



space odyssey

04.01.16 volunteer society newsletter

[Click here to visit the Space Odyssey MGG Portal](#)

[Click here for the latest space news update on the MGG Portal](#)

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news and oldes

KUDOS!

Huge thanks to J. Kepler, the Herschels, M. Curie, V. Rubin, C. Darwin, Aristarchus, Ptolemy, E. Hubble, A. Einstein, S.I. Newton, Mssr. Galileo, and of course, Aryabhata II, where would we be without y'all?

BUILD YOUR OWN ROCKET MOTOR TRAINING

When: Over the next four consecutive Leap Years

Where: Somewhere near White Sands, NM

No RSVP necessary, just show-up!

Please join educators Samantha Richards and Naomi Pequette as well as Dr. Steve Lee and the ghosts of Robert Goddard and Werner Von Braun as they give you an in-depth and hands-on workshop about designing, building and test-firing your own rocket motor.

FLY TO MARS

April 1, 2017

9 AM to 5 PM

Galaxy Stage in SO

RSVP to Dave Blumenstock

Please join us for this exciting voyage as we meet in Space Odyssey where Dr. Steve Lee will guide us on a trip to Mars. Please pack a lunch, bring a raincoat, warm gloves, a scarf, an emergency blanket and some water--lots of water.

TELESCOPE HELP NEEDED: JAMES WEBB SPACE TELESCOPE

If you are a certified telescope operator, and can provide your own transportation, the James Webb Space Telescope team has an immediate need for live-aboard caretakers. Rotating every two or three years, you'll spend a glorious time out at L2 eyeing the Sun and gathering amazing new data about the Universe. You'll have your own spacesuit to go for daily walks to gaze at the stars. Your main goal will be to help keep the giant space telescope pointed in the right direction and answer phone calls and emails from astronomers back on Earth. You'll be provided with a lovely apartment onboard complete with artificial gravity, flatscreen TV with 5.1 surround sound, Netflix, all the freeze dried ice cream and MREs you can eat plus a 25 meter lap pool, gym and hot tub. Please note that you will be responsible for cleaning and maintaining your living quarters and for providing all auxiliary power for said quarters via the supplied human-sized hamster wheel.

HELP NEEDED: RESURFACING KA CHUN'S DRIVEWAY

We are in need of help for what should be a gloriously enriching activity. Please let me know if you're available. This project is slated for sometime mid-August at high noon.

HELP NEEDED: GETTING THE NEW SPECTROSCOPY CART ON THE FLOOR

Sometime soon, we'll be in need of a team of draft horses and one or two stalwart souls to work with Dimitri Klebe to guide this new cart into the Space Odyssey exhibit.

HELP NEEDED: CERN

Does anyone out there know how to run a super-collider...? CERN staff are looking for the "On" button, or the hand crank and it's just not happening.

UPDATES TO THE THE PORTAL

The Portal is now fully equipped with real, bronze portholes from a 19th century sailing ship. How cool is that? Plus, the Portal will be getting a full makeover soon including: New maple-veneer cabinetry, a walk-in closet, luxurious drapes, and granite countertops and a two car garage.

CRATERING MACHINE BUSKING ON PEARL STREET

This summer, the Cratering Machine may be out of the exhibit for a bit as it has decided to try busking (performing) on the Pearl Street Mall in Boulder. When it was asked what it would perform, the Cratering Machine replied: "A one-machine version of Shakespeare's Richard III."

APRIL FOOL'S EVERYONE!

Hope you enjoyed this tidbit. Please continue reading for the "real" news....

and now...the REAL space odyssey news

CHANGES TO GALAXY STAGE COMPUTER

We have a PC desktop installed now on the stage to run the shows. It is in the prototype phase, so please check it out if you do shows and send me feedback--or write it on the whiteboard. Sean in Tech put it together for us and it looks great and seems to work well too. Please ask staff for assistance if you need it. In brief, here's how to use it:

1. Power: It is a small desktop, and the computer box is on the lower shelf of the cart and the power button is located on the front of the box, in the upper left hand corner. It should auto login as well.
2. Desktop: The desktop is pretty straight forward. You'll see all the shows in their related folders--no need to login/out to get to different shows.
3. Superchill adjustments: Open the folder titled "Superchill." To run the Logger Pro program, you'll open it, see a message asking if you want to reuse previously collected data, just hit "cancel." For the camera, open the camera app, which is in the Superchill folder, and when it launches, click "connect."
4. Space Today adjustments: The movies play automatically now when you click forward in the show.
5. When you're done, close your show's programs and shut down the computer.
6. If the computer falls asleep, it will ask for a login. You can just reboot the computer, similar to the Orbits Table.

Please send me any feedback you have about this system. I think, hope, it'll prove easier to use, easier to maintain and be better in the long run. Thank you!

MAC OR PC?

Speaking of computers...If we were to get new laptops for SO, how would you feel if we replaced our current Macs with PCs? I've already asked the Guide Captains this question, now it's your turn. We're strongly considering a move to PCs mostly because that platform is supported much better at DMNS than Apple. Please reply to this email with your answer. Thank you!

GPR AT EXPERIMENT BAR

Thanks to everyone's comments and support for removing the sandbox on the Experiment

Bar. The box should be removed soon. You've helped to pave the way for a new countertop and hopefully, some other cool items in the works. Thank you!

SCIENCE ON A SPHERE

New "Earth Now" climate blog dataset coming to the SOS. It's their

first quarterly climate digest covering the recent winter season (replacing their monthly product). Click here to check it out online: <http://sphere.ssec.wisc.edu/winter-2015-16/>

Dataset Content includes:

- Global 3-month land temperatures (the warmest on record)
- 3-month animation of Sea Surface Temperature (SST) & El Niño information
- Contiguous U.S. Temperature and Precipitation Graphics
- Snowfall Totals from the record-setting January Blizzard in the Northeast U.S.
- Global Temperature and Precipitation Outlooks for spring 2016

And check out the great information below about the **relative scale of things on Earth and the solar system relative to the size of our SOS**. This information was courtesy of the NOAA SOS user forum and was created by Jeff Mucklin at the Nurture Nature Center:

Geology

If the earth were the size of the Science on a Sphere...

The average thickness of the crust would be a little less than a quarter of an inch.

The average thickness of the mantle would be about 1 foot 4 inches.

The average thickness of the outer core would be about 1 foot.

The inner core would be about 7 inches thick from its boundary with the outer core to the very center of the Sphere. It would be about the size a large beach ball with a diameter of around 14 inches nested in the center of the Sphere.

Land features and surface topography

If the earth were the size of the Science on a Sphere...

Mount Everest would be about a 20th of an inch higher than sea level. This would be like having a bump on the Sphere slightly less high than the thickness of a dime.

Challenger Deep is the deepest known point in the world's oceans. It would be about a 16th of an inch lower than sea level. This would be like having a crack on the Sphere slightly less deep than the thickness of a quarter.

Humans

If the earth were the size of the Science on a Sphere...

A person would be about 8.57×10^{-7} feet tall. This is about .26 micrometers. The smallest known bacteria called Pelagibacter ubique about this big, so a human would be a little smaller than the smallest known bacteria on the Sphere.

Atmosphere

If the earth were the size of the Science on a Sphere...

The Troposphere would be about a 14th of an inch thick. This is about the same as the thickness of a nickel.

Atmosphere

The Stratosphere would begin a 14th of an inch from the surface of the sphere where the Troposphere ended and extend to a little over a quarter of an inch above the surface.

Space

There is no precise boundary marking where the atmosphere ends and space begins, but it is generally agreed that the atmosphere extends to 62 miles above the surface of the earth. On this scale you would be in space just half an inch above the sphere.

The international space station would be in an orbit about 2 and a quarter inches above the sphere.

The moon would have a diameter of about 1 foot and 7 inches. Its average distance from the sphere would be about 174 feet away.

The sun would be a ball with a diameter of about 650 feet which is around the same diameter as a professional football stadium and it would be over 13 miles away.

ORBITS TABLE UPDATE

Given that the rings are not working well plus being loud and noisy, and that we haven't been able to get them fixed satisfactorily, we are disconnecting the power source to the rings until we find a better solution. Uniview still works fine though. If you questions or

comments, please let me know.

CLIMATE CHANGE COURSE

Paul Belanger, one of our SOS User Group volunteers, is teaching a climate change class at DU called "Earth's Climate: Past, Present and Future and Reasons for Concern," [click here](#) to sign up or check it out.

space science lectures & events

BREAKING NEWS FROM PLUTO

After cruising across the solar system for nearly 10 years, NASA's New Horizons spacecraft reached the icy world of Pluto in July 2015. The treasure trove of observations on Pluto and its five moons will stream back to Earth until late 2016, but the new information has already shown these worlds to be far more complex than expected. Fran Bagenal, a New Horizons coinvestigator from the University of Colorado-Boulder, will discuss the latest discoveries about our favorite dwarf planet.

Location:

Ricketson Auditorium

Date/Time:

Thursday, March 31, 7 p.m.

Tickets:

\$8 member, \$10 nonmember

YURI'S NIGHT AT SPACE FOUNDATION IN COLORADO SPRINGS

"Circling the Earth in my orbital spaceship I marveled at the beauty of our planet. People of the world, let us safeguard and enhance this beauty - not destroy it!"

-Yuri Gagarin, 1st human in space

Celebrate man's first journey into space!

Adults 21+ Years and Older.

April 10, 2016 - 6:00-9:00 p.m.

Space Foundation World Headquarters

and Discovery Center

4425 Arrowswest Drive

Colorado Springs, Colorado 80907

[Click here to learn more.](#)

RESERVATION INFO

Volunteers have the opportunity to attend most After Hours programs priced at the \$8 member/ \$10 nonmember rate for free on a space-available basis. Volunteers always receive the member rate for all other Adult Programs. Please call Guest Services at 303.370.6000 to make a reservation. Guest Services is open daily, 9:00 - 5:00 p.m.

To save time the night of the program, we recommend picking up your tickets anytime during regular Museum hours at the north ticket desk. You can also pick up your ticket from the will-call cashier on your way into the program on the night of the program. You will always need a ticket to attend programs.

On the evening of the program, please enter through the same entrance as our guests and pick up your ticket from the will-call cashier. Thank you for your ongoing support and enthusiasm for Adult Programs!

did you know...

Last year, Jodi Schoemer, Director of Exhibits and Digital Media at DMNS, spent time talking to DMNS volunteers about our exhibitions at the Museum, including how we select temporary exhibitions, the timeline of production, etc. If you'd like to watch this talk, click on this link: <https://vimeo.com/134132456>

museum news and events

AV WORK IN VOLUNTEER LOUNGE APRIL 12-15 Tech will be updating the AV equipment that runs everything in the SE atrium. The rack that this equipment lives on is located in the Volunteer Lounge. Ergo, you may see that area blocked off while the work is underway.

MUSEUM LECTURE AND PROGRAMMING INFORMATION

[Click here for Evening Lectures](#)

[Click here for Gates Planetarium Daily Show Schedule](#)

[Click here for Museum IMAX information](#)

volunteer enrichment committee

Talking Heads: An evening with DMNS Senior Staff

Wednesday, April 13, 2016

5:30 PM

Ricketson Auditorium

Sign-up in the Volunteer Lounge on the VEC board

Who are they? What are they talking about? Come to Ricketson & find out! We are very proud to offer you an evening with DMNS Executives:

George Sparks, President & CEO

Ed Scholz, VP of Finance & Business Operations

Scott Sampson, VP of Research & Collections and Chief Curator

Mary Hacking, VP of Visitor Experience

Nancy Walsh, VP of Partnerships & Programs

Jill Viehweg, Acting VP of Development

This is a unique opportunity for you to meet the DMNS Senior Staff, hear from them about what they do, find out about their challenges & perspectives, ask questions & learn more about our awesome Museum. Come prepared to get answers to those burning questions you have & get answers to questions you never knew to ask. This is an 'open mic' event.

The Volunteer Enrichment Committee plans a variety of events, many of which are free, for DMNS volunteers to participate, some are onsite at DMNS, others travel to spots nearby. Check the bulletin board in the Staff and Volunteer Lounge for more info.

Dave Blumenstock

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Join the Museum's Online Community

www.dmns.org