

April 2007 NS-Letter

1. AGU Hydrology Days
2. TINGS 2007: Tennessee Intensive Near-Surface Geophysics Study
3. Workshop on Soil Magnetism: Multi-disciplinary Perspectives, Emerging Applications and New Frontiers

1. AGU Hydrology Days

The 27th annual American Geophysical Union Hydrology Days meeting was held on the Colorado State University campus March 19-21, 2007. This long-established meeting involved approximately 75 hydrogeologists from academia, the private sector, and governmental agencies. Over 120 talks were presented on topics ranging from the hydraulics of surface and groundwater systems, to land use impacts and land stability on water quality, remediation and monitoring problems and techniques, and climate/water resource interactions. Following the meeting discussions were held with the organizing about the possibility of increasing participation in the meeting by geophysicists. The meeting organizing committee is enthusiastic about working with CUAHSI HMF-Geophysics to develop this idea, with an eye toward using this established meeting as a natural venue to create interactions between hydrogeophysicists and hydrogeologists. Dennis Harry has volunteered to lead the organization of the HMF-Geophysics involvement in this meeting. A call for papers will be forthcoming sometime in the Fall for the 28th annual Hydrology Days meeting, to be held in March, 2008. For more information on the 2007 meeting, visit <http://HydrologyDays.ColoState.edu/> <<http://hydrologydays.colostate.edu/>> .

2. TINGS 2007: Tennessee Intensive Near-Surface Geophysics Study (from Greg Baker)

Dear Colleagues,

We have received final approval through the University of Tennessee (UT), and have (thus far) seven industry partners on board to now announce that we will run the first annual TINGS Program (Tennessee Intensive Near-Surface Geophysics Study) this May, 2007. I have characterized the program as, "A near-surface geophysics field camp for geophysicists and non-geophysicists alike, providing participants with exposure to a unique array of industry and academic instructors covering a wide variety of techniques."

It will be open to all students (including non-UT students), faculty, and industry/government professionals, and will run Monday-Saturday from May 10th through May 30th, inclusive, at the

UT campus in Knoxville, Tennessee, and vicinity. I will be capping the number of participants at 30, and will accept applications on a first-come/first-serve basis. This should be a solid component of my continued goal to promote the responsible use of near-surface geophysics and facilitate the use of near-surface geophysics in a diverse array of disciplines.

Existing industry partners (to date) and their area of specialty being taught are: Sensors & Software (ground-penetrating radar); Geonics (ground conductivity and resistivity); Geometrics (seismic and magnetics); AGI (electrical resistivity/IP); Geosoft (spatial data display); Interpex (seismic refraction); Kansas Geological Survey (surface wave analysis); AGI (resistivity inversion).

For additional information and an application form please contact me.

Thanks in advance for your support!

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3. Workshop on Soil Magnetism: Multi-disciplinary Perspectives, Emerging Applications and New Frontiers (from Remke Van Dam)

Dates: 28-30 August 2007

Venue: Cranfield University, UK

Dear Colleagues,

In recent years it has become increasingly evident that magnetic susceptibility and particularly frequency dependent (FD) magnetic susceptibility of soils can have strong effects on the performance of geophysical sensor systems designed to detect buried objects, particularly those of military and humanitarian interest such as landmines, unexploded ordnance, and other explosive devices. In soils with high concentrations of FD minerals, the 'ground effect' is so severe that detection by electromagnetic induction is sometimes not possible.

Currently, understanding of the distribution of soil magnetic properties in natural soil environments is limited. Information in soil maps and surveys describes the spatial extent of different soil types but does not provide information on magnetic properties, as currently this is not part of any standard soil description procedure. Therefore, little information is available globally that is relevant to landmine detector technologies. Magnetic properties of soils have traditionally been investigated in the environmental science and geophysics communities to indicate soil development, climate, pollution, and as a rapid tool for archaeological prospecting. The application in mine and UXO detection and clearance is a relatively new consideration and communication between the academic community and mine clearance users is essential to further developments in soil magnetism and applications in demining technologies.

This workshop will bring together researchers and technologists from a broad spectrum of disciplines to discuss the theoretical base of soil magnetism and to identify emerging applications of soil magnetism in environmental, geological, and soil sciences. Keynote addresses will be given by specialists in the fields of environmental soil magnetism and archeology, measurement and characterization, soil mapping, planetary science, soil microbiology and chemistry, geophysical sensor technology, and demining operations. Break-out sessions will define the current state of understanding, identify knowledge gaps, and determine priority areas for research investment and technology development. The workshop will benefit knowledge transfer between academia and the demining community by furthering the understanding of environmental drivers that result in the development of magnetic minerals temporally and spatially in soil systems and by finding solutions to optimize the detection capability of electromagnetic induction detectors in soil systems.

Please bring this announcement to the attention of colleagues with a potential interest in the subject area. More information can be found on the conference website:

<http://www.msu.edu/~rvd/soilmag07/>.

We ask that individuals wishing to participate in the workshop send their name and contact information to one of the co-organizers listed below, no later than 30 April 2007. This should be accompanied by a brief statement of interest describing your expertise and its relevance to soil magnetism and/or sensor technology.

Sincerely,

The co-organizers,

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AGU NS-Focus Group Web Page: http://www.agu.org/focus_group/nsg/index.html

To contribute material to the NS-letter e-mail before the first of the month to:

George Tsoflias tsoflias@ku.edu <<mailto:tsoflias@ku.edu>>

GUIDELINES FOR SUBMISSIONS:

All members are welcome to submit content of interest to the NS community. Please keep messages brief and provide contact information and (if available) a hyperlink for additional information. AGU requests formatting of e-mail messages to be as simple as possible (no bold characters (use ALL CAPS instead), no color font, or other special formatting of text and paragraphs) to ensure compatibility with e-mail recipients outside the US. For the same reason, e-mail attachments are not being forwarded.