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# CARTOGAM: A PORTABLE SYSTEM FOR GAMMA CARTOGRAPHY

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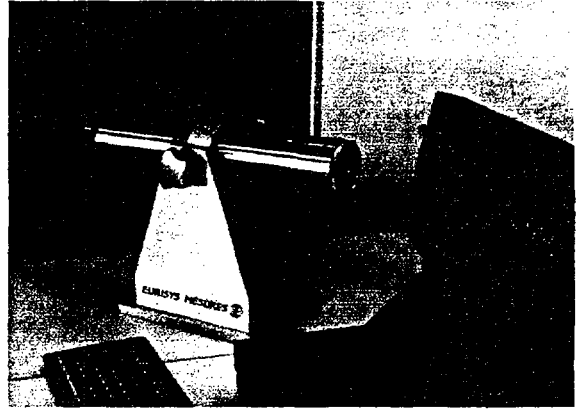
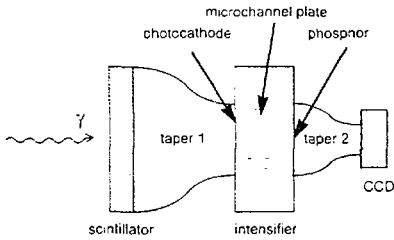
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**Abstract:** The CARTOGAM system has been specially designed for measurements and control of gamma rays during dismantling and/or maintenance of nuclear sites.

It performs real time and accurate diagnosis on localisation of radionuclides, thus reducing time of radiation exposure for personnel in accordance with ALARA principles.

CARTOGAM main technical characteristics:

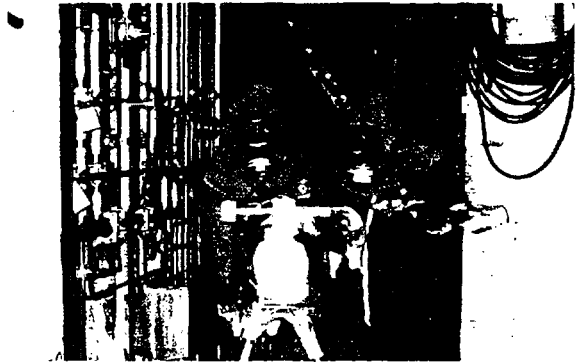
- Perfect superimposition of both visible and gamma images (no parallax error)
- Energy range: < 60 keV to 1.3 MeV
- Sensitivity @ 660 keV: 0.4 µGy in 600 seconds for a point source
- Field width: 30° or 50°
- Spacial resolution: From 1° to 2.5°
- Weight of the head: 16 kg.



CARTOGAM basic configuration

Other characteristics:

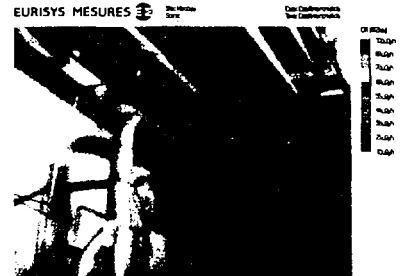
- Portable and easy-to-use system
- Remote control and command up to 250 m
- Real time acquisition and display of images
- Ergonomic and smart man-machine interface
- Decontaminable detection head
- Detection head capability to be operated within hot cells
- Compatible with telemanipulators
- Optional interface with a 3D cartography system or a gamma hand-held spectroscopy system.



CARTOGAM operating within a contaminated site

Applications:

- Source localization in waste removal activities
- Monitoring of decontamination activities
- Remote survey of radiological conditions
- Evaluation of shieldings
- Intervention during outage of nuclear power reactors
- Weapon control
- Cost effective sorting of nuclear wastes
- Reduced exposure with improved job planning (according to the ALARA principle).



Superimposition of visible (B&W) and gamma (color) images

