MONDAY MEMO

An overjoyed Baker Mayfield celebrates with equally overjoyed fans after the OU
victory on Saturday. On to the finals!
Photo: Mark J. Rebilas of USA Today Sports

This is the fifteenth week of the Fall 2015 semester.

ALERTS:
• There is still one more day to submit your entry to the 2015 A&GS Photo Contest. The deadline has been extended to tomorrow, Tuesday, December 1 at 5:00 PM. Please submit your photos to the A&GS Dean’s Office in the NWC, Room 3630.
• Final Exams for the fall 2015 semester begin TWO weeks from today, on Monday, December 14. Go here for information on Finals, including a link to the schedule. Make sure you know when and where your finals take place.
• If you signed up for the Etiquette Dinner, a reminder that the fun takes place tomorrow, Tuesday, December 1 at 5:00 PM on the fifth floor NWC mezzanine area and that dress for the event is business formal.
• Don’t forget that the CASH online scholarship system is still open and will remain so until February 1, 2016. You can access the CASH system here.
• And why are so many female meteorologists -- including A&GS alum Shelby Hays -- wearing the same dress on air?
Fall 2015 Course Evaluations Now OPEN

Course evaluation windows for Fall 2015 classes open TODAY, November 30, and will remain open until Sunday, December 13.

*We strongly encourage you to participate in the course evaluation process!* It should only take about 30 minutes of your time and your responses are *completely confidential*. In addition, results are not distributed until after final grades are posted. You will also receive e-mail reminders from the Course Evaluation crew, and will see many reminders posted around campus buildings.

A reminder that *the impetus for formal instruction evaluations came from students*, and it is students who benefit most from their use. A&GS professors use evaluations to improve their courses and their teaching, and the College of Atmospheric and Geographic Sciences uses them as the basis for evaluating the effectiveness of each of its instructors. These evaluations produce important data used for tenure, promotion, and salary increase decisions.

You can eValuate your courses from any smartphone, tablet, or computer:

- Go to eval.ou.edu
- Log in with your 4x4
• Evaluate your courses
• And you’re done!

Let’s have the highest response rate of all the colleges at OU this fall!

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**Second Annual NWC Craft Show this FRIDAY**

Join us for some first-class merriment this Friday, December 4 from 11:00 AM to 1:00 PM in the NWC Atrium for the Second Annual NWC Winter Craft Show. Twenty-five local craftspeople will be on hand to sell their marvelous one-of-a-kind creations, just in time for the holidays. Stop by and shop!
This week’s Seminars:

*Tomorrow, December 1:*
Dr. Jeff Kimpel, Professor Emeritus from OU’s School of Meteorology, will present “The Remarkable Growth of the Weather Enterprise in Norman, OK: The Early Years” at 2:30 PM in the NWC, Room 5930.

A summary of Dr. Kimpel’s talk:

• The rich meteorological environment in Central Oklahoma did not happen by accident. Rather it resulted from thirty plus years of developing creative partnerships among academic, government, private and political entities focused on a shared vision and goals. This talk will emphasize the early years, roughly 1980 – 1995 and how Norman capitalized on scientific and technological breakthroughs to rapidly grow into national and international prominence. Students may find this an interesting case study with future applicability.”

Also on Tuesday, December 1...
Dr. Sergey Matrosov
Senior Research Scientist
CIRES, Boulder, Colorado
December 1st, 4:00 pm, NWC Room 1313
Refreshments will be served at 3:30 pm

W-band radar: an unconventional tool for precipitation studies

W-band frequencies at around 90 - 95 GHz are the highest frequencies traditionally used by meteorological research radars. Due to strong attenuation of W-band signals by atmospheric gases and especially by liquid hydrometeors, radars operating in this frequency band have been generally used for studies of non-precipitating clouds at relatively short ranges and mostly in the vertically pointing mode. During the last several years, however, unconventional approaches, which use attenuation as the input information for retrievals, have been developed for quantitative estimations of rain rate from W-band radar measurements. Recently, polarimetrically upgraded, scanning W-band radars also became available for atmospheric research. Depolarization measurements from such radars have been shown to be useful for identifying types of precipitating and non-precipitating ice hydrometeors and estimations of their general shapes (e.g., particle aspect ratios). General approaches used for precipitation rate retrievals and ice hydrometeor shapes estimations utilizing W-band radar measurements will be discussed with an emphasis on the use of the spaceborne W-band cloud profiling radar and Atmospheric Radiation Program's ground-based scanning polarimetric W-band radars.

Dr. Matrosov graduated from the Leningrad State University in 1979 with the M.S. degree in atmospheric physics. He obtained a Ph. D. degree in Geophysics in 1983 from the Main Geophysical Observatory (St. Petersburg, Russia) where he worked as a research scientist during the 1979-1989 period. In 1990-1991 he had an NRC post-doctoral appointment with the NOAA Wave Propagation Laboratory in Boulder, Colorado. In 1991 he joined the Cooperative Institute for Research in Environmental Sciences (University of Colorado and NOAA Earth System Research Laboratory) where he currently works as a Senior Research Scientist. His areas of expertise are radar meteorology and multi-sensor remote sensing of clouds and precipitation.
Sustainability in Action!

This stunning office building is called Kuggen (which means ‘the cogwheel’ in Swedish). It was designed by Wingårdh arkitektkontor at the Chalmers University of Technology in Gothenburg, Sweden. Kuggen makes use of a number of green building technologies, including adaptive ventilation, adaptive lighting, interactive heating and cooling systems, and effective daylighting. Its design has been awarded and recognized for its sustainability.

Completed in 2011, Kuggen’s exterior is made of six shades of red and two shades of green in a glazed terracotta style. Each successive floor also grows in size making for a striking building pattern and shape. The windows are triangular, allowing daylight to follow the ceiling deep into the building while staying at a low ratio (30%) of the elevation surface.
DHS Summer Research Opportunities

The Department of Homeland Security (DHS) is now accepting applications for TWO 2016 Summer Programs:

**#1: Summer Research Team Program for Minority Serving Institutions.** This 10-week program offers the opportunity to enhance the scientific leadership at Minority Serving Institutions (MSIs) in research areas that support the mission and goals of DHS. Faculty, along with undergraduate and graduate students, will engage in research that provides opportunities to help advance the DHS Areas of Research and strengthen the talent pool of scientists and engineers. Selected participants will conduct collaborative research of mutual interest to the Team, the DHS Centers of Excellence and DHS. Detailed information can be found at: [http://www.orau.gov/dhseducation/faculty/index.html](http://www.orau.gov/dhseducation/faculty/index.html)

**Benefits Include:**

- Faculty: $1,200 stipend per week plus travel expenses
- Graduate Students: $700 stipend per week plus travel expenses
- Undergraduate Students: $600 stipend per week plus travel expenses

**How to Apply:** Applications and supporting materials must be submitted at
#2: DHS HS-STEM 2016 Summer Internship Program. The Department of Homeland Security sponsors a 10-week summer internship program for undergraduate and graduate students majoring in homeland security related science, technology, engineering and mathematics (HS-STEM) disciplines. The program provides students with quality research experiences at federal research facilities located across the country and allows students the opportunity to establish connections with DHS professionals. Detailed information about the internships can be found at http://www.orau.gov/dhseducation/internships/

Graduate Students receive a $700 stipend per week plus travel expenses
Undergraduate Students receive a $600 stipend per week plus travel expenses

How to Apply: Applications and supporting materials must be submitted at https://www.zintellect.com/Posting/Details/1468
Water for a Thirsty World: Economics, Policy and Technology
(GEOG 4970/5970)

Spring 2016
Mon. 3:00-5:45pm, SEC 442
A Presidential Dream Course
Taught by Dr. Jad Ziolkowska and Dr. Aondover Tarhule

Public Lecture Series

Impacts and Implications of California Drought
Dr. Glen M. McDonald - John Muir Memorial Chair and Distinguished Professor of Geography, Ecology and Evolutionary Biology and The Institute of the Environment and Sustainability, University of California Los Angeles

Water Quality Issues
Dr. Catherine Kling - Distinguished Professor of Agriculture and Life Sciences and Economics, Director of Center for Agricultural and Rural Development, Iowa State University

Water Issues from the Perspective of Native American Tribes
Dr. Daniel Wildcat - Professor at Haskell Indian Nations University in Lawrence, Kansas and Co-director of the Haskell Environmental Research Studies Center

Water Security and Climate Change
Dr. Declan Conway - Grantham Research Institute Professorial Research Fellow, London School of Economics and Political Science

Water-Food Nexus
Dr. Jeffrey M. Peterson – Director of Water Resources Center, Professor of Applied Economics, University of Minnesota

A&GS Presidential Dream Course Alert!

Water for a Thirsty World will be co-taught by A&GS Associate Dean Dr. Aondover Tarhule and DGES Assistant Professor Dr. Jadwiga Ziolkowska, supplemented by a stellar cast of guest lecturers! The objective for this course is to highlight both the connections among economics, policy, and technology as they relate to major water issues at global and local scales, as well as potential solutions and emerging ideas/innovations related
to these challenges. Ultimately, however, the goal is to stimulate students’ thinking around these complex, timely, and highly interdisciplinary issues and to provide opportunities for the students to interact with the highly accomplished set of scholars the professors have assembled. If you need permission to enroll in this outstanding course, please contact Asst. Dean Mary Anne Hempe at mahempe@ou.edu.

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 edit
On This Day In History:

In 1609, the Moon became less mysterious when our good friend Galileo Galilei decided to turn his telescope toward it, noted some oddities on its crescent face and then drew those very oddities to record his discovery. Before this, many thought that the Moon was “perfect,” thanks to Aristotle, who claimed that it did not share the irregularities found on Earth. Galileo proved him wrong with the first realistic sketches of the Moon, published the following March in his groundbreaking book Sidereus Nuncius (Starry Messenger).

In 1700, 8,000 Swedish troops took on 50,000 Russians at the Battle of Narva in the Great Northern War. The Russians thought they would have an easy victory; they far outnumbered the Swedes, who hadn’t fought in a war for over twenty years. Plus, Swedish King Charles XII was only 18 and had no battle experience. He was smart, though (he loved math!). Thanks to bold maneuvers from Charles, the Swedes won Narva. They did lose 600 men, but that figure was small compared to the reported 10,000 Russian soldiers who died that day.

In 1782, the United States and Britain signed preliminary peace articles in Paris, ending the Revolutionary War.
In 1858, John Landis Mason received a patent for an invention he named after himself – the Mason jar. Although a number of patents had already been issued for all kinds of fruit jars, Mason’s was different, as it could seal and preserve food. Mason’s jar had a threaded neck which fit with the threads in a metal cap to screw down to the shoulder of the jar and in this way form a seal. The design was perfected in 1869, when a top seal above the threads and under the lid was added.

In 1936, London’s Crystal Palace was destroyed by a fire that engulfed the 990,000 square foot structure in less than 30 minutes. Hundreds of fireman and 90 fire engines could do nothing to stop it. The blaze – which began as a small fire in the women's cloakroom – was so huge that the glow from it could be seen eight counties away! The Crystal Palace had been around since 1851, when it was built to house the “Great Exhibition,” which showcased the latest in tech at the time.

In 1954, 34-year-old Ann Elizabeth Hodges was injured when a meteorite crashed through the roof of her house near Sylacauga, Alabama. The 8 ½ pound rock bounced off a radio and then hit Ms. Hodges in the hip. It is the first (and still only) documented case of an extraterrestrial object hitting a human in the US. Ms. Hodges had been sleeping on the couch at the time, but it’s safe to say she was wide awake after! Ms. Hodges was not seriously injured, but did suffer an extremely nasty bruise on her hip and leg.

In 1965, 32-year-old lawyer and consumer advocate Ralph Nader published Unsafe at Any Speed: The Designed-In Dangers of the American Automobile. The muckraking book exposed the automobile industry’s reluctance to equip their cars with even the most basic of safety features because of the cost involved (consumers even had to pay extra for seat belts back then). Unsafe at Any Speed was an instant best-seller. It also
inspired the passage of the National Traffic and Motor Vehicle Safety Act of 1966, seat-belt laws in 49 states (all but New Hampshire) and a number of other road-safety initiatives.

In 1982, Epic Records released Michael Jackson’s album “Thriller,” which remains the best-selling album of all time. An estimated 65 million copies were sold.

In 1993, President Bill Clinton signed the Brady Handgun Violence Prevention Act (aka the Brady Bill) into law. The bill required a five-day waiting period for handgun purchases, along with background checks of prospective buyers. It was named in honor of former press secretary James Brady (1940-2014), who was shot along with President Reagan during an assassination attempt in 1981. In 2001, 59-year-old Robert Tools, the first person in the world to receive a fully self-contained artificial heart, died in Louisville, Kentucky. Mr. Tools had received his AbioCor heart replacement 151 days earlier, on July 2, 2001. Unlike earlier artificial hearts (such as the Jarvik-7) the AbioCor had no wires or tubes that stick out of the chest and connected to a big compressor. The battery-powered, plastic-and-titanium device was the size of a softball. Sadly, Mr. Tools’ overall health was very poor, leading to his death. Since then, 13 additional patients have received an AbioCor; some lived only a few weeks, but one, Tom Christerson, lived for 512 days.

And your parting shot:
Clarke and Addison (pictured above) are known as “The Cutest Cubs in Chicago” and we’d have to agree. The darling red pandas were born on June 26, 2015, at Chicago’s Lincoln Park Zoo. Red Pandas are not closely related to the giant panda, but they do have “Panda Thumbs,” an extension of their wrist bones, which help them grab branches of tasty bamboo shoots and leaves to eat. They’re native to the Himalayan mountain ranges of China, Nepal, India, Burma and Bhutan, and they’re very skilled climbers. And way too cute. To see more of their extreme cuteness, go here.
Please remember to like us on Facebook (https://www.facebook.com/OU.AGS) and follow us on Twitter (@OUAGS)!

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