



NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC

VOLUME 2004 ISSUE 5

SEPTEMBER/OCTOBER 2004

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Looking Ahead

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

Sept. 14: Jaymie Matthews of UBC and MOST Mission Scientist: "Unpacking a Suitcase Full of Science: First Results from the MOST Space Telescope."

Oct. 12: Vancouver Centre's own Bob Parry will be showing his Mark II mount and discussing how he made it.

Next Issue Deadline

Material for the November Nova should be submitted by Monday, Nov. 1, 2004. Please send submissions to:

Gordon Farrell
(gfarrell@shaw.ca)

Mount Kobau, August 14-22, 2004 by Craig Breckenridge

The 21st Annual Mount Kobau Star party was held following the dark of the moon in August. Many people make the trek from all over

Oliver, Penticton and Keremeos at acceptable levels. (Osoyoos is actually putting some light pollution ordinance into place due



Craig Breckenridge

The Best Dobsonian was a 20" scope by a first time builder! Beautiful workmanship.

the Pacific Northwest to attend and some people came from as far away as Boston and Arizona.

This year's event was marked by the usual displays of the Milky Way streaming overhead and the glow from nearby Osoyoos,

mainly to the urging of the astronomers who have made their observatories on Anachrist Mountain. Things may be darker next year). There were no major fires this year so the view to the horizons were fair with only minor

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Aldergrove Lake Perseid Meteor Shower – August 12, 2004

by Craig Breckenridge

Once again, members of the Vancouver Centre of the RASC ventured out into the night sky to join members of the Fraser Valley Astronomer's Society and helped present the wonders above to the general public. This is all in support of the GVRD park's annual Persied event.

The event is held at the site of the Dale McNabb Observatory in Aldergrove Lake Park and the field beside it. The GVRD sets up several tents and provides a number of activities for the families who attend to take part in. The two

Astronomy groups provide the telescopes and give a short talk on the night sky. This year's talk was presented by Paul Greenhalph, President of the FVAS.

Five members of the RASCVC and three members of the FVAS set up their scopes and as the sky darkened, the crowds arrived. By the time twilight was gone, people were forming lines at each of the scopes as taking a peek at what the sky has to show. During the course of the night, you could often hear the 'oohs' and 'aahs' that would arise spontaneously whenever one of the Peseid meteors would burn itself up in

the upper atmosphere. As is something of a tradition, the event was held on the evening following the peak of the shower but that did not stop the public from witnessing many streaks of light overhead.

At midnight, we had a small window of time to pack up our scopes and leave before the park was locked for the night. I stopped at the gate to talk to Lisa Ferris, GVRD organizer of the event, and get the attendance: we hosted our scopes to 670 members of the public this year, the biggest group at this annual event to date. ✨



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President's Message

Last month was the Perseid Meteor Shower Event at Aldergrove Lake Park. Thanks to all who turned up with or without telescopes. The GVRD tell us that there were 670 registered visitors.

Just to remind you about future events, we are planning a Sidewalk Astronomy Evening on September 25. Weather permitting, it will be from dusk until we give up. We will meet at English Bay, at the Inuit Inuksuk statue at the foot of Bidwell Street. You can drive down the service road beside the pay parking lot and park by the grass area near the statue. Let's get lots of telescopes out and remember that Loaner Scopes are supposed to be brought to such events. Another event is the RASC Victoria Centre's Star Party, September 17-19, at the Victoria Fish and Game Association Holker Place, Malahat.

In October, there are two events to remember. First is the International Astronomical Congress's SpaceFest, October 4-8. The meeting is at the Vancouver Convention and Exhibition Centre and there will also be events at the Space Centre. See details at: <http://www.iaac2004.ca>. On October 27, there will be a Total Lunar Eclipse and the Moon will rise in penumbral eclipse. Hopefully the weather will cooperate and we will have a great show like the one on November 9, 2003. We have been asked to join the GVRD at their

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2004 Vancouver Centre Officers

President

Bill Ronald 604-733-7036
ronaldb@shaw.ca

Vice-President

Nicole van den Elzen 604-501-2656
nicole@deepskyobjects.ca

Secretary

Ron Jerome 604-298-3292
jerome3292@shaw.ca

Treasurer

Marc Verschuere 604-986-1485
marcver@shaw.ca

Librarian

William Fearon 604-939-1895
williamfearon147@hotmail.com

National Representative

Pomponia Martinez 604-215-8844
pomponia@telus.net

Membership

Dan Collier 604-732-6046

Chair, CARO Committee

Bob Parry 604-215-8844
robpar@telus.net

Director of Telescopes

Phil Morris 604-734-8708

Public Relations

Norman Song 604-299-7924
norman_song@telus.net

Speakers

Barry Shanko 604-271-0615
barry.mail@intouch.bc.ca

Merchandising

Doug Montgomery 604-596-7058
moondoug@home.com

Nova Editor

Gordon Farrell 604-734-0326
gfarrell@shaw.ca

Webmaster

Jason Rickerby 604-502-8158
rickerby@dccnet.com

Greeter/Trustee

Lee Johnson 604-941-5364

Trustee

Sally Baker 604-324-3309

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 Tuesday of every month. Guests are always welcome. In addition, the Centre has an observing site where star parties are regularly scheduled.

Membership is currently \$51.00 per year (\$26.00 for persons under 21 years of age) and can be obtained by writing to the Treasurer at the address below. 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, mailed to the address on page 5, or uploaded to SpaceBase™ at 604-473-9358, 59.

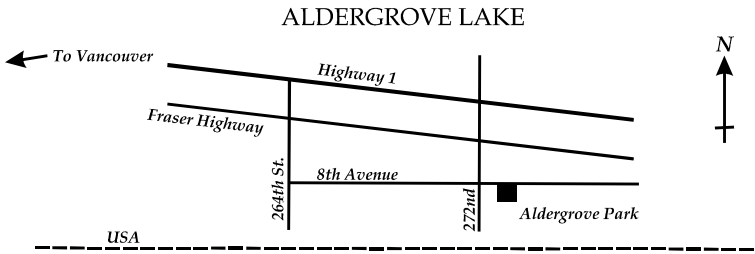
Advertising

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

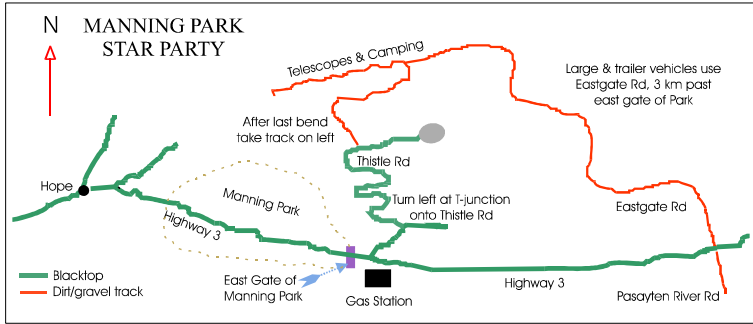
1/2 Page: \$25.00 per issue
Full Page: \$40.00 per issue
Rates are for camera-ready, or electronic files. Payment, by cheque, must accompany ad material. Make cheque payable to: RASC Vancouver Centre.

Observing Sites

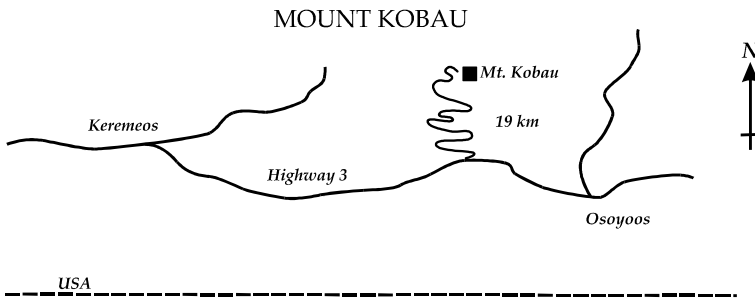


Dale McNabb Observatory in Aldergrove Lake Park (RASC Vancouver Centre's regular viewing site)

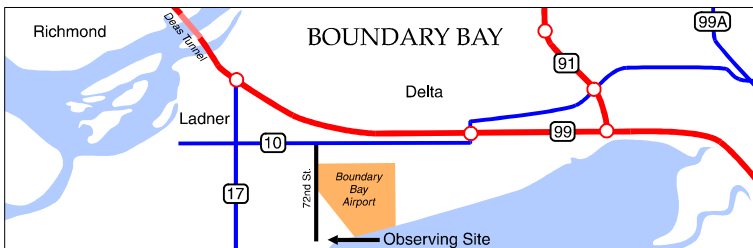
Contact Mike Penndelton (604-888-1505) or Howard Morgan (604-856-9186)



Site of the annual star party organized by the RASC Vancouver Centre



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



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

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event at Colony Farm from 7-9 PM. There is also a possibility that we will have a second event at the GMSO in cooperation with the Space Centre.

– Bill Ronald ✪

FOR SALE

Celestron CG-11 scope complete with equatorial mount, tripod, cases and all accessories for sale for \$4500 or best offer. Everything is in excellent working condition and in mint condition. Please call 604-241-7402 for details.

ASTROCOMPUTING

SpaceBase™ (604-473-9358,59). Affiliated since 1992 with RASC Vancouver, our link to RASC Net, RASC Members only chat area. Future data distribution hub for CARO Project. Features include latest HST images, current world space news and astronomy programs. Provides a file uploading facility for submitting articles and imagery to Nova.

LIBRARY

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

RASCVC on the Internet

<http://members.shaw.ca/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, \$65 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.hrmacmillanspacecentre.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 Phil Morris, Director of Telescopes in the lobby of the GSO *after* the members meeting. All telescopes are to be picked up and returned at the GSO. 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 2 different telescopes per year and use what is left at the end of the meeting anytime. Phil can be reached at 604-734-8708.

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 the Dale McNabb Observatory in the Aldergrove Lake Park, located in Langley, on 8th Avenue, just east of 272nd Street. We are there most clear nights. Contact Mike Pennedton at 604-888-1505 or Howard Morgan at 604-856-9186.

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

Upcoming Events

September

10-12 – Fall Merritt Star Quest.
25/26 – Sidewalk Astronomy.

October

9/10 – Sidewalk Astronomy
(alternate date).

December

14 – AGM

Contest: One Hour of Gemini and CFHT Imaging Time for Amateur Astronomers in Canada

[Editor's Note: Below are the details of a contest open to Canadian astronomy clubs for one hour of time on the Gemini and CFHT telescopes. Submissions must be made through the RASC-VC executive, and proposals can be sent to any member of the Council. In order to meet the September 30 deadline, we ask that submissions be delivered prior to noon, September 24, 2004. Proposals will be evaluated by the council and the proposals deemed most suitable will be submitted to the contest. If no proposal is deemed suitable for submission, none will be submitted.]

The National Research Council of Canada has announced an exciting opportunity for Canadian amateur astronomers to obtain images at two of the world's forefront observatories: the 8-metre Gemini North and the 3.6-metre Canada-France-Hawaii telescopes. This competition is meant to recognize the important and continuing role played by Canadian amateur astronomers in bringing astronomy to the public and supporting astronomical science.

Overview: One hour of observing time during the 2004B semester on each of the Gemini North and

Canada-France-Hawaii telescopes has been set aside to allow the winner of a competition amongst Canadian amateur astronomers to obtain images suitable for educational, public outreach, and/or scientific purposes.

Available Imagers: The imagers available for use in this competition are on the GMOS-N instrument for Gemini and the MegaPrime instrument for CFHT. Detailed technical information about the GMOS-N imager may be found at:

<http://www.gemini.edu/sciops/instruments/gmos/gmosIndex.html>
under "GMOS Components."

Detailed technical information about the MegaPrime imager may be found at:

<http://www.cfht.hawaii.edu/Instruments/Imaging/MegaPrime/megaprimecomponents.html>

Constraints on Allocated Time: The "one hour" of time includes all instrumental overheads such as pointing and guide star acquisition. Assume an overhead of 20 minutes for Gemini North. Due to overheads, proposers are limited to a single target.

Constraints on Targets: Targets must be available at an altitude of greater than 30 degrees for at least

an hour during the period November 1 to January 31. Target right ascensions between 12 and 17 hours will NOT be available during this time for most declinations of interest.

Content of the Proposal: Each proposal must be no more than 400 words long and may contain up to one additional page of diagrams and images. It must address the following questions:

- What is the special interest of this target?
- Why is it a good match to the imager on the telescope in question?
- Could the resulting images from this project be used in additional ways to promote science education and/or interest in astronomy?

The governing council or board of each local astronomy group shall decide if they wish their club to participate, and will then be responsible for deciding how and which proposal for each of the two telescopes is to be nominated. The selected proposal must be accompanied by a cover letter written by the leader of the board or council endorsing it for this competition.

Qualification: A single nominated

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observing proposal for each telescope may be received from the governing council or board of any amateur astronomy club listed in "Canadian Astronomy Clubs" in the May/June 2004 issue of SkyNews on pages 14 and 15. Each Centre of the Royal Astronomical Society of Canada is to be counted as a single club.

Use of Images: The proposers agree that the images will be placed in the public domain and that they will be jointly attributed to the proposers and the Gemini

Observatory.

Media Coverage: The proposers agree that the images may be made freely available to news agencies and further agree to participate in any media interviews related to these observations.

Deadline: The nominated proposal from each group must be received no later than 4pm PDT, Thursday, September 30th, 2004.

Evaluation: A committee of three scientists will make the final selection of the winning Gemini-GMOS and CFHT-MegaPrime proposals. The decisions of this

committee shall be final. Decisions on the winning proposal will be announced on or before October 31, 2004. Observations will be scheduled before January 31, 2005.

Observing, Scheduling, and Data: A member of the Canadian Gemini Office will act to assist the winners in scheduling and obtaining data. The observations will be obtained in queue mode, which does not require the presence of the proposer. ★

RASC Membership Survey 2004

by Pomponia Martinez

The RASC has now compiled results of the RASC Membership survey and details are available to members at www.rasc.ca. Almost 20% of total membership responded to the survey and it is good to hear that Vancouver Centre had a 22% response level. Thanks to all of you who took the time to respond!

90% of members surveyed were satisfied or very satisfied with the services and benefits

received from the RASC. The most valued publications were the Observer's Handbook, SkyNews, the Journal and the Annual Report, in that order.

While about half of the respondents agreed that RASC membership fees are about right, over 60% agreed that the RASC may need to increase fees to maintain current benefits. However, there is a feeling that the Journal could be reduced in size or frequency and that various

program expenses could be reduced or restricted in order to keep membership increases below \$10 in 2005.

Over the next months, National Council will evaluate service alternatives and bring forward recommendations for changes that are in keeping with Membership needs and Council's financial issues related to the cost of providing services. ★

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clouding to the south.

Jill, the boys and I were off to a late start this year due to prior commitments and thus did not leave until Wednesday morning.

Craig Breckenridge



The 12" binos won a prize for Jack Dudyk

Of course the prospect of making a 250 km detour through the Okanagon Connector is not what I wanted to do, but since the mudslides at Stemwinder Campground had closed the Princeton to Keremeos highway Tuesday night, we had little choice. The good part was I got to drive on a highway I have not been on since my family moved from Princeton in 1968. We saw several places along the drive we felt would make good recreational property selections and we will have to investigate that area for acreage for sale. You never know, we may end up with a good observing site under dark skies.

Arriving in Osoyoos, we gassed up and checked our mileage; the exact distance through the detour from the Mohawk station in Princeton to the Husky in Osoyoos was 249 km. We headed up the hill towards Mount Kobau and were promptly

flagged down by a road worker. "The highway's out. Where are you going?" came her question. When we responded "Mount Kobau," she let us through. As we climbed up past Spotted Lake we witnessed a lighting bolt strike the top of the mountain. Soon after, a plume of smoke started to climb into the sky. We commented to each other that it looked like we might have a short star party and Jill proceeded to call the forest service. By the time we got to the bottom of the dirt road that winds its way up the mountain, a helicopter was flying overhead and

as we reached the top, they were flying in men and equipment to fight the fire. That night at Lee's talk we could easily see the glow from the burning trees and the next day you could hear the men

Randy Klassen



The flats and lower camping area. The scopes in the immediate foreground are the ones brought by our little group (the Barts, Klassens, Paulsons and Breckenridges.

working if you stood at the old ranger's station. By Thursday night, the glow was much reduced and by Friday it was out.

Lee's talk on Wednesday night had inspired me to chase after objects I had not seen for many years. While some of my usual observing buddies could not attend this year (Jason and Doug), I did camp beside our Kobau friends the Paulsons from Edmonton, the Barts from Washington State and Randy Klassen and son Phil from Vancouver Centre. Observing was good and I was able to spend one night on Messier objects (42 in one night), a night on galaxies (25 NGC objects) and a night on my favourite planetaries (17). I was

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Jill Taylor



Connor and Joanne Paulson from Edmonton and Randy Klassen from Vancouver Centre performing the little understood sacrifice to the Kobau Sky Gods for clear skies next year. We didn't perform this correctly last year and that is why we had rain on Saturday night.

RIVER GEMS

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Tracking a Transit

by Bill Ronald

Transits of Venus occur in pairs eight years apart, with alternating spans of 121.5 and 105.5 years between the pairs. Depending on one's luck and inclination, seeing one (or both) can be a once-in-a-lifetime experience. Last year, I began to consider going somewhere to observe the first of the current pair, on June 8, 2004. The second will occur on June 6, 2012.

Initially I considered going to Newfoundland or Nova Scotia, but the whole transit wouldn't be visible, it would be very early in the morning and of course it would probably be cold and/or clouded out. Next, I considered going up to the Northwest Territories. With luck the whole event would be visible, but it would be very low on the horizon, not very convenient to measure, and it would probably be cold and/or clouded out.

"Well then let's look at the Mediterranean," I said to my wife, who immediately perked right up. We considered Spain, but I said, "It will start just after sunrise, at first the Sun will be very low and the first and second contacts might be lost in the morning haze. We need to go farther east." "No farther east than Turkey," I was told.

About the same time, a friend mentioned that she was going on a cruise through the Greek islands on the brand new Holland America cruise ship, *Westerdam*. With

current world threats, particularly to Americans and British, the price had been reduced to a point that was impossible to resist. The 12-day cruise started three weeks before the transit and would leave us in Venice, on my birthday and with about a week to spare. "OK," I said, "then let's spend a week exploring Cyprus and observe the transit there." "Done," said the boss.

Being a poor soul who is cursed with the need to measure things, I had a problem going somewhere to just "observe" a transit. I started by planning to photograph it at regular intervals during the six hours, using Fuji Provia 100F film, a Nikon FM2 camera, a 3x teleconverter, a Pacific Telescope 80mm ED f/7.5 telescope and a solar filter. In order to keep the weight down, I couldn't take a tracking mount, so it was hand-tracking with my trusty Manfrotto #190SH tripod with a #410 geared head.

However, it just didn't seem to be enough to photograph the little black circle as it moved across the big yellow circle. The reason that people originally wanted to observe transits of Venus was to accurately record the times at which Venus contacted the Sun at set points and doing it from accurately known sites on Earth. They could then use this data to calculate the distance to Venus and the size of the solar system. Hey, in addition to photographing, I could see if I could do as well as

the Transit Trackers of the past.

I could accurately measure my position on Earth, using my hand-held GPS, but what would be the best way to record the contact times? If I was observing from a site in North America, I would be able to employ the setup that I used to record the occultation of the star SAO 100819 by the asteroid Varsavia, in July 2003. The time was obtained using the WWV shortwave radio time-signal and the whole thing was recorded on a VCR using a modified surveillance camera connected to a telescope, and monitored using a TV with A/V inputs. However, all that equipment, except for the surveillance camera, is heavy and bulky. I considered renting a VCR/TV combo in Cyprus, but my surveillance camera is NTSC and the Cyprus video equipment standard is PAL.

At this point, I remembered the BlackBoxCamera Company's STVASTRO OSD Precision Time Inserter. It's a little box which takes the one-pulse-per-second GPS satellite signal, collected by an appropriate GPS, and outputs, among other information, the Date, the Time with millisecond accuracy, and the Latitude and Longitude of the location. It then inserts it into the video signal. The transit would be a great excuse to buy one since the Time Inserter and the GPS are small and light, so the weight problem would be partly taken care of, and it would

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be usable for occultation timing later.



Fig. 1 – STVASTRO four-line output example:
Elevation, Latitude, ID
STRING, Longitude, Time
(hh:mm:ss), Date (dd/mm/
yy) and Frame Field times
(xxxx.x msec)

Next, I had to look at the video recording step. In the past, when observing at night, I have recorded directly from the surveillance camera into my Sony Hi-8 videocam, while monitoring with a TV. I tested this system while solar viewing and found that the image on the screen was almost invisible in bright sunlight, even when the TV was placed in a box. However, the image was easily seen in the Hi-8 viewfinder. Now, all I needed was a 220v-110v step down transformer to handle the power difference on Cyprus and some switching power bars to allow the STVASTRO to synchronize with the videocam. The final setup was packable, portable and within allowable airline luggage limits. Hand tracking under the Mediterranean sun could be a major effort, but if Captain Cook could do it in the South Pacific while manually monitoring the time, I could give

it a try with an automatic time recorder.



Fig. 2 – Oh no ... not again!

When I woke up on the morning of the transit, the Sun was blocked by clouds! My stomach rolled over several times as I remembered the loss of the December 2002 total solar eclipse in the Indian Ocean due to similar problems. With sinking heart I set up the equipment and tracked the Sun which occasionally tempted me with faint fuzzy views through the moving clouds. Perhaps my muttered prayers and curses had an effect because just before C1, the cloud thinned and I was able to get an image on the videotape. The seeing oscillated between good and bad until just before C2, when the clouds thinned even more than they had at C1. From then on things got better. The line of clouds marched along just to the south-east of my solar view and

except for a few small patches was not a problem as the transit progressed. In fact, it began to get so hot that I thought longingly of the cooler cloudy conditions. Views of C3 and C4 were clear but C4 seemed to take forever because I was in a real hurry and I wanted the transit to be over. We had to pack up all my equipment and clothes, take a shower, check out of the hotel and catch a service taxi to the airport two hours away, all within an hour and a half!



Fig. 3 – Hand-tracking was hot and exhausting

After getting home with the data on a Hi-8 tape, there were two problems in the process of determining the Contact times. The first was trying to extract the individual frames. My Hi-8 videocam didn't have single frame advance and the frame-grabber on my computer actually grabbed and averaged a couple of frames. Eventually, I overcame this by

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copying the Hi-8 to a VHS tape which I could then single-frame advance on my VCR.

The second, and by far the biggest, problem was deciding when the actual Contacts occurred. The C1 time was my hardest decision. How could I decide when the first little bite was taken out of the Sun by Venus when I couldn't even see Venus approaching? By the time I was sure it had really happened, the time was actually a little late. Determining C2 wasn't that much better because I encountered the dreaded "black-drop" effect. Again, by the time I was sure that the point had been reached it was too late. For some reason, C3 and C4 were easier. Seeing Venus approach the edge was clearer and the black-drop didn't seem as evident during C3. C4, like C1, was much harder to decide but at least I could see the "nibble" getting smaller.

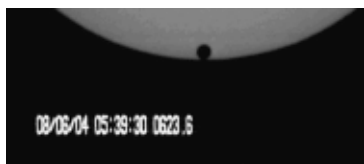


Fig. 4 – Black-drop effect near C2? STVASTRO single-line output:
Date (dd/mm/yy) and Time (hh:mm:ss and xxx.x msec)

Initially, I considered finding and contacting other transit observers at distant locations. If they would share their times, we could calculate the Astronomical Unit (AU) and the Solar Parallax

(\ominus), using the method originally suggested by Halley in 1716. However, between going on a cruise, getting to and from Cyprus and then going to the General Assembly in Newfoundland, I was very short of time for other arrangements. In addition, I had come across a website set up by the European Southern Observatory (ESO) where observers could submit their Latitude, Longitude and the values

when one of my bags was crushed in transit so I used an Orion glass filter, which I carry as a backup. The glass filter doesn't give the fine resolution observed with a Baader filter. Also, the videotape recording still showed the scan lines, even though it was Hi-8 at 400 lines per inch resolution. This made it difficult to decide when the Contact points actually occurred.

How did I stack up with other observers? I didn't hit the actual

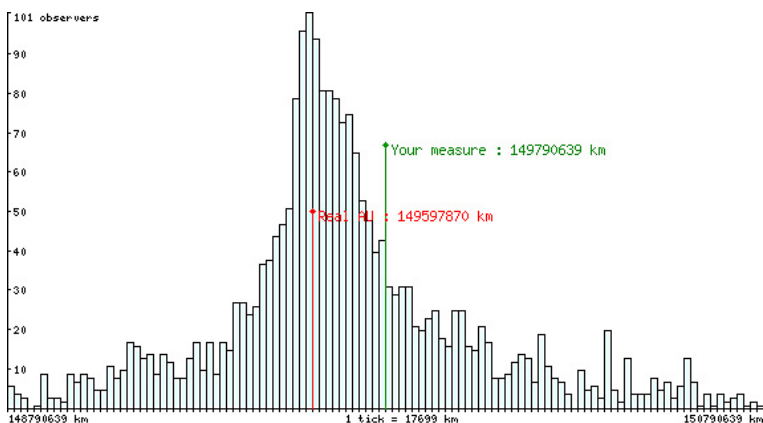


Fig. 5 – How I compared to others - results from the ESO Website

for one or more of the four Contact points, to a database. A JavaScript utility would then return the AU, the \ominus and the percent error from the currently known values. I admit it; I was tempted, found wanting and took the easy route.

The results (Table 1) were satisfactory but not what I had hoped for using "modern" timing and GPS equipment. The telescope was very good but I had not been able to use my Baader Planetarium solar filter. It appeared to have been scratched

value, but a 0.129% error was respectable. My best value was C3 which gave a 0.052% error. This is closer than Simon Newcomb's value of 0.068%, calculated in 1895, which stood for years until radar gave more accurate distances within the solar system.

The main lesson in this exercise was the great respect I gained for historical Transit Trackers. They experienced tremendous hardships to get their data, and often weren't lucky

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Table 1 - Output from the European Southern Observatory VT-2004 Project

Contact	Time (UTC)	AU (km)	Π (")	Δ (AU) (km)	$\Pi(\Delta)$ (")	Error
1	5 h 20 m 18.00 s	149888838	8.7771	290968	0.0171	0.195 %
2	5 h 39 m 30.00 s	149840323	8.7799	242453	0.0142	0.162 %
3	11 h 03 m 59.00 s	149675365	8.7896	77495	0.0045	0.052 %
4	11 h 22 m 51.00 s	149758031	8.7847	160161	0.0094	0.107 %

Average AU = **149790639 km**

Average = **8.7828 "**

Average error = **0.129 %**

continued from page 12

enough to get any. On the other hand, I went by plane, bus and car and knew that I would have comfortable accommodation waiting and be home in time to go

to the GA a few weeks later. I found that my "modern" methods suffered from similar problems to theirs, such as the black drop, and my equipment never showed me the "halo" caused by Venus's

atmosphere. This project wasn't new science but it was a tremendously exciting experience to try to walk in such great footsteps. ✨

continued from page 8

able to share these sights with my wife who has started taking more of an interest in what I'm actually doing when I look through the scopes. She was pleasantly surprised to see the objects overhead and her skills at finding constellations are improving. It's always great to show someone relatively new to the hobby some of the objects you can only see when you venture afield.

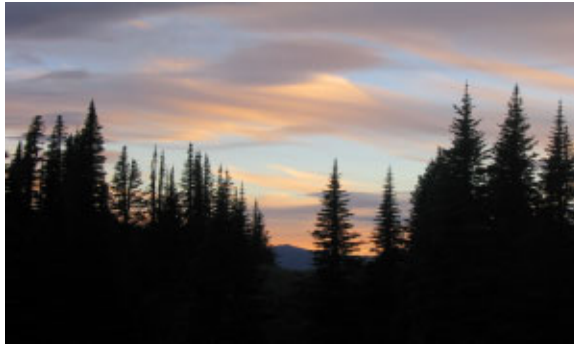
On Saturday I had the honor to join Gary Seronik, Murray Paulson

and Gary Wolanski to perform the telescope judging. After viewing the scopes and talking to the owners, we chose the best in each of five classes. These were

announced at the closing ceremonies Saturday night along with the many door prizes awarded by the Mount Kobau Star Party

fun, and breakfast was put off until we were on the road. I have to keep reminding Jill and the boys that we are on top of a mountain.

All told I had three nights of viewing and they made the trip up worth it all. Our annual pilgrimage to the site of what was to be Canada's premier observatory did what it is meant to do, relax us and revive us. It is always good to see old friends and share the night sky with someone new. ✨



The sunset on Friday night. It didn't clear up until midnight and then we had great skies until dawn.

Society. Weather did not cooperate and we were treated to a torrential downpour Saturday night through Sunday morning. Packing up in the downpour was not what I consider

Members' Gallery



**Aurora over Cypress
Mountain and Downtown
Vancouver**
Gordon Farrell

Canon PowerShot 400
15 sec.
24 July, 2004





M16 - Eagle Nebula

Jason Rickerby

SBIG ST-237A

Celeston 8" Ultima 2000 @ F/
1.95

August 1, 2003

Mt. Kobau, BC

M51

Ray Maxwell

SBIG ST-237A

Celeston 8" on GT-1 mount

F/6.3

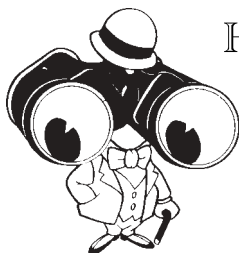
Delta, BC



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