



March 2018
 April 2018

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DOORS OPEN JAMESTOWN

The observatory was privileged to be asked once again to participate in DOORS OPEN JAMESTOWN on January 20th as one of its venues this year. Last year the event was met with surprising success due in part to the excellent warm weather and again this year after the cold winter conditions that existed up to the day of the event.

The observatory is located at a distance from Jamestown and we appreciate being included as a partner with the greater Jamestown area attractions. The event is sponsored by Jamestown Up Close, Jamestown Renaissance Corporation, Jamestown Community Chamber of Commerce and Chautauqua County Chamber of Commerce with support from the participating attractions and merchants.

Doors Open Jamestown featured free admission to greater Jamestown attractions. There were raffle prizes at each location that included restaurant specials and more. In all, 16 local attractions and nearly two dozen restaurants and retail stores partnered together for this annual event to give local people a chance to be tourists in their hometown and to see, for free in many cases, what tourists pay for each year.

Last year the observatory was host to nearly 200 visitors who came to learn about our unique offering that supports education in our area. It was with pleasure to have exceeded this number this year. For many, it was their first visit to the observatory and they were surprised to find such a facility in our area.

The event brought 219 guests to the observatory who enjoyed tours of the facility conducted by staff members. The tour concluded with an interesting slide presentation in our warm classroom narrated by member John Anderson who provided verbal descriptions of a select group of celestial images retrieved from an estimated 30,000 taken over a period of time by the observatory's astroimaging staff using its telescopes.

Overheard were some very favorable comments about the observatory. It's expected these words will spread beyond the observatory and will contribute to our effort to encourage others to come for a chance to enjoy an evening under the stars on a clear night to look through a large telescope and perhaps take advantage of one of the several interesting speaker programs offered during the summer and other special events. Last summer as an example, the observatory played host to over 700 visitors during the August solar eclipse. These special events and open houses are posted on our calendar found at <http://martzobservatory.org> under the tab labeled "Events".



Viewing the Moon during the daytime during Doors Open Jamestown.

Events for
 March
 April
 General Meeting
 March 14th
 April 11
 Board Meetings
 March 28th
 April 25th
 Phil Evans Lecture
 March 21st

OFFICERS:

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Gary Nelson

Vice President:

Brian Ceci

Secretary:

Richard Carlson

Treasurer:

John Anderson

Board members:

Randy Brown

Walter Pickut

Tom Traub

Editor Newsletter

Richard Carlson

Proof Reader

Randy Brown

SITE OF THE MONTH
YOUNG VOLCANOES ON THE MOON
<https://science.nasa.gov/young-volcanoes-moon>

JAMESTOWN HIGH SCHOOL ASTRONOMY CLUB

The long awaited days of winter with temps unlike what had been previously experienced after a prolonged period of very little snowfall, made its appearance the week of December 10th. On Wednesday evening the 13th, a Christmas party for members had been planned at the observatory, but was canceled due to inclement weather.

Friday December 15th, the date Jamestown High School teacher, Steve Propheter previously scheduled his 15 Astronomy Club students for a tour of the observatory from 12 until 2 pm, took place without a hitch. Although the weather had been a factor during the week, the group was welcomed to a plowed parking area and a warm classroom. During the classroom assembly, the students were offered information about the observatory prior to their tour of the facility.

The purpose of the field trip was to familiarize the students with the observatory and its operation. An introduction about the observatory and a tour was followed by an image presentation of celestial objects taken at the observatory to inspire the students to realize the opportunities that await them, should they choose to take advantage of the observatory's resources following an appropriate training period.

Various projects were introduced to the students that are available for students to work on. It was noted that some good questions were asked during the course of the visit which concluded in a good time for all, it was reported.

FANTASTIC ADVANCES EXPECTED

When stargazers look up in the night sky they see a myriad of stars, some brighter, some dimmer and some with variations of color from white to various hues of dilute red to yellow.

For years astronomers suspected that stars had planetary systems similar to our own solar system which led to the question "Are we alone"? One of the foremost references to this question was Giordano Bruno, a Dominican friar, philosopher, mathematician, poet, and cosmological theorist was executed on February 17, 1600 because he proposed the stars were suns surrounded by planets and could foster life of their own. Steven Thordyke, a Martz member through a family membership, is credited for discovering, along with his teacher, Alice Quillen, a hypothetical planet orbiting Epsilon Eridani in 2002. "Astronomers now regard the planet as confirmed. In 2016 it was given the alternative name Aegir".

There is nothing static about astronomy, making its study exciting. Many findings bend the mind to a point of unbelievability, but upon later investigation prove to be factual as in the case of the planet that revolves around Epsilon Eridani.

Upcoming Telescopes Should be Able to Detect Mountains and Other Landscapes on Extrasolar Planets

<https://www.universetoday.com/138308/upcoming-telescopes-able-to-detect-mountains-landscapes-extrasolar-planets>

"With their advanced instruments, these and other observatories are not only expected to find many more exoplanets, but to reveal new and fascinating things about them. For instance, a recent study from Columbia University indicated that it will be possible using the Transit Method to study surface elevations on exoplanets".

Nominations of Officers

Three officers will be voted on at our annual June meeting. Nominations are being taken now for the two year term on the board.

Contact Randy Brown for nominations.

WELCOME NEW MEMBERS

The observatory would like to welcome Steve and Sue Arnold of Jamestown and Alexandra Shrefler of Warren, Pennsylvania as new members.

TABBY'S STAR

Dating back to 1895, light from Tabby's star identified as KIC 8462852 has faded by 20%. Abrupt flickers were recorded during NASA's Kepler Mission. Tabetha Boyajian, a Louisiana State University astronomer, hence Tabby's star, reported two distinct drops in light, one recorded at 22%; its possible cause being an accompanying planet with a 60 year orbit. But this did not seem to explain the star's steady darkening nor abrupt flickers.

Tabetha Boyajian said in a statement, "The new data shows that different colors of light are being blocked at different intensities. Therefore, whatever is passing between us and the star is not opaque, as would be expected from a planet or alien mega structure."

Both professional and amateur observatories are keeping a watchful eye on the star's unpredictable nature that has given rise to many explanations to what may be occurring.

Due to the amount of interest Tabby's star has generated, the Martz/Kohl Observatory has been involved for a period of time taking astromages of this unusual object and keeping a record of brightness changes to be used for future scientific findings. The star being investigated is 50 % larger than the sun, 1,000 degrees hotter and is about 1,280 light years away from the earth. Unlike other stars, Tabby's star has displayed the unusual nature of having dimmed in brightness between 1895 and 1989 and since by various amounts.

The drastic changes in its behavior have led to many proposals to explain the changes in light output being recorded. These changes have alluded to obscuring swarms of comets orbiting the star, left over destroyed planets eclipsing the star, interstellar obscuring clouds of debris the star is passing through, a large close companion Saturn like planet with its rings blotting out the star light and even a most imaginative explanation of all, hypothetical aliens having built an immense orbiting structure around Tabby's star referred to as a Dyson Sphere. More observations are needed, but solving the mystery is tending to lean toward a large Saturn like object orbiting the mysterious star. Carl Sagan once said "extraordinary claims require extraordinary evidence" and this said, more evidence will be needed before a plausible explanation can be offered to explain this out of the ordinary wonder.

LASER DANGER

The observatory takes the use of laser pointers very seriously. In the wrong hands the pen sized pointers can present a very real danger to pilots. Great care must be exercised, knowing the inherent danger of these innocent looking devices. The repercussion from the misuse of a laser directed toward an aircraft can expect the FBI to offer up to an \$11,000 reward for information leading to the arrest of anyone who does so. The perpetrator who intentionally aims a laser at an aircraft commits a felony which is punishable by five years in jail, according to the FBI.

During a December 2017 news interview with a helicopter pilot, it was noted if a pilot gets struck by a laser for a couple of seconds, the bright flash is enough to experience a hazard that could cause the aircraft to fall a couple of hundred feet. In this particular case the pilot was talking about a red laser. It's known the same result occurs if a green laser is used.

"When aimed at an aircraft, the powerful beam of light from a hand held laser can travel more than a mile and illuminate a cockpit, disorienting and temporarily blinding pilots. Those who have experienced such attacks have described them as the equivalent of a camera flash going off in a pitch black car at night. As of December 2013, the FAA had documented at least 35 incidents where pilots required medical attention after a laser strike".

<https://www.fbi.gov/news/stories/protecting-aircraft-from-lasers-trial-program-expanded>

Observatory docents utilize red lasers as pointers during indoor instruction and green lasers are used outdoors as celestial locators of identifiable groupings of stars referred to as constellations and are well aware of the potential of the lasers reaching into the cockpits of aircraft. When not in use, the observatory lasers are secured under lock and key. Visitor use of lasers is not allowed at anytime.

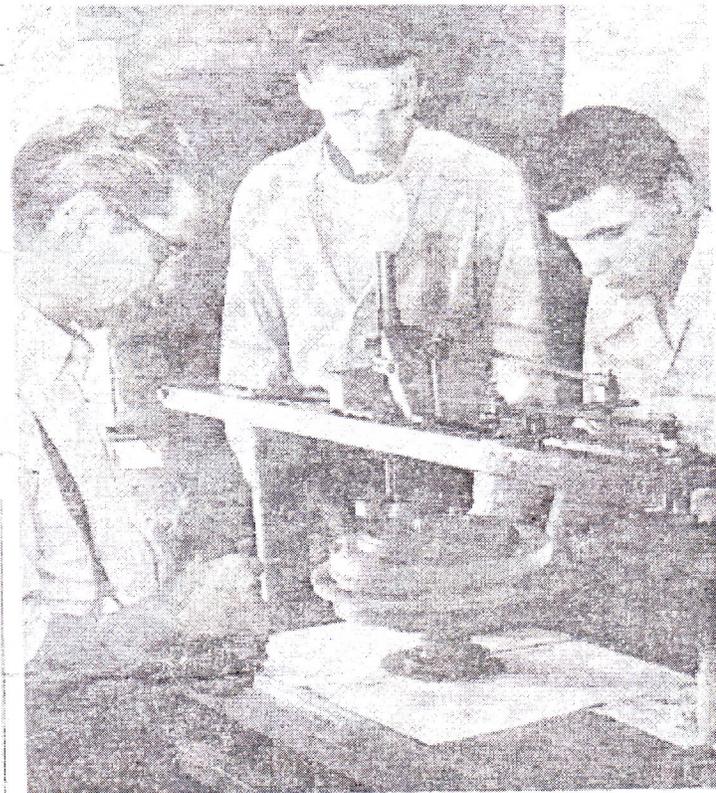
A TRIBUTE TO DALE "JIM" BOYD

Dale Boyd, who went by the name of Jim, passed away on January 25th, just shy of his 84th birthday in March. Before the observatory would show its presence on Robbins Hill in Frewsburg, plans were underway to practice grinding a telescope mirror of ten inches in diameter at the home of Marshal Martz on South Main Street in Jamestown. The glass that became a telescope mirror had originally been a ship's porthole. In those days, portholes were occasionally transformed into telescope mirrors.

To this day, the mirror that was ground and polished under the leadership of Marshal Martz found its home with Jim Boyd in a telescope mounted on a salvaged push type lawn mower deck for ease of pushing it out on his driveway when it was to be used to view the night sky. Your editor can attest that views through this telescope were excellent.

Your editor, Richard Carlson, and "Jim" had been friends since the days they went to Jefferson Jr. High School in Jamestown. Early on, it was found they had a mutual interest in astronomy and, from that time on, their friendship flourished. They were attracted to the Astronomers Guild Observatory, located on Marlow Road in Jamestown, and as time went on they would help operate the observatory on Friday nights. It was also a time Jim became involved with Marshal Martz and asked his friend, your editor, to join in with Marshal Martz and himself to search for a site to commence building another observatory. The suitable site was found on Robbins Hill outside of Frewsburg, NY, located away from city lights and on a hill top away from fog. Jim loaned Marshal his cement mixer and there was no looking back. The work began during the mid 1950's to construct an observatory to become the home of one of the largest telescopes in this part of the country.

Until the day of Jim's departure from his worldly life, he had a keen interest in the Martz Observatory and its success that could be looked back on from its humble beginnings. Jim will be missed by all who knew him.



PRACTICE GRIND—Marshall Martz, Dick Carlson, and Jim Boyd (left to right) practice mirror grinding on a 10½ inch telescope mirror. This winter, the three amateur astronomers will grind a 20-inch mirror as the first step in completing one of the largest telescopes in this portion of the country.
—Post-Journal Staff photo