



AIPG GEORGIA SECTION

Ron Wallace, President
Eric Lowe, Vice President
Glen Faulkner, Treasurer
Joshua Poole – West Georgia student chapter
Semir Sarajlic – Georgia State student chapter
Bryan Victor – Columbus State student chapter
Rachael Cheatham – University of Georgia student chapter

December 2011

HAVE A GREAT HOLIDAY SEASON

PRESIDENTS MESSAGE

Well here we are again near the end of another year. I thought I'd go over what we accomplished this year and what we already have in the works for 2012. This year has been busy and I want to thank all the members that came out to help at any of the events we held. I attended GSA Southeastern Conference and AIPG had a booth. John Stewart, the Carolina Section president and I attended two mentoring sessions with students and enjoyed seeing some of our section student members. In April we had our 3rd Conference on Innovative Environmental Assessment and Remediation Technology. This was our largest conference and was a great success. During the year, we were able to give one \$250.00 scholarship to each of the six universities in Georgia that offer a Geology degree. With donations from our membership, we were able to give \$500.00 to each of our student chapters at Georgia State and West Georgia. In the late spring, we had career night at Georgia State and West Georgia. Throughout the year, we did drilling demonstrations at Berry College, Columbus State, Valdosta State, a combined Georgia State and West Georgia, and the last at Georgia Southwestern State. I want to especially thank Jim Fineis, president of Atlas Geo-Sampling Company, for doing all the drilling for us. He and his crews were great with the students and explained all the steps they were taking during the drilling. During the summer, we had a family outing to three different waterfalls in Fannin County. In the fall, we visited an air sparge/soil vapor extraction remediation system. We also added two student chapters at Columbus State University and University of Georgia.

Tentative plans for 2012

The following list is of activities we would like to have. Hopefully throughout the year we will add additional activities.

- GSA Southeastern Section in Ashville and GSA National convention in Charlotte. We have submitted a session proposal titled "Geology Careers for New Geology Graduates" for Charlotte.
- Spring field trip to Cherokee Ruby and Sapphire Mine, NC
- An informal field trip for 4-6 members to Dalton and Resaca to discuss the geology and Civil War. This is a field trip I've been working on for a couple of years and hope that with the support and peer review of a few members, we can offer the trip on a much broader audience.
- Visit larger (and different types) of remediation systems in Atlanta to follow up on the AS/SVE we visited.
- Visit a new remediation system in Athens to see drilling, system installation, and active remediation.

- We would also like to have a career night at each of our student chapters but this will require the support of our membership.
- The 4th Conference on Innovative Environmental Assessment and Remediation Technology will occur on September 12 and 13, 2012 at Kennesaw State
- Fulton County Regional Science and Engineering Fair



Columbus State University Student Chapter with President Bryan Victor holding Chapter Plaque.
Second from right in the back row is Bill Frazier, chairman of the department



University of Georgia Student Chapter with President Rachel Cheatham and Vice-President Sean Cameron holding the Chapter Plaque. Left of Rachel is Mike Roden, chairman of the department

LAST MEETING

We visited a remediation site in Kennesaw, GA where a new air sparge/ soil vapor extraction (AS/SVE) system had been installed at an active gas station. Steve Diamond with S&ME, Inc. led the discussion on the history of the site. Afterwards we had lunch together and it gave an opportunity for the student members from Georgia State University to ask questions to the professionals.



Remediation site participants

Note

For the members that are Georgia PGs, please renew your license by the end of the year.

If you are able to provide support for our section, we are looking for professionals to lead field trips, help with career night presentations, and lead field demonstrations. Please contact Eric Lowe (770) 919-0969 or Ron Wallace (404) 362-2589.

GEORGIA STATE NEWS

As the Fall semester nears the end, GSU AIPG Student Chapter had a meeting at Fernbank on November 18 along with our advisor Dr. Seth Rose. We enjoyed our social event, which included an IMAX feature film (Galapagos). Then, on November 19, some of our members enjoyed the visit to the Gem and Mineral exhibit at Cobb County Civic Center. As for December, some of our members will be attending conferences here in Georgia and in California. On December 3, at the Greater Atlanta Geomorphology Hydrology Research Conference hosted at University of Georgia, Semir Sarajlic will be giving a talk on "Land cover change and mineral composite assessment of Tushka Lakes, in Egypt, using remote sensing and GIS," and Ginny Mauldin-Kinney will be giving a talk on "Examining variations in discharge estimates for Martian Outburst Channel." On December 6, in San Francisco, CA, we will have Rebecca Pickering attending AGU Fall Conference at which she will be presenting a poster titled "No fault of their own: Increasing public awareness of earthquakes in aseismic regions," and Laura Zaunbrecher will be presenting a poster on "Natural enrichment of stable Cesium and weathered micaceous materials at Savannah River Site, South Carolina, and implications for Cesium 137 absorption."

FEDERAL DOCUMENTS

APPLY FOR AGI's 2012-2013 WILLIAM FISHER CONGRESSIONAL GEOSCIENCE FELLOWSHIP

The American Geosciences Institute is accepting applications for the 2012-2013 William L. Fisher Congressional Geoscience Fellowship. Congressional fellows spend one year in Washington, DC working as a staff member in the office of a member of Congress or in a congressional committee. The fellowship represents a unique opportunity to gain first-hand experience with the federal legislative process and make practical contributions to the effective and timely use of geoscientific knowledge on issues relating to the environment, resources, natural hazards, and federal science policy. The application deadline is February 1, 2012.

Several of AGI's Member Societies also sponsor Congressional Science Fellowships. For further information, contact the American Geophysical Union, Geological Society of America, or Soil Science Society of America. AAAS, AIP, ASCE, AMS and other related societies offer similar fellowships for Congress and AAAS offers fellowships for the executive branch. It is acceptable to apply to more than one society in a given year. Stipends, application procedures, eligibility, timetables, and deadlines vary.

AGU ACCEPTING APPLICATIONS FOR SPRING 2012 POLICY INTERNSHIP

The American Geophysical Union (AGU) Public Affairs department is accepting applications for a spring internship. This is an opportunity for undergraduates, graduate students, and recent grads to learn more about the intersection of public policy and Earth and space science. The Public Affairs intern will work closely with the Public Affairs and Outreach staff. This internship provides an opportunity to learn about the public policy process first-hand and to gain knowledge about Earth and space science policy issues. Applications will be reviewed on a rolling basis and the anticipated start date is February 1, 2012.

OBAMA ADMINISTRATION DELAYS DECISION ON KEYSTONE XL PIPELINE

After initially promising a decision by the end of 2011, the Obama Administration has announced that it will not issue a decision on whether to grant a cross-border permit to the proposed TransCanada Keystone XL Pipeline until 2013. The administration was under pressure from supporters of the project who cite its potential for job creation and from environmental groups who oppose it because of potential environmental degradation. The 1,700 mile-long proposed pipeline would transport crude oil from oil sand deposits in northeastern Alberta, Canada to existing Keystone pipelines in Nebraska and Oklahoma and would cost about \$7 billion to build. In response, TransCanada announced its intention to reroute the pipeline around the Sandhills, an ecologically sensitive area in Nebraska that the proposed pipeline was initially set to cross over.

Nebraska Governor David Heineman signed new pipeline construction standards into law on November 22 and approved a provision to direct the Nebraska Department of Environmental Quality, consulting with the U.S. State Department, to conduct an environmental assessment for the alternate route. The law provides up to \$2 million for the review and state officials hope to complete this study by as soon as May 2012.

LAW ALLOWS FOREIGN LNG TANKERS IN U.S. WATERS

President Obama recently signed into law the America's Cup Act of 2011 (P.L. 112-61), which contains a provision to allow three foreign-flagged tankers to carry liquefied natural gas (LNG) from Pennsylvania to the Gulf Coast. Ethane derived from the Marcellus Shale will be processed at Sunoco's Marcus Hook refinery in Pennsylvania to LNG for tanker transport. The bill originally provided a waiver for about 60 foreign yachts that are participating in the 2013 America's Cup, starting in early December in San Diego, to enter U.S. waters. The waiver is necessary because the Jones Act (P.L. 66-261) prohibits foreign vessels

from entering U.S. waters. Senator Pat Toomey (R-PA) with support from Representative Pat Meehan (R-PA) put a hold on the legislation until the LNG foreign tankers were also granted a waiver.

The two members argued that transporting LNG from Pennsylvania to the Gulf Coast would boost jobs in the state. They succeeded in convincing their colleagues to add the provision to the bill, in order to allow the yacht race to continue as planned.

MARKEY INTRODUCES ENERGY AND MINERAL EXTRACTION REFORM BILL

Representative Ed Markey (D-MA) and House Democrats from the Committee on Natural Resources have introduced the Fair Payment for Energy and Mineral Production on Public Lands Act (H.R. 3446) that would reform rules from the General Mining Act of 1872 (30 U.S.C. 22 et seq.) on public lands. Its main sponsors are Markey, Rush Holt (D-NJ), and Raul Grijalva (D-AZ).

The legislation would institute a 12.5 percent royalty on hard rock mining for materials like gold, silver, and uranium; the President suggested no less than a five percent royalty. With a seven cent-per-ton fee for all materials displaced during hard rock mining, the bill would make it easier to block mining on public lands. The money collected as a result of the fee would pay for the reclamation of the hard rock mines. The bill would increase inspection fees for offshore drilling, remove revenue sharing with the Gulf States for oil and gas production, and would require energy companies to renegotiate their oil and gas leases. Coal companies would be restricted from sending money to states that have completed reclamation of abandoned coal mines. The mining industry is not in support of the proposal.

REPRESENTATIVE COFFMAN FORMS CONGRESSIONAL RARE EARTH CAUCUS

Representative Mike Coffman (R-CO) has announced the creation of a congressional Rare Earth Caucus for domestic rare earth mineral exploration, production, and growing industries. This move was encouraged by the Association of Rare Earths (RARE), a new group who sent a letter to Congress in October requesting such a caucus. Chinese control over seventeen major rare earth minerals has sparked a frenzy to boost domestic production and restart U.S. mining projects. The caucus, which has bipartisan support and membership, will help increase awareness of the issue and set policies to boost related industries that have proliferated overseas.

EPA RELEASES FINAL HYDRAULIC FRACTURING STUDY PLAN

Under the direction of the House Appropriations Conference Committee budget report for fiscal year 2010 (H.Rept. 111-316), the Environmental Protection Agency (EPA) published a study plan in November to investigate hydraulic fracturing associated with shale gas extraction. EPA scientists will look into the potential impacts of hydraulic fracturing on groundwater and drinking water. The study will examine the full lifespan of water in hydraulic fracturing: acquisition of the water, mixing of chemicals for fracturing, and the post-fracturing stage, including management of flowback and produced water and its ultimate treatment and disposal. The study's initial results will be released in late 2012 and the final results are expected in 2014.

UNITED STATES EARTH OBSERVATIONS IN PERIL

On November 18, the United States Geological Survey (USGS) announced that it has stopped acquiring images from Landsat 5 because of degrading electronics. If this is the end of Landsat 5, then only Landsat 7's limited imaging capability would be available, and there is limited confidence about the long-term sustainability of Landsat 7's operation. The Landsat Data Continuity Mission (Landsat 8) is scheduled for launch in January 2013, more than a year from now. Landsat "represents the world's longest continuously acquired collection of space-based moderate-resolution land remote sensing data. Nearly four decades of imagery provides a unique resource for those who work in agriculture, geology, forestry, regional planning,

education, mapping, and global change research. Landsat images are also invaluable for emergency response and disaster relief,” according to the mission web site description. Loss of Landsat would be a huge detriment to government, commercial, industrial, academic and educational initiatives that rely on land imaging.

Other Earth-observing missions are in trouble due to a lack of resources. NOAA’s next generation weather satellite, Joint Polar Satellite System is behind schedule and likely to leave a data gap. Senators from the Senate Select Committee on Intelligence have written a letter asking the Department of Defense (DOD) not to cut about \$7 billion for commercial satellite support from GeoEye and DigitalGlobe for the DOD’s Enhanced View program and last but not least, there are growing concerns about cuts to the development of Global Positioning System III (GPS 3), which is the next generation GPS used by more people than ever imagined.

ENERGY AND CLIMATE CHANGE ASSESSMENTS AT UNITED NATIONS

At the beginning of November 2011, the International Energy Agency (IEA) stated in its annual report, World Energy Outlook 2011, that global energy demand will rise by 40 percent by 2035 and most of that need will be met with fossil fuels. Oil demand will rise as the global passenger fleet is expected to double to 1.7 billion vehicles by 2035 and alternative vehicles, such as hybrids or electrics, will make only small penetrations into the global market. Coal-fired power plants which met about 50 percent of global demand in the first decade of the twenty first century may rise to 65 percent of demand by 2035. Natural gas is expected to rise in use and compete with coal. With regards to greenhouse gas emissions, the IEA states “cumulative CO2 emissions over the next 25 years amount to three-quarters of the total from the past 110 years, leading to a long-term average temperature rise of 3.5 degrees Celsius.”

In a related study, HSBC Bank, one of the largest financial institutions in the world, completed an analysis of finances for alternative energy resources and suggests the global economy could reduce greenhouse gas emissions and stall global warming over the next few decades. Their conclusions are based on lower costs for alternative energy as demand grows and more financial institutions refuse loans to inefficient coal-fired power plants.

Both assessments directly preceded the start of the United Nations Climate Change Conference 2011 in Durban, South Africa (November 29 – December 9). Early news from the conference suggests debate about reducing greenhouse gas emissions is pitting developed countries with greater energy use and greater emissions against developing countries with less energy use and fewer emissions. In particular, many countries would like the United States to commit to greater emissions reductions, but the U.S. State Department has refused to consider possible actions including a European Union proposal unless major industrializing countries such as China and India agree to reductions. In addition, an assessment by an outside group, BankTrack, suggests commercial banks have doubled their financial support for the coal industry since 2005 when the Kyoto Treaty was adopted.