The International Meteor Organization

Introduction

The International Meteor Organization (IMO) was founded in 1951 and has more than 200 members now. IMO was created in response to an ever growing need for international cooperation in meteor research. The reduction of meteor observations by several methods from all around the world ensures the comprehensive study of meteor showers and their relation to comets and interplanetary dust.

You can read about the history, current state and organizing of IMO. An additional page shows you how to join the International Meteor Organization. Membership includes a subscription to WGN, the journal of the IMO.

Observational results

- First information after meteor shower events
- Leonids 1998 - 2004
- Daily analyses of shower data

The Leonid Meteor Shower

Conferences

- International Meteor Conference 2004
  Varna, Bulgaria, September 25-26, 2004
- International Meteor Conference 2003
  Bormannsee, Germany, September 18-21, 2003

Further Information

- IMO News mailing list (iimo archive)
- Available IMO Publications
- The Bibliographic Meteor Database
  (including WGN, The Journal of the IMO)

Get serious … or just learn more.

The International Meteor Organization has the definitive web site on meteor observing and information. Who knows, you may get hooked!

http://www.imo.net/

http://victoria.rasc.ca/
This Month at the Centre of the Universe

Meet Jacqueline Porter
Jim Hesser will introduce Jacqueline Porter, the new Manager of the Centre of the Universe. Jacqueline will talk about the Centre's programs and vision.

The Latest Science from Gemini by Jean-René Roy
Jean-René Roy is the Associate Director for Gemini North. He is also the Head of Science. He received his BSc in Physics from Université de Montreal in 1969 and his PhD in Astronomy from the University of Western Ontario in 1973. Between 1973 and 1977 he worked as a Postdoctoral Fellow at Caltech, at the Space Research Laboratory of the University of Utrecht and at the Herzberg Institute of Astrophysics. From 1997 until 2000, he was on the staff of the Physics Department of Université Laval in Quebec City, where he led the Astrophysics Research group for several years. His research interests include chemical build-up and mixing of the interstellar medium, the role of bars in the evolution of disk galaxies and the formation of massive stars in sub-critical regimes such as the extreme outer periphery of disk galaxies.

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General Enquiries:
info@victoria.rasc.ca
Night Sky Continued from page 6

what that distance is.

An Astronomical Unit is the distance from our planet to the Sun. Multiply this distance by 8 to get an idea of just how long light takes to travel from planet to your eyes.

May 23 to May 29

And, then there’s Comet LINEAR… On May 1, it was on the ecliptic near Pices’ circlet, then it traveled down to hover near Sirius between the 22nd and 24th. Now it’s moving away from us to fade away in June’s Hydra. Your head must be spinning from trying to take it all in.

May 30 to June 5

While you’re admiring all the Solar System objects, don’t forget to take time to look at the constellations these objects float through.

Island Eyepiece and Telescope

President’s Message

Now that April is here, it’s time to make sure that your telescopes are ready for spring and summer observing. Weekend public observing at the Centre of the Universe is back, and this month we are meeting on top of Little Saanich Mountain to get to know the new Centre of the Universe staff and renew acquaintances with the other staff members.

Despite the usual mixed bag of weather that we had this past winter, I hope that few of our telescopes collected dust over that time, because the winter constellations contain many treasures. I know that many of us took part in the successful March 9 observing event at South Park School in James Bay.

Jupiter and Saturn put on dazzling shows over the winter, culminating in the March 28 triple shadow transit on Jupiter. That night in Fairfield the clouds covered Jupiter just moments after Ganymede’s shadow joined Io’s and Callisto’s shadows on the disc of Jupiter. In that time and in the few moments afforded me by sucker holes in the clouds, I could find two but not three moons in my little ETX. Time for a stronger eyepiece, more aperture and fewer clouds!

Now we are focusing on Astronomy Day, which takes place Saturday April 24 at the Royal BC Museum from 10 a.m. to 4 p.m. This is our biggest public outreach event of the year, and we want to make sure that this year’s event builds on the successful Astronomy Days we have had in recent years.

Astronomy Day is a lot of work, but it’s work that leaves one with a feeling of accomplishment. Our reward is opening the eyes of many people to the wonders of the universe. I’m sure that in the crowds we see on Astronomy Day are future members of our centre and even a couple of future astronomers and perhaps space explorers.

Sid Sidhu, who is organizing this event with his trademark flair, is already mak-
George Ball—on the Move!

George Ball donated his observatory to Victoria Centre recently, and it was our job to move the dome and all the equipment. Thanks to the dedication of our able foreman and Vice President Bruno Quenneville and his crew of RASC volunteers, this was accomplished. Despite choosing to move this equipment on the morning of April Fool's Day, everything went without incident!

A special thanks goes to Advantage Cranes (250) 920-9691 for providing the crane, owner/operator Steve Tidder, trailer and equipment to make this move go smoothly.

The observatory and equipment will be stored until the Centre decides what to do with this valuable gift. We are actively looking for an observing site, which may or may not house all or part of George's donation.

Cheers, Joe

Joe documented the observatory move—see the picture story on page: 11 & 12

May and June and beyond

Steve Cortin, RASC member, has prepared a visual presentation on Cosmology and Astronomy for the May 12th meeting.

Chris Gainor will talk on Mars at the June 9th meeting. Mr. John-Willis Ellinson and his wife Sarah, both teaching at Uvic, have offered to meet with our members. Both John and Sarah are Astronomers and their experiences in England, Chile, etc. should prove to be most interesting.

Cover: Venus and the Pleiades

Bill's done it again — he has more images on Spaceweather.com. Check out the archives for April 5, 2004 and scroll down. Clicking on “Bill” will bring up the wide-view image below showing Venus, Mercury and the Pleiades. Clicking on “Weir” will bring up the image shown on this month's cover. Bill took these images on April 1, 2004 from Metchosin.
On the Move! Continued

How does it look?

Almost there ...

Off balance. More work needed

Safely on the truck

So, how do we balance this thing?

Under the wires and over the hedge

Second lift a better balance

Clear of the back yard

DESTINATION MARS

Friday 2:00 to 5:00 pm set up

Astronomy Day April 24, 2004

We are very fortunate to celebrate Astronomy Day again at the Royal BC Museum. Astronomy Day provides us with an opportunity to show the public who we are and what we do best. And, it is a time for us to have some fun sharing our hobby with others. The committee has organized a number of hands-on activities such as grinding and testing of telescope mirrors, assembling Dobsonian telescope mounts, astrophotography, day time planet viewing. To make this event a success, we need volunteers at both the RBCM and at the Centre of the Universe. If you have not already done so, please call Sandy (642-0205), she would like to hear from you. Give her a call—don't wait for her call. See You There!

Cheers. Sid

Astronomy Day Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 - 10:00</td>
<td>Set up</td>
</tr>
<tr>
<td>10:00 - 4:30</td>
<td>OPEN TO THE PUBLIC</td>
</tr>
<tr>
<td></td>
<td>Walk Through the Solar System</td>
</tr>
<tr>
<td>10:00 - 4:00</td>
<td>Displays, Ecliptic Calendar, Posters</td>
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<tr>
<td>10:00 - 4:00</td>
<td>Telescope Making Workshop</td>
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<tr>
<td>10:00 - 4:00</td>
<td>Astro-imaging Workshop</td>
</tr>
<tr>
<td>10:30 - 4:00</td>
<td>Ask the Professional Astronomer Booth</td>
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<tr>
<td>11:00 - 3:00</td>
<td>Children's Activities</td>
</tr>
<tr>
<td>11:00 - 4:00</td>
<td>Solar Observing: RBCM courtyard</td>
</tr>
<tr>
<td>11:00 - 12:00</td>
<td>Making and Assembling Dobsonian Telescope Mount</td>
</tr>
<tr>
<td>11:30 - 12:15</td>
<td>Multimedia Presentation</td>
</tr>
<tr>
<td>12:30 - 1:15</td>
<td>Wizard of the Stars</td>
</tr>
<tr>
<td>1:00 - 1:45</td>
<td>Lecture: History of Exploring Mars</td>
</tr>
<tr>
<td>2:00 - 2:45</td>
<td>Lecture: Formation of Stars and Planetary Systems</td>
</tr>
<tr>
<td>2:45 - 3:15</td>
<td>Wizard of the Stars</td>
</tr>
<tr>
<td>3:00 - 3:45</td>
<td>Making and Assembling Dobsonian Telescope Mount</td>
</tr>
<tr>
<td>3:15 - 4:00</td>
<td>Multimedia Presentation</td>
</tr>
<tr>
<td>7:30 - 11:00 pm</td>
<td>Night Sky at the Centre of the Universe</td>
</tr>
</tbody>
</table>
April 23 to May 1

I hope that you’ve been keeping track of this year’s spectacular planetary show- ing. You’ve been doing true observing—the kind that goes back to humanity’soot. The skies aren’t quite as dark and scary (well, people DO still think of the
dark as scary and try to hide from it) but the sight of a handful of bright stars
moving against a predictable tableau of never-changing stars probably helped
bolster human-kind’s intellectual and social growth. Keep up the good work!
The Moon waltzes past Venus, Mars (both on the 23rd), Saturn (the 25th) and
then Jupiter (the 29th) in April’s last week. Your pencil must be smoking from all
the sketching you’re doing.

May 2 to May 8

The planets just keep on getting better and better. Venus outshines everything
in the night sky (except for the full Moon) and reaches her most dazzling on the
2nd. Take a look at her through a telescope—even a small scope will show her
ever-so-thin figure. Very fashionable.
The Eta Aquarid meteor shower peaks on the 4th, but the Moon is full on the
same night. Why don’t you try observing the shower with your radio ‘telescope’.
Find a FM station that’s just below your horizon, sit back in the comfort of your
house (radio observatory) and count the meteors. April’s ‘Web Page of the
Month’ features an excellent starter to advanced resource to help you.

May 9 to May 15

Get out and try to spot Comet NEAT. As I write this, I’m not sure what you’ll be
able to see, but you should at least be able to find the comet in binoculars. Start
looking for it early in the month near Sirius. By the 10th it will be very close to
Procyon and continues up through the Beehive cluster on the 14th and 15th.
Anybody up to the technical challenge of a Moon-comet image on the 16th?
By August, the fading comet swings through the Big Dipper.

May 16 to May 22

You’ve got Comet NEAT in your sights. Now cruise the plane of the Solar Sys-
tem—Mars and Saturn are just off to the West in Gemini. On the 14th, 15th and
16th, you could use Mars and Saturn as ‘pointers’ to find the comet. On the 21st
and 22nd, the Moon’s thin crescent hovers near these two planets. Mars is just
over 2.2 Astronomical Units (330 million kilometres) away. Saturn is much fur-
ther away at about 9.6 Astronomical Units away. Scan eastward to Jupiter and
you’re seeing the planet at a mere 5 Astronomical Units away. You could drop
Saturn and his rings between your spot on Earth and the Moon. You tell me

(Continued on page 14)
The Sky This Month: April 2004 (All times and dates local to Victoria, BC)

April 2                     Moon near Jupiter
April 4                     Daylight Savings Time begins (most of Canada)
April 5                     Full Moon
April 11                    Last Quarter
April 19                    New Moon; Partial eclipse of sun (not visible in North America)
April 21                    Lyrid Meteor Showers (best after midnight)
April 23                    Moon near Venus and Mars just after dusk
April 24                    Moon near Saturn
April 27                    First Quarter
April 29                    Moon near Jupiter

Planets and spring constellations are still filling our skies. Our days are getting longer and longer with the onset of spring and daylight savings time. See the web site of our sister institute, the NRC Institute for National Measurement Standards for more information about daylight savings time and if/when it takes effect where you live:
http://inms-ienm.nrc-cnrc.gc.ca/time_services/daylight_savings_e.html

Go outside around 9:30 p.m. once the sun has completely set for stargazing. In the west, the constellations we have been enjoying all winter are just above the horizon. Look for the v-shaped head of Taurus the bull next to Orion, the large hourglass grouping of stars. Mixed in with these winter constellations are some planets including Venus, Mars and Saturn. Venus is the brightest "star" you will see in the west and will be fairly close to the horizon. Just up from Venus, you will see a small red "star". This is Mars. Above Mars, the yellow "star" is the planet Saturn. The other bright yellow "star" high in the south is Jupiter.

Throughout April, the moon will sit next to each of these planets. By using the above list, the moon may show you where exactly the planets are!

Look to the east to find Leo, the lion. A large backwards "question mark" is the head of the lion. Just to the left of Leo, you will find the Big Dipper standing on its handle high in the northeast. Use the curve of the handle to "arc to Arcturus" a beautiful orange star in the east. Arcturus sits in the constellation Boötes, the herdsman. From Arcturus, you can "spike down to Spica", a brilliant blue star in the constellation Virgo. Also, look for the "E" of Cassiopeia just off the horizon in the northwest.

Throughout the year we are treated to many meteor showers when the Earth passes through different trails of comet dust. Most people are familiar with the Perseid meteor showers in August and the Leonid meteor showers in November, but April has its own light show. Although not as prolific as some of the

(Continued on page 11)
**The Space Place Continued**

capture a complete movie of growing fractures rather than a single haphazard snapshot.

Until scientists can actually travel to deep space and explore distant worlds in person, they'll need spacecraft "out there" that can do some of the thinking for them. Sciencecraft is leading the way.

Learn more about Sciencecraft at: nmp.nasa.gov/st6

*By Patrick L. Barry and Tony Phillips*

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The Autonomous Sciencecraft technology that will be tested as part of NASA's Space Technology 6 mission will use artificial intelligence to select and transmit only the scientifically significant images.

Kids can make a "Star Finder" for this month and learn about another of the ST6 technologies at: spaceplace.nasa.gov/st6starfinder/st6starfinder.htm

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This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

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**Report from the Centre of the Universe**

Hello everyone!

I hope you all are enjoying this fabulous start to April! The weather has been warm and clear - perfect for astronomy.

The Centre of the Universe is now open daily from 10 am to 6 pm and on Saturdays until 11 pm for evening programming. This is the 86th year in which Saturday nights have been dedicated to the public on the historic 1.8 m Plaskett telescope which was once the largest research telescopes in the world. Please join us between 7 and 11 pm for guided tours of the telescope, small telescope observation, planetarium shows and talks in our auditorium. Some weeks, we will have guest lecturers from the Herzberg Institute of Astrophysics and other world class research facilities around the world! For more information on the Plaskett Telescope, please visit: http://www.hia-iha.nrc-cnrc.gc.ca/public/18_e.html

**Astronomy Courses at the Centre of the Universe**

Our seasonal courses are designed to give you a basic introduction to astronomy, with emphasis on the constellations, planets and deep sky objects visible in season. Designed to be both recreational and educational, our courses will be taught by Centre staff with help from members of the Herzberg Institute of Astrophysics and the Royal Astronomical Society of Canada. Courses will include multimedia instruction, guest speakers, and telescope observation.

**Spring Skies**

- **Cost:** $89, $79 for season’s pass holders
- **Dates:** Tuesdays, 27 April, 4 May, and 11 May 2004, from 7 to 10 p.m.

Spring Skies places more emphasis on some of the spectacular deep-sky objects visible in season (galaxies, nebulae, star clusters, etc) and will also offer a user-friendly introduction to some of the big questions: the origins and future of the universe, the Big Bang, our place in this Universe and the possibility of life elsewhere.

**Note:** Our seasonal courses are intended to be complementary but may be taken independently; one is not a prerequisite for another. There will be some overlap of content between them.

**Please call:** (250) 363-8262 to reserve your spot, or to get more information. Courses are limited to 30 participants, so enroll early!

*(Continued on page 10)*