

NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC | VOLUME 2008 ISSUE 1 | JANUARY/FEBRUARY 2008

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Looking Ahead

Remember, you are always welcome to attend meetings of Council, held on the first Thursday of every month at 7:30pm in the GMSO.

Jan. 10: Jaymie Matthews of UBC: Our Universe and Other Oddities.

Feb. 14: TBA.

Next Issue Deadline

Material for the March Nova should be submitted by Monday, Mar. 3, 2008. Please send submissions to:

Gordon Farrell (gfarrell@shaw.ca)

Title image: Chris Graham

President's AGM Report

by Pomponia Martinez

Overall, we have had a very busy but successful 2007. I would like to thank Council for organizing our 12 member talks that featured some of our very own members such as Craig Breckenridge, Eric Dunn, Gary Seronik (RASC – Victoria) and Craig McCaw. We also heard from John Chapman, Dr.'s Dennis Danielson and Ingrid Stairs from UBC, Dr. Levon Pogolian from SFU and telescope designer Mel Bartels from Oregon.

Additionally, we hosted Dr. David MacKay from NASA's Johnson Space Centre for Astronomy Day. Dr. MacKay spoke about the evidence of microbial life on Mars. We were also fortunate to have Dr. Ray Villard, PR director for the Hubble Telescope, as our keynote speaker for the first Paul Sykes Memorial Lecture which was held at SFU. I wanted to thank John Nemy and Carol Legate for their help in bringing Ray Villard to this part of the country.

We also held a number of public astronomy events including observing the lunar eclipse at the Gordon MacMillan Southam Observatory. We held a telescope

workshop using donated Global TV lenses and there was also a CAROp picnic and tour. Besides observing in the dark skies of Mount Kobau, members of Vancouver Centre also hosted a pancake breakfast on the closing day of the star party.

Topping off our year, Vancouver Centre held a 6-night education programme for introductory observing. A special thank you to Harout Markarian and his team at Vancouver Telescope for providing advertising and a comfortable venue for this series. Ron Jerome, our immediate Past President, did an excellent job of initiating and organizing the programme. Thanks Ron!

We started out the year with a number of issues which Council has been able to successfully address:

1. Question of our meeting space availability. We have now established that the Space Centre is committed to allowing us continued use of the auditorium and the GMSO for member meetings and council related meetings throughout 2008. Also, they will continue

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In September 2007, the Vancouver Centre offered its first introductory astronomy course, entitled NOVA. The objective was to provide an introduction to the night sky and some hands-on observing. Our target audience included the newer members of our Centre as well as the general public. Vancouver Telescope generously provided us a venue and members of the Centre taught the various classes. Over six weeks, we covered the following topics:

- The Basics of Observing
- Motions of the Sky and the Seasons
- Telescopes and Binoculars

- The Moon & Eclipses
- Our Solar System
- Stars and Galaxies

The program was well received and a repeat will be offered at Langara College beginning March 5th and running for six consecutive Wednesday evenings. The college adjoins Langara Golf course which is a reasonable location for viewing, given we are within the confines of the city. With the approach of spring, we are hopeful that the weather will cooperate with our observing plans.

The price is \$149 for the gen-

eral public, but members of the Vancouver Centre will receive a discount. Start time will be 7:30pm and classes will conclude at about 10:00pm. The registration will be handled by Langara College. It is listed alphabetically under Continuing Studies under the letter "N." On the internet: <http://www.langara.bc.ca/cs/programs/HOLS.html>

Here is the course description. Members with additional questions can contact Ron Jerome or Wayne Lyons.

Ron Jerome: jerome3292@shaw.ca
Wayne Lyons: lyonsww@shaw.ca ✪

NOVA – An Introduction to Astronomy

NEW

This course provides basic astronomy knowledge including an introduction to the night sky, the components of our solar system, the milky way galaxy and the universe. Includes demonstrations of the use of telescopes and provides hands-on observing sessions.

\$149

Course # 50502

6 Wednesday evenings – Beginning Mar 05, 2008. Time 1930pm-2200pm

You must register by phone at 604-323-5322 or in-person at the Continuing Studies Office at 100 West 49th Avenue, Vancouver.



Your 2008 Vancouver Centre Council. Back row: Karl Miller, Barry Shanko, Doug Montgomery, Chris Dolman, Wayne Lyons, Bruce MacDonald, Gordon Farrell, Gabe Mastey, Jason Rickerby. Front Row: David Dodge, Suzanna Nagy, Pomponia Martinez, Ron Jerome, William Fearon, Bob Parry. Not Pictured: Craig Breckenridge, Sally Baker.

President's Message

On behalf of your Council, I would like to wish everyone a happy and successful New Year! Our newly elected Council has already had one meeting this year and we envisage a busy year ahead.

Dr. Jaymie Matthews (O.C.) will be joining us January 10th, 2008 to talk about "Our Universe and other oddities." This sounds like the perfect introduction to welcome a new year!

Our February RASC Member meeting falls on Valentine's Day, so it will be up to you to convince your significant other that attending an RASC talk will be a dreamy evening. Think stars under dark skies. I'll make sure we have some Valentine's Day cookies too!

The evening of February 20th will bring a total lunar eclipse, and we will be telling you more about the eclipse at our next meeting. We hope to have a sidewalk astronomy public event on that evening as well, weather permitting. So this would be a really nice family event if the weather cooperates.

Since there has been continued demand for the NOVA introductory astronomy course that was held last year, organizer (and Immediate Past President) Ron Jerome has collaborated with Langara College for another session this spring. It is an ideal series of talks for amateur astronomers of all ages. This year we also hope to develop and hold a couple of short sessions on CCD

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About RASC

The Vancouver Centre, RASC meets at 7:30 PM in the auditorium of the H.R. MacMillan Space Centre at 1100 Chestnut St., Vancouver, on the second Thursday of every month. Guests are always welcome. In addition, the Centre has an observing site where star parties are regularly scheduled.

Membership is currently \$62.00 per year (\$36.75 for persons under 21 years of age) and can be obtained by writing to the Treasurer at the address on page 5. Annual membership includes the invaluable Observer's Handbook, six issues of the RASC Journal, and, of course, access to all of the club events and projects.

For more information regarding the Centre and its activities, please contact our P.R. Director.

NOVA, the newsletter of the Vancouver Centre, RASC, is published on odd numbered months. Opinions expressed herein are not necessarily those of the Vancouver Centre.

Material on any aspect of astronomy should be e-mailed to the editor or mailed to the address on page 5.

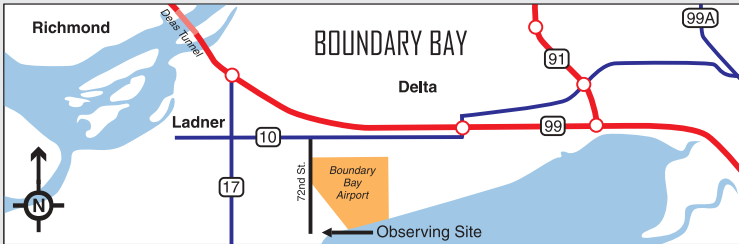
Advertising

Nova encourages free use of its classified ads for members with items for sale or swap. Notify the editor if you wish your ad to run in more than one issue.

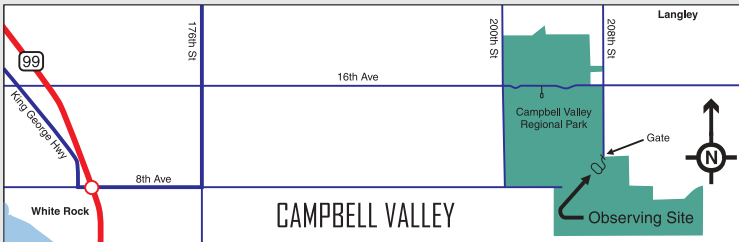
Commerical Rates

1/4 Page: \$15.00 per issue
1/2 Page: \$25.00 per issue
Full Page: \$40.00 per issue
Rates are for electronic or camera-ready files. Payment, by cheque, must accompany ad material. Make cheque payable to:
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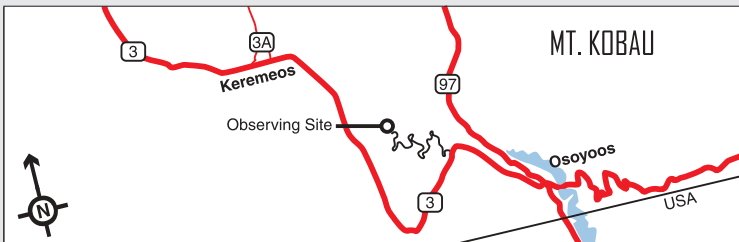
OBSERVING SITES



Site of the regular Saturday night star party. On the dike at the foot of 72nd St.



Our alternate observing site. Contact Bruce MacDonald (604-882-3820) to see if this site is in use.



Site of the annual Mt. Kobau Star Party organized by the Mount Kobau Astronomical Society

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imaging and another on computerized telescope operations. If you are interested in these topics, please talk to Ron.

I'm looking forward to spending some more time observing and more time working on the Chris Graham Robotic Telescope project, so those are my astronomy

resolutions!

I hope this is a wonderful year for you, too, and here is a toast to some clear skies!

– Pomponia ★

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to participate with us on important events through the year such as Astronomy Day. Thanks to the HR MacMillan Space Centre for their generosity and in particular to Executive Director, Donna Livingstone for her continued support.

2. Our benefactor, Chris Graham will continue to fund the Chris Graham Robotic Telescope (CGRT) initiative and encourage RASC involvement in the CGRT. Chris has also expanded the initiative from New Mexico to Pingelly, Australia as well. Thanks Chris! A new operations centre for the CGRT is now

located at SFU. Thank you to Craig Breckenridge and SFU's Sarah Johnson.

In October, Centre Council, joined by interested members and supporters, held a planning session to discuss needs, ideas and priori-

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ties for the coming year. The session was facilitated by Norman Song. 2008 priorities include:

- Secure venue for member meetings, council meetings, library and CGRT initiatives for 2009;
- Establish a process and plan to recognize and use the Paul Sykes donation and other RASC-VC donations;
- Expand the CGRT experience including operator and image processing training as well as supporting the establishment of a student initiative;
- Expand the RASC-VC web site to include CGRT imaging;
- Continue to improve educational outreach programmes and initiatives.

On a sadder note, I wish to take a moment to remember our departed members and astronomy supporters. RASC deceased members include:

William Caine – deceased Jan 2007;
Marvin Lang – deceased June 2007;
Lance Olkovich – deceased June 2007;
James Wright (of Calgary) – deceased September 2007;
John Dickenson;
Martha Ellen Pearse who passed away in Edmonton on May 31st of this year;
Mrs. Jean MacMillan Southam.

This concludes my report. Again, I would like to thank council, our membership and our supporters who together make our events and activities possible and worthwhile. ★

LIBRARY

The centre has a large library of books, magazines and old NOVA's for your enjoyment at the GMSO. Please take advantage of this club service and visit often to check out the new purchases. Suggestions for future library acquisitions are appreciated.

RASC-VC on the Internet

<http://www.pcis.com/rascvan/> or

<http://www.rasc.ca/vancouver>

H.R. MACMILLAN SPACE CENTRE

The Pacific Space Centre Society is a non-profit organization which operates the H.R. MacMillan Space Centre and Gordon M. Southam Observatory. Annual Membership (\$30 Individual, \$80 Family) includes a newsletter, discounts on Space Camps, special programs and lectures, Vancouver Museum discounts, and free admission to the Space Centre. Admission to the Space Centre includes: Astronomy shows, Motion Simulator rides, multimedia shows in GroundStation Canada, and access to the Cosmic Courtyard Exhibit Gallery. For Membership information, call Mahi Jordao at 604-738-7827, local 237 for information. You can also reach them on the Internet at <http://www.hr-macmillanspacecentre.com/>

MEMBERSHIP HAS ITS PRIVILEGES!

New members, did you know? The Vancouver Centre has 8 telescopes available for loan free of charge! We have telescopes ranging from 60mm to 10" diameter. For more information see Bob Parry, Director of Telescopes in the meeting room of the GMSO after the members meeting. All telescopes are to be picked up and returned at the GMSO. The loaner period is for one month, to be returned after the next meeting. Telescopes are not allowed to circulate outside of these meetings. You can now reserve two different telescopes per year and use what is left at the end of the meeting anytime. Bob can be reached at 604-215-8844.

Your greatest opportunity as a member of the R.A.S.C. is to take advantage of the company of other enthusiasts to increase your knowledge, enjoyment and skill in astronomy.

The best thing you can do to gain the most from your membership is to get active! Take in the club meetings; engage other members with questions; come out to observing sessions (also known as "star parties"), and, by all means, volunteer to take part in our many public events.

Observing takes place at Boundary Bay on the dike at the south end of 72nd St. in Delta (see map on p. 4). We are there most clear Friday/Saturday nights. Contact Jason Rickerby at 604-502-8158.

RASC
1100 Chestnut Street
Vancouver, B.C.
V6J 3J9
604-738-2855

February

20 – Total Lunar Eclipse (begins at moonrise)

20 – Sidewalk Astronomy at Trout Lake (west side)

March

15 – Telescope Clinic at GMSO (starting at noon)

21 – Messier Marathon I at Boundary Bay

April

18 – Messier Marathon II at Boundary Bay

May

5-11 – International Astronomy Week

10 – Astronomy Day

June

27-July 1 – GA 2008 in Toronto

August

2-10 – Mt. Kobau Star Party

11 – Perseid meteor shower

30-Sept. 7 – Merritt Star Quest

September

20 – Sidewalk Astronomy at the Inukshuk at Sunset Beach

December

11 – AGM

The Paul Sykes Memorial Fund AGM Report

by Ron Jerome

The Paul Sykes Memorial Fund Committee met twice this year to discuss the management and use of Paul's bequest to our Centre. Our objective is to create an open and transparent process for the long-term benefit of our centre.

An oversight committee has been established for the fund. Members are to include the Past President of the Vancouver Centre, a Trustee from the Centre and the Treasurer. Members will serve two-year terms and it is intended that terms would overlap to create continuity. Current member would include Karl Miller – Trustee, Bruce MacDonald – Treasurer and the Past President – Ron Jerome.

Funds are currently invested with VanCity and are segregated from our general funds. They will be accounted for separately from other centre activities.

Commitments for expenditures this year were restricted to the Paul Sykes Memorial Lecture at Simon Fraser University. While

the actual costs were paid from Centre general revenues, they are to be reimbursed from income generated by the Fund. No principal expenditures were proposed for 2007.

Plans are to allocate interest earned annually as follows:

- Paul Sykes Annual Lecture – 30%
- Science Fair Prizes – 20%
- Return to Principal – 35%
- Available for Special Projects – 10%
- Apply to Centre events – 5%

Lecture expenses will include travel and accommodation but no honorarium.

Science Fair prizes could include money as well as access to the CGRT for a project.

The Oversight Committee will develop an application procedure for members to apply for Special Project funds and will be responsible for approving awards. Details will be announced early in the New Year.

At year-end, any unexpended allocations will be transferred to Special Projects and can be requested the following year.

Centre Events would include things like Astronomy Day, star parties or Nova courses but not general revenue.

The Committee has discussed investment options including the Vancouver Foundation and an outside financial manager. Accessibility and flexibility are two of the more important considerations and, as a result, we are reluctant to give up control of any significant portion of our funds at this time. In due course, we would like to be able to attract additional funds and an organization like the Vancouver Foundation might help in that regard.

We intend to discuss a longer-term plan with the Centre membership at the time of our AGM in 2008.

– Ron Jerome
Committee Chair ★

Welcome to a New Year and hopefully many more activities at our CAROp Observatory. I hope your Christmas was blessed and there are lots of new observing tools in your socks. The AGM brought a new member to your Council and I would like to welcome Gabriel Mastey as our new Councillor and Webmaster. Gabe has already started gathering information about our website and will be asking for your help in the near future for how you can get the most from the RASC-Van site. Please be prepared to help him out.

There was not much activity in December as the weather was not cooperating and the season has its obligations that do always coincide with clear skies. Mark Eburne and Blair

Yochim were able to get up to the site early in December for an evening when I had other obligations and I hope we will have more members capable of using the observatory this year.

The last snowfall has left the road impassable by regular vehicles but I hope to hike up to the site soon to check out things. As soon as the road is accessible, weekly Tuesday evening training sessions will continue at the ob-

servatory.

I have heard from FLI about our camera but they are still only looking at it and have not begun repair work. Until the camera does return, I am hoping to do some imaging with some digital SLR cameras and have a few other activities at our training sessions.



Image by Wayne Lyons

Thanks to the CGRT program, I have a bit of an understanding about image processing and I hope to share what I have learned with interested members at our training sessions. I also will be making use of our C11 telescope outside the observatory for those interested in visual observing.

It is the New Year and I guess it is time for some resolutions. I am hoping to put together some informal workshops for those new

members interested in learning a bit more about their equipment and doing a bit of ATM'ing.

The first of our telescope workshops will begin on Saturday, March 15 with a day dedicated to the operation of the Go-To telescope. We will also have many of the club telescopes available.

This event is open to anyone interested in astronomy.

If there are any members willing to help out, I would like to hold evening workshops to help new members to get the most out of the equipment they have (learning the night sky, collimation & polar alignment). A few suggested topics for amateur telescope makers so far are: an observing chair, telescope dew heaters, a portable night light for reading charts and a

solar telescope. Any other topics of interest are welcome. I will be seeking out those of our current members that might be able to help with this project.

This month's image of M1 is from the CGRT project and I'm looking forward to providing monthly images from the CAROp observatory soon. Although it is not remotely controlled there are many opportunities for some hands-on astronomy. ✨

2007 brought another interesting roster of speakers to Vancouver Centre. While we had several last minute changes to our Speakers schedule, overall everything worked out. Special thanks to Barry Shanko and other members, who have maintained the quality program of Speakers that we continue to enjoy at Vancouver Centre.

In January, we were hoping to have Ray Villard with us, but this was one of those times when things did not work out. Craig Breckenridge came to the rescue with a short talk on GoTo telescopes.

February came, bringing Jason Rowe to talk about Stellar Atmospheres.

For March, John Chapman presented a detailed proposal for Mining the Moon, developed from the perspective of the earth-bound mining industry. Bringing to mind the mining joke: "Earth First! We'll mine the outer planets later!"

Bringing a different discipline to enrich our Speaker Program, our April presenter was Dennis Danielson, expounding on the life of Georg Joachim Rheticus, one of the first teachers of the Copernican Revolution.

In May, Dr. Levon Pogolian enriched our understanding of the Universe with a talk entitled: "How we know what we know, what we do not know, and what we can hope to know about our universe."

June brought Mel Bartels to

speak on what he is considered a leading authority: Amateur Telescope Making.

Our first annual Paul Sykes Memorial Lecture occurred in July at Simon Fraser University, and relieving our suspense from January, Ray Villard brought us the latest and greatest from the Hubble Space Telescope.

For August, Eric Dunn brought us up-to-date with what's going on in the Solar System.

In September, Dr. Ingrid Stairs explained how neutron stars can and are used for "Putting Einstein to the Test."

For those who missed the Mount Kobau Star Party, Gary Seronik presented his talk "Binocular Highlights" at our October meeting.

November was anticipated to bring up Dr. Ed Krupp from Griffith Observatory, but unfortunately airline scheduling conspired against us. Craig Breckenridge came to the rescue, sharing with us some of his great lunch hour talks that he has developed for Dynamic Structures, highlighting various wonders of the night sky.

Outside of the monthly meetings, council and volunteers have been busy with some new and ongoing projects such as CAROP, CGRT, the Nova Program, Astronomy Day, and even providing breakfast at the top of Mount Kobau. All of this in addition to our regular meetings and staple schedule of public outreach events, such as Sidewalk As-

tronomy evenings, GVRD events, Messier Marathons, etc.

This year RASC Vancouver Centre continued to broaden our scope of activities, and when planning, has been seeking input from various astronomy-minded businesses and institutions within our community. As an example, we have successfully increased our interaction with the local universities and colleges. SFU is assisting us with the CGRT project and Langara will be facilitating an upcoming Nova Program. Both UBC and SFU have been generous with a ready supply of interesting Speakers. In autumn 2007, with the assistance of the Vancouver Telescope Centre, we conducted our first NOVA Program class.

Overall, 2007 was another great year for Vancouver Centre, and I would like to take this opportunity to thank all those who have contributed their time to improving our club and outreach programs. If you haven't pursued club activities beyond the monthly meetings, I would encourage to take advantage of all that we have going on, and to get involved.

Thank you. ✨

At this time, we are pleased to announce that facilities are operational at the following locations:

1. The 20" RCOS Ritchey Cretien at New Mexico Skies, Mount Joy, New Mexico
2. The Takahashi Epsilon 210 at Pingelly Heights Observatory, Pingelly, Western Australia
3. The Simon Fraser University Control Room and FTP Server at Simon Fraser University, Burnaby, British Columbia
4. A Google Technical Group for the CGRT Project operation (by invitation only)
5. Soon to be connected with the Canadian Astronomy Data Centre at the Hertzberg Institute of Astrophysics, Saanich, British Columbia

The full equipment list has become fairly extensive with the two telescopes involved. Both tel-

escopes are mounted on Paramount MME German Equatorial mounts. Both telescopes are equipped with photometry filters as well as specialized filters like OIII and Ha. Both scopes are us-

Skies scope is located in its own Technical Innovations dome. This means there are some minor differences in scope operation but these are easily overcome through the use of ACP Scheduler which



IC 410 and The Tadpoles (upper left) from New Mexico Skies



Images by Chris Graham

The scope in Pingelly

ing SBIG cameras; the Pingelly scope has a STL 6303E while the New Mexico scope has a STL 1001E. Adaptive Optics are currently employed at Pingelly.

The Pingelly scope is located in a roll off roof pod with several other scopes. The New Mexico

automates most of the required functions. A call was sent out over the last couple of months at our regular meetings and we have about half a dozen members who will be trained in the operation of both telescopes.

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This year saw an increase in the borrowing rate of our loaner telescopes. This was encouraging as the borrowing rate had dropped off somewhat in the previous couple of years. We have had some new members that have been interested and have borrowed quite extensively, which I would like to see continue.

Earlier this year we purchased a Meade LX75 equatorial mount to carry the Club's ETX-125. The fork mount that the original tube was mounted on was quite flimsy and would not allow the excellent optics to be used to advantage. This ETX with AutoStar was won by the Club at one of the GAs by Dan Collier. This was the very first version of this scope and there have been many improvements done by Meade over the years. Pomponia owns a recent ETX-105 and it performs very well. With this new mount we have an excellent mod-

ern GOTO scope.

As well the Club has a donated Celestron 8" CompuStar. This is one of the earliest GOTO scopes and has a Y2K problem. This is not serious unless trying to find planets and the Moon with GOTO. The software in this old version is a bit clunky and more difficult than more modern versions but does seem to be serviceable. The one drawback I have heard from those that use it is that it is a power hog and devours batteries at a great pace, requiring that it be plugged into 110 AC or a BIG battery.

As well, we have a large, 11-inch Celestron SCT that is not GOTO that has been donated to the Club as well.

Now what are we going to do with these scopes? That is a good question and one that we are struggling with. The current loaner scopes are serviceable, some are

rather old but others are quite new Dobsonian styles and are easy to use. They also are rugged and not all that expensive should one go astray. In all the years the Club has been loaning scopes we have only "lost" one to my knowledge. Others have been overdue for as long as a year but ultimately were returned. With GOTO scopes representing an order of magnitude more cost, the system of loaning that we currently use is not seen as adequate.

Some training is involved to actually get these scopes to operate as advertised. They are not quite "set them down and they will find whatever you desire." Along with some basic training, a deposit is being considered. I will put together a proposal to the Board and we will present it to the members some time in the new year.

Thank you,
Bob Parry ✨

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Any member in Vancouver Centre may submit an observing target and participate in the development of the imaging plan. Once the imaging session has been completed, the data will be made available to the member requesting it and eventually to all membership and the public at large. We currently have a large amount of data for a fair number of objects that is made available to members upon request. The process of transmitting data to members and the public will be significantly simplified

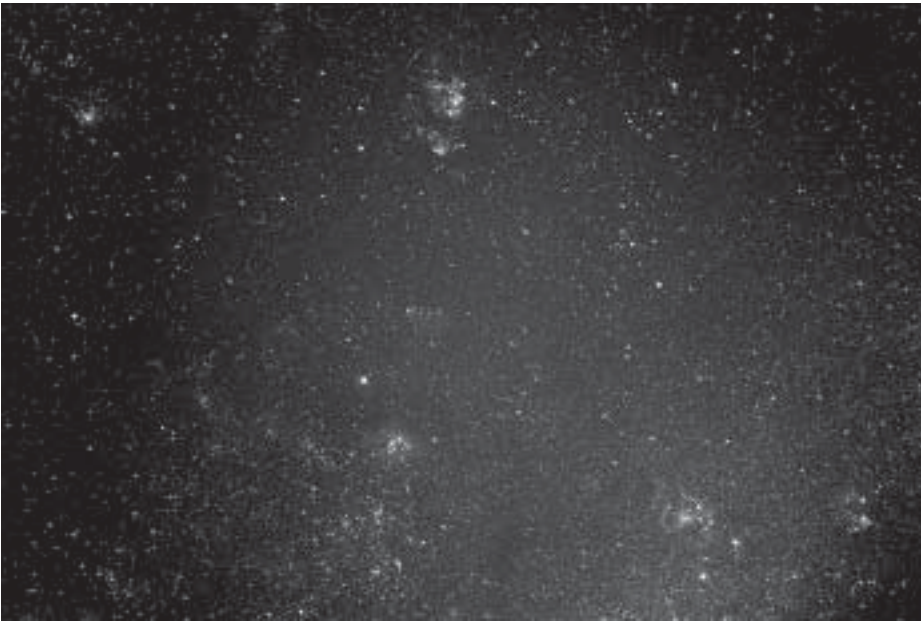
once the CADC connection is complete and it will be freely available through their portal.

Initial contact has been made with both UBC's and SFU's Astronomy and Physics departments, offering to work with students on project they might want to perform. Formal letters of invitation will have been issued before the start of the next school term. In addition, we are considering methods of offering use of the telescopes to High School level Science Fair projects. This proposal is just in its infancy but we expect

it to progress quickly once it's underway. ✨



The scope in New Mexico



Large Magellanic Cloud

Chris Graham

IC 2118 – Witch Head Nebula

Chris Graham



Proud To Serve Vancouver's Astronomical Community



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