

## The Summer of Mars by Randy Groundwater

What do the dates of September 10, 1956, August 10, 1971, September 28, 1988 and August 28, 2003 have in common? They were all times when Mars, our planetary neighbour next out from the sun, loomed especially close to us; revealing exciting telescopic glimpses of tantalizing surface detail and atmospheric features. Although Mars reaches "opposition" about every 26 months, its distance from the sun varies considerably over its 687 day orbit. As a result, it is only about every 15 to 17 years that we are treated to an especially good view, when Earth aligns between Mars and the sun very near the time the red planet itself is closest to our star.

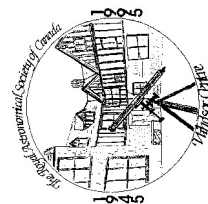

Just a few weeks from now, on July 27th, we pass through the next perihelic opposition of Mars when it will rise at sunset and be visible all night long. A few nights later, on the 31st, it will be closest to Earth and at its largest through the telescope.

The time to be watching Mars is now. Patience and practice at the eyepiece in the weeks leading up to opposition will help you to gain the experience needed to see everything there is to see through the telescope. Even now, Mars is a brilliant beacon of ochre light as it rises low in the southeast. The best views come when it is highest in the sky during the early morning hours. The current issue of SkyNews (not to mention our 2018 RASC Observer's Handbook) contains excellent information on getting the most from your summer Mars experience.

Below is a page from my observing logbook from two perihelic oppositions ago, in September, 1988. The sketch represents quite well the visual detail that can be seen through a quality telescope of fairly moderate aperture. Fellow RASC Windsor Centre member, Al DesRosiers, was also there. It was quite a memorable night of viewing for us and one which over the years we have often fondly recalled. Thirty years on, I look forward to more fine views during this coming "summer of Mars".

Observer: R. Groundwater  
Date: SEPTEMBER 9-10, 1988  
Beg. / End Time: 5:15 UT 5:40  
Telescope: 6" f/18 APD REFRACTOR  
Magnification: 171x 7mm Mo  
Seeing: 4-4.5 (1-5)  
Transparency: 2.5 (hazy) (1-5)  
SUBJECT: MARS

Comments: CENTRAL MERIDIAN 117° AT 5:30 UT.  
VERY GOOD SEEING CONDITIONS HERE AT PT. PELEE  
THIS MORNING. THE EYE OF MARS (SOLIT LACUS)  
IS UPON US! NOTE IRREGULAR SHAPE OF TINY (SOUTH POLE) ICE CAP  
AND DEEP PENETRATION OF MARKINGS INTO NORTHERN HEMISPHERE,  
ON THE EMERGING LIMB



# AURORA



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The Royal Astronomical Society of Canada - Windsor Centre

June 2018

## Flyer

### Next Meeting

Tuesday, September 18, 2018  
7:30 p.m.

at  
[Ojibway Park Nature Centre](#)  
5200 Matchette Road

Speaker:  
**Randy Groundwater**

Topic:  
**"Telescope Making"**

### Upcoming Events

**Summer Solstice:** The Sun will be at its furthest point North of the Celestial Equator on **Thursday June 21st at 6:07 a.m. EDT** marking the start of Summer for the Northern Hemisphere.

**Saturn Opposition:** Saturn reaches opposition at **9:00 a.m. on Wednesday June 27th**. Saturn rises in the SE as the sun sets and is visible all night.

**Mars Opposition:** Mars reaches opposition at **1:00 a.m. on Friday July 27th**. Mars rises in the SE as the sun sets and is visible all night.

**Perseid Meteor Shower:** Peaks at **9:00 p.m. on Sunday August 12**. The moon is new on August 11 so will not interfere with the peak nights. The best time to look will be any time after midnight on August 12/13. **Point Pelee Dark Sky Night** on both Saturday and Sunday nights the park will be open all night. Come out to the West Beach and view some Perseids.

## Monthly Meeting Minutes May 15, 2018

The monthly meeting of the Royal Astronomical Society of Canada - Windsor Centre was held at the Ojibway Park Nature Centre.

Windsor Centre **President, Mike Mastronardi** chaired the meeting. Mike called the meeting to order at 7:30 p.m. and welcomed members and guests to the Ojibway Park Nature Centre.

Prior to starting the events of the night, Mike presented one of the new Centre **promotional banners** that was created by a group of council members lead by Steve Pellarin and Nancy Ng.

Mike invited members to review the **minutes of the April 17, 2018 meeting** which were printed in the Aurora newsletter. A **motion to accept the minutes** of the April 17, 2018 meeting was made by **Greg Mockler** and seconded by **Susan Sawyer-Beaulieu**, the **MOTION CARRIED**.

Mike provided an overview of the meeting and introduced the main presentation.

### Main Presentation

Mike welcomed RASC Windsor Centre member **Steve Pellarin** to the floor for his presentation “**A Survey of Normal and Active Galaxies**”.

Steve introduced **different types of galaxies**, mostly throughout the local region of space (within 10-15 million light years) focusing on the different characteristics of the galaxies. Until the modern telescope there was no real understanding of what a galaxy was since their initial discovery in the 1770's with **Charles Messier** when they were just known as **spiral nebulae**.

Many images of constellations were shown **and their galaxies** within them including the famous **Hubble Deep Field**. Almost **every pixel of light within the famous image was that of a galaxy**. Classifying galaxies using Hubble's System was discussed, 4 classes: **Spiral (S)**, **Barred Spiral (SB)**, **Elliptical (E)**, and **Irregular (I)**. Examples of spiral galaxies include, our own Milky Way and our close neighbour Andromeda. Within the **S class of galaxies**, there are sub-classifications. **Sa** (large central bulge, tight spiral arms), **Sb** (compact central bulge, open spiral arms), and **Sc** (small bright central bulge, loose spiral arms).

The **Local Group**, is a galaxy cluster which is held together by **gravitational attraction**. Our group is quite small and includes **2 major spirals, 2 minor spirals, and many dwarf galaxies**.

Mike thanked Steve for his presentation.

After the **coffee break, a 50/50 draw** was held, Paul was the lucky winner, and he donated back to the club.

### Director of Observing Report

**Dr. Susan Sawyer-Beaulieu** was welcomed to the floor and opened the D of O report with a question period on some local observing and members' photographs, outings, and stories.

Upcoming objects of interest in the sky include:

**Moon** – First quarter on May 21<sup>st</sup>, Full on May 29<sup>th</sup>, Last quarter on June 6<sup>th</sup>, and New Moon on June 13<sup>th</sup>.

**Mercury** – June 6<sup>th</sup>, at perihelion, and superior conjunction. In the evening sky mid-June, and visible in the low western sky at dusk.

**Venus** – In the western sky at dusk. Moving out of Taurus and into Gemini. Will brighten to a -4.0 magnitude.

**Mars** – Rises in the east around 1:30 a.m. moving towards Capricornus.

**Jupiter** – Prominent in the Southeast sky in Libra throughout the summer.

**Saturn** – Rises at midnight near Sagittarius, maintaining a brightness of 2.0 magnitude.

Deep Sky Object of interest for the following month: **Markarian's Chain** which forms part of the Virgo Cluster along the Virgo and Leo boundary. An 8" aperture or larger telescope is recommended to see a good number of objects as most have a limiting magnitude of 11.0 or greater.

Following the Director of Observing report Mike welcomed **Tom Sobocan** to the floor to give a short presentation on the first man in space (**April 12<sup>th</sup>, 1961**), **Yuri Gagarin**. It has been **50 years** since he has passed away, at the age of 34.

**REMINDERS: Science Rendezvous** will be held at the University of Windsor on **May 12<sup>th</sup>**, volunteers are needed. Astro Luncheon at **Skippy's Restaurant** every second Wednesday of the month, at noon. Located at 954 University Ave West, Windsor.

Mike thanked everyone for coming out to the meeting and reminded everyone that the **next regular membership meeting** would take place on **June 19<sup>th</sup>, 2018 at 7:30 p.m.**

**Meeting adjourned at 9:58 p.m.** May 15<sup>th</sup>, 2017.

Recorded by Dan Perissinotti, RASC Windsor Centre Secretary