Happy International Mother Earth Day this Wednesday!

Earth Day originated in the U.S. in 1970 but is now celebrated globally every April 22nd, thanks to a 2009 United Nations resolution.
A&GS is marking this event **TODAY**, though – stop by the first floor of the NWC to pick up a free cookie and enjoy the unique and wonderful “Sonification” (see attached) from 12:00 PM – 1:00 PM!

**This is the fifteenth week of the spring 2015 semester.**

**ALERTS:**

- **SPRING AND SUMMER 2015 DEGREE CANDIDATES:**
  - Your official invitations to Commencement and Convocation were e-mailed to your OU e-mail address last week. If you are planning to graduate this spring or summer and did NOT receive this e-mail, please contact Events Planner Mona Springfield at mspringfield@ou.edu immediately.
  - Undergraduates: Your participation in the A&GS exit evaluation will *greatly* assist us in planning for the College’s future. The survey will remain live until the end of Exam Week. Here is the link: [https://ousurvey.qualtrics.com/SE/?SID=SV_e4LPsEDY1lxUl](https://ousurvey.qualtrics.com/SE/?SID=SV_e4LPsEDY1lxUl)

- Spring 2015 FINAL EXAMS are now just **TWO WEEKS** away! Go here: [https://www.ou.edu/content/enrollment/final_exams.html](https://www.ou.edu/content/enrollment/final_exams.html) to view all the rules and regulations governing finals and to check out the Final Exam Schedule. Also...  
  - There’s an exam-related Student Success Seminar this week (details under “Extras” below).
  - When you’re ready for a study break, visit the stunning 2015 Biennale, now officially open in the National Weather Center!
CONGRATULATIONS!

The Phi Beta Kappa Society is the oldest honor society for the liberal arts and sciences. It was founded on December 5, 1776 at the College of William and Mary in Williamsburg, Virginia. Its mission was to “celebrate and advocate excellence in the liberal arts & sciences,” inducting the “most outstanding students ... from America’s leading colleges and universities.” Since then, 17 U.S. Presidents, 37 U.S. Supreme Court Justices, 1 NFL MVP, 1 Heisman Trophy winner, and 136 Nobel Laureates have been inducted – along with 34 A&GS students! Please join us in congratulating the latest three A&GS majors to be invited:

Laura Combs – BS in Environmental Sustainability, Summa cum Laude, fall 2014
Dylan Finley – BA in Environmental Sustainability, with Distinction, spring 2015
Martin Koch – BA in Environmental Sustainability, Summa cum Laude, spring 2015

These students will be officially inducted into Phi Beta Kappa in a ceremony on May 8. Congratulations to all!

April 20-April 24 is STAFF WEEK at OU!

The University of Oklahoma Staff Week is a week-long celebration, designated by the Regents, President Boren and The City of Norman, honoring university staff for their many contributions both on and off campus. Staff Week is a fun way to recognize and promote the hard work and dedication of OU staff. PLEASE NOTE that the Dean's Office will not host Walk-In Hours this week and staff members may not be available at times due to various staff week activities. And speaking of fantastic A&GS staff members...
Congratulations to A&GS staff members Lee Anne Sallee from the Dean's Office and to James Hocker from the Oklahoma Climate Survey on winning Distinguished Performance Awards! Both will be honored at the annual Staff Awards Ceremony tomorrow, 4/21, in the Oklahoma Memorial Union.

Even a giant Sequoia started from a tiny little seed.

National Arbor Day on Friday

The Arbor Day Foundation was founded in 1972 by John Rosenow with a mission "to inspire people to plant, nurture, and celebrate trees." The foundation is supported by donations, selling trees and merchandise, and by corporate sponsors. OU's Arbor Week was last month, but the holiday is celebrated nationwide on Friday (the national version always takes place on the last Friday in April). Trees provide many benefits; e.g., according to the USDA Forest Service, trees that are properly placed around buildings can reduce air conditioning needs by 30 percent and can save 20–50 percent in energy used for heating. So get a jump on those future energy costs and plant a tree this Friday!
Two Job Openings at CIMMS

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS), located in the National Weather Center, has announced two student job openings:

- Student Research Assistant – Assist in processing and quality control single radar data and multi-radar, multi-sensor data as part of the Multi-Year Reanalysis of Remotely Sensed Storms (MYRORSS). $9.50-$11/hour. The job requisition number is 22055.
- Student Research Assistant – Assist with a real-time weather verification experiment (SHAVE). $9.50-$11/hour. The job requisition number is 22058.

You can apply for both at jobs.ou.edu.

This Week’s Seminar(s):

On Tuesday, April 21...
Dr. Kenneth Bowman
David Bullock Harris Professor of Geosciences
Department of Atmospheric Sciences, Texas A&M University
April 21st, 4:00 pm, NWC Room 1313
Refreshments will be served at 3:30 pm

Tropopause-Penetrating Convection from Three-Dimensional Gridded NEXRAD Data

Convection can rapidly transport tropospheric air into the upper troposphere and, in some cases, across the tropopause into the lower stratosphere. The stratosphere-troposphere exchange has a significant impact on the composition of the upper troposphere and lower stratosphere (UTLS). The composition of the UTLS, in turn, affects the radiation budget, chemistry, and climate of the whole atmosphere. To understand the convective transport across the tropopause, it is necessary to know the frequency, magnitude, and location of overshooting convection events. A new method that combines radar reflectivities from individual radars into a three-dimensional composite with high horizontal and vertical resolution is used to estimate storm-top altitudes for the continental U.S. east of the Rocky Mountains. A pronounced seasonal cycle has been found in the tropopause-penetrating convection; the majority of overshooting systems occur during the warm season (March-August). There is also a strong diurnal cycle, with maximum overshooting occurring near 00 UTC. Radiosonde observations are used to evaluate the quality of the reanalysis of tropopause altitudes and the dependence of overshooting depth on environmental characteristics. The radar-radiosonde comparison reveals that overshooting is deeper in double-tropopause environments and increases as the stability of the lower stratosphere decreases.

Dr. Bowman earned his B.S. degree in Environmental Design from University of Colorado in 1979 and Ph.D. in Geophysical Fluid Dynamics from Princeton University in 1984. He was a post-doc at the NASA Goddard Space Flight Center before joining, in 1985, University of Illinois as Assistant Professor. Since 1992 he works at the Department of Atmospheric Sciences, Texas A&M University, where he presently is David Bullock Harris Professor of Geosciences. He is also a member of the Board of Trustees of UCAR.
Song Yang, from the Department of Atmospheric Sciences at Sun Yat-sen University in Guangzhou, China, will present “Changes in Climate over Southeast Asia and Adjacent Regions: Response to and Feedback on Global Climate Change” on Wednesday, April 22 at 3:00 PM in the National Weather Center, Room 5600.

Doctoral degree candidate Tim Bonin, from OU’s School of Meteorology, will present his dissertation defense, “Nocturnal Boundary Layer and Low-Level Jet Characteristics Under Different Turbulence Regimes” on Thursday, April 23 at 2:00 PM in the National Weather Center, Room 1120 (the NWC Boardroom).
A&GS faculty members are invited to a lecture at 1:30 PM on Friday, April 24 in the Price Hall Dodson Lounge for a Kanaly Lecture Series presentation by Howard Kunreuther, Co-Director of the Wharton Risk Management and Decision Processes Center at the University of Pennsylvania. Dr. Kunreuther has worked extensively on the topic of risk management, and is one of the world’s leading authorities on the risk assessment and management issues pertaining to natural and man-made hazards, including hurricanes, earthquakes, tornadoes, environmental accidents, and large-scale terrorism. Click here for Dr. Kunreuther’s bio: [https://opimweb.wharton.upenn.edu/profile/37/](https://opimweb.wharton.upenn.edu/profile/37/) You may RSVP for this lecture online at [price.ou.edu/Kanaly](http://price.ou.edu/Kanaly).
A NEW Upper Division A&GS Elective

Are you interested in efficiency and effectiveness of natural resource management, but you always found economics too hard to understand? Then “Natural Resource Economics” is the course for you! This course will be taught this fall by Dr. Jad Ziolkowska under GEOG 4970 (5970 for graduate students) on Tuesday and Thursday from 9:00 AM – 10:15 AM – and there are no prerequisites! See the attached flyer for all the details.

AND DON’T FORGET these other outstanding free electives (below). For permission to enroll (or if you run into any enrollment problems). Please contact Asst. Dean Hempe at mahempe@ou.edu. Please note that graduate students attempting to enroll in METR 5713 will need to contact a counselor in the Graduate College for clearance.

“Managing for Climate Change” (GEOG 3890, sec. 001)
“Applications of Weather Forecasting: Weather Forecasting in Support of Critical Decision Making” (METR 4970, sec. 001)
“Private Sector Meteorology” (METR 4713/5713)
This week’s Extras

With Final Exams right around the corner, a reminder that the School of Meteorology’s Tutoring/Help Desk office is now located behind the OWL Student Forecast Office on the first floor of the National Weather Center. The SoM Help Desk is open from 7:00 PM – 9:00 PM, Monday-Thursday and is intended to provide assistance for all undergraduate meteorology courses.

This week’s Student Success Series Workshop(s):

Wednesday, April 22       “Stress Management”       3:00 PM – 4:00 PM
PM                           Wagner Hall, Room 250
Thursday, April 23          “Final Exams – Test Management”  4:00 PM – 5:00 PM
PM                           Wagner Hall, Room 250

ANNOUNCEMENTS FOR MM?
If you have any announcement you would like posted in *Monday Memo* (e.g., meetings, seminars, jobs, internships or just some great news) please send it to Asst. Dean Hempe (mahempe@ou.edu) by Friday at noon to appear in the next week’s edition.

**On this Day in History:**

*Pierre (Walter Pidgeon) and Marie Curie (Greer Garson)*
finally find what they’ve been looking for in 1943’s surprisingly exciting “Madame Curie.”

**In 1836,** the U.S. territory of Wisconsin was created by the U.S. Congress from land that the US had acquired in 1783’s Treaty of Paris, which officially ended the American Revolutionary War. Wisconsin did not officially become a state (the 30th) until May 29, 1848.

**In 1841,** “*The Murders in the Rue Morgue,*” by Edgar Allen Poe, appeared in *Graham’s Lady’s and Gentleman’s Magazine.* It is considered to be the first modern detective story published.

**In 1901,** a spring storm produced unusually heavy snow in northeast Ohio. Warren received a whopping 35.5 inches in thirty-six hours, and 28 inches fell at Green Hill during that time.

**In 1902,** Pierre and Marie Curie isolated one gram of radium, the first sample of the radioactive element, from *eight tons* of pitchblende ore. One year later, they shared the 1903 Nobel Prize in physics with French scientist A. Henri Becquerel for their groundbreaking investigations of radioactivity.

**In 1912,** Fenway Park opened as the home of the Boston Red Sox.
In 1940, Dr. Vladimir Zworykin, a scientist at RCA Labs in New Jersey, demonstrated the first U.S. electron microscope in Philadelphia, Pennsylvania. It was ten feet tall, weighed a thousand pounds and could produce a magnification of 100,000 times. Today's models are much smaller and a hundred times more powerful.

In 1961, FM stereo broadcasting, which produces a higher quality sound, was approved by the FCC. The process originated over 30 years earlier at inventor Edwin Howard Armstrong’s experimental station, W2XMN.

In 1972, the manned lunar module from Apollo 16 landed on the moon. It was the fifth and penultimate mission to land on the Moon and the first to land in the lunar highlands. It was crewed by Commander John Young, Lunar Module Pilot Charles Duke and Command Module Pilot Ken Mattingly. John Young and Charles Duke spent just under three days on the lunar surface.

In 1989, scientists announced the successful testing of high-definition TV. HDTVs wouldn’t be ready for sale until 1998, though.

In 1990, a fast moving Pacific storm produced heavy snow in the central mountains and the Upper Arkansas Valley of Colorado, with a foot of snow reported at Leadville. Thunderstorms in the south central U.S. produced wind gusts to 76 mph in Tulsa, and heavy rain caused flooding of Cat Claw Creek (love that name) in Abilene, Texas. Lightning struck the building housing a fish farm in Scott, Arkansas, killing 10,000 fish.

And your parting shot(s):
Just an ordinary photograph of three one dollar bills and a tape measure....except it’s actually a tiny 8” x 10” painting. Artist Patrick Kramer is an American hyper-realist painter based in Springville, Utah. If you’re wondering why anyone would bother creating a painting that looks exactly like a photograph, Kramer explains:

“I would say it’s a unique experience for the viewer. You approach a painting so much differently than a photograph... People will walk past a fairly banal hyper-realistic work, assuming it’s a photograph, but when told it’s a painting, will do a double-take. They’ll go back and scrutinize, look for brush strokes.”

Indeed. The detail on those bills blows our mind!

Please remember to like us on Facebook (https://www.facebook.com/OU.AGS) and follow us on Twitter (@OUAGS)!

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