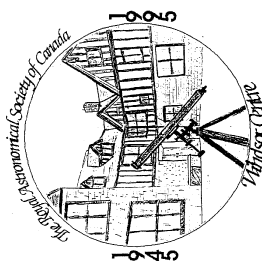




AURORA

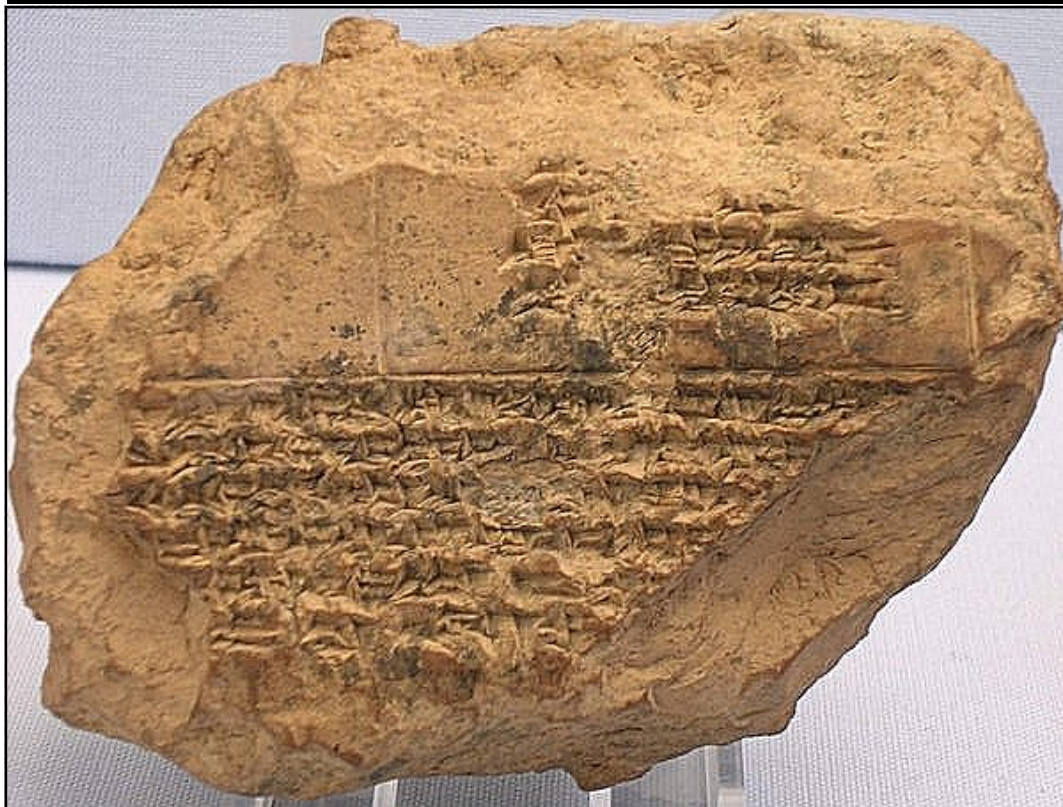


January 2009

The Royal Astronomical Society of Canada - Windsor Centre

Volume 34, No. 4

The World's First Astronomer by Rod Clark



A Babylonian List of Eclipses - circa 450 BCE

In this the International Year of Astronomy, we are remembering mankind's first look at the Universe through the telescope. What Galileo saw on that night in 1409, forever changed our interpretation as to what and where we are.

But Galileo was not the world's first astronomer. That honour must surely go to a Chaldaean and who probably lived in Babylon over 3,000 years ago.

Chaldaeans were a war-like tribe who had conquered the area between the Tigris and Euphrates rivers, the same bounteous lands often believed to be the site of the biblical Garden of Eden.

The Chaldaeans prospered, built great cities and became famous for their scientific discoveries. In the passing of time, they too were conquered and their name was removed

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Calendar of Events

Our next meeting...

Tuesday, February 17th, 2009

7:30 p.m.

at

Maidstone K of C Hall

10720 County Road 34 (Old Hiway 3)

Main Speaker...

TBD

Topic...

"TBD"

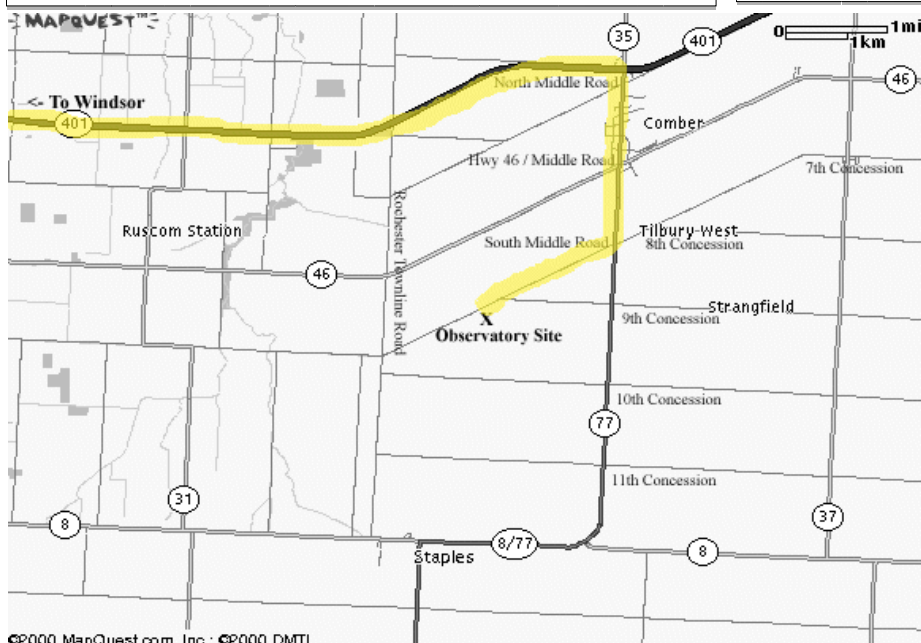
Activities...

Venus Greatest Elongation (East 47deg.): On Wednesday January 14th Venus was at its furthest separation from the Sun however due to the angle of the Ecliptic it will continue to get higher in the evening sky for another month and then start its plunge to the horizon by late March.

Venus/Uranus Conjunction: On January 22 Venus passes just over 1 degree North of Uranus. If you have not had a chance to spot Uranus yet Venus will make it an easy target.

Hallam Observatory Open House: The next open house is Saturday January 31, 2009.

Council Meeting: Our next council meeting will be held on Tuesday February 10, 2009 at Steve Mastellotto's house. The meeting will begin at 7:30 p.m.



Hallam Observatory Site

Directions: The map above shows the Comber area and it includes the major highways (401, 77, 8 and 46) that are in the area of the observatory.

The most direct route from Windsor is "highlighted" on the map which is to take Highway 401 East to Highway 77 South to South Middle Road. Turn right onto South Middle Road and go about 1 kilometer and just after the point where Concession 9 joins it (it is hard to see this intersection) you will find the observatory site on the South side (left) of the road.

If you hit the Rochester Townline Road (you come to a stop sign) you have gone too far.

Submissions

Aurora is published monthly except for July and December. The August, October, January, March and May issues are full newsletters (usually 6 pages) with a number of member submitted articles. The September, November, February, April and June issues are short flyers (2 pages) with one short article.

Submitted articles can be of any length from a paragraph to multiple pages. I can scan pictures and/or diagrams (both prints and film) to support your article and the originals will be returned to you.

Submission deadline is the 1st of the month.

Editor: Steve Mastellotto Email: mmastellotto@cogeco.ca
Ass't: Dan Anzovino Email: dananzovino@sympatico.ca

Membership

The Windsor Centre of The Royal Astronomical Society of Canada meets on the 3rd Tuesday of every month (except July and August) at the K of C Maidstone Recreation Centre. In addition to regular meetings the centre hosts a number of observing nights, a picnic and a December social. Members receive a copy of the Observer's Handbook, a subscription to SkyNews magazine and access to the Centre's library and telescopes. And optionally the RASC Journal in print form—online version free.

Annual Membership Fees: Please see the RASC website at www.rasc.ca for current rates

Contact Ken Garber at (519) 966-3478 or visit our website at: <http://www.rascwindsor.com> for more information.

November 2008 Meeting Minutes by Dave Panton

Minutes from the meeting of November 18, 2008 held at the K of C Hall in Maidstone and chaired by Dr. Pierre Boulos.

Pierre welcomed members and guests. Minutes from the October meeting were read and accepted following a motion by Steve Mastellotto seconded by Susan Sawyer-Beaulieu.

Director of Observing: Susan Sawyer-Beaulieu asked if members observed any recent astronomical events. Juliana Grigorescu had the good fortune to witness a large fireball in the direction of Orion at 5:00 a.m.. The ISS with the space shuttle Challenger attached is now large enough to appear brighter than Jupiter or Venus as it passes overhead. Watch for them this coming Friday, Saturday and Sunday. The Sun is ending its 11 year sunspot minimum and small Sun spots are starting to appear.

Over the Christmas Holidays the Moon will be a great target on those long dark nights. Susan recommended several areas of interest, among them the "Cloven Footprint". Easy visual sights to come are combinations of Jupiter, Venus, Mercury and the Moon near one another in evening or morning skies. Winter constellations are appearing earlier each night. For those with telescopes Susan listed a variety of deep sky objects such as NGC 7762, the spectacular planetary nebula named for its appearance as a "blue snowball".

Annual Awards: Pierre described Joady Ulrich and Paul Preney awards committee work and then announced awards for two people. **Steve Pellarin** received an award in recognition of his service as past president and many interesting D of O reports and 29 year membership in Windsor Centre. **Bert Huneault** (see photo on page 4) was also recipient of an award recognizing his contributions as twice past president and a key figure promoting the original construction of the St. Clair College Observatory, since closed and now our Hallam Observatory.

A surprise award was presented by past president Randy Groundwater to **Joady Ulrich**, describing his keen interest over a period of 28 years and early astronomical accomplishments grinding an 8 inch mirror and founding the Nova astronomy club as a teenager with Randy. Visually impaired at birth, Joady nevertheless became an accomplished observer.

2009 Elections: As past president Steve Mastellotto officiated and thanked all those who volunteered to serve further terms or take on new duties. The results are shown in the table on page 5.

Rick Marion made the motion to accept the names presented for the Executive and Council for 2009, Susan seconded and the motion carried.

Pierre noted there is a further unsung and unofficial person of importance. That is the individual who brings our equipment and the supplies for coffee breaks. Help is needed in this area as Tom Sobocan is no longer able to perform this function in the year ahead.

Coffee Break and 50/50 Draw

Pierre called the meeting to order and introduced member **Juliana Grigorescu**, main speaker for the evening who presented "In the Grip of Gravity"

Gravity, Juliana explained is one of the four fundamental forces in nature. In ancient times it was known but not well understood. Aristotle theorized objects move toward their natural places and thought heavy objects fell faster. Arabic astronomers discovered evidence of attraction between heavenly bodies. In the sixteen hundreds Galileo discovered that all objects fall at the same acceleration (they all hit the ground at the same time when dropped from the same height).

In 1687 Isaac Newton theorized that gravity for Earth and gravity for the heavens is one and the same. Its mathematical equations described the relationships between forces, mass, acceleration and gravitational attraction between objects and was published in his "Principia". This theory served well, solving mechanical and most planetary motion problems. Juliana explained that there were still some discrepancies in Newton's law of gravity. That is why Albert Einstein introduced his theories of gravitation and space time, his "General Relativity". This theory also led to the theory that gravity waves are emanating from very dense heavy objects like black holes, neutron stars and orbiting binaries. Extremely weak, gravitational waves are nearly impossible to detect.

In 2005 Juliana had the good fortune to visit a new gravitational wave observatory in Washington State, the LIGO Observatory, where a laser interferometer is used in search for gravity waves. She showed detailed photographs of the remote site, its exotic equipment and gave a clear explanation of the way it operates.

Gravity wave detection is so extremely difficult and so far a lot has been learned about unwanted noise. If a wave passes by, the chance of detecting a gravity wave signal within the noise is improved. To date none have been de-

(Continued on page 4)

November Meeting Minutes (continued)

tected. If never detected, Einstein's gravity wave theory may be flawed. Gravitation, she concluded is still a mystery.

Pierre thanked Juliana for her competent and well illustrated presentation.

The Year in Review: Pierre summarized highlights from his second year as president of Windsor Centre crediting the many members who perform work in the back ground. Our new website by Steve Mastellotto and John Berube is a good example. Handling public relations in newspapers and radio by Tina Chichkan is another. Public education by Randy Groundwater and others is important. Promotion of light pollution abatement by Dan Taylor is vital to preserving our night skies. Our Observatory is one of the best gems in South Western Ontario. Monthly public open houses have been great successes. Pierre also called for more observatory use by members. Earth Day, the June Picnic, the Point Pelee and Pelee Island Winery events were important activities in 2008. In the finance area fund raising jointly and by Al Des Rosiers was successful. Retaining existing members and adding new ones is also important.

Reports

Treasurer: Ken Garber

Our current bank balance is \$5,376.63. There are 98 paid up members. Ken will no longer routinely issue membership cards except by request. Calendars for 2009 are sold

out. More can be ordered in a small quantity if desired.

Librarian: Rick Marian

Rick reported the 6 and 8 inch Dobsonian telescopes and several eyepieces for same are now at the observatory for use on site.

Public Education: Paul Pratt

Paul will host a program at the Ojibway Nature Centre this Thursday. Ken ROUNG is planning to do a presentation at the Balmer Centre.

Public Relations: Tina Chichkan

Tina reminded members to come to the Christmas Social on December 5th. Also she mentioned there is an open house at Hallam the following evening.

Light Pollution Abatement: Dan Taylor

Dan encouraged members to refer to the latest issue of National Geographic for a major feature on light pollution.

National Council Representative: Open

Steve Mastellotto has been unofficially following National business and reported they are planning to sell the headquarters building at 136 Dupont Street in Toronto.

Membership: Paul Pratt

No report

Pierre thanked all for attending the meeting and adjourned at 10:00 p.m.



RASC—Windsor Centre Service Award

Bert Huneault received the Centre Service Award at the November 2008 Annual Meeting along with Steve Pellarin and Joady Ulrich. Unfortunately Bert was unable to attend the meeting so a group from the Executive and Council dropped by Bert's house to present him with the award.

Seen here are Bert Huneault (holding award) and clockwise from Bert are President Pierre Boulos, Awards Committee members Paul Preney and Joady Ulrich and Randy Groundwater.

Congratulations Bert!

2009 Council of the RASC - Windsor Centre

Elected Officers

President	Dr. Pierre Boulos
1st Vice-President	Paul Pratt
2nd Vice-President	Tina Chichkan
Secretary	Dave Panton
Treasurer	Ken Garber
National Council Rep.	Mike Mastronardi

Councilors

Dan Anzovino	Randy Groundwater
Sue Lihola	Steve Pellarin
Paul Preney	Donna Ronconi
Ken ROUNG	Susan Sawyer-Beaulieu
Joady Ulrich	

Appointed Officers

Honorary President	Dr. William Baylis
Past-President	Steve Mastellotto
Librarian	Rick Marion
Recording Secretary	Dave Panton
Public Education Director	Randy Groundwater
Public Relations Director	Tina Chichkan
Directors of Observing	Steve Pellarin
	Susan Sawyer-Beaulieu
	Juliana Grigorescu
Light Pollution Abatement Dir.	Dan Taylor
Hallam Observatory Director	Dave Panton
Aurora Editor	Steve Mastellotto
Assistant Aurora Editor	Dan Anzovino
Webmaster	Steve Mastellotto
International Year of Astronomy 2009 Coordinator	Mike Mastronardi

Renewing S&T Subscriptions

If you are a subscriber of Sky and Telescope and normally renew your subscription through the Centre, you can now renew directly with S&T. You no longer need to send your form and payment to the Centre.

If you are not a subscriber but wish to be, send your first payment to the Centre Treasurer for forwarding to S&T and you'll be able to renew directly after that time.

World's First Astronomer (continued)

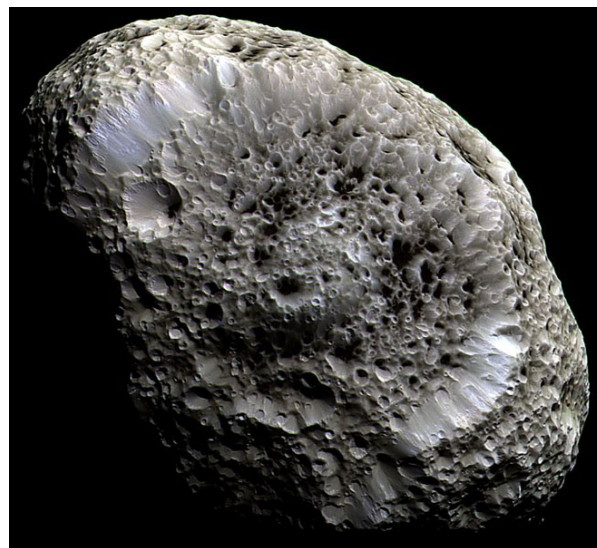
from maps of the world but not from the schools and libraries of learning. To be a Chaldaean was a mark of respect for a person of culture and knowledge and was the name given to practitioners of the new science of astronomy.

The British museum has a stele with a list of systematic observations of the planet Venus written for King Ammisaduqa in 1646 BCE. By the eighth century, the Chaldaean scientists of Babylon were able to predict eclipses, had created stellar catalogues and a nearly perfect calendar.

In the Christmas story, the 'wise-men' from the east, with their obvious interest in the stars, would most surely have been Chaldaean.

Note: The name Chaldaean in modern times, (in Arabic, the 'h' is not pronounced), is given to the followers of the Christian Catholic Church of Iraq. They frequently can be found living in the area, still known as Babylonia.

In the time of Saddam Hussein, they were able to freely practice their religion. With the American invasion, they have suffered grievously as they are often seen as accessories to the Americans who are also known as being Christian.



Saturn's moon Hyperion

Time to Renew ? ?

Don't forget that you can renew your membership at the treasurer's desk, by snailmail to the National, or online at the RASC 'store' at <http://www.store.rasc.ca/>



Paul Pratt Photo Gallery

Thanks to Paul for providing these two photos.

The one above shows the Moon, Venus and Jupiter on December 1, 2008. Paul was one of the lucky few in this area to see this conjunction through a break in the clouds. As is typical, the night before was perfectly clear.

The photo at left is from the RASC—Windsor Centre December Social held on December 5, 2008. Approximately 30 people celebrated the holiday season with a pot luck dinner at the Maidstone K of C Hall. As you can see not much was left (and you can't even see the dessert table) and everyone left stuffed. Thanks to everyone who worked on setting things up and to those who provided door prizes.