug Geisler, Cerro Tololo Inter-American Observatory.

September—Site Testing in Saudi Arabia, by Ernie Pfannenschmidt.

October--75 Years of Science at the DAO, by Dr. Robert McClure, DAO.

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1994

Membership for the 1993-94 year stubbornly remained at one of the lowest levels in some years, though signs of a recovery were evident in the number of new members who signed up. It has been encouraging to note how many of our new members have been in the younger age bracket, and for the first time in some years, we have had an increase in teenage members.

Besides our regular monthly meetings, which are held at the University of Victoria, the centre has a thriving CCD observers' group, which meets at Jack Newton's home. We also have a newly organized beginners' observing group, which helps many new members to learn the basics of astronomy using simple, manual telescopes. This group meets at Sid Sidhu's home, at a dark site well north of Victoria, which is well suited to this purpose.

A number of members have enthusiastically plunged into the deep waters of CCD making, using various plans, mostly the popular Cookbook version, and most are well on the way to completion. Jack Newton's dome was sardine-packed on CCD observers' night when he demonstrated CCD integration and image enhancement. Jack has been beta-testing a number of products from manufacturers, which makes these meetings all that more interesting. He was recently loaned a 7-inch Meade refractor and the new 12-inch Meade Schmidt-Cassegrain LX200 to beta-test, along with a Pictor CCD to take the necessary images. Compuscope also loaned him their CCD camera version and the software needed to drive it. Jack made a number of suggestions to improve the software to make it more suitable for amateur use.

The Centre donated a 20-inch Newtonian telescope and the computer needed to control the telescope to Pearson College of the Pacific. The college is located near Victoria and the equipment has been mounted inside a splendid observatory that was newly built on college grounds. Early in the spring of 1995, when the installation is completed, the college will be holding an inaugural celebration to which all centre members have been invited. Centre members Jack Newton and John Pazder have supplied technical assistance.

The college is offering its students astronomy courses, complete with CCD cameras and full computer support. Pearson College's students are selected from every country in the world and the astronomy courses will be an added bonus for them. A plus for the centre is the college's invitation from Jean Godin, its acting director, for members to make use of the facility simply by picking up the phone and asking.

During the past 12 months we enjoyed a varied selection of speakers and subjects:
October 1993--75 Years of Science at the Dominion Astrophysical Observatory by Dr. Robert McClure.
October--The Dynamics of an Asteroid, by Dr. Jeremy Tatum.
December--The York Astrology/Astronomy Survey: Reflections and Implications, by Dr. Michael M. De Robertis.
January 1994--Members' Night.
February--The Quasar/Radio Galaxy Puzzle: Are They the Same? by Dr. Ann Gower.

March--HST: The Next Generation? by Dr. Dennis Crabtree.
April--Things That Go Bump in the Night, by Don Moffat.
May--The Star-Formation History of Nearby Dwarf Galaxies, by Dr. Tammy Smecker-Hane.
June--Twinkle, Twinkle Cannibal Star--The Blue Straggler Story, by Dr. James Nemec.
September--Members' Night.

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1995

Last year proved to be a memorable year and one that will be recalled by members for many years to come. For the most part we enjoyed all the usual things: the monthly meetings, the beginner's and advanced observers' groups, the library and telescope borrowing arrangements, observing sessions, mirror grinding... the list goes on.

What set 1995 apart from other years was something special and has to do with one of the basic reasons why the RASC exists--community involvement and public relations--which help to extend our love of the night sky to those who have had no opportunity to see its splendid wonders for themselves. Last year provided us with one of those special occasions to help young people, not from Victoria, but from around the world.

Some RASC members might not be aware of the eight United World Colleges that are located in various nations around the globe. They exist to provide a full scholarship for selected gifted students in every country. Victoria is the home of one of the world colleges, the Lester B. Pearson College of the Pacific, set in forested surroundings on the southern tip of Vancouver Island.

Pearson College is a dynamic international college where 200 young people from over seventy countries live, study and serve together. Students learn about themselves and our world, allowing them to transcend nationalism, respect diversity and promote international understanding. The two-year baccalaureate academic curriculum and the college's intense community programs help to develop outstanding students who are socially committed and will return to their homes with a global vision.

Two years ago, centre members Jack and Alice Newton heard that one of the College's Chinese students had approached the acting director, Jean Godin, with the idea of setting up an astronomy program. After talking to Jean Godin, who is also a centre member, Jack approached the Victoria Centre with an idea: would we be interested in permanently loaning our 500 mm telescope to Pearson College as the basis for a new observatory. This particular telescope had been mounted in a closed trailer for hauling with a truck but had been little used over the years.

The Centre enthusiastically adopted the idea and a subsequent ripple effect quickly brought aboard a number of college patrons and foundations to provide funding for an observatory to house it. An architect drew up the plans and work soon began on the observatory's construction on college grounds, on the side of a mountain overlooking the ocean. Centre members Jack Newton, John Pazder

and other members provided the necessary expertise to install the telescope and upgrade its ancient electronics.

By early April 1995 everything was ready. A 16-foot dome sat above a splendid office and warm room. The telescope had been equipped with an ST6 CCD, which, in turn, was connected to two computers. A winding connecting road, appropriately named The Milky Way, had been built up the steep hillside.

Invitations to the official opening of the Lester B. Pearson College Observatory were sent out for the big day, which was to be held on April 7th, 1995. Victoria Centre council members, representing the Centre membership, were among the fifty patrons and foundation representatives that were present. After a dinner, speeches and ribbon cutting, everyone inspected the facility and expressed their deep satisfaction that the effort to build the observatory had been well worthwhile.

The winners, when all is said and done, are the students. So popular did the new astronomy program prove to be that Jean Godin had to limit their number to 40, though many more expressed their desire to join in.

Victoria Centre members are very proud to have contributed something of educational value to the young men and women who attend the college. Many students come from third-world nations. Most have never had an introduction to the wonders of the night sky or looked through a telescope. Much of their astronomical background is rudimentary and it is pleasing to see their interest as they devour their newfound knowledge.

Centre members have been given an open-arms welcome to share the facility with the students, which has turned out to be mutually beneficial for everyone. Jack Newton has made himself available at any time (even when he is in bed in the early hours) to assist the students with answers to questions. Other members have made up small groups to work with the students and the interest level has remained high.

We look forward to sharing the skies with our Pearson College friends for a long time to come.

Monthly meetings and speakers:

October 1994--The Fate of the Universe—Measuring the Mean Mass Density of the Universe Using Clusters of Galaxies, by Dr. Simon Morris, DAO.

October—Progress on the Gemini 8-m Telescope, by Dr. Andrew Woodsworth, DAO.

December—Galaxies Nearby and Far Away, by Dr. Ron Marzke, DAO.

January 1995--Members' Night.

February—The Aurora Explained—a videotape from the Astronomical Society of the Pacific.

March—Hubble Space Telescope—Servicing Mission Plus One Year, by Dr. John Hutchings, DAO.

April—Recent Developments Concerning the Size and Age of the Universe, by Dr. Peter Stetson, DAO.

May—The Constellation Figures: When, Where and Why? by Dr. Robert McClure, DAO.

June—Members' Night.

September—Astronomy from the Southern Hemisphere, by Dr. Nicholas B. Suntzeff, Cerro Tololo Inter-American Observatory.

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1996

Interest in astronomy has always been fairly high in Lotus Land. New members keep our membership hovering around 115 or so. Strangely, there are many members who drop out after a short stay with us. Why? We wish we knew. There are those who join and become addicts; and there are those who join and drop out quickly. In an effort to counteract this trend, our programs have been geared to helping new members by offering them good equipment, and knowledgeable members to help them learn their way around the constellations.

We hold three meetings a month: a regular meeting, a beginners' group, and an advanced bunch who like to call themselves the CCD observers group. We don't all have CCD's, but the interest is there, evidenced by the avid scrutiny they engage in of computer images taken by those who do have CCD's.

More members are showing an interest in astrophotography and a number of good slides and prints are making an appearance. A few members are putting their sketching abilities to work and producing some fine results.

Victoria has decided to host the 1998 general assembly. The dates are June 19-22 and we have chosen to hold it at the Lester B. Pearson College of the Pacific rather than at the University of Victoria. Pearson College has everything a GA could need, all on campus, and is situated on the southernmost tip of Vancouver Island. The location is idyllic: forested and right on the ocean's edge and with its own dock. Delegates and visitors to this GA will be able to take the College's boat out to view basking sea lions on small islets and maybe spot a killer whale or two.

The College owns a splendid observatory with a view overlooking the snow-capped Olympic Mountains in Washington State across the Strait of Juan de Fuca. We will have full use of its facilities, including Jack Newton's 25-inch Newtonian, which is now positioned there, and CCD equipment with a bank of computers. We are looking forward to welcoming as many of you as can make it to what we hope will be a memorable experience.

Here is a run down on the speakers and topics we enjoyed during the year:

October 1995--The Edmonton Centre's Grazing Lunar Occultation Expedition to Ft. Nelson, B.C., by Dr. Doug Hube.

November—Jack Newton giving a slide show of the Newton's Astronomy Tour of the U.K.

December—Member's Night.

January 1996--Member's Night.

February—Binaries Now and Then—Tales of a Misspent Youth, by Dr. Alan Batten.

March—The Eating Habits of the Milky Way, by Dr. Pat Cote.

April—Member's Show and Tell.

May—Adaptive Optics, by Dr. Jim Stilburn.

June—Quasars—Light Bulbs at the Edge of the Universe, by Dr. Simon Morris.

September—Members' Night.

October—Finding Chemical Abundances in Real Upper Main Sequence Stars, by Dr. Grant Hill.

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President: D. Moffatt

Vice-President: B. Almond

Secretary/Treasurer: B. Almond

Treasurer: Mrs. M. Ulitzka

Recorder: Mrs. S. Barta

Skynews Editor: Mrs. B. Hesser

Director of Telescopes: S. Sidhu
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National Council Representative: G. Shearman
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1997

Around the turn of the year the Centre couldn't make up its mind whether we did or did not want to host the 1998 GA. The truth is, no one wanted to go through the process of organizing a GA through the University of Victoria's monolithic organizational structure. Then, out of the blue, Gary Shearman came up with an idea: Why not bypass the university and hold the GA at the smaller Lester B. Pearson College of the Pacific, where just two people would be involved in the decision making process. This was the breakthrough we had been waiting for. The idea was enthusiastically adopted and we formally notified the national council of our decision.

After the national office had told us that they had accepted our offer we all took a collective gulp and decided that the earlier we got started, the better. Most of us shared the feeling that now we had committed ourselves we should roll up our sleeves and get busy. No one had to be sweet-talked or coerced into leading a sub-committee, though a few wondered if we were all slightly mad for offering to host a GA, and raving lunatics for attempting it! What gave everyone the biggest scare was the discovery that very few of the old timers, who'd cut their teeth on organizing GA's many moons ago had offered their service this time around. Instead, they offered reassuring words that they would always be there with advice if their help was needed.

Well, that was better than nothing at all and as it turned out they were as good as their word. In fact, Alice Newton, who was heavily involved in the last GA we hosted and who initially said she couldn't find the time to serve on a committee, later changed her mind and decided to jump aboard, much to everyone's relief! Some on the committee, like myself, had never even attended a GA and didn't have the foggiest idea what was involved, while others, who had attended GA's spent most of the first couple of meetings patiently explaining what was what.

However, the fog soon lifted and we all started to feel confident that we could pull it off.

With myself voted in as planning committee chairman, with nothing more going for me than the fact that I was the Centre president, we soon formed a committee: Gary Shearman, program and speaker; Frank Jones, registration; Don Dundee, site arrangement; Alice Newton, hospitality and special events; Keith Rawcliffe, Sid Sidhu and David Lee, exhibition and displays.

Since those were shaky early days we entered 1998 with most of the preparatory work wrapped up. The timeline had been completed, speakers had been contacted, tours had been decided on, accommodation, meals, the wine and cheese party and the banquet had all been taken care of—and an article promoting the 1998 GA in Victoria is scheduled to appear in the February issue of *The Journal*. Frank will have the registration papers ready for mailing in January and David will be posting them in the GA's web site around the same time.

The Centre is looking forward to this wonderful opportunity to extend our friendly west coast hospitality to all members of the RASC next June. See you there!

We continued a beginners' observing program, dedicated to new members who know nothing about the night sky and created a liaison team of Sandy Barta and Eric Schandell to give them someone they can be comfortable talking to. Our elementary school telescope loan program stays in the capable hands of Sid Sidhu, who runs it with commendable efficiency and Jack and Alice Newton invite all the advanced amateurs to their home every third Wednes-

day for CCD imaging. Members are being encouraged to involve themselves in astrophotography and drawing at the eyepiece. Jack Newton, Bill Almond and Jan Wisniewski are pushing ahead with their CCD imaging.

The officers for the year were:

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1998

In 1998 the Victoria Centre membership took on many challenges, some new and some old. This was the year that we hosted the General Assembly. Public outreach was a strong focus with the school telescope program well established in local schools, the Saturday night public observing session at the DAO and our partnership with Pearson College.

By the beginning of 1998, much of the planning for the GA had been done with only a few last minute decisions. Our president, Bill Almond, with a courageous crew of volunteers put on a great GA. Thanks to Jean and Helene Godin and all the staff at Pearson College for their part in making the facilities accessible to the event. The line up of speakers was remarkable, including Canadian astronaut Julie Payette, the extra solar planet presentation from Dr. Geoffrey Marcy, the Helen Sawyer Hogg presentation from Dr. David Crampton and the Plaskett Medal presentation from Dr. Dean McLaughlin. Excellent paper sessions and displays were also presented.

The awards ceremony honoured many RASC members for their contributions and achievements.

Some memorable moments included trying to arrange over a hundred delegates in a group photo; Alice Newton's entertaining slide show that left no member unscathed (we were wondering why Alice was taking pictures of us months before); being bussed to the Pearson College Observatory via the Milky Way (the winding gravel road to the observatory) by Jean Godin. He quite proudly noted that he knows the way so well that he could drive it with his eyes closed! We pleaded with him not to demonstrate!

Speaking of driving, one cannot mention GA 98 without talking about the volunteer transportation support. Chuck Filtness and his team made getting to and from the GA and other tour events as painless as possible. Our thanks also go to Frank Jones for the monumental task of registering all the delegates, keeping the books straight and making sure all the bills were paid.

For the past three years Sid Sidhu has been operating the school telescope program. The program has made telescopes available for loan for each of the three school districts in Greater Victoria and Sooke.

Sid assembles the telescopes from materials funded by the Centre and has also been assisted by George Ball and Colin Wyatt from time to time. The program has been a great success and is an integral part of our public outreach.

From the beginning of April to the end of October there is a faithful group of members who spend their Saturday nights on what we have come to know fondly as "the Hill." The DAO hosts a Saturday public visitors' night and outside the Plaskett Telescope dome Centre members set up their scopes for the public to look through.

The Victoria Centre has gained many new members through this program.

In September of 1998 Jack and Alice Newton left Victoria to start a new chapter in their lives, forming what is now known as the Florida Imaging Centre in Chiefland, Florida, where they host a bed and breakfast for astroimagers. They will certainly be missed. Jack and Alice hosted the CCD Observer's Group for many years and generously shared their interest in astronomy with this Centre. At the GA Jean Godin announced that the telescope Jack had donated would have a plaque installed naming the telescope the Newton Nomad.

At a Centre meeting a newly created Service Award was also announced, called the Newton/Ball Service Award, named after and honouring the Newtons and their longtime friend, George Ball, for their valuable contributions to the Centre. The Award was designed to honour selected Centre members each year that had given outstanding service, thereby benefiting all members of the Centre.

The Centre hosts three different special interest groups. In 1998 there was a change in some of the groups. Sandy Barta's amateur telescope making group went through a transformation to become the Astronomy Café, a simple get-together for anyone with an interest in amateur astronomy. And with the absence of the Newtons, Bill Almond started a hands-on CCD Observer's Group at his home observatory, where members can learn all about how CCD images are created. Sid Sidhu still hosts a new observer's group for beginners.

Membership is the highest it has been in a decade: 176. We look forward to the coming year with the anticipation of sharing our interest in astronomy with all these new ones.

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1999

It has been another busy and successful year for the Victoria Centre. Along with the cycle of monthly Centre meeting at UVic, Bill Almond's CCD Group and Sid Sidhu's New Observers' Group were joined by Sandy Barta's Astronomy Café get-together on Tuesday evenings.

Centre activities this year included the Hobby Show at Canwest (West Shore) Mall and the ongoing work at Pearson College. The students at Pearson are in the process of making a telescope and mirror, to be installed at the sister World College in India. There is a great deal of interest in astronomy amongst the general [public—especially school age children.

Sandy mentioned the possibility of having an introductory class for the youth section of the Centre.

A meeting in early October to discuss the idea of a special beginner's astronomy study program highlighted the need for both the adult and school age levels. Some of the sessions would focus on basic observing skills, equipment selection and use, as well as ideas for beginning observing projects.

Some of our members shone in the spotlight again this year. Bill Almond was presented with an Astrophotography Award for his

work with CCD imaging. Eric Schandall made it into the pages of Sky and Telescope with his home observatory. Sid Sidhu's "Teles-Coop" was officially opened this year as well. Jan Wisniewski is to receive an RASC Messier certificate for his work capturing images of every object in the catalogue.

Our meetings for the year are as follows:

October 1999--Annual General Meeting and Dinner. David Ballam gave the keynote talk, The Canadian Role in the International Spaceguard Survey.

December—A multimedia presentation was given by Pal Virag, called Canada in Space.

January 2000--Updates on CCD Technology, by Jan Wisniewski.

February—Oscillator Strengths—Master Key to Understanding the Secrets of the Universe, by Jeremy Tatum.

March—Progress in the Gemini 8-Meter Telescope Project, by Andy Woodsworth.

May—Beyond the Great Attractor, by Mike Hudson.

June—Members' Night.

July—Public Conference—Special Presentation—Our Universe, Old Expanding and...Accelerating? By Prof. Robert Kirshner.

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2000

Another year has passed already, bringing us fun, friends and the pursuit of knowledge and beauty through the observation and study of the stars.

Although I was unable to attend many meetings this last year, I was able to keep abreast of Centre activities through our Skynews newsletter. The lecture topics at the monthly meetings have covered everything from the genesis of the universe to weather conditions on Venus and how stars form in dwarf galaxies.

Our outreach and education programs continue to bring more of the curious to the meetings, and have even, through the Light Pollution Committee, begun to make progress in dealing with the previously under-recognized fallout of technological advancement.

This year also included a very successfully attended Astronomy Day held by the Centre in the Royal British Columbia Museum main hall. Although I couldn't join the great crew of volunteers I understand it was a great success and it looks like it will be repeated at this venue next year.

I did get a chance to go out to Camp Barnard (the local Scout campsite) and saw sunspots through a telescope for the first time. Beavers, Cubs and parents all seemed to greatly appreciate our volunteer's time and effort.

Members nights, the Pearson College Observatory project, Star Party 2000 (put on by the Cowichan Valley Starfinders) and our annual Hobby Show stand in Canwest Mall are but a few of the activities that have filled our year.

Our regular meetings for this year were:

September 2000--An Amateur-Amateur's Apprenticeship, by Eric Schandall.

October—Members' Night.

January 2001--Venturing Down the Cosmic Highway—Lights, Action, Telescopes, by Ken Hewitt-White.

February—The Solar Telescope Project, by Pal Virag.

March—Under the Weather—The Atmosphere of Earth and Venus Examined, by Richard Harvey.

April—Canadian Involvement in the Next Generation Space Telescope, by Dr. Simon Morris, Senior Research Officer, DAO/HIA/NRC.

May—Sending a Spider to the Moon, by Randy Atwood.

June—FUSE—Canada's New Space Telescope, by John Hutchings of the NRC.

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Treasurer: F. Balchunas

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2001

as the sky seems to turn, swinging the constellations through their annual parade, the activities of the Centre also worked their way through the seasons during another active and successful year. This past cycle has seen many wonderful celestial events. In August, the Perseids were on display again. I was able to get out to see them but, unfortunately, due to local light pollution, I found it not nearly as spectacular as I would have wished. I am sure I was not alone in my disappointment.

Here on Earth, however, we have had some terrific activities. I have not had a chance this year to participate in any but the star party in September. There has been a lot of involvement by local schools. Astronomy night at Cedar Hill Jr. Secondary, Willows Elementary and the ongoing work at Pearson College are three that come to mind.

Astronomy Day was held this year on April 21 at the St. Ann's Academy instead of the B.C. Museum. Stelly's School was involved with setting up the children's activities. Sid Sidhu and his willing crew of volunteers made this event another great success.

The highlight of the year has to be the opening of the Centre of the Universe at the DAO/HIA/NRC on Observatory Hill in Saanich on June 9, under the direction of Scott Mair. This is precisely the kind of thing we need to keep the public interested in astronomy and it is hoped that tour groups will include the stop in their itineraries. A big thank you to all the folks who were instrumental in bring this facility on line.

Speakers and topics for the year:

September 2001--Regulating Star Formation Activity in Dwarf Galaxies, by Dr. Lise Van Zee.

October—Members' Night—What Did You Do on Your Summer Holidays?

November—Annual Meeting and Dinner. Gemini—Canada's New 8-m Telescopes, by Dr. Dennis Crabtree.

December—Introduction to Adaptive Optics, by Glen Herriot of the NRC.

January 2002--PN and How They are Interacting with our Knowledge about the Central Stars, by Falk Hewwig.

February—Back to the Beginning—Understanding the Large Scale Structure of the Universe. By Arif Babul.

March—Members' Night—Comets: Superstition and Mystery, by Bill Almond and Is That a CCD Camera or is That a Modified Webcam? by Guy Walton.

April—Tour of the NRC/DAO Visitors' Centre, by Scott Mair.

May—New H-Alpha Solar Images, by Jack Newton.

June—The Search for Extra Solar Planets, by Russ Robb.

September—The Origin of Galaxies, by Simon Lily.

October—Some Astrophysical Facts Worth Memorizing, by Jim Nemeč.

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President: D. Lee

Vice-President: D. Luttmann

Secretary: Mrs. M. Ulitzka

Treasurer: Mrs. L. Roche

Recorder: B. Quenneville

Skynews Editor: Mrs. S. Barta

Website Editor: D. Lee

Director of Telescopes: S. Sidhu

Librarian: J. S. Sidhu

New member Liaison: E. Schandall, Mrs. S. Barta

National Council Representative: Mrs. S. Barta

Council: B. Almond, D. Dundee, Dr. James Hesser, Mrs. B. Hesser, J. Howell, E. Maxfield, F. Ogonoski, M. Scrimger, R. Walker.

2002

The Victoria Centre enjoyed another very busy year with a wide variety of activities supported by a good number of members, and we experienced a modest growth this year.

The regular activities we participated in included: Our regular monthly meetings, Saturday evenings at the DAO, Sandy Barta's Astronomy Café every Friday night, where all things astronomical are discussed, and, if it's clear, where everyone observes under the beautiful dark, Sooke skies. Sid Sidhu's beginners' observing sessions are also continuing once a month, weather permitting, at his house in the Highlands.

This year marked the first anniversary of the DAO's Centre of the Universe Visitors' Centre, which has added a new Stargazer Sunday public program to the regular Star Party Saturday programs that have been running for a number of years.

A small group of dedicated Victoria Centre volunteers participate on both evenings, which run from April through October. Members contributed their telescopes and time to showing an interesting variety of objects to the public during these evening events. Centre members also assisted the Centre of the Universe staff in holding a well-attended public viewing of the partial solar eclipse on June 10. This coincided nicely with the Centre of the Universe's first birthday on June 9.

Astronomy Day 2002 once again returned to the Royal British Columbia Museum on April 20. A large number of volunteers turned out to present a broad variety of well-attended exhibits and events for the public. The Herzberg Institute of Astrophysics and the University of Victoria Astronomy and Physics Department provided a number of astronomers for the Ask the Astronomer booth, where the public could get answers to their most burning astronomy questions. Outside, on the museum grounds, a number of telescopes were set up to show the sun and sunspots.

Pearson College Observatory continues to be put to good use by our members, with Peter Schlatter assisting the students. The annual Centre picnic was held there again this past summer.

Our school telescope program continues this year thanks to Sid Sidhu and a team of dedicated volunteers. They visited seven schools this past year to give classroom presentations and night-sky viewing. The program continues to be well received by the schools and it forms an integral part of our public outreach program.

The Light Pollution Abatement Committee has made good contacts with municipalities in the Western Communities. Sid Sidhu and Bill Almond are in discussions with the Citizen's Advisory Committee, which is involved in preparing light pollution abatement guidelines for Metchosin. Langford has updated their Subdivision and Servicing Bylaw to include a need to reduce night-sky light pollution. Highlands has formally adopted a Light Pollution Abatement Bylaw.

The second annual Victoria Centre Star Party, held on September 6 and 7, was a success despite the threatening weather. Both Friday and Saturday evenings saw a number of interesting presentations.

The Centre is grateful for the hard work of Rich Willis in organizing the Party. Earlier, in mid-June, a number of members attended the Island Star Party put on by our good friends, the Cowichan Valley Starfinders.

The following is a list of monthly speakers for our regular meetings held in Room 061 in the Elliott Building at the University of Victoria:

November 2002—Annual General Meeting and Dinner. Star Clusters: Not Just a Pretty Face, by Dr. Peter Stetson
December—Members' Night
January 2001—Looking at Telescopes Differently, by Ernie Pfannenschmidt
February—Looking for Ourselves: The Search for Planets and Life Outside the Solar System, by Dr. Gordon Walker
March—Star Formation: A Pictorial Journey from Molecular Clouds to Planetary Systems, Dr. Doug Johnstone
April—Gemini: Two Telescopes, by Dr. Dennis Crabtree
May—Evolution of Galaxies, by Dr. Marcin Sawicki
June—Arrows to the Moon: Canada's Contribution to the Apollo Program, by Chris Gainor
September—Members' Night
October—Adventures in Site Testing, by Ernie Pfannenschmidt.

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National Council Representative: Mrs. S. Barta
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2003

The Victoria centre experienced another successful year due to the outstanding efforts, dedication and enthusiasm of its members. These efforts allowed the Centre to maintain a very extensive list of programs, events, and public outreach.

A sample of regular activities includes our regular monthly meetings, Saturday and Sunday evenings at the DAO, our new Sidewalk Astronomy program organized by Blair Pellatt, and Sandy Barta's Astronomy Café, every Friday night, where all things astronomical are discussed and, if it's clear, everyone observes under the beautiful, dark Sooke skies.

Sid Sidhu's beginners' observing sessions are also held once a month, weather permitting, at Sid's house under the dark Highland's skies.

The Centre offered a number of special events and public outreach programs this year. Twenty-four public and private schools, Cubs and Brownie groups took advantage of the School Telescope program. This included classroom presentations, solar observing and night sky viewing. Last year we have been able to reach more than 1,300 youngsters in the Greater Victoria area and shared our joy of the heavens. Many thanks to our dedicated volunteers for making this program such a success.

Astronomy Day 2003 was celebrated at the Royal British Columbia Museum on May 10 with a full schedule of activities, which included a lecture series by professional astronomers, multimedia presentations, hands-on activities of mirror grinding, children's fun and educational activities, displays of solar system scale models, solar observing, and show and tell of different types of telescopes. In the evening, the public was invited to the Centre of the Universe at the DAO for night sky viewing. It was a successful event and fun for all.

This year Mars had a special place in the hearts of the public and amateurs because of its close approach to the Earth. To take advantage of this event, on August 28, the Centre organized a public viewing of Mars at Cattle Point in Oak Bay. About 2,000 people enjoyed viewing Mars through more than twelve telescopes set up by members.

For the November lunar eclipse, the Centre again organized public viewing at Cattle Point. About 500 people turned out to enjoy this rare and dazzling sight.

The third annual Centre Star Party, held on September 19 and 20, at the Victoria Fish and Game Association, was a success. Friday evening started out with several excellent presentations, after which everyone headed outdoors to find clear skies and a night of very enjoyable observing. Saturday evening also saw a number of interesting presentations.

The Centre is grateful for the hard work of Rich Willis for organizing the star party.

In late July, many members also attended the Island Star Party hosted by our good friends, the Cowichan Valley Starfinders. This year saw the Centre continue its modest growth, but we were also saddened by the loss of longtime members John Howell and Ernie Pfannenschmidt. John made major contributions to the Centre and also to the Calgary Centre. Ernie was a long time RASC member, a DAO staff member for more than 20 years, and a regular contributor to Sky and Telescope magazine. Both will be greatly missed.

For the benefit of members, the Centre now has 14 telescopes for loan. We also continue to maintain and enhance a valuable library for the benefit of members. Sid Sidhu, who has been looking after the telescope, library and school outreach program for many years, was chosen for the Newton-Ball Award last year for his outstanding service to the Centre.

The Centre congratulates Sid for this achievement and thanks him for his enthusiastic dedication. This past year also saw member Chris Spratt donate his meteorite and tektite collection to the National Meteorite Collection of Canada. The collection, which includes 800 samples from more than 400 meteorites, adds 76 previously unrecorded meteorites to the national collection.

2003 was the Centenary of the RASC's Royal designation and more than a dozen members from Victoria were on hand at the RASC GA at the end of June in Vancouver to join in the celebrations.

The Light-Pollution Abatement Committee efforts continue this year. The City of Victoria Mayor and Council were presented with a petition concerning the effects of inefficient streetlights depriving its citizens of the enjoyment of the night sky.

With respect to the light pollution issues the city has instructed staff to "add a lighting review to the City's Design Guidelines." A large concentration of big box stores in the Western Communities is

a concern to the Light-Pollution Committee, especially the ones at high elevation and in direct line of sight to the DAO. A plan is underway to make personal contacts with these businesses to highlight effects of light pollution on the astronomical activities at the DAO.

This year the Centre's Web site migrated from the Victoria Freenet to a private Internet service provider, with donated Web site and email service being provided. The new webmaster, Joe Carr, is reworking, upgrading and expanding the Web site content. Thanks are extended to the past Webmaster, David Lee, who was responsible for the site's formative years.

The following is a list of speakers from our regular meetings:
November 2003—Dr. J. J. Kavelaars: Discovering Planetary Moons
December—Dr. Richard K. Herd: Meteorites—Messengers from Space
January 2004—Members' Night
February—Margaret Milne: Canada-France-Hawaii Telescope Legacy Survey
March—Dr. Puragra Guhathakurta: The Birth and Evolution of Galaxies
April—Ernie Pfannenschmidt: 65 Years of Backyard Mars Observing
May—Dr. Chris Willott: Enormous Black Holes in the Centre of Galaxies
June—Dr. Falk Herwig: The Born-again Giants
September—Members' Night
October—Dr. R. Elizabeth Griffin: Modern Treasure Hunting in Astronomy's Historic Records.

Many thanks to all the speakers, members and volunteers whose dedication and hard work have made this past year very successful.

The officers for the year were:

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Vice-President: R. Willis
Secretary/Recorder: R. Walker
Treasurer: Mrs. L. Roche
Skynews Editor: Mrs. S. Barta
Webmaster: J. Carr
Email Lists: J. Carr
Director of Telescopes: S. Sidhu
Librarian: S. Sidhu
Centre Historian: B. Almond
New Member Liaison: Mrs. S. Barta
National Council Representative: D. Lee
Council: B. Almond, Mrs. S. Barta, Ms. L. Dorrance, Dr. J. Hesser, E. Maxfield, F. Ogonoski, B. Pellatt, B. Quenneville, C. Scarfe.

2004

The Victoria Centre and its members have enjoyed a busy and exciting 2004.

Special events for the Centre this year include:

Anniversary—Ninety years have passed since our foundation in 1914. Our regular March meeting honoured this milestone with cake, coffee and a special slide lecture by the Centre Historian, Bill Almond. Also celebrating a birthday this year, the DAO Centre of the Universe turned three on June 10, 2004.

George Ball Observatory—Our Hon. President, George Ball, has generously offered his astronomical equipment to the Centre. On April 1 the dome and telescope were moved and will be stored until a suitable permanent location is found. Council held a special meeting on April 28 at George's new home for the purpose of honouring his thoughtful donation. President Chris Gainor presented George with two photo albums from the day of the move and a Certificate of Appreciation from the Centre.

Star Party—The annual Star Party was held at the Victoria Fish and Game Reserve. It was well attended but due to overcast skies

the focus was on lectures, socializing, buying sprees and door prizes.

Venus Transit—There was great excitement on June 8 for the transit of Venus when members were treated to an as-it-happens experience at the DAO Centre of the Universe. A live Internet link with a location in Paris, France, provided audio and video that was projected onto a BIG screen. One member joined a RASC-hosted tour to Egypt to view the event.

Eclipse—This year provided clear skies on October 28 for a spectacular full-Moon total lunar eclipse. Many members participated in a public-viewing event at the Centre of the Universe and at Cattle Point, sharing their time and telescopes. Public attendance at each location averaged 200 people. Other members, who set up scopes in local parks in and around Victoria, also saw much of the public take an interest in the events of the night sky.

Monthly Events—Regular meetings were held every second Wednesday, in Room 061 of the Elliot Building, UVic. This year the Astronomy Café was hosted by Bruno Quenneville as an informal get-together every Monday night. Sid Sidhu hosted the New Observer's Group every fourth Friday. This year the weather was not so cooperative but did provide six good observing sessions. Bill Almond hosted Astronomical imaging every third Wednesday at the Almond Observatory, aka, the Nut House. This year provided five months of good viewing. Joe Carr and David Lee regularly generated a lot of interest when they brought an armload of new equipment to try out.

Outreach Programs—The School Telescope Program provides an opportunity for school-age children to look through a telescope and enjoy the wonders of the night sky. The program began in 1966 under the leadership of Sid Sidhu with the assistance of Centre volunteers and students from Pearson College. This year the program reached 1600 children in 15 schools, providing telescopes to the schools, classroom presentations and night sky viewing sessions.

Public Observing—The Centre of the Universe included Saturday Star Parties from April through October and Stargazer Sundays in July and August. Centre volunteers joined the staff and shared their telescopes and knowledge of the stars.

Pearson College of the Pacific—Bill Wier spearheaded and maintained a very active observing program with the astronomy student group. The program focused on viewing skills, the use of astronomical telescopes and learning about the night sky.

Sidewalk Astronomy—Blair Pellatt and other members take celestial observing to the public. There were a couple of sessions at the Oak Bay and Victoria Libraries, which made it a good choice for further sessions.

Astronomy Day—Celebrated at the Royal British Columbia Museum on April 24 with activities including lectures, multimedia presentations, an outdoor solar system scale model, astronomical images, mirror grinding, solar observing, a children's activity table, story telling by a Wizard, and an Ask the Astronomer booth. In the evening the public was invited to the Centre of the Universe for night sky viewing.

Committees—An Observing Site Committee was formed on February 26, chaired by Dave Bennett. The purpose of the project is to investigate and then find or create one or more observing sites for the Center's use. A site survey was made available for members and results were posted on the web site. This committee is actively pursuing a permanent site.

Awards—Several awards are presented at the Annual General Meeting and Dinner, usually held in November. The Newton-Ball Award recognizes a member for his or her personal dedication to activities past or present that have benefited all members of the Victoria Centre and Bill Almond was this year's recipient. The Ernie Pfannenschmidt Annual Award for Amateur Telescope Making was introduced in 2003 in Ernie's memory. The Centre's Award for Astrophotography will be introduced this year.

The following is a list of speakers from our regular meetings:
January—Astro Imaging—Lunar Eclipse Video and Members' Show and Tell
February—Don Morton: Recollections of a Canadian Astronomer
March 10—RASC Victoria Centre's 90th birthday
April—Jean-Rene Roy: The Latest Science from Gemini
May—Steven Courtin: The Evolution of the Ecliptic Calendar
June—Chris Gainor: The Story of Mars Exploration and Astro Imaging. Joe Carr: Mars. David Lee: Astrophotography
September—Members' Night
October—Dr. Gregory G. Arkos: From Schiaparelli to Spirit—A History of the Human Exploration of Mars
November—Doug Johnstone: The JCMT—Past, Present and Future.

The officers for the year were:

Hon. President: G. Ball
Past President: D. Lee
President: C. Gainor
Vice-President: B. Quenneville
Secretary: Ms. L. Dorrance
Treasurer: Mrs. L. Roche
Skynews Editor: Mrs. S. Barta
Webmaster: J. Carr
Email Lists; J. Carr
Centre Historian: B. Almond
Director of Telescopes: S. Sidhu
Librarian: S. Sidhu
National Council Representative: D. Lee
Council: B. Almond, Dr. J. Hesser, E. Maxfield, F. Ogonoski, B. Pellatt, C. Scarfe, R. Willis.

2005

191 members were registered as of the end of September 2005. 128 of these members have taken advantage of receiving the Skynews by email and now receive an electronic version. Victoria Centre members attended the General Assembly held in Kelowna on May 20-23. They enjoyed lectures and meetings and participated in tours and contests. Members also attended the Tenth Annual Island Star Party on July 1-3, held at the Victoria Fish and Game Association on the Malahat. The event was organized by Frank Ogonoski and hosted by the Cowichan Valley Starfinders. The Centre's Fifth Annual Centre Star Party was held later on Sept. 2-3, also at the Fish and Game Association. The event was organized by Scott Mair, Bruno Quenneville and Rich Willis, and was a great success.

Members from other astronomy groups, some as far away as Oregon, all enjoyed the lectures, socializing, buying sprees, door prizes and, of course, the view.

A Perseid meteor shower event this August was hosted at Jane's Farm and was well attended by Centre members. On average, one meteor per five minutes was observed. Observing Mars in October and November around its closest approach proved difficult due to the cloudy, humid Victoria skies and Martian dust storms.

Regular events held by the Centre include: Meetings at UVic, room 061, every second Wednesday of each month at 7:30; Astronomy Cafe, hosted by Bruno Quenneville, an informal get-together every Monday night; the New Observers' Group, hosted at the home of Sid Sidhu every fourth Friday of the month at 8 p.m.; Astro Imaging, hosted by Bill Almond on the third Wednesday night of the month at the Almond Observatory (aka, the Nut House) Many of the images produced by members during these sessions are available on the Victoria Centre's website.

A few volunteers have been seeking a new observing site in and around Victoria. Nothing was found but their hard work paid off in a more satisfactory way: the Victoria Centre and the National Re-

search Council (NRC) are pleased to announce a Licence to Use Land Agreement which provides Centre members expanded access to NRC/HIA property on Observatory Hill, including access during times which are outside the normal operating hours of the Centre of the Universe Interpretation Centre.

Centre members in good standing, who are active observers, qualify to use this excellent site. Little Saanich Mountain (aka Observatory Hill) offers mag. 4.0 to 4.5 skies under favourable conditions. The centre is excited by the expanded observing and imaging opportunities afforded by this agreement and looks forward to further enhancing our long-standing working relationship with the NRC and the Centre of the Universe.

The School Telescope Program provides an opportunity for school age children to look through Centre-provided telescopes and also enjoy the wonders of the night sky via classroom presentations and night sky viewing. The program continues with great success under the leadership to Sid Sidhu with the assistance of Centre volunteers and students from Pearson College.

This year the Centre purchased a Solar Max telescope, a welcome addition that has helped the program reach 800 children in 25 schools.

At Pearson College, Bill Weir maintains the long established link between the Centre and the College's astronomy program. Centre members are welcome at any time to use the observatory's facilities.

By taking to the sidewalks around Victoria, the Sidewalk Astronomy Program, with Blaire Pellatt and other members, brings the opportunity for celestial observing to the public.

Astronomy Day was celebrated at the Royal B.C. Museum on April 16 with daytime activities including telescope making; an astrophotography workshop; a large, outdoor solar system scale model; a star lab planetarium; Ask an Astronomer booth; solar observing; children's activities, which included story telling by the Wizard of the Stars, and multimedia and static presentations. In the evening, the public was invited to the DAO Centre of the Universe for night sky viewing. 1,500 people attended Astronomy Day, which was organized by Sid Sidhu, and ran smoothly due to the 70 volunteers who donated their time and equipment.

On several occasions this past year, Scott Mair was a guest on local radio stations, bringing astronomy to the public.

The Light Pollution Abatement Committee was contacted by a representative from the H. R. MacMillan Space Centre in Vancouver, who was looking for interest in participating through an initiative to bring the issue of light pollution to the media in Vancouver and Victoria.

The Centre is proud to have added a data projector, an Astrovid Camera and two telescopes to our collection. A Truss Dob telescope was rebuilt by reusing an existing 20-inch mirror. Members in good standing may borrow the telescopes owned by the Centre.

Several awards were presented at the Annual General Meeting and Dinner held in November. The Newton-Ball Award recognizes a member for his or her personal service that has benefited all members of the Centre and this year was awarded to Sandy Barta. The Ernie Pfannenschmidt Annual Award for Amateur Telescope making was presented to Guy Walton for his contributions in rebuilding the Truss Dob.

A new Award for Astrophotography was introduced last year and this year certificates were presented to Joe Carr for planetary imaging; David Lee for Wide Field Imaging; John McDonald for wide field deep space; Don and Elizabeth van Akker for deep space imaging and Bill Weir for astronomical observations and sketching. The UVic Astronomy Student Award, originally a book award, is now a gift certificate presented to a UVic student. This year the award went to Christopher Avis.

Certificates of Appreciation for Centre members who volunteered for many events, committees and programs that made this

year a success: Jacklyn Porter, Kevin Ferris and Dr. Jim Hesser for their continuing support to the Centre's observers and, importantly, the development of the Licence to Use Land Agreement; to Mark Wheen for his support at the Pearson College observing site; to Frank Ogonoski for his continued support at the Centre's Star Party, and to Sid Sidhu for maintaining the Centre's Telescope Equipment Program and managing our BC Gaming Funds applications.

The following subjects and speakers were arranged during the year:

January—Hunting for Moons: Dr. J. J. Kavelaars, HIA/DAO

February—Planetary Nebulae: Gail Conway, Malaspina College

March—Cassini at Saturn: Constantine Thomas, Planetary Scientist, IOS

April—Supermassive Black Holes and Galaxies: Henk Hoekstra, UVic Astronomy

June—Members' Night

October—Imaging Cosmic Origins: Dr. James Di Francesco, NRC/HIA

November—Annual General Meeting and Dinner

December—Audio-Video Presentation on Mars: Pal Virag, Victoria Centre.

The officers for the year were:

Hon. President: George Ball

Past President: Chris Gainer

President: Scott Mair

First Vice-President: Bruno Quenneville

Second Vice-President: Joe Carr

Secretary: Ms. L. Dorrance

Treasurer: David Griffiths

Webmaster: Joe Carr

Librarian: Sid Sidhu

Skynews Editor: Sandy Barta

National Representative: David Lee

Council: Bill Almond, Sandy Barta, Jim Hesser, Ed Maxfield, Frank Ogonoski, Blaire Pellatt, Colin Scarfe, Rich Willis.

2006

This year the RASCALs Star Party was held May 26 to 28 at the Victoria Fish and Game Association. Events included:

- Presentations by Dr. Patrick Côté and Dr. Brenda Matthews, both from the Herzberg Institute of Astrophysics, Victoria
- A workshop on digital astrophotography by David Lee and Joe Carr
- A swap meet and door prizes, including a pair of Celestron 20x80 binoculars!

The Summer Picnic was held at Pearson College Observatory on August 19, where members enjoyed good food, great company, and perfect weather, allowing for fantastic observing from the darkest skies available in the Capital Region.

Regular Meetings were held every second Wednesday of the month, except July, August, and November, at the University of Victoria. Bruno Quenneville organized an interesting series of speakers and arranged for two members' nights to see what members have been up to. Astronomy Cafe is an informal get-together every Monday evening. The events were hosted by Bruno Quenneville and John McDonald, and a new record of 17 in attendance early in the year suggested that it was time for a new location with more space. For the remainder of the year, Astronomy Cafe was held at Fairfield Community Centre. The New Observers Observing Group hosted by Sid Sidhu ran the fourth Friday of each month at 8:00 p.m., It continues to be very popular.

Our members have been particularly busy this year taking many fine astrophotographs, mainly using digital cameras. Some 125 photographs of celestial objects were posted to the Victoria Centre Web site, as well as 6 sketches.

The Victoria Centre has celebrated International Astronomy Day since 1997. We are very fortunate to have developed a relationship with the Royal BC Museum to celebrate Astronomy Day each year on museum grounds. This year's theme was "Capture the Experience"; activities on May 6 included: poster displays; an ecliptic calendar; a telescope-making workshop; astrophotography displays; ask the professional astronomer desk; a scale model of the solar system; Star Lab Tour Through Space and Time; a comparison of a model of Galileo's telescope with a modern off-the-shelf one; as well as an arts-and-crafts area for children - always a popular event, with a telescope as a door prize. The festivities concluded with night-sky viewing at the Centre of the Universe.

The Centre of the Universe is the public interpretative Centre at the Dominion Astrophysical Observatory. Dedicated Victoria Centre volunteers joined the friendly staff for Public Observing included Saturday Star Parties from April through October, Stargazer Sundays in July and August, Holiday Star parties, and special events such as Astronomy Day. The Sidewalk Astronomy program with Blaire Pellatt and Victoria Centre members brings the opportunity for celestial observing to the public on an informal basis. Sidewalk Astronomy can be especially rewarding when you can help people see a familiar object like the Moon through new eyes and hear a little voice repeating excitedly as they walk away hand-in-hand with their parents, "I saw the Moon, I saw the Moon, I saw the Moon..."

This year the Light-Pollution Abatement Committee focused on maintaining a dialogue with local municipalities to convince authorities to regulate outdoor lighting. In addition, the Victoria Centre has collected quantitative data by taking sky brightness readings at various locations around Greater Victoria, with the hope that this data will aid us in convincing decision makers of the seriousness of the problem. The Membership Committee reported 185 members were registered as of the end of September 2006, and several visiting and new members from other Centres were welcomed at monthly meetings and observing events.

The Victoria Centre maintains an extensive library of 600 books and periodicals. Some books date back to 1834 and may have historic value, but in the age of high-tech gadgetry may have no current astronomical interest. Eventually we will have to make a collective decision regarding disposal of these old books.

The Centre purchased a Meade 8-inch LX90 Schmidt-Cassegrain Telescope, and a Skywatcher HEQ 5, for public-outreach programs. Eyepieces and solar filters were also added to the inventory. Members in good standing often borrow the Centres' scopes when they were not in use for public outreach events. The Chant Medal was awarded to Ed Majden on May 21, 2006 for his work on meteor spectra. Ed has led the way with innovation and perseverance to advance the field. Several awards were presented at the Annual Christmas Dinner and General Meeting held in November.

The Newton-Ball Award named for Jack Newton and George Ball for their outstanding service to the Centre recognizes a member for his or her personal dedication to activities past or present that have benefited all members of the Victoria Centre. This year the award was presented to Bruno Quenneville. In his position as Centre Vice-President, Bruno has played many roles: New Member Liaison, Astronomy Cafe host, coordinator of the RASCALs Star Party, Astronomy Day & School Telescope Volunteer, principal negotiator with NRC for the Centre's "Licence to Use Land Agreement," and outreach astronomer to so many members and non-members alike.

The Ernie Pfannenschmidt Annual Award for Amateur Telescope Making was presented to John McDonald, for his outstanding achievement in constructing various optical and electronic devices for use in amateur astronomy.

The Award for Astrophotography certificates were presented in five categories as follows:

- for Tripod Widefield—Malcolm Scrimger for his photograph of the Milky Way and Telescope Silhouette at Pearson College, August 19, 2006
- for CCD Deep-Space Imaging—Les Disher for his image of NGC 6992/5, Veil East, September 24, 2006
- for Digital SLR Camera, Galaxy—Joe Carr for his image of the Andromeda Galaxy M31, M32, and M110, August 18, 2006
- for Digital SLR Camera, Nebula—Charles Banville for his image of the North America Nebula, July 2, 2006
- for Digital SLR Camera, Deep-Space Widefield—John McDonald.

Officers for the year were:

President: Scott Mair
 First Vice-President: Bruno Quenneville
 Second Vice-President: Joe Carr
 Secretary: Ms. L. Dorrance
 Treasurer: David Griffiths
 Webmaster: Joe Carr
 Librarian: Sid Sidhu
 Skynews Editor: Sandy Barta
 National Representative: David Lee
 Council: Bill Almond, Sandy Barta, Jim Hesser, Ed Maxfield, Frank Ogonoski, Blaire Pellatt, Colin Scarfe, Rich Willis.

2007

The Victoria Centre experienced another successful year due to the outstanding dedication and tireless efforts of its many members. The RASCALS Star Party took place on August 24-26 at the Victoria Fish and Game Association and included daily door-prize draws, three presentations, a swap meet, and, most importantly, solar and nighttime viewing. A picnic at Pearson College hosted by Mark When was on September 1, which gave members a chance to see how Mark is upgrading the Evans Vanderbyl 20-inch Newtonian. Astronomy Café is an informal weekly event that attracts both members and newcomers for discussion and coffee at the Fairfield Community Centre. The New Observers Observing Group was hosted by Sid Sidhu and continued this year to run every fourth Friday of the month at 8:00 p.m.

The School Telescope Program is offered free of charge to the local schools, Scouts, and Girl Guides clubs. It involves PowerPoint presentations in a classroom setting and night-sky viewing for the children and adults. In the past year we were able to share the wonders of the night sky with over 2500 school-aged children. We were also delighted to participate in the 100th-anniversary celebrations for the Annual Beaver at Camp Barnard. year.

Sidewalk Astronomy events were hosted by Blaire Pellatt at the Oak Bay Library on a few evenings and a few Saturday mornings this year. Each session was eagerly attended by many young library patrons who experienced views of lunar craters at night and H-alpha views of solar activity during the day.

International Astronomy Day was celebrated in Victoria on Saturday, April 21. Although the weather did not cooperate, The inside exhibits at the Royal British Columbia Museum during the day included an "Ask an Astronomer" booth, telescope viewing, solar observing, telescope making, Astro-kids activities, tour the Solar System session, astrophotography, and live music inspired by the stars with June Bugg and the Ugly Brothers.

Later at the Centre of the Universe, a special presentation was given, "Phoenix: An International Mission to Mars," by Dr. Victoria Hipkin, as well as telescope tours and planetarium shows.

It is with great sadness that we say a final goodbye to a few members this year. George R. Ball passed away on 2007 January 19. He was a Life Member of The Royal Astronomical Society of Canada. He enjoyed sharing his extensive knowledge with any and

everyone who asked of him. Henk Meursing would have been in his 94th year this past March and was highly involved for many years with light-pollution abatement.

The Light-Pollution Abatement Committee was busy advocating, through local print media, the need for regulation that will encourage installation of quality street lighting. We have provided comments to Saanich Council regarding a new development proposal in the Blenkinsop Valley, and Oak Bay council was approached regarding lighting issues at Cattle Point, one of the Centre's observing sites.

Victoria Centre has embarked on an ambitious project to build, equip, and run an observatory atop Observatory Hill, on the site of the National Research Council's Dominion Astrophysical Observatory (NRC/HIA). The NRC has agreed to contribute \$5000 to our Observatory Project for 2007 and will provide telephone, ADSL Internet, and electrical services at no cost to us on an ongoing basis. The NRC and Victoria Centre have also agreed to build a 10x14-foot SkyShed on this site. The Victoria Centre has purchased a Paramount ME robotic mount, which will give us a superb tracking platform upon which to build our robotic telescope.

Victoria Centre was awarded a \$10,000 grant by the B.C. Gaming Commission, and the bulk of this amount will be spent on the observatory project. In addition, every member was contacted by telephone over the summer of 2007 to appeal for funds for our share of the observatory infrastructure. We have exceeded our goal of \$10,000. Thank you everyone! Having an observatory on this site is a milestone for the Victoria Centre.

Equipment donated to the Victoria Centre included an 8-inch Celestron telescope with solar filter and eyepieces for the School Telescope Program by Mrs. Meursing, a Nikon D80 DSLR Camera by Allan Nattress, and a 6-inch Dobsonian telescope by Scott Mair, along with the construction of a storage cupboard by Sid Sidhu for Astronomy Café.

The Newton-Ball Award was named for Jack Newton and George Ball for their outstanding service to the Centre. The award recognizes a member for his or her personal dedication to activities past or present that have benefitted all members of the Victoria Centre. This year the Newton-Ball Award was presented to David Lee. The RASC Victoria Centre Awards for Astrophotography were presented to Charles Banville for a wide field image, John McDonald for an image of a dark nebula, and Guy Walton for an image of galaxy M31. A Certificate of Appreciation was presented to Stephen Courtin for his participation in the Centre's Public Outreach Program.

Meeting Schedule for 2007:

- January 10 Dr. Mark Adams: "Three Radio Astronomy Futures: EVLA, ALMA and SKA"
- February 14 Dr. Chris Pritchett: "Supernovae and the Mystery of 'Dark Energy'"
- March 14 Dr. John McDonald: "Full Circle: The Physics and Astronomy Connection"
- April 11 Dr. Julio Navarro: "The Hierarchical Formation of the Milky Way"
- May 9 Russ Robb: "Search for Transiting Extrasolar Planets"
- June 13 Dr. Gregory Poole: "The Role of X-ray Astronomy in Modern Cosmology"
- September 12 Dr. Marla Geha: "Life Cycle of Stars: Formation, Adulthood, and Death"
- October 10 Dr. James Graham: "Planetary Debris Disk Observations with the Keck and Hubble Telescopes"
- November 17 Annual General Meeting and Dinner; Brian Bornhold: "NEPTUNE Canada Regional Cabled Observatory"
- December 12 Jim Stilburn: "Telescopes for Amateur Astronomy".

Officers for the year were:

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Vice- President: Sid Sidhu
Second Vice-President: John McDonald
Treasurer: David Griffiths
Secretary/Recorder: Li-Ann Scibo
Librarian: Charles Banville
Skynews Editor: Scott Mair
National Representative: David Lee
Members at Large: Bill Almond, Dave Bennett, Jim Hesser, Ed Maxfield, Blaire Pellatt, Colin Scarfe, Chris Gainor, Norm Willey.

2008

This year was a busy year. Above all this, 2008 will be remembered for the excitement generated by the construction of our own Victoria Centre Observatory which was officially opened 2008 August 18, with RASC members, corporate partners, and the National Research Council staff helping to celebrate this milestone in the Victoria Centre's history. The project was completed on time and under budget with the generous assistance from our corporate partners, generous donations of funds and labour from Victoria Centre members, and the goodwill and support from the NRC. Victoria Centre members put their hearts into this project and we are all very proud of this achievement.

The CASCA conference was held in Victoria in late May and RASC members were invited to attend conference lectures and a tour of the HIA. Members don't usually get to participate in the public tours since they are usually volunteering at the events. Our National Representative Chris Gainor attended the 2008 General Members attended the Cowichan Valley Starfinders party on July 4 and 5, as well as our own RASCALS Star Party on August 29 and 30, which enjoyed clear weather on the first night and a choice of sucker holes on the second night. We were privileged to have Regular Meetings were held every second Wednesday of the month, at the University of Victoria; the exceptional speakers this year generated a number of great discussions. Geoff Jones and John McDonald hosted Astronomy Cafe, an informal get-together every Monday evening at the Fairfield Community Association. A few scopes were often on hand, and we observed when conditions warranted.

Nova Program, LPA, and our regular observing sessions. With our new Web site and link to Meetup.com we expect to keep members better informed and hope to increase participation in our numerous club events.

Observers Observing Group, hosted by Sid Sidhu, continued this year under the dark skies of the Highlands just outside Victoria. This year about 20 new and not-so-new members took advantage of this program. Now that we have our own observatory, our active observers are able to use the facility on Wednesday evenings. Focused observing nights were also scheduled for events like occultations or double stars.

Our active observers have kept us informed on what they observed by posting emails and photos and sketches on Zenfolio, which is accessed through the RASC Victoria Web site.

The School Telescope Program is offered free of charge to the local schools, scouts and girl guides clubs. It involves the introduction of space and astronomy in a classroom setting, as well as an evening of night-sky viewing for the children and their parents.

In the past year this program was offered to over 3500 school-aged children. In the spring of 2008, the Victoria Centre partnered with Shoreline Community School to offer an adult education astronomy course. Due to its success the course will be offered again next year.

Astronomy Cafe with about 20 volunteers hosted two Night Sky Viewing events along with the Fairfield Community Association. The first event on March 17 drew about 100 members of the public, and they must have spread the word because the second event held

on September 15 brought about 200 members of the public to the event. At Lester B. Pearson College of the Pacific,

Our ongoing support of the Centre of the Universe (CU) involved members assisting with programs, including the Scouting/Guiding Badge program, summer star parties, and the Perseid Meteor Event.

2008 May 6 was the 90th anniversary of the first observation made with the Plaskett Telescope, and Centre members joined in the festivities. This was also of interest to the public, and was conveniently close in date for Astronomy Day, celebrated in Victoria on Saturday, May 10. Although the weather did not cooperate this year to allow us to offer viewing of the night sky, the daytime activities and presentations were well received by the approximately 500 members of the public who attended this year.

It is with great sadness that we say a final goodbye to a few members this year. Many of our members remember John L. Climenhaga and his association with our club. His name first appears in our records in 1951 as Librarian, and he continued to serve in many positions in the Centre's Council during the 1950s and 1960s. His last Council appointment was as President from 1962 - 64, following which he was appointed as Honorary President for two terms: 1974 - 76 and 1992 - 98.

We appreciate all he accomplished for the Centre, and his name and achievements will be recorded in the Centre's 100th Anniversary History to be published in 2014.

Committees Light-Pollution Abatement Committee—We are very pleased to report that finally our efforts to make Cattle Point a night-sky friendly site have been successful.

Our many thanks go to the Municipality of Oak Bay for retrofitting the lights. Now Cattle Point is an oasis in the desert of urban light pollution. This is only a small victory, in the long struggle to claim the night sky as our own.

- A Messier Observing Certificate was awarded to Elizabeth van Akker.
- Simon Newcomb Award was awarded to Gary Seronik at the GA.
- The Ken Chilton Award was presented to Jennifer Tigner. Our own centre recognizes its members each year with awards and certificates:
- Newton-Ball Award was presented to Joe Carr.

Officers for the year were:

President: Joe Carr
Vice- President: Sid Sidhu
Second Vice-President: John McDonald
Treasurer: Martin Shepherd
Secretary/Recorder: Li-Ann Scibo
Librarian: Charles Banville
Skynews Editor: Scott Mair
National Representative: Chris Gainor
Members at Large: Bill Almond, Sandy Barta, Dave Bennett, Jim Hesser, David Lee, Ed Maxfield, Colin Scarfe, Malcolm Scrimger, Dirk Yzenrand.

2009

In addition to our usual events, outreach, and serving, this year was made doubly busy by activities associated with the International Year of Astronomy. At last count, RASC Victoria Centre volunteers had participated in, or organized, over 145 days of outreach events associated with IYA. Although our observatory was substantially completed in August 2008, work there has continued, both on the building and the • Numerous Sidewalk Astronomy activities at many community locations.

For 2009, we enjoyed the following guest speakers at our regular monthly meetings, at the May Astronomy Day event, and at the September Paul Sykes Lecture: January 10 Special Saturday talk to

kickoff IYA2009—Dr. Jaymie Matthews (UBC), “What if Galileo had a space telescope?”

This year has brought with it a host of outreach and public activities. These are some of the highlights: The year began with the “kick-off” of IYA2009 in Victoria, with members at booths and displays at area malls (and with telescopes aimed at tiny pictures of Saturn on far walls), and continued with another kick-off at the Centre of the Universe, a family event with telescopes on the deck and aimed at the Sun and Venus.

Next up were a month of exhibits at the Bay Centre and at Victoria Airport, with displays on huge monitors (the From the Earth to the Universe, or “FETTU” exhibits) showing everything from Hubble images, to drawings of planets by local third graders, to images taken by Victoria Centre members (all of February).

March displays and functions included a tour of Ross Bay Cemetery.

April saw our members at Sun Day, at an Earth Day Celebration, and best of all, at our own “100 Hours of Astronomy Marathon,” held in front of the Royal British Columbia Museum, with displays of the Universe, again on the deck with solar telescopes, and the “Beveree,” at Camp Barnard, Sooke, with a display and solar observing for little astronomers. June kicked off with what seemingly has become an annual event, Night Sky Viewing at the Fairfield Community Centre, held for children and parents from the neighbourhood. This is our second year for this event.

Also in June: tables and volunteers at the IMAX theatre, while the computer-animated film *Cosmic Voyage* played, tables and volunteers at the Theatre Inconnu for a performance of a play about Danish Astronomer Tycho Brahe and mathematician and mystic Johannes Kepler, and tables and volunteers at Buccaneer Days, and at Beaver Lake for Solstice Day. July events included Sidney Day, at Memorial Park Society grounds, and the Strawberry Festival at Elk/Beaver Lake. August highlights were Victoria Symphony Splash – again with volunteers and telescopes, and visits to four Gulf Island Provincial Parks by our members to make night-sky presentations. In September, we presented viewing and astronomy-related conversation at the Saanich Fair. We had a table and volunteers at the excellent NRC-CNRC open house, held at the HIA on observatory hill. We had tables and volunteers at Metchosin Days. July events included Sidney Day, at Memorial Park grounds, and the Strawberry Festival at Elk/Beaver Lake. August highlights were Victoria Symphony Splash – again with volunteers and telescopes, and visits to four Gulf Island Provincial Parks by our members to make night-sky presentations.

In September, we presented viewing and astronomy-related conversation at the Saanich Fair. We had a table and volunteers at the excellent NRC-CNRC open house, held at the HIA on observatory hill. We had tables and volunteers at Metchosin Days.

We held a second installment of the event at Fairfield Community Center. Plus, we held night-sky viewing at Butchart Gardens, setting up an array of telescopes for Garden visitors in a field just off one of the paths that skirts the dahlias. October saw our participation in more activities: A month of weekends at Mayfair Mall with the splendid FETTU exhibit, tables, handouts, a Galileo telescope replica, and volunteers. A table and volunteers at a performance of the Early Music Society presentation of music of the 17th century, images, and narration by Dava Sobel, author of *Galileo's Daughter*.

Most Victoria Centre IYA events and activities were organized by Sid Sidhu, with help from Sherry Buttner and Lauri Roche. Special thanks to them. The amount of work done by our volunteers was nothing short of amazing.

Thanks also for help and support from University of Victoria Department of Astronomy (UVic) and from the National Research Council of Canada (NRC)...without the help of people from these

organizations, our IYA success this year would not have been possible.

Officers for the year were:

President: John McDonald

Vice-President: Lauri Roche

Second Vice-President: Sherry Buttner

Treasurer: Li-Ann Scibo

Secretary: Nelson Walker

Librarian: Charles Banville

Skynews Editor: Scott Mair

National Representative: Chris Gainor

Members at Large: Bill Almond, Sandy Barta, Dave Bennett, Jim Hesser, David Lee, Steve Pacholk, Colin Scarfe, Malcolm Scrimger.

2010

This year was a busy year with many annual and special events, outreach programs and the work that is accomplished by our committees. Above all this, 2008 will be remembered for the excitement generated by the construction of our very own Victoria Centre Observatory.

The Victoria Centre Observatory (VCO) was officially opened 2008 August 18, with RASC members, corporate partners, and the National Research Council (NRC) staff helping to celebrate this milestone in the Victoria Centre's history. The project was completed on time and under budget with the generous assistance from our corporate partners, generous donations of funds and labour from Victoria Centre members, and the goodwill and support from the NRC. Victoria Centre members put their hearts into this project and we are all very proud of this achievement.

Members attended the Cowichan Valley Starfinders party on July 4 and 5, as well as our own RASCALS Star Party on August 29 and 30, which enjoyed clear weather on the first night and a choice of sucker holes on the second night. We were privileged to have Dr. Frank Younger and Dr. Laura Ferrarese both of the NRC-HIA as speakers this year and it appears everyone had lots of fun! The main door prizes included a spotting scope, donated by Sky-Watcher and a Celestron SkyScout.

Regular Meetings were held every second Wednesday of the month, except July, August, and November, at the University of Victoria; the exceptional speakers this year generated a number of great discussions. Geoff Jones and John McDonald hosted Astronomy Cafe, an informal get-together every Monday evening at the Fairfield Community Association. A few scopes were often on hand, and we observed when conditions warranted.

The New In terms of events outside our regularly monthly meetings, there was simply too much going on to summarize in this report but the list includes the activities of our observatory projects—AOMO and CGRT, Sidewalk Astronomy, Messier Marathons, IYA2009, Nova Program, LPA, and our regular observing sessions. With our new Web site and link to Meetup.com we expect to keep members better informed and hope to increase participation in our numerous club events.

Observers Observing Group, hosted by Sid Sidhu, continued this year under the dark skies of the Highlands just outside Victoria. Sid set aside every fourth Friday night to introduce new members to the wonders of the night sky. This year about 20 new and not-so-new members took advantage of this program.

Now that we have our own observatory, our active observers are able to use the facility on Wednesday evenings. Focused observing. Nights were also scheduled for events like occultation's or double stars.

It is with great sadness that we say a final goodbye to a few members this year. Many of our members remember John L. Climenhaga and his association with our club. His name first appears in our records in 1951 as Librarian, and he continued to serve in many positions in the Centre's Council during the 1950s and 1960s. His last Council appointment was as President following

His last Council appointment was as President following which he was appointed as Honorary President for two terms: 1974 - 76 and 1992 - 98. We appreciate all he accomplished for the Centre, and his name and achievements will be recorded in the Centre's 100th Anniversary History to be published in 2014.

Blair Pellatt passed away on 2008 August 6. He was a keen observer, and took great delight in sharing his enthusiasm for astronomy with kids of all ages. We appreciate his involvement with the Victoria Centre and his active participation in various Centre public outreach and observing events.

Light-Pollution Abatement Committee—We are very pleased to report that finally our efforts to make Cattle Point a night-ski-friendly site have been successful. Our many thanks go to the Municipality of Oak Bay for retrofitting the lights. Now Cattle Point is an oasis in the desert of urban light pollution. This is only a small victory, in the long struggle to claim the night sky as our own.

Speakers for the year:

January 9 How to Become a Professional Astronomer in Four Easy(?) Steps—Helen Kirk

February 13 Astronomical Activities at the HIA— Dr. Patrick Côté

March 12 Observing With The World's Best Telescope— Dr. Jim Nemec

March 17 Night-Sky Viewing in Fairfield

April 9 Dwarf Galaxies—Dr. Alan McConnachie

May 14 Dark and Luminous Matter in Clusters of Mahdavi

June 11 Pre-Confederation Astronomy in Quebec City—David Orenstein.

Officers for the year were:

President: John McDonald

First Vice-President: Lauri Roche

Second Vice-President: Sherry Buttner

Treasurer: Li-Ann Skibo

Secretary and Recorder: Nelson Walker

Librarian: Charles Banville

Website Editor: Joe Carr

Skynews Editor: Scott Mair

Director of Telescopes/School Programs: Sid Sidhu

National Representative: Chris Gainor

2011

For our Victoria Centre group, 2011 was one of those years that the weather gods decided to test our perseverance. Be it tent-toppling gale-force winds or unrelenting cloudy skies, our group faced one meteorological challenge after another. Nonetheless, our strong traditions of public outreach and member enthusiasm remained undiminished. In 2011, we recorded 5520 Galileo Moments and logged 775 hours of volunteer time. I think that these numbers prove that IYA2009 is a force that can be sustained over time, and that our club, under the leadership of Lauri Roche, has a commitment to education and awareness about astronomy that is extraordinary.

2011 proved to be a banner year for our club's public outreach activities. We set up booths and participated in local community events such as the Hobby Show, Earth Walk, Buccaneer Day, the Saanich Strawberry Festival, and the Saanich Fair. Our Saanich Fair participation was particularly successful with approximately 2000 visitors to our set-up. We also made numerous presentations and conducted night-sky viewing with community groups such as the Beavers, Girl Guides, McGill University Alumni, and several seniors' residences.

Our members made four night-sky presentations in B.C. Parks across southern Vancouver Island this summer. These were held at Goldstream, Miracle Beach, and two locations in Parksville. These events were extremely successful with one event hosting 180 very

enthusiastic people. Our group's relationship with B.C. Parks is very strong and we have discussed a potential telescope donation to one of the parks.

Our Centre's school program remained one of the centerpieces of its outreach. Sid Sidhu, Lauri Roche, and Dave Bennett head up This program, which is always in high demand. We got off to a much publicized start last December with an event hosting Canadian astronaut Dr. Robert Thirsk, co-sponsored with the Royal British Columbia Museum, IMAX Theatre, and the Centre of the Universe.

Framed copies of the children's book "Mary Lou's New Telescope," taken into space on the May 2009 ISS mission were presented by Dr. Thirsk on behalf of the Canadian Space Agency to our own Dr. Jim Hesser in recognition of the national IYA effort and the RASC's central role in its tremendous success. After this presentation to a nearly full audience of school children, Dr. Thirsk engaged his young audience in a captivating question-and-answer session.

This year, Sid Sidhu initiated a strategy to purchase two new solar telescopes for portable use in schools and at the Victoria Centre Observatory (VCO) as part of our Public Outreach Program. This strategy involves the sale of surplus telescopes that our Centre has accumulated over the years to fund the purchase of these two new solar telescopes.

Our full schedule of regular meetings has continued this past year, with general meetings held the second Wednesday of each month except during the summer. We have had a remarkable slate of lecturers over the past twelve months coordinated by our First Vice-President, Nelson Walker. This year's program began in December with a fine lecture by Dr. Andy Woodworth, who provided an update on the progress of the ALMA Radio Observatory in the Chilean high desert.

We were pleased to see the exciting results of this international effort in which several of our members and HIA colleagues are playing important roles. Another highlight this year was provided in February, when David Helfand of Quest University in Squamish kept us on the edge of our seats with his provocative arguments for the presence of intelligent civilizations in the universe. In his lecture, he challenged us as to whether our own species yet qualifies as intelligent life in the cosmic sense. We hope to have Dr. Helfand back again soon to remind him that the Victoria Centre membership is indeed located at the "Centre of the Universe."

The VCO continues to provide our members with a first-class facility for observing and imaging sessions. Several facility upgrade and repair projects are nearing completion or have been completed this past year. These have included a surge-protection system and improvements to software, wiring, power supply, and switching systems.

Thanks to Bruno Quenneville, John MacDonald, and the Technical Committee for their tireless work on the hill. With the installation of a new video camera this year, the VCO continues to make improvements toward our eventual goal of a "school and member friendly" remote operation.

Officers for the year were:

President: Lauri Roche

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Second Vice-President: Sherry Buttner

Treasurer: Li-Ann Skibo

Secretary and Recorder: Mark Bohlman

Librarian: Michel Michaud

Website Editor: Joe Carr

Skynews Editor: Malcolm Scrimger

Director of Telescopes/School Programs: Sid Sidhu

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2012

From Astronomy Day to the Transit of Venus to the new works of art created by our talented group of astrophotographers—2012 was a banner year. Speaking of artistic photos, my personal favourite of this year's crop is Charles Banville's Heart and Soul Nebulae which graced the cover of our October *Skynews*. Exquisitely rendered in vivid red tones, the image of this massive pair of star factories should, in my mind, be our group's emblem. For all of the spectacularly successful events that we staged this year, the theme for me that emerged above all others was how that the activity of public outreach day in and day out is unquestionably our glowing red "Heart and Soul." Our spirit of volunteerism has truly become an involuntary impulse. It's an impulse ingrained I suppose either by the pure joy of sharing the wonders of our Universe with others or perhaps more likely from relentless conditioning by others. Nonetheless, it is buried deep in our collective DNA.

In surveying the events of the past year, two small stories from *Skynews* particularly caught my eye that speak to this idea of "Heart and Soul." One is David Lee's incredibly amusing journal of his trip to Cedar City, Utah, to observe the May solar eclipse. In his journal, he recounts the challenges of last-minute travel, poor suitcase packing, and his encounters with other eclipse hunters along the way. A passage in his report where he describes arriving in Cedar City is absolutely marvelous and goes like this: "Public outreach being second nature to me now, I instinctively set up my telescope with a solar filter and spent the afternoon showing the Sun to the local community." Talk about a Galileo moment for the ages! And then there is Jim Hesser's story from late last year where at a conference in China he encountered a 25-year-old Sri Lankan astronomy writer, who acknowledged that when he was a teenager 10 years ago, it was a Canadian who had then corresponded with him on how to set up an astronomical library. When Jim queried him on if it could perhaps have been Sid Sidhu from Victoria Centre, the young man loudly exclaimed "Yes, indeed!" that was the name of the individual who had helped him.

Let's get down to a quick overview of our activities this year for the record and see further how the "Heart and Soul" of our membership works. But first, a big "thank you" to Lauri Roche for two years of tireless service as our president. Wherever you are Lauri, I hope that you are catching up on some well-deserved rest from the frenzied pace of the past two years.

Public Outreach Activities

Numbers don't lie. It was another remarkable public outreach year. Our members were out for 87 events this year at various presentations, public viewing sessions, and community events. In total, our volunteers contributed more than 1100 hours of their time. And (get your pencils ready) - 10,247 Galileo Moments were logged this past year by the Human Hand Clicker.

Astronomy Day provided our first big harvest of clicks for the year. Almost 700 people showed up at University of Victoria on a grey April day to experience a variety of hands-on exhibits and presentations.

The afternoon and evening activities were a model of cooperation with the participation of UVic, the Herzberg Institute of Astrophysics (HIA), CU, Pearson College and students from Science Venture joining our volunteer group. Our evening was highlighted with an auditorium-packed lecture by Bob McDonald, who again proved why he is one of the best science journalists anywhere. And then came the Transit of Venus that made Astronomy Day look like a warm-up act. It had the folks at Environment Canada wondering why they ever abandoned animal sacrifice as part of their forecasting tools. The Transit of Venus event proved to be one of the most successful (if not the most successful) outreach efforts ever in our history. It surpassed all previous benchmarks for attendance. Our volunteers were stationed at various locations

around Victoria including the Royal B.C. Museum, Mount Tolmie, Cattle Point, UVic, Metchosin, and the Dominion Astrophysical Observatory (DAO) to see more than 2000 members of the public delight in one of the most anticipated sky spectacles ever.

There have been many other notable public outreach activities this past year including our regular school program, provincial parks presentations, the Saanich Fair, Hobby Show, Earth Walk, Strawberry Festival, Buccaneer Days, and events for the City of Victoria Library system. We also purchased a new solar telescope for portable use in schools this year, using proceeds received from our telescope raffle and the sale of surplus telescopes. Our individual members contributed generously in support of the Victoria Symphony Orchestra as part of the Band of Heroes fundraising initiative recognized during this summer's Symphony Splash. But, there is one event that happened this fall deserving special mention and goes straight to the "Heart and Soul" of our group.

Over the past year, Sherry Buttner and the librarian at the William Head Correctional Institute worked diligently through the many administrative approvals needed in order to hold an astronomy outreach session with the residents of William Head. And finally, a few months ago, permission was granted for a group including Sherry and three of our members to hold a presentation and observing session within the grounds of the institution. It proved to be an extremely rewarding session for all involved, especially for a group of very engaged and highly appreciative residents whose spirits soared high into the night sky with the visit.

Regularly Scheduled Meetings and Functions

Our full schedule of regular meetings has continued this past year, with general meetings held the second Wednesday of each month except during the summer. We had a remarkable slate of lecturers over the past 12 months, again coordinated by Nelson Walker. We will be hard pressed to forget many of the memorable moments from our lecture series. One could cite Jim Hesser's fine tribute to his mentor the late Victor Blancoña seminal figure in the practice of modern international astronomy. Others may remember Sarah Sadavoy's infectious enthusiasm as she shared with us her presentation on Milky Way star formation. Or maybe it was Eric Steinbring's highly entertaining "video travelogue" of his chilly adventures to the far reaches of northern Canada in search of future ground-based telescope locations.

For those disposed to more hospitable climates, our Victoria Centre Council meetings are held the first Wednesday of alternate months except for July and August. All of our members are invited to these meetings. Astronomy Café is held Monday nights, except during the summer months, and gives members a chance to welcome new members and talk shop.

The Active Observers Group meets at the Victoria Centre Observatory (VCO) for regularly scheduled observing and imaging sessions. These sessions are hosted by "members-in-charge" (MICs), and among other important duties, are responsible for announcing the sessions and on the extremely rare occasion having to cancel these sessions. Most importantly, our MIC's primary task is actively observing and reporting on the status of the resident cougar and bear population on the hill.

Victoria Centre Observatory (VCO)

The VCO continues to provide our members with an outstanding facility for observing and imaging sessions. Kudos to our Technical Committee, especially Matt Watson and Dan Posey, for their ingenuity and hard work up on the hill. This year, the tracking mount on the 14" telescope was fully overhauled to improve long-exposure photography and remote operation capability. And we passed another major technical milestone this year with the successful overhaul of our new VCO bathroom key procedures.

Observing Activities

It was a "best of times" and "worst of times" kind of year for observing activities. A dreadful winter and spring threatened to

stretch into the summer until it was banished for two glorious months beginning at the end of July. That is, except for a freak interlude of crappy weather that, of course, coincided with our Star Party weekend.

Our fourth annual Messier Marathon was held at the end of March under variable skies with ten observer participants. Greg Higgs logged approximately 51 objects and, now that they are official, one boson.

Our annual Star Party was held the weekend of August 17 once again at the Metchosin Cricket Field. We had 90 attendees the first evening with decent observing. Nelson Walker and David Lee made well-received presentations on observing strategies and spectroscopy during the Saturday program. And we also learned how the covered outdoor stage at Metchosin makes for great intimate lecture sessions when all else quickly goes to hell.

Other Activities

Skynews, our monthly newsletter, remains an essential source of information for both our membership and this writer's annual report. Over the past few years Malcolm Scrimger has given his "heart and soul" in keeping this publication current and fresh with member-contributed articles, photography, and current astronomy news from around the world. Thank-you Malcolm for a job well done. There are some big shoes to fill here.

Details on all of our club's activities can be found on our Web site, <http://victoria.rasc.ca>, seamlessly maintained and updated by council member Joe Carr. That Joe has typically so little to report at our meetings is a testament to the expert care that oversees our Web site.

Our Light-Pollution Abatement Committee made continued progress this past year in their efforts to promote light-pollution awareness.

Much of our effort was focused on influencing the lighting design of the new UVic CARSA sports facility/parkade project. At the recent municipal hearing approving the project, we were pleased to hear that the university has promised to incorporate the Light-Pollution Abatement strategies advocated by our group. Our other major initiative this year has been our mission to designate Cattle Point as an Urban Star Park. Last month, we received unanimous approval by Oak Bay City Council for this concept. We are hopeful in the next few weeks that the Municipality's Parks and Recreation department will clear the way for our formal application to RASC's national LPA Committee.

Lastly, but of no small importance, the RASC General Assembly was held this past July in Edmonton. It was an especially memorable event in that our own Chris Gainor was appointed to National Council.

And in other assembly news, our proposal to host the 2014 GA in Victoria was approved. It's an event in which we are going to celebrate the 100-year anniversary of our existence here in Victoria, as well as making a little history of our own. I'm positive that, once again, we'll share with the rest of the country the "heart and soul" of a group with an uncanny ability to reach out to others in the name of this beautiful muse called astronomy.

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