

THE OBSERVER

BATTLE POINT ASTRONOMICAL ASSOCIATION

WWW.BPASTRO.ORG BAINBRIDGE ISLAND, WA



DID YOU KNOW?

The James Webb Telescope scheduled for deployment in 2021, will "see" only in the infrared spectrum. In other words it will observe infrared radiation wavelengths that get lost in our atmosphere, and that we can't see at all with ordinary optical telescopes - not even with the wonderful Hubble Telescope. But it will observe clearly in ways never before possible. More detail to come in future issues.

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Here is a question for members. We would like to know what you want from this newsletter. What you want to see more of? Less of? How can we make it better? What do you think? Send an email to : (Rex Olsen) secretary@bpastro.org

ANNOUNCEMENT

INTRODUCTION to BASIC ASTRONOMY

Announcing an online 4-session class sponsored jointly by BARN and the Battle Point Astronomical Association (BPAA). In this live streaming ZOOM class students will get an overview of "What's out there" and "How do we know". The class format is workshop in form, and will include general astronomy presentations followed by one or more 'curated' videos and then discussion. The class starts on Thursday, August 6th and ends on Thursday, August 27th, 2020. **Peter Moseley** will instruct. More detail and registration information is available here: (copy following link)
<https://bainbridgebarn.wildapricot.org/event-3879568>

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CHANGE

You will see in this edition of the OBSERVER that BPAA is undergoing great change, just as are most organizations in the United States and around the world. Much, we believe, is progressive and will be good for our membership and the community we serve. Let us mention a few. On page one we announce the next phase in our ongoing partnership with BARN, and we are very excited about the prospects of more and better adult education programs. Also, Star Parties and public lectures will now be conducted using virtual means instead of the Helix Building main room, which has been converted to a telescope display and lending facility. While social distancing 'rules' apply, and they may continue for quite some time, we cannot gather large groups at the Helix building. We do not have the required restroom or adequate hand washing facilities. We probably can meet in very small numbers, as mentioned below.

What's Up With The Ritchie?

Chief Astronomer Nels Johansen will be teaching members how to use the much improved Ritchie telescope that is just now coming back on line. If you are interested in learning how to operate the Ritchie, contact Nels at:

Astronomer@bpastro.org

Members will continue to receive updates on the Ritchie and on programs related to its use and maintenance. Watch this space for further developments.

JOIN US - for a Virtual Planetarium Show and Star Party "**Galaxy Collisions and the Milky Way**", Saturday, July 11, 2020, 8:00 pm.

What happens when galaxies collide? Has our own galaxy experienced collisions in the past? Will it in the future? **Astronomer Steve Ruhl** will look at how the latest data informs these questions.

If the sky is clear we will have a virtual **Star Party** featuring images from a remote private telescope on the island. Steve will let you know.

Please RSVP to president@bpastro.org to obtain an e-vite to attend this ZOOM presentation.

WHAT'S UP!

July 4 - the Earth reaches aphellon, its furthest distance from the sun

July 5 - Full Moon with Jupiter above and to the right and Saturn above and a bit left

July 12 - Look for Venus above and to the left of Aldebaran in the early morning sky

July 13 - Last Qtr. Moon, in Pisces

July 14 - Jupiter reaches opposition this date - visible all night

July 20 - New Moon

July 22 - Mercury rises in the morning sky

July 27 - First Qtr. Moon, in Libra

July 29 - The moon will be just above Antares

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The core of M8 (Lagoon Nebula) . M8 is an emission nebula with a number of Bok globules (dark, collapsing protostars), regions of active new star formation, and a whole lot of very active O & B type stars. The Lagoon Nebula is in the constellation Sagittarius, about 4,000 light years distant. The complex structure of the nebula spans 110 by 50 light years.



taken by **Steve Ruhl** using a SBIG STF-8300 with filter wheel

Bok globules are relatively small, dark areas of dense cosmic dust and gas, as seen above, and from which star formation may occur. They were observed by astronomer Bart Bok in the 1940s. In 1947, not long ago in cosmic discovery terms, he and Edith Reilly co-authored a paper theorizing that these dark "clouds" were forming new stars by collapsing gravitationally. However, it was just theory as at that time there was no suitable means to prove the hypothesis. The clouds obscured all visible light. But near-infrared observations in the 1980s made observations possible and it was confirmed that stars were being "born" inside the Bok globules. Recent studies have led astronomers to conclude that most Bok globules produce multiple stars of various types depending on the type of gaseous material available, and the proximity of other protostars. Bok globules continue to be a subject of intense research.