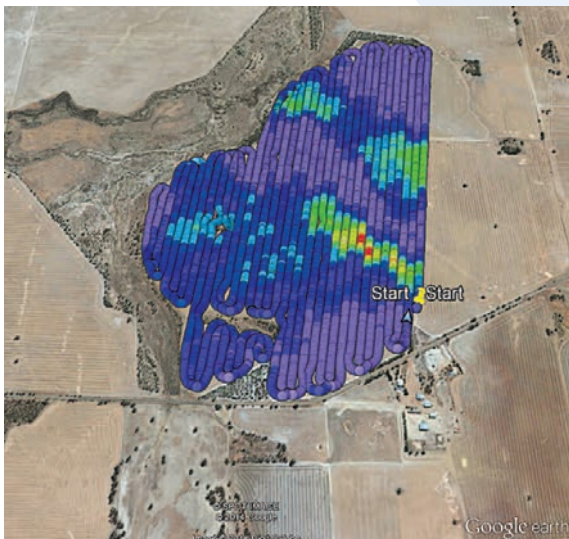


IRIS

INTEGRATED RADIATION INFORMATION SYSTEM

IRIS (Integrated Radiation Information System) is a compact tool that can be used for radiation detection and mapping purposes. The IRIS provides continuous measurements synchronized with GPS timing and location. The collected data is ready for mapping and reporting right after a mission.

Pico Envirotec's IRIS can be installed on any type of vehicle. It can be set in a trunk/cargo compartment, roof mounted cargo-rack, in-cabin installation, etc. The standard system comprises NaI(Tl) radiation detection module with the effective detection volume up to 4 Liters; High Dose Gamma Module (optional); Data Acquisition system, providing internal data synchronization and real-time calculation procedures; and precise positioning equipment.



APPLICATION:

The IRIS is suitable for many different radiation surveillance tasks:

- After event contamination mapping
- Area monitoring and background radiation mapping
- Mapping in agricultural and industrial zones
- Search and recovery of unattended radioactive sources
- Potential radiological threat search
- Environmental studies
- Nuclear sites radiation safety monitoring
- Radiation protection and control tasks

SPECIFICATIONS

DETECTORS: 2 x 2 Liter NaI(Tl); Energy adjusted GM tube (optional)

CHANNELS: 256/512/1024/2048

DYNAMIC THROUGHPUT: up to 250,000 cps per detector

RESOLUTION: < 8% FWHM @ 662 keV

ENERGY RANGE: 20 KeV to 3 MeV

DOSE RATE FROM: 20 nGy/h to 10 mGy/h

TEMPERATURE: -20° to +50°C

SPECTRA STABILIZATION AND ENERGY CALIBRATION:

Auto on natural radionuclides better than 0.5%



DETECTION UNIT

A standard Detection Unit consists of 2 of 2 Liter NaI(Tl) scintillation crystals. The Detection Unit can be customized with different size crystals and/or an energy compensated GM tube. The Detection Unit is standardly set in a rugged plastic case, equipped with wheels and a handle. The Detection Unit can be connected via Bluetooth or Ethernet interface to Data Acquisition system. Independent of the Data Acquisition system, the IRIS Mobile Detection Unit can continuously record observed raw data to internal memory.

All Pico Envirotec detectors are self-calibrated and energy adjusted.



DATA ACQUISITION

Data Acquisition is set on a rugged laptop, allowing the operator to control surveillance parameters, including map-view navigation, real-time data acquisition, and real-time spectra in a chart or waterfall view.

The collected data is ready for mapping and reporting right after a mission. The data can be exported to ASCII, Binary or KMZ format for following visualization with GIS applications.



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