GEM Advanced Magnetometers
Company Presentation

Our World is **Magnetic.**

www.gemsys.ca

GEM Systems Inc.

- **World leader** in developing and producing geophysical equipment for mineral exploration, focused **exclusively** on magnetic technologies (scalar quantum systems)

- Established in 1980

- The headquarters and production lines are located in Ontario, Canada

- We have a wide range of distributors of our equipment all over the world

GEM Systems Success

- **Development** of **top technologies** with the highest standards of sensitivity and absolute accuracy

- **Strong** Technical and Service support

- **Customers** in more than 150 countries all over the World

- **Focus** on what we do best - develop magnetic instruments only

- **Continually work on improvement** based on GEM innovation & customer feedback

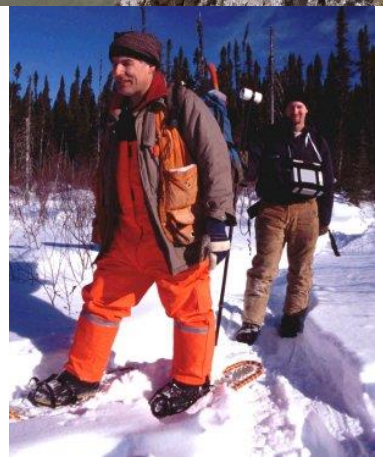
GEM Systems Magnetometers

Applications:

- Mineral Exploration (Airborne and ground surveys)
- Near Surface Geophysics
- UXO
- Magnetic Observatories
- Earthquake Research
- Volcanology
- Archaeology
- Scientific Research

GEM Systems' Equipment

- **Mineral Exploration**

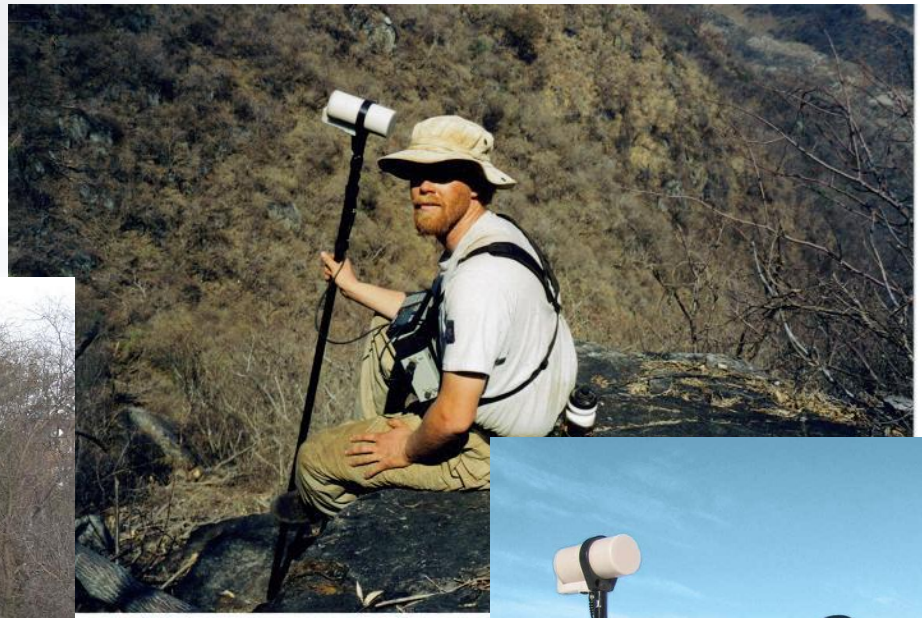


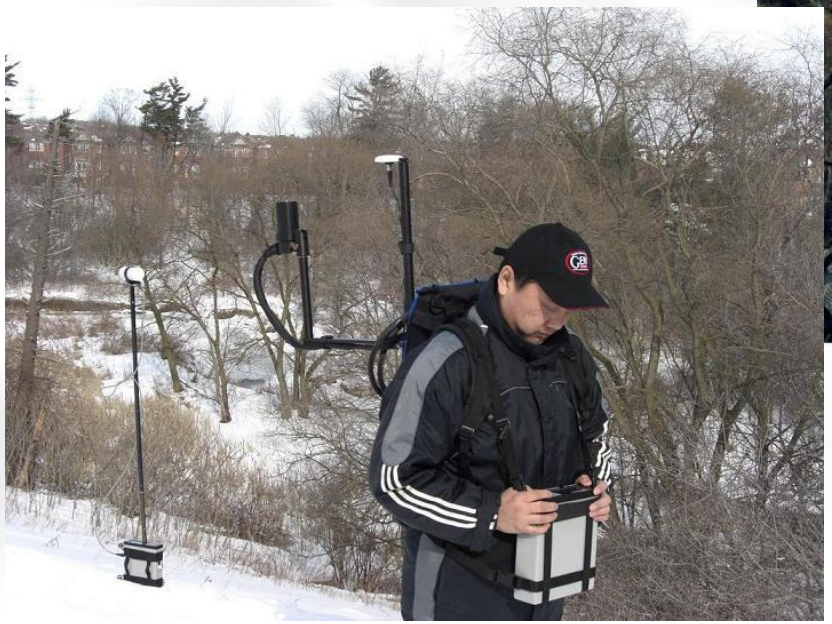
Courtesy: Jared D. Abraham, USGS

"Quantec Geoscience has used GEM's advanced magnetometers for many years to assist in the discovery and delineation of economic ore deposits."

GEM Systems' Equipment

- **Near surface geophysics**





GEM Systems' Equipment

- **Magnetic Observatories**

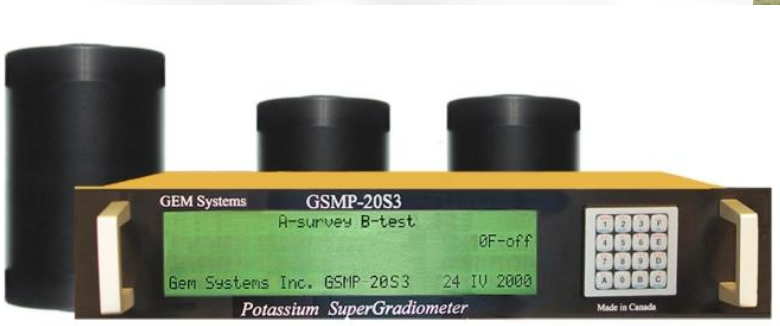
*"The US Geological Survey uses GEM Systems magnetometers at **all** of its Magnetic Observatories. We are very happy to have such an accurate, reliable magnetometer"*

Alan M Berarducci, USGS.

GEM Systems' Equipment

- **Earthquake Research** and natural hazard monitoring

Uaxaca - México

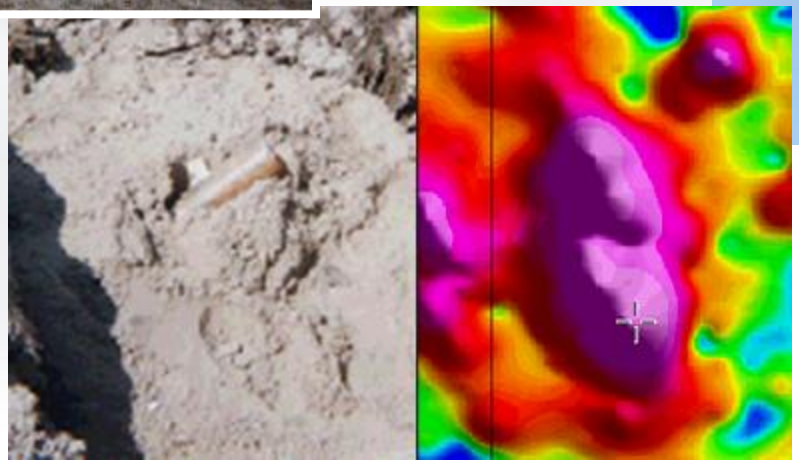


GEM Systems' Equipment

- **UXO**

Concrete bunker

10 sensor Airborne

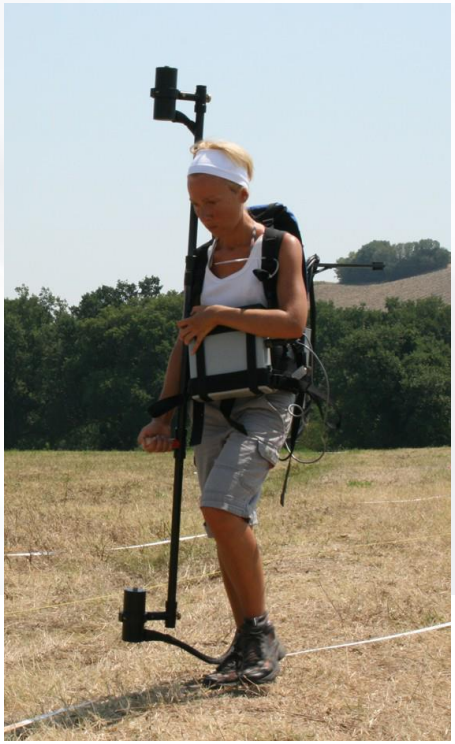


Artillery shell 0,5 m

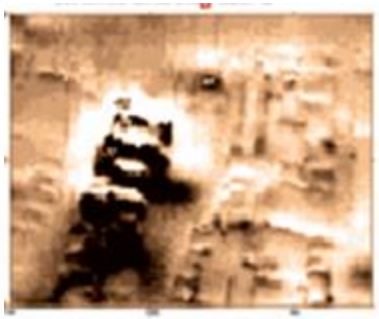
GEM Systems' Equipment

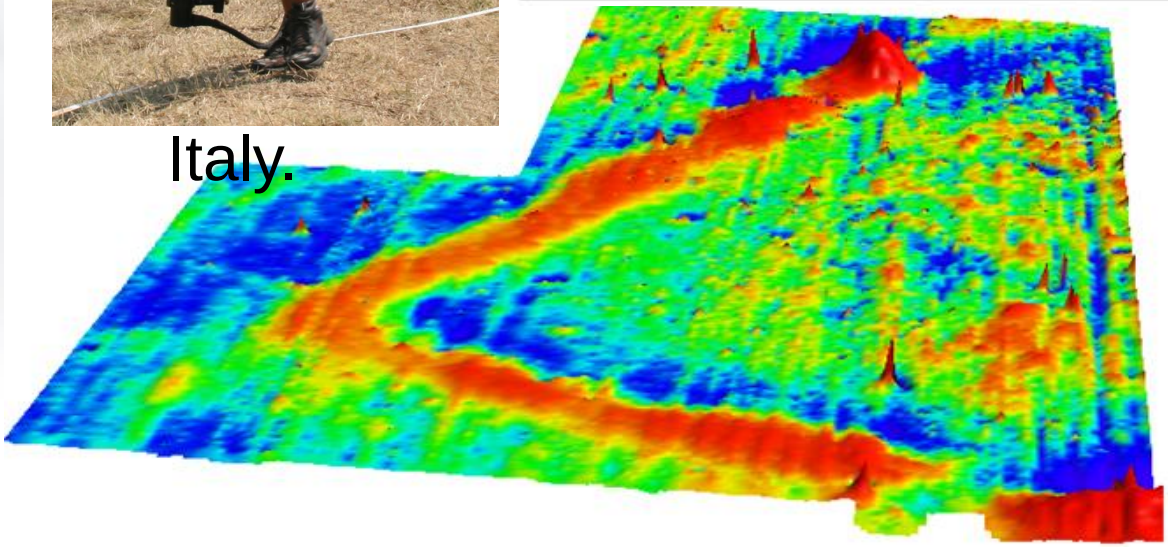
- **Archaeology**

Egypt.
Archaeologist
Dr. Tatiana Smekalova



Italy.





GEM Systems' Equipment

- Airborne and ground systems (mobile and stationary)
- Proton Magnetometers Gradiometers
- Overhauser Magnetometers Gradiometers
- Potassium Magnetometers Gradiometers

GEM Systems' Equipment.
Walking Proton Magnetometers /Gradiometers

- High sensitivity 0.15 nT @ 1 Hz
- Memory for 5 million readings
- Programmable base station (Daily and Flexible scheduling; Immediate start mode)

GEM Systems' Equipment. Overhauser Magnetometers / Gradiometers

The new technology provides :

- 0.022 nT @ 1 Hz sensitivity
  (Optional 0.015 nt @ 1 Hz)
- High gradient tolerance
- Minimum heading errors
- "Clean" geophysical signal
- Ultra-Fast operation
- High absolute accuracy
- Ability to combine Magnetometer / Gradiometer / VLF / GPS positioning

GSMP-35 Version 8.0 Potassium Magnetometers / Gradiometers for Ground Exploration

The best instrument for mapping of subtle geological signals

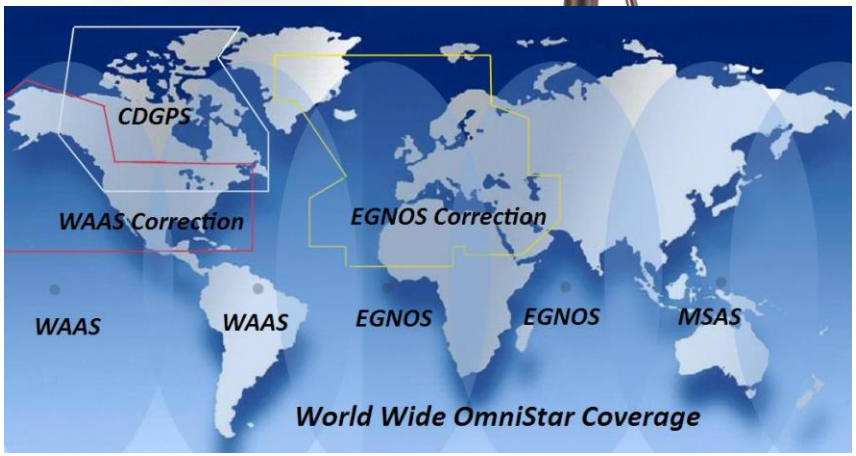
- Highest sensitivity at 0.0003 nT at 1 Hz
- Low power consumption up to 16 hours of continuous operation per charge
- Light weight and compact design
- Gradient tolerance 50,000 nT/m
- Fast sampling up to 20 Hz; Ideal high resolution surveys
- Integrated backpack: convenience and high productivity
- Proven reliability based on 28 years of R&D

Global GPS Options

Enhanced GPS positioning resolution

- Standard GPS: <0.7m

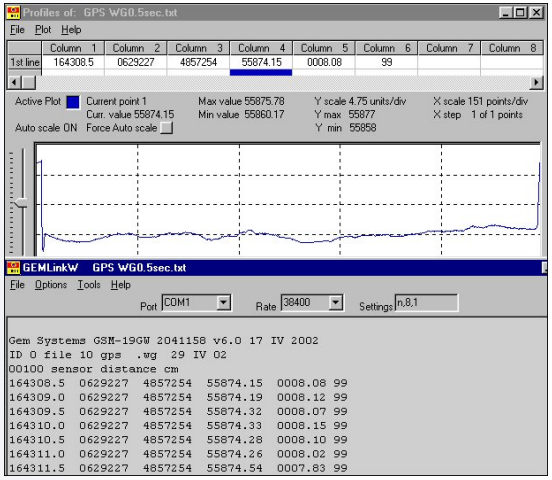
- High resolution GPS Option:
<0.6m SBAS (WAAS, EGNOS, MSAS)
<0.6m OmniStar (VBS2 subscription)

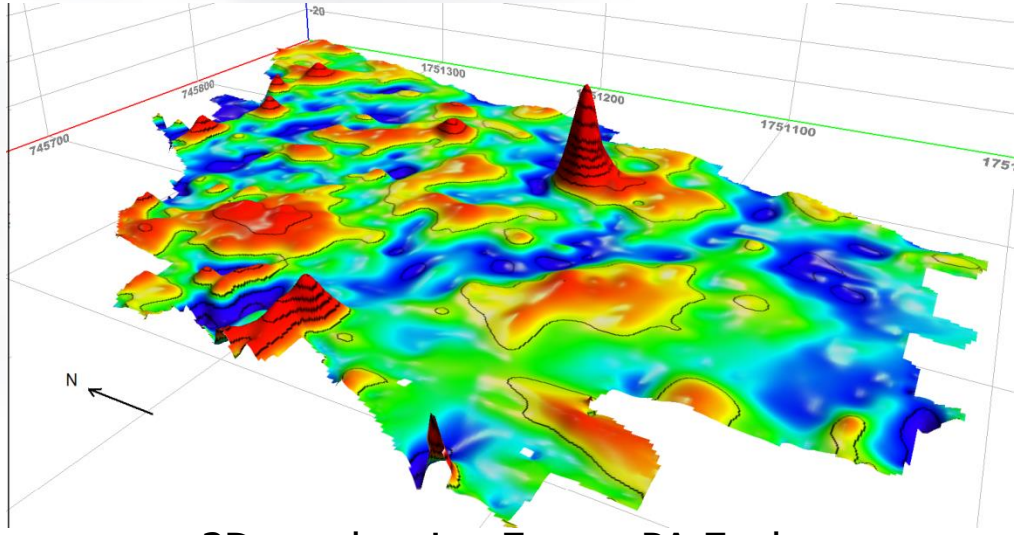


Software and Modeling

End-to-End solution for:

- Transferring data rapidly to PC
- Applying diurnal corrections
- Visualizing data in 1D, 2D and 3D for quick quality control (QC)
- And first-level analysis
- Modeling single or multiple anomalies for Interpretation





3D graph using Encom PA Explorer

- THANK YOU
- GRACIAS
- OBRIGADO
- GRAZIE
- спасибо