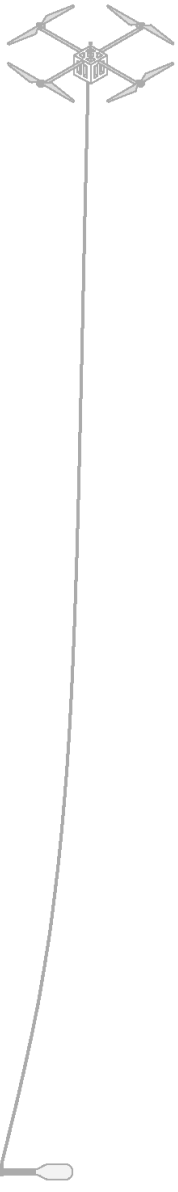
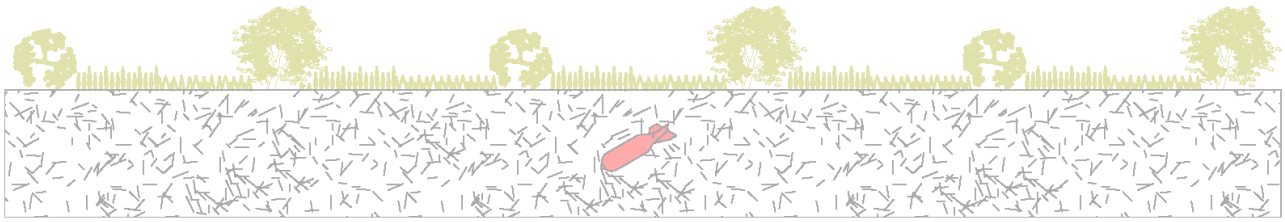
COMPLETE SYSTEM FOR HIGH-RESOLUTION UAV/ROV-BASED MAGNETOMETRY



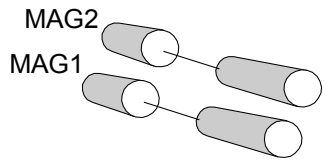
State-of-the-art system for magnetometry based on Unmanned Aerial Vehicles (UAVs) or Remotely Operated (Underwater) Vehicles (ROVs), with general-purpose real-time data acquisition and recording. Allows configurations with a single high-sensitivity magnetometer, or with two magnetometers in a gradiometer setup.

Intended for applications that do not require compensation* of magnetic interference generated by the platform. Designed for use in demanding airborne (as well as ground and underwater) geophysical and environmental surveying, the system is a perfect fit for unmanned installations because of its light weight, compact package, and low power consumption.

- ***DAS52 Aeromagnetic Data Acquisition & Logging System*** [*DAS52 Datasheet*]
  - Integrated magnetometer power/decoupler module for two sensors
  - Integrated dual-frequency GPS receiver (L-Band corrections)
  - Built on the foundation of highly reliable hardware and firmware, and sophisticated and robust algorithms that have been proven in a multitude of installations
  - Consistent with the magnetics, ancillary data acquisition is delivered with unparalleled performance, accuracy and reliability
  - Full remote control and real-time monitoring from any Windows-based computer
- ***Scintrex CS-VL Magnetometers*** [*CS-VL Manual*]
  - Optically-pumped, self-oscillating cesium vapor magnetometer sensors for UAV/ROV applications
  - Very high sensitivity, narrow dead zones, low heading errors, simple integration – extensively proven in a variety of airborne installations
- ***Flying-Cam UAV Helicopters*** [*Website*]
  - Fully-integrated, fixed-mount* solutions on industry-leading helicopters, designed to meet or surpass the most stringent general aviation standards
  - Single magnetometer or lateral gradiometer configurations
  - Electric (10-kg payload, 60-min flight time), or turbine (30-kg payload, 3-hr flight time)
- Ancillary instrumentation: PDU500 Power Distribution Unit (*PDU500 Datasheet*), radar and/or laser altimeters, navigation system, etc.



[*] Fixed-mount installations, coupled with advanced real-time compensation technology, offer a solution largely superior to the towed-sensor approach, with lower residual errors and none of its inherent risks and logistical issues. Consult RMS Instruments for information on a similar system based on the *AARC52 Adaptive Aeromagnetic Real-Time Compensator*.

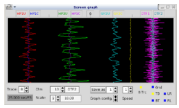


MAGNETOMETER SENSORS

- One or two high-sensitivity Scintrex CS-VL cesium sensors

Larmor-frequency signals & power to mags.

REMOTE CONTROL & REAL-TIME MONITORING



RSI GAMMA-RAY SPECTROMETER

RADAR / LASER ALTIMETER(S)

NAVIGATION SYSTEM

GPS ANTENNA (EMBEDDED GPS RECEIVER)

General-Purpose Data Acquisition

- 4 analog inputs (differential, 16-bit resolution); embedded barometric-pressure & temperature sensors
- Ethernet (1 Gbps, multiple logical connections)
- Ancillary instrumentation:

Optional

Data Monitoring & Recording

- Embedded solid-state drive – real-time data recording
- Real-time graphical & numerical monitoring: any external VGA display
- Full remote control via Ethernet

DAS52 AEROMAGNETIC DATA ACQUISITION & LOGGING SYSTEM

PDU500 POWER DISTRIBUTION UNIT

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Dec/2024