Volume 59 Issue 5 September - October 2001

Winnicentrics

The Journal of the Winnipeg Centre of the Royal Astronomical Society of Canada

Report on the 2001 General Assembly Council Meetings

by Scott Young,
Winnipeg Centre National Representative

The 2001 General Assembly in London, Ontario was one of the best I've been to, in terms of both the business and social sides of the RASC. Over 200 delegates representing 25 of our 26 Centres were in attendance, giving a good cross-section of our Society. Great job to all those involved!

The official reason for the GA is the Annual Meeting of the Society, where all members are able to voice their concerns and suggestions, and vote on RASC policy. Before this, however, is one of the 4 yearly National Council meetings. The National Council meetings tend to handle a lot of the day-to-day operations of the Society, and also have to tackle some of the bigger questions before they are put to the general membership. But of course, there are the workshops, displays, and social events which make each GA unique.

Our group included Stan Runge, Jennifer West, and myself, who crammed into Stan's car and drove the 2600km to London. (Video highlights of the GA appeared at the July meeting.) Other Winnipeg Centre members attending were Denise Terpstra, Fred Wood, Mark Hyrclik, and Patrick O'Connor and his family.

We arrived Thursday afternoon, and settled into our "pod": a little 4-bedroom dorm with common kitchen in the dorm at Fanshawe College. Nice place. Peter Jedicke, the conference organizer, had stayed at my place during the Winnipeg GA,

Continued on page 8

IN THIS ISSUE . . .

2001 GA..... page 1
Meetings..... page 2
Observing..... page 3
Humans in Space..... page 4
What to See..... page 6
It's Not All Bad..... page 7
Uranus & Linear..... page 9
Book Review..... page 10
Opportunity for Passion..... page 11

Deadline for the next issue is October 21

Executive Council

President
Scott Young
sdyoung@mb.sympatico.ca

Past-President
Kevin Black 224-0182
cblack@home.net

1st Vice-President
Gail Wise 253-8297
wgail@mts.net

2nd Vice-President
Gil Raineault 253-4989
raineaul@minet.gov.mb.ca

Secretary
Jay Anderson 474-1485
jander@cc.umanitoba.ca

Treasurer
Stan Runge 261-9984
stan.runge@mts.mb.ca

Councilors

Ray Andrejowich 667-6896
randrejo@hotmail.com
Mike Karakas 253-5379
mkarakas@mb.sympatico.ca
Lindsay Price 831-0150
flprice@mts.net
Fred Wood 774-3238
fwood1@home.com
Robin Woods 586-4173
robin.woods@uwinnipeg.ca

Appointed Positions

Librarian
Fred Wood 774-3238
fwood1@home.com
Observatory Director
Ray Andrejowich 667-6896
randrejo@hotmail.com
Observatory Bookings
Gil Raineault 253-4989
raineaul@minet.gov.mb.ca
Winnicentrics Editor
Gail Wise 253-8297
wgail@mts.net

Winnicentrics is published six times each year by the Winnipeg Centre, RASC. *Winnicentrics* is produced by and for the members of the Winnipeg Centre, and any opinions expressed are those of the author. If you have comments, questions or concerns about *Winnicentrics*, you can contact any of the councilors above, or write to RASC, Winnipeg Centre, Box 2694 Winnipeg MB R3C 4B3

September

Sept 21

Beginners Session 7:00
Regular Meeting 7:30

NOTE DATE CHANGE

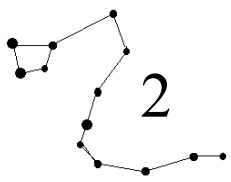
Join us for our first meeting of the fall and the new membership year! Stan Runge will introduce the new "Explore the Universe" Certificate program for new observers and Jennifer West will fill us in on the details of her work with the University of Manitoba. We'll also have reports on the Cypress Hills Star Party in August, and the Spruce Woods Astro-Weekend in September.

October

Oct 12

Beginners Session 7:00
Regular Meeting 7:30

Dr. Bob Garrison, National President of the RASC, will be visiting our Centre. Dr. Garrison has just recently retired from his career as a professional astronomer, and will share some of his experiences in both the professional and amateur community. Winnipeg is the first stop on his tour of Centres across the Prairies.
Also: Beginner's Session by Jay, Observing Certificate by Stan and the Gail's Constellation of the Month takes a look at Capricornus, the Sea Goat.



SPRUCE WOODS ASTRO WEEKEND

Date:

Location: Spruce Woods Manitoba (near Brandon)

It has taken some time to get the foot work done here. This is the full picture. Yes, we are having an Astro Weekend at Spruce Woods, with a wonderful twist. I have gone to great measures to get this to work.

The weekend is booked to camp free of charge in the Winter Area where we had set up the first time we went to Spruce Woods (for those who were there) in the open field. The only cost incured will be the entrance fee for the vehicles to the park.

This time it will be darker skies earlier in the evening and fewer bugs. I expect there will be a good turnout. We had a grand time last year.

The start time for us will be 5:00 PM on Fri 13 Sep, and the departure time is 3:00 PM on the 16. We will make one area to have a firepit, so that we can all meet each other, and lastly we will have to make sure the area is cleaned up before departure. If all goes well, we may be able to get this deal year after year. I hope we have a good turnout, so I encourage all to come. It's not often we get a freebee these days. The only thing that may stop us now is the weather. But knock on wood, cross your fingers and pray.

Clear Skies to all.

For more information contact:

C J Deschamps
Brandon, MB.
cdeschamps@westman.wave.ca

OBSERVING

The following members are working toward their

Messier certificates:

Eugene d'Auteuil	32
Ray Philippe	12
Mike Karakas	87
Sean Ceaser	100
Robin Woods	49
Lindsay Price	5

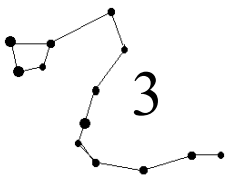
Finest NGC's:

Sean Ceaser	33
Gail Wise	76

Herschel 400's:

Sean Ceaser	57
Kevin Black	362
Gail Wise	161

Are you working on your Messier list?
Finest NGC's?
Herschel 400's?
Let me know how many you have and I will publish it here so we can encourage each other!



Humans in Space

by Ray Philippe

This series takes us on a journey through time to explore the human race's quest for space flight.

Part 4

Continued from last issue

January 1945. Wernher von Braun and his rocket team were still designing and building missiles at the secret Peenemünde firing range in northern Germany. Von Braun could foresee the fall of the Third Reich, and realized that he and his entire team would be in grave danger when that time came. He believed that SS storm troopers would sooner gun them all down than allow the Allies or the Soviets to capture the scientific team who had created Germany's V-2 rocket (the *Schutzstaffel*, or SS, was the most sinister and feared institution in Nazi Germany, responsible for all police activity in the Third Reich).

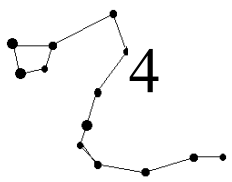
Von Braun met secretly with his senior staff members to discuss their future, and they voted to surrender to the Americans. But this was easier said than done. Peenemünde was in northeastern Germany, an area that would soon fall under Soviet control.

A month later, von Braun managed to relocate over 500 of his scientists and their families, and all his V-2 designs, south into Bavaria where he hoped to find the Americans. On May 2nd, 1945, just a few days before Germany's surrender, U.S. army private Frederick Schneikert unknowingly stumbled upon one of the greatest catches of the entire war when Magnus von Braun, Wernher's brother, surrendered voluntarily to him at the Austrian-German border. Magnus explained in broken English that his brother, the creator of the V-2, and his associates were in a nearby village and wished to surrender immediately to the Americans.

During interrogation, Wernher von Braun told American intelligence officers that he had never intended to build weapons; that his real interest was in building space ships to send men to the moon. He also described the V-2 production facilities at Peenemünde and Nordhausen.

The Russians should have had dibs on the V-2 technology since Peenemünde and Nordhausen were inside the designated Soviet zone. But when the Red Army arrived there in the summer of 1945, they found that the Americans had beat them to it. Acting on information provided by von Braun, U.S. troops had moved in only a few weeks earlier, and had stolen all the V-2 technology they could, including enough parts to assemble about one hundred V-2 rockets.

One of the first Russian experts brought in to survey the facilities at Peenemünde was a 38 year old engineer named Sergei Korolev. He was the Soviets' leading expert in jet and rocket design, and a man who had dreamed passionately of space travel and exploration since he was a boy. Since 1932, he had been in charge of rocket design and production at the Group for the Study of Rocket Propulsion Systems (GIRD) in Moscow. Working for GIRD, Korolev had actually launched Russia's first



liquid-fuel rocket in 1933. The rocket, called GIRD-X, weighed 65 pounds, was 8.5 feet long and 6 inches wide, and reached a maximum altitude of three miles during a test on November 25, 1933.

Sergei Pavlovich Korolev

Now, Korolev was placed in charge of reestablishing V-2 testing and production. While most of the German scientists and hardware were gone, the Soviets were able to secure tons of equipment and key German scientists Helmut Grottrup, Erich Putze and Werner Baum. These scientists were experts in guidance, production and propulsion, respectively. The Soviets also secured hundreds of less knowledgeable, lower echelon workers. Following World War II, the Soviets supervised renewed V-2 production at Nordhausen, which continued well into 1946. The Soviets also used V-2 rockets for initial post-war rocketry research. On October 22, 1946 all of the German scientists working for the Soviets were transported without warning by truck and train to Russia. There, the Germans went to work refining and improving the V-2 to create a similar, yet new, rocket. The improved V-2 was first launched from Kazakhstan on October 30, 1947 and achieved a range of 200 miles. This was followed by the Pobeda, a mobile ballistic missile with an impressive range of 500 miles. Following development of the Pobeda, all German rocket scientists and workers remaining in the Soviet Union were repatriated to Germany.

Both the V-2 and the atomic bomb (the *Manhattan Project*) were areas of intense, expensive scientific research funded by war in the early 1940's. The U.S. spent $2 billion to develop the atomic bomb, roughly the same as Hitler spent on the V-2. It is interesting to note that the unholy marriage of these two advanced technologies --- resulting in the nuclear missile --- essentially ignited the nuclear arms race and, as we will see later, the space race.

After the Americans had test-detonated their first atomic bomb (named *Fat Man*) in the New Mexico desert in July 1945, Stalin had put his Soviet scientists to work on developing a Soviet atomic bomb. Stalin had also wished to develop a long range system that could deliver the bomb. In 1947 he engaged Sergei Korolev to design a rocket for this purpose; a rocket powerful enough to cross continents. But Stalin did not believe in space travel or exploration; Korolev was to restrict his rocket development to military applications only.

In August 1949, the Soviets exploded an atomic bomb. Meanwhile, Korolev continued improving and testing his rockets at Tyuratum on the plains of Kazakhstan. By 1952 he had built the T-2, an intermediate range missile, and by 1954 he unveiled his R-7 booster, the Semyorka, the world's first true Intercontinental Ballistic Missile.

Continued in next issue

WHAT TO SEE IN THE SKY WITH A TELESCOPE

For the Beginner

By Patrick O'Connor

This was first written in March 2001 for students at Powerview School (near Pine Falls) who wanted to learn how to use their telescopes. It has been revised for Winnicentrics.

In the previous installment we covered the stars and faint or "Deep Sky" Objects visible in the Summer. In this installment we will cover the Stars, and Faint Objects or "Deep Sky Objects" visible in the Winter and Spring.

The Best Time to Observe in Manitoba

Doing astronomy in Manitoba always seems to be difficult. In the Summer there are mosquitoes and Astronomical Twilight all night long. In the Winter it is just cold.

After over 20 years of doing astronomy in Manitoba, I found the best way to do it. You pick a night in September or October (or maybe late August) that is clear and not too cold. Stay up all night long and observe all the Winter stars as they rise in the East. It is a little better to do this after September 22 because then the nights are longer than the days.

Be sure to dress warm. I have always been saying that Astronomers have to dress as if it is 20 degrees colder (except for the summer). I have found the same advice on a Sky and Telescope web site.

Stars:

Here are some double stars from Winter and Spring that I did not list in the last installment.

Winter:

Rigel (Beta Orion) The lower right (west) star of the 4 bright stars in Orion. This is a double star, Mag. 0 & 8.0, 9" apart, White & Orange.

Sirius (Alpha Canis Major [the Great Dog]) The brightest star in the sky, Mag. –1.6 is a double star with an 8.4 Mag. companion 11" away.

Castor (Alpha Gemini [the Twins]). Gemini is two bright stars to the Northeast of Orion, plus 2 lines of stars heading towards Orion. Castor, the bright star to the West, is itself a twin or double star. Mag. 2.0 & 2.8; separation 5".

Spring:

Regulus (Alpha Leonis [Lion]). The bright star at the bottom of the backward question mark. Mag. 1.5 & 8.0, Sep. 177" (sec.) or almost 3' (min.)

Faint Objects called "Deep Sky Objects"

Here are some "Deep Sky Objects" from Winter and Spring that I did not list in the other installments.

Winter:

Easy to find:

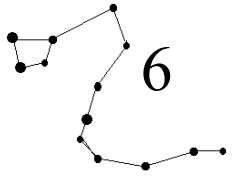
M42 The Great Orion Nebula: Orion the hunter is a major winter constellation. Four bright stars mark Orion's shoulders and knees. Three stars clearly mark his belt and 3 more stars mark his sword. The middle of the 3 stars that mark his sword is M42. Just point your telescope or binoculars at the middle star of the sword. This makes it one of the easiest objects to find. New stars are being born here. If you see Hubble Space Telescope pictures of stars being born, they are likely taken here.

M45 The Pleiades: Open Cluster with nebulosity. The constellation Taurus the bull is West and above Orion. M45 is west and above Taurus. It can be seen with the naked eye. It looks like a tiny dipper. This one is almost too big for a telescope and is best in binoculars. It is newly formed stars with some of the nebulosity (like the Great Orion Nebula) still remaining. All open clusters are believed to be newly formed stars.

M44 Beehive Open Cluster in Cancer the crab: Cancer is just East of Gemini. M44 should be visible to the naked eye in the middle of Cancer. Use binoculars or low power on your telescope.

Harder to find:

These are bright for faint objects, about Mag. 6, but there are no bright stars near them, so they are harder to find. Need star charts and binoculars to find.



M1 Crab Nebula: This is a supernova remnant, what is left of a supernova that was observed about 1000 years ago. This is in Taurus, just north of the star that makes the south most horn of the bull. You might need a star chart to find this one.
M41 Open Cluster: This is located 4 degrees South of Sirius, the brightest star in the sky.
M35 Open Cluster: Gemini the twins is above and to the East of Orion. M35 is at the foot of the twin on the right and not far from M1. Sky charts are needed.
M51 Whirlpool Galaxy under the end star in the Big Dipper's handle. About 8th Magnitude. Need charts and maybe setting circles to locate.
M81 Mag. 6.9 Galaxy between the Big Dipper and North Star. Need charts, binoculars and maybe setting circles to locate.
M82 Mag. 8.4 Galaxy 0.5 Degrees (size of full moon) south of M81. Could find if you found M81.

It's Not All Bad

By Wayne Keith

I have been back in Winnipeg for almost three years. During this time I have been taking courses at the Uof M. I've also done a little observing. Not as much as I'd like . . . I have a couple of observations about observing in Winnipeg.

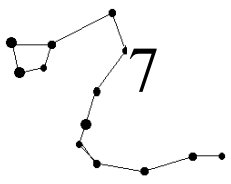
First, it isn't as bad as you think. I spent nine (too many) years in Toronto. If you think it is bad here, don't go to Toronto. In the nine years I was in Toronto I did NOT fill a single notebook with observations. The notebook I arrived with was unfilled when I left Toronto. Shortly after arriving back in Winnipeg I filled that notebook. I started another and filled it. I am now on my third notebook. In Toronto you have clouds, light pollution and smog.

Winnipeg has light pollution but nowhere near as bad as Toronto. Winnipeg has clouds but other than November it's not bad here. December, January and February are somewhat warmer than here but the improvement isn't worth bragging about.

David Levy recently wrote that his university years were his least productive years. I concur. Many is the night I spent working on term papers when I could have been observing. Let me illustrate with the following story.

Last year I started an observing project. I have a lifetime list of Messier objects observed. I started in 2000 with my lifetime list at 70. My current project is to re-observe all my lifetime Messiers and add the ones I don't have. This will give me my Messier certificate. My current list is at 23. My current is at 75. Messiers aren't my only target. I look at Jupiter, Saturn and the moon whenever possible.

I don't worry about lost opportunities. There will always be places like the Australian Outback with 320 clear nights per year or New Mexico or Ft. Davis. Someone at the last meeting complained about our skies. Yeah, things could be better here (and I could have gotten straight A's at university, too). Remember, you could live in Toronto, St. John's or Prince Rupert. My motto: enjoy what you have.



2001 General Assembly *continued from page 1*

and offered his house to me, but I decided I wanted to stay on campus, to be "close to the action". To ensure this, Pete put Stan and I right across the hall from the hospitality suite…perfect.

As other members filtered in from across the country, we had the opportunity to renew old friendships and make new ones. We were lucky enough to be on hand when Peter Cerovolo (of telescope-making fame) arrived with his guest, Jack "Triple" Nickel, who trains NASA's astronauts to land the shuttle. Peter, Triple, Stan, Jenn and I went out for dinner at the airport lounge, and we got to know Triple not as the "inaccessible guest speaker" at a conference, but as a hilarious guy around the dinner table. (We would see more of Triple's wit throughout the weekend.)

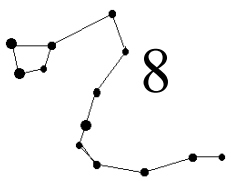
Thursday night we took it easy…except Stan, who was up all night.

Friday morning, I was in the all-day National Council meeting, while Stan and Jenn took in some of the workshops. Stargazer Steve built a Dobsonian telescope from scratch in the morning and raffled it off, and there was an all-day Education workshop. That afternoon also had the barbecue, when Stan received his Messier Certificate to much applause.

Friday night the hospitality suite went long into the night and the following dawn…great conversations with astronomers from across the country. One of the great things about a GA is that many RASC members who have gone on to become famous come out to the GAs and relax with the delegates just like everyone else. You can have a chat with David Levy,

Saturday was a more serious day of workshops and events. Rather than the standard paper sessions that many of you will remember from the Winnipeg GA, London had a series of "workshops" on various topics, led by one or two speakers. The idea was for anyone with an interest in the topic to get involved and present their material, but it didn't quite work that way…it's easy to become intimidated in a room full of very knowledgeable astronomers. I think I prefer the paper session format myself, but there was a lot of good information at London as well.

Saturday night we all got dressed up for the annual banquet. It was nice to see Stan wearing pants for once in the weekend! (As opposed to shorts, I mean.) That evening, in place of the normal song contest, there was an "open mike"-type of event in the hallway outside the hospitality suite…many astronomical songs were sung, accompanied by guitar, recorder, and beer. Pete Jedicke and David Levy gave some rousing renditions of their tune "The Stars Go Nova One by One" and Stan, Jenn and I joined the Halifax center for an encore of our version of "If I Had $1,000,000". Lots of fun, and one of the highlights of the GA, as more people got involved in singing, playing, dancing…pure fun. Triple Nickel treated us to some of his Air Force songs (with titles which can't be repeated here) to cap off the evening/morning. Whew!



Sunday was the final day of events, with the presentation of Membership Certificates and the Annual General Assembly…the meeting. Details of this are in my article in the Journal which you should receive about the same time as this newsletter. Make sure you read it: the Society is **your** Society, and you should know what's going on beyond our own little group.

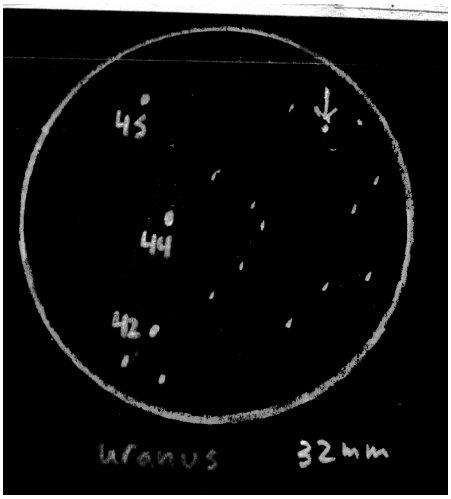
The next day we packed up the car and began the trek home. After lots of coffee and a bit of a stay at the "Canadian Customs Hilton" (again due to Stan…) we arrived home, safe and sound. This GA was an excellent opportunity, and provided me with a shot of enthusiasm, as well as renewing my ties with friends and astronomers across the country.

The 2002 GA will be hosted by the Montreal Centre…details will be forthcoming. Plan to attend if you can…they are great events.

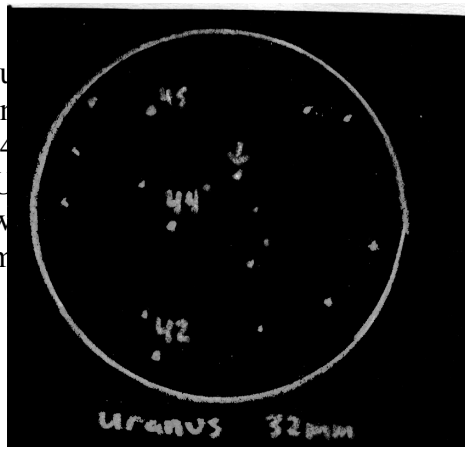
Scott Young
Winnipeg Centre National Rep

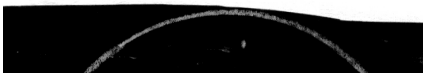
URANUS AND COMET LINEAR

- drawings by Sean Ceaser

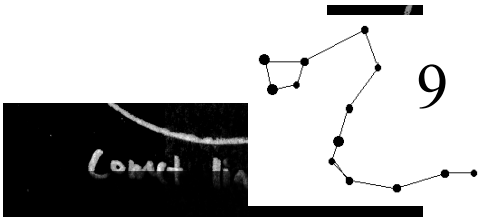


Uranu
Amon
42, 44
45. U
and w
3 com





Ura Comet Linear Sunday July 22
Co Found between 9 and 1 Pegasi.
on It has no distinct tail but there is
sea large circular fuzziness to it.



Nightwatch

By Terence Dickinson with illustrations by Victor Costanzo and Adolf Schaller

Published by: Camden House Publishing

Reviewed by Lindsay Price

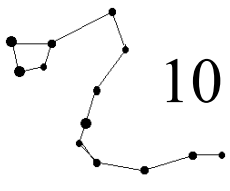
This is a book most of us have used many times. It is loaned out with the loaner telescopes, available from the RASC Wpg Centre library, and more than a few of us own our own copy. It is well known for its sky maps, star charts, and reference articles on everything from buying optical instruments, to the correct pronunciation for star names, and stunning pictures of space. Recently, I tried something novel; I read the words.

The book starts off with the beginner in mind, but if one was to learn to use the information offered by this Yarker Ontario native, one would be a pretty good astronomer indeed. Chapter one gives us a pretty good picture of our place in the universe, using a series of ten pictures we see our place in ever expanding chunks of the universe. We see us in the solar system, then the solar system in the milky way, and go on to our local group and all the way out to the background microwave radiation.

Want to buy a telescope? His chapter on star gazing equipment should be required reading. It might have saved all of us huge headaches when we tried to use our Christmas Department Store telescope. Then finding objects is explained in a way that makes it easy. He talks about using the Big Dipper and Orion to locate other constellations that are not as readily apparent. We can use our fingers and hands to measure the sky in degrees. Then there are explanations of the things that we can see when we use all these methods to find our observing targets. We read about the planets, and then nebulae and galaxies.

So along with his famous maps and Costanzo and Schaller's stunning pictures, his easy reading explanations are a Godsend for the beginner, and an interesting way to fill in details that more advanced observers may have missed in our long learning process as we walked the path of knowledge to where we are today.

So by all means, continue to use the excellent sky charts, but try something novel. Read the words.



Opportunity for Passion

by Stan Runge

If I've gotten you to conjure up images associated with some form of dating services, then I have misled you. I do admit that I tried to create a headline designed to grab your attention. However, I am no more going to talk about human relationships, as I am going to talk about cats.

My real intention was to put down some thoughts that occurred to me as a result of a small incident. I just returned from my second "National Assembly" of astronomy clubs this year. The Astronomical Society of the Pacific (ASP) was putting on an event called the Universe 2001 Expo in Minneapolis.

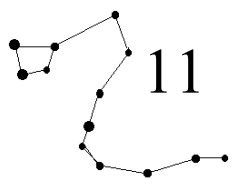
This is where the passion part comes in. I love amateur astronomy. The sentence is almost redundant, because the term amateur comes from a Latin term, which refers to doing an activity for the love of it. So this passion of mine caused me to first travel 24 hours by car to London for the GA. Then I went another 7 to the ASP's Expo.

I attend these events for the opportunity they provide. The opportunity to meet people also interested in astronomy. The opportunity to hear speakers on the subject and to even meet with these well known and respected people. As a result I know Roy Bishop, the former editor of the Observers Handbook. I know Rajiv Gupta, the current editor and developer of the RegiStar software. I know (and sing with) Dave Lane, creator of ECU. There's Doug George, creator of Maxim software and comet finder. At this year's GA, I got to reacquaint myself with David Levy, author of over 20 books on astronomy. The list goes on, and I feel lucky to know these people as friends. This is because I took the opportunity of attending these events.

At the ASP, I met a bunch of new ones, like Richard Berry - creator or the CCD cookbook camera. I videotaped his two CCD Workshops on imaging, and have arranged to send him a copy of the video. Jay introduced me to David Eicher, Managing Editor of Astronomy magazine and author of a number of books. I had him autograph my new copy of his book Stars and Galaxies. I also took the opportunity to get David Levy, who also spoke at this conference, to autograph a book for gail and myself. I even had the opportunity to talk to Scott Roberts, VP of National Sale for Meade Telescopes to discuss the problem with the sloppiness in our LX200's focuser. There's a correction notice, I found out.

But this article wasn't about the opportunity that other Winnipeg Centre members missed by not attending these sessions. Rather, it's about the opportunities we have within the local membership itself.

Well, onto this so-called incident. It began on the final day of the Universal 2001 Expo. I was waiting around for the end of the silent auction. Jay had a bid on a helical focuser, so together with Kevin Black, the three of us hung around the display area. We had crossed paths with Jeff Cieszecki. By this time he had noticed that we were sitting with David Levy, talking about astronomy. As I stepped to the side, he asked me if I could help arrange to get a



picture of himself with David Levy. His request was passionate. So at an appropriate time, I made the introduction and the picture was taken.

Jeff had the chance for this special picture, through the opportunity available through other members in the Winnipeg Centre. That was the idea which triggered this article. The fact that the general membership has the opportunity to learn and grow in astronomy right here. Whether it is getting into CCD imaging projects with Chris Brown and Dr Bochonko, or learning about astroimaging from Jay and Kevin. Maybe, it's learning about observing and where to find those non-Messier objects from gail. Maybe it's the telescope building expertise from Ray, or Paul or Gil. And there are more.

So you do not necessarily need to venture outside of the province to attend these events. But I would suggest you take advantage of the wonderful people within the Winnipeg Centre, to learn and enjoy this wonderful hobby of astronomy. Or as I summed it up, take the Opportunity for Passion.

David Levy with Jeff Cieszecki