GEM Advanced Magnetometers
52 West Beaver Creek Road West, Suite 14
Richmond Hill, ON Canada L4B 1L9
Ph. 905-764-8008 Fax. 905-764-2949
info@gemsys.ca www.gemsys.ca

GEM Completes Military Contract for GSMP-30A Potassium Magnetometers – February 11, 2004. Richmond Hill, Ontario, Canada.
GEM Advanced Magnetometers announced that it has now completed and delivered on a sizeable contract from a key military organization. The purchase relates to GEM's very-high sensitivity optically-pumped Potassium (K-Mag) portable magnetometer instrumentation.

While GEM is not able disclose the purchaser name or application, common military applications include passive monitoring of sea- and land-based vehicles and armaments, detection of Unexploded Ordnance (UXO), and / or detection of ammunition caches. The magnetic sensors and associated pre-amplifiers can be mounted to different vehicular platforms or integrated into existing magnetometer and / or other sensor networks.

The purchaser had a choice of either a traditional optically pumped cesium or GEM's new K-Mag technology. The K-Mag has very high sensitivity (1 pT at 1 sample per second) and minimizes heading errors related to the spectral lines of some alkali metals. Broad spectra (ex. Cs or Rb) may obscure the signal depending on the orientation of the sensor with the ambient magnetic field. The K-Mag minimizes these errors as its spectral line is very narrow.

The K-Mag was the result of more than a decade of Research and Development, and has evolved into a robust technology for military and non-military (ex. high resolution mapping) work. A related technology is SuperGrad – an ultra-sensitive gradiometer (50 fT at 1 sample per second) that is being used for earthquake research.

GEM develops world class magnetometers and gradiometers. With more than two decades of experience in sensor and system design, the company has continually improved its Overhauser, K-Mag and Proton Precession magnetometers to the leading edge of airborne, land and stationary needs. Products are characterized by ergonomic and lightweight design, RISC processors, advanced signal processing algorithms, precision engineering, and easy menu-driven operation. GEM offers responsive customer sales and service in support of a growing clientele in more than 70 countries worldwide. Contact GEM at www.gemsys.ca. Our World is Magnetic.

– 30 –