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GEM's Upcoming Events

- **ASEG-PESA 2013**
 - August 11-14, Melbourne Convention & Exhibition Centre, Melbourne, Australia, **BOOTH #51**
 - *The 23rd International Geophysical Conference and Exhibition is the largest geophysical conference in the southern hemisphere, attracting geophysicists from minerals and hydrocarbon exploration in equal numbers.*
- **EAA 2013**
 - September 4-8, University of West Bohemia, Pilsen, Czech Republic, **BOOTH #8**
 - *The 19th Annual Meeting of the European Association of Archaeologists is the "must go" place for all European archaeologists. This lively and well-attended conference attracts all professionals from the archaeological field.*
- **SEG 2013**
 - September 22-27, George R. Brown Convention Center, Houston, TX, United States of America, **BOOTH #408**
 - *The 83rd Annual Meeting is the world's largest oil, energy and mineral exposition showcasing cutting-edge technology for use in exploration and associated industries.*
- **SAGA-AEM 2013**
 - October 6-11, Kruger National Park, Mpumalanga, South Africa, **BOOTH #29**
 - *The 13th SAGA Biennial Conference & Exhibition and 6th International AEM Conference & Exhibition will host delegates from the mining and petroleum private & public sectors, including geophysicists, geologists, and mining engineers.*

GEM has released ground and airborne potassium magnetometers with the highest sensitivity *worldwide*



As the core of GEM's airborne solutions, the [GSMP-35A](#) has improved its sensitivity to $0.0003 \text{ nT @ } 1\text{Hz}$ (previously 0.0005), making it the highest sensitivity potassium magnetometer in the world. The sensitivity is the highest in all weather conditions, which enables enhanced resolution of geological and cultural features in a variety of applications.

For ground applications where data quality, cost control, and ruggedness are the keys for project success, GEM's [GSMP-35](#) also has the highest sensitivity in the world at $0.0003 \text{ nT @ } 1\text{Hz}$. Along with these new specifications, the potassium instrument has a high emphasis on cost control which features the industry's most versatile precise navigation technology, high capacity memory, and rugged console configuration.

Along with the highest sensitivity on the GSMP-35A and GSMP-35, GEM's [GSMP-20GM3](#) SuperGrad also has improved sensitivity, measuring at $0.03 \text{ pT @ } 1\text{Hz}$. GEM's Research & Development programs continue to advance the frontiers of magnetometry.



GEM was an Exhibitor at EAGE 2013 in London, England!



This was a great show for GEM at EAGE's 75th Conference & Exhibition in London, England. It was a pleasure meeting so many of our loyal clients, and to present some of our improved technologies.

Some of the technologies GEM showcased included:

- dIdD
- Potassium (Ground & Airborne)
- Overhauser
- UAV

A big **congratulations** goes out to Jingping Z. from Edwardstown, Australia for winning the Samsung Galaxy Tab 2!!

GEM will be Exhibiting alongside ModernMag at the ASEG-PESA Conference in Melbourne, Australia!

This year at the ASEG-PESA Conference & Exhibition **GEM** will be exhibiting alongside **ModernMag**. Come visit us at booth **#51** to speak with experienced professionals who can help you determine the proper instrument for your intended application.

Some of the technologies that GEM & ModernMag will be showcasing this year include:

- Potassium (Ground & Airborne)
- Overhauser
- UAV
- dIdD



To see a complete listing of **GEM**'s instruments, [click here](#)

To visit **ModernMag**'s website, and to get more information, [click here](#)

Featured Product: GSM-19

The [GSM-19 Overhauser](#) instrument is the total field magnetometer/gradiometer of choice in today's earth science environment. It clearly differentiates itself from other quantum magnetometers by representing a unique blend of physics, data quality, operational efficiency, and system design.

Overhauser effect magnetometers are essentially proton precession devices - except they produce an "order-of-magnitude" greater sensitivity. The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to a radio frequency (RF) magnetic field. The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal that is ideal for very high sensitivity total field measurements.

With data quality exceeding standard proton precession and comparable to costlier optically pumped cesium units, the GSM-19 is a standard in many fields, including:

- Mineral Exploration
- Environmental & Engineering
- UXO Detection
- Archaeology
- Magnetic Observatory Measurements
- Volcanology & Earthquake Prediction



Featured Application: Archaeology

Archaeologists are increasingly looking at remote sensing methods as techniques to explore sites with minimum disruption to the surroundings. Magnetics offer key benefits that offer the ability to resolve details non-invasively at a lower cost than other exploration methods.

Having detailed knowledge of a site prior to investigation reduces excavation costs while ensuring that no part of the site is missed. As many projects are time-sensitive, availability of a rapid, effective method (such as magnetics) may mean the difference between recovery and non-recovery.



GEM's unique Overhauser and Potassium magnetometer / gradiometer systems combine data quality, survey efficiency, and options that deliver significant benefits for archaeological applications.



For more information on magnetics for archaeology, [click here](#)
To download our archaeology brochure, [click here](#)

GEM's New Website!

GEM has introduced our new website, and we feel that it has been improved via easier navigation, a cleaner look, and more detailed information.

Visit us [here](#) and let us know what you think!

Important Note: Our goal is to only communicate with people who would like to hear from us. If you would like to stop your subscription, please click [here](#). If you have received this message through a colleague and would like to be added, please click [here](#).

Questions or comments about our e-newsletter? Write [Shannon](#) and let her know!