



Focal Point



December, 2011

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The Winter Program of the MAS

There is no General Membership Meeting in December. The January, February and March Meetings will be held at UWM, Physics building at 8:00 PM. The program of the meetings will be announced in the Newsletter. Starting from April we will return to the MAS Observatory location.



The Year 2011

In January, when the new Editorial Office took over the Newsletter we set a goal to appear monthly. One year later we are happy to announce the completion of our 12th issue.

It was a busy year for the MAS. We launched an Adopt a Telescope Program to achieve a better maintenance of our equipment, and by November all telescopes have been adopted by members.

As the spring kicked off Russell organized a series of work parties to make the Observatory more attractive to the members and the public. Both east and west parking lots were cleaned and considerably widened to accommodate more cars. The Quonset hut and the A-dome were repainted. Mirrors of two big telescopes were recoated. The 40 years old yard lock was replaced, and new keys were issued.

In March the MAS lost its founding member Edward A. Halbach, who passed away at age 101.

Three observatory buildings were named after former members. In May we elected a new President, Henry Gerner.

The MAS held 7 successful Public Nights with hundreds of enthusiastic visitors. Members donated many hours of their time in support of those events. A visit of a Boy Scout group was also accommodated. As part of our public outreach the MAS participated in a field trip to the Yerkes Observatory organizing a Star Party for students. Annual Summer Picnic and Christmas Party were held with great success. Six new members joined the Society.

Among astronomical events the Epsilon Aurigae eclipse and the supernova eruption in M101 generated the greatest excitement of the year.

As for the next year, we will try to keep the membership of the MAS updated monthly on the events and programs. We wish you and your families a Happy New Year.

Treasurer's Report

We are happy to report that we have received donations from John Bonow, Bernie and Marie Sandlers. The bank account also received a little boost when Observatory Committee Chair Russell Chabot returned a bucket of unused paint purchased for the Quonset hut and turned in \$70.75.

The current checking balance is \$5,752.40. The current money market balance is \$8,070.32.

After compensating for projected bills, subscription payments for members and other set-asides, the amount available for discretionary spending is: \$695.88.

Respectfully Submitted,
Neil Simmons, Treasurer

Announcement

The MAS got a phone call from a Polish priest of the Polish National Catholic Church in South Milwaukee, who bought an Apertura AD12 Dobsonian Telescope and needed help to figure out how to use it. Our member, Scott Jamieson kindly visited them and after spending about an hour explaining how the telescope works and what accessories worked with what eyepieces, they went out and looked at M15 and Jupiter. Their young son was the family expert in astronomy and loved the views of Jupiter. They were very happy and swamped Scott with Polish pastries, who also promised to send them a couple of books and software. Scott was quite impressed with the Apertura telescope for the money, 12" Dob for about \$650 is a good value for a basic, large aperture Dob.

This was a true "public outreach", representing the mission of our Society.

Membership Meeting Minutes

Held on November 11th at MAS Observatory, New Berlin.

The meeting was called to order at 7:59 PM by President, Henry Gerner.

Minutes of the October 22nd General Meeting were read and approved.

The **Treasurer's Report** was given by Treasurer, Neil Simmons. Copy attached.

There was no **Observatory Director's Report**.

There was no **Correspondence**.

There was no **Old Business**.

There was no **New Business**

Russell Chabot summarized his experiences in imaging with his new Canon T2i SLR camera as an informal conversation with other members.



Announcements - Henry announced that the Christmas Party will be on December 2nd, snow day December 3rd.

Neil announced the replacement of the yard keys after the meeting. There is a \$5 deposit/key. There is also a signup sheet available for intermediate keys. Deposit (\$10) is due upon arrival of the keys.

Next General Meeting in January, 2012 will be at UWM, Department of Physics, Room 151.

The meeting was adjourned at 8:55 PM

Respectfully Submitted,
Agnes Keszler, Secretary

Christmas Party 2011



On December 2nd, 2011 the MAS held its annual Holiday Party at the Observatory. 19 members attended the event. Pizza-soda-beer-cookies were on the menu. Everybody had a great time.



Where the Universe Revolves Around You

According to the Bible, it took six days to create the heavens and the earth. For Frank Kovac it took 10 years to recreate them in his backyard.

How is it possible for an individual to build a planetarium? In most cases it is impossible. One must first truly love the beauty of the night sky and be willing to share that love with others. The modern day planetarium is a high tech wonder portraying the night sky in all its glory. Almost every large city has a planetarium museum. Ironically, the only clear view of the night sky most of us have nowadays is from the inside of a planetarium. This is a place where the night sky is replicated in all its glory and where city lights or cloud cover cannot obscure it. In fact it is cloud cover that led him on a 10 year journey to build the world's largest mechanical globe planetarium.

The year was 1996, and it turned out to be a beautiful clear October day. Hopes were high as a group of Boy Scouts were eager to spend the evening under a star-studded sky at Mud Creek Observatory. Just after sunset excitement soon turned to disappointment as cloud cover rolled in obscuring the universe once again. This was the night his dream was born. He would take matters into his own hands and build a planetarium. Such a vision too many would seem foolish at best due to the complexity as well as cost limitations. The average citizen with a high school diploma, on a medium income could only dream of building his own planetarium. Large city educational facilities only pursue such endeavors. I had a goal and set my course for the stars. Our small planet would have to make ten circuits around our own star before he would reach his goal.

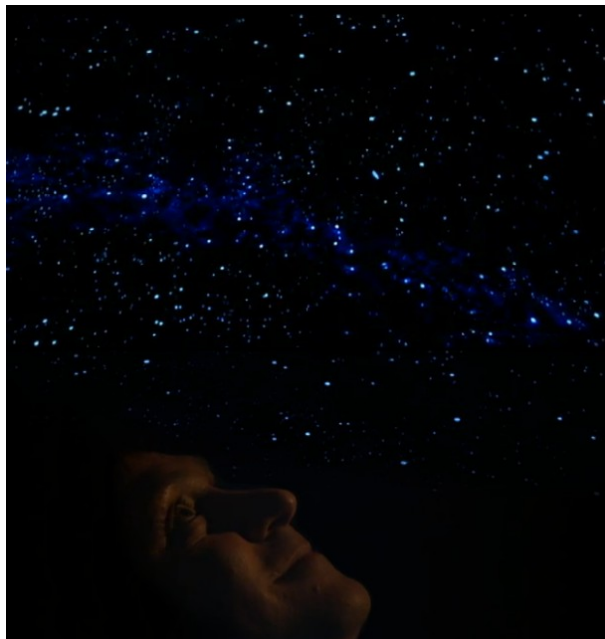
Frank couldn't afford a fancy projection system to mimic the revolution of our planet, so he came up with a way to move the heavens instead. He built a two ton globe and tipped it on a 45 degree angle. Northern Wisconsin is on the 45 degree latitude line, so a mechanical planetarium must be built to that latitude angle.

The next big challenge was to paint with the luminous paint every star that is visible to the unaided eye (about 5000) in the northern hemisphere inside a 22 foot diameter globe. This was accomplished over a period of month's as every star had to be accurately plotted in its correct position and brightness. There were no shortcuts and attention to detail was paramount. The result is a spectacular replication of the entire night sky visible from the northern



hemisphere.

Throughout history only three known globe style planetariums were constructed dating back to the fifteenth century. Thanks to his late father, who took the time to show him the stars, the world now has the fourth and largest mechanical globe planetarium. Visitors of all ages can discover the universe and their own place within it, from the [Kovac Planetarium](#). Should you ever find yourself in the north woods of Wisconsin, tickets are \$12.



1. Gottorp Globe. (1664) A water powered 3-1/2 ton, 10 foot diameter .
2. In 1758 an 18 foot diameter globe .
3. Atwood Globe. (1913) 15 feet in diameter, electrically driven.
4. Kovac Planetarium 22 feet in diameter, 2 ton, electrically driven.

In the Astronomical News

Newfound Alien Planet Hot Enough to Melt Iron

Astronomers have found an alien planet not much bigger than Earth, but so blisteringly hot that life has no shot of gaining a foothold there.

The exoplanet, known as Kepler-21b, is just 1.6 times bigger than our home planet, making it a so-called "super Earth." But it orbits so close to its parent star that astronomers estimate its surface temperature to be about 1,627 degrees Celsius — hot enough to melt iron.

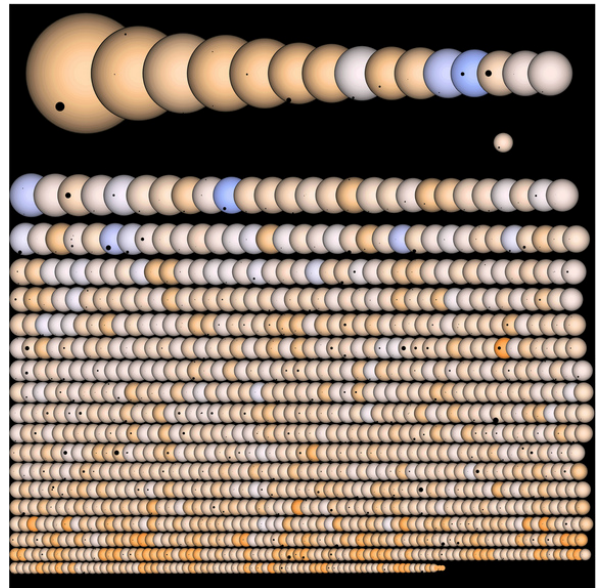
Researchers found Kepler-21b using NASA's planet-hunting Kepler space telescope. Kepler spots alien worlds using what's called the "transit method," which looks for telltale dips in a star's brightness caused when a planet crosses in front of the star's face from Kepler's perspective, and blocks some of its light. Astronomers then confirmed Kepler-21b with the help of telescopes at Arizona's Kitt Peak National Observatory.

Kepler-21b is located 352 light-years from Earth. Its mass is no more than 10 times that of our home planet, researchers said, but it sits just 6 million kilometers from its host star and takes 2.8 days to complete one orbit. Earth, for comparison, zips around the sun at a distance of 150 million km.

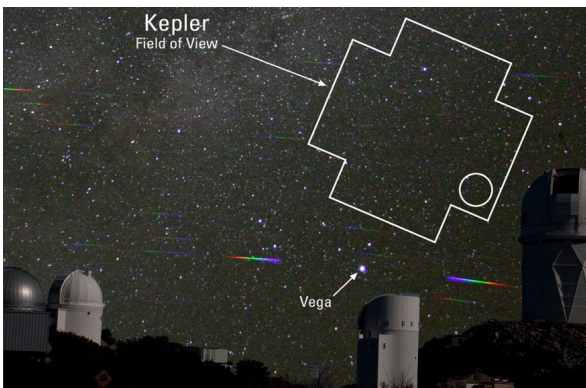
Kepler-21b's parent star, known as HD 179070, is 1.3 times more massive than the sun. HD 179070 is a little hotter and brighter than

our star, researchers said, and a little younger, too. Astronomers estimate its age at 2.84 billion years, compared to 4.6 billion years for the sun.

HD 179070 cannot be seen by the unaided eye, but a small telescope can easily pick it out, researchers said.



This illustration shows all 1,235 of the potential alien planet candidates NASA's Kepler mission has found to date. The planets are pictured crossing front of their host stars, which are all represented to scale. CREDIT: Jason Rowe and Kaplan team



The star field by NASA's planet-hunting Kepler space telescope, as seen over the Arizona's Kitt Peak National Observatory. The approximate position of the alien planet Kepler 21b and its parent star HD 190070 is indicated by the circle. CREDIT: J. Glaspey, P. Marenfeld

Since its launch in March 2009, the \$600 million Kepler spacecraft has identified 1,235 alien planet candidates. Kepler-21b is just the 26th of these to be confirmed by follow-up observations, but scientists have estimated that at least 80 percent of the instrument's finds will end up being the real deal.

If that turns out to be the case, Kepler's discoveries will more than double the number of known alien planets, which currently stands at about 700. Astronomers think our Milky Way galaxy likely harbors billions of alien planets, though most are so far away that they'll be difficult for us to detect.

Report of the discovery will be published in the next issue of the *Astrophysical Journal*.

by SPACE.com

Adopt a Telescope Program - Signup Sheet

	Adoptee	Scope	Location
1	Sue Timlin	18" F/4.5 Obsession	Wiesen Observatory
2	Neil Simmons	12.5" F/7.4 Buckstaff	B Dome
3	Russell Chabot	12.5" F/9 Armfield	A Dome
4	Dan Yanko	10" F/6 Newtonian	Albrecht Observatory
5	Tamas Kriska	25" F/15 Zemlock	Z Dome
6	Henry Gerner	12" LX 200	Tagney Observatory
7	Jeffrey Fillian	14" Z-Two scope	Ray Zit Observatory
8	Kevin & John McCarthy	10" LX 200	Jim Toeller Observatory

At Your Service

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December/January Key Holders

12/17	Scott Laskowski	414-421-3517
12/24	Jill Roberts	414-587-9422
12/31	Tom Schmidtkunz	414-352-1674
1/7	Neil Simmons	262-889-2039
1/14	Dan Yanko	262-255-3482



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