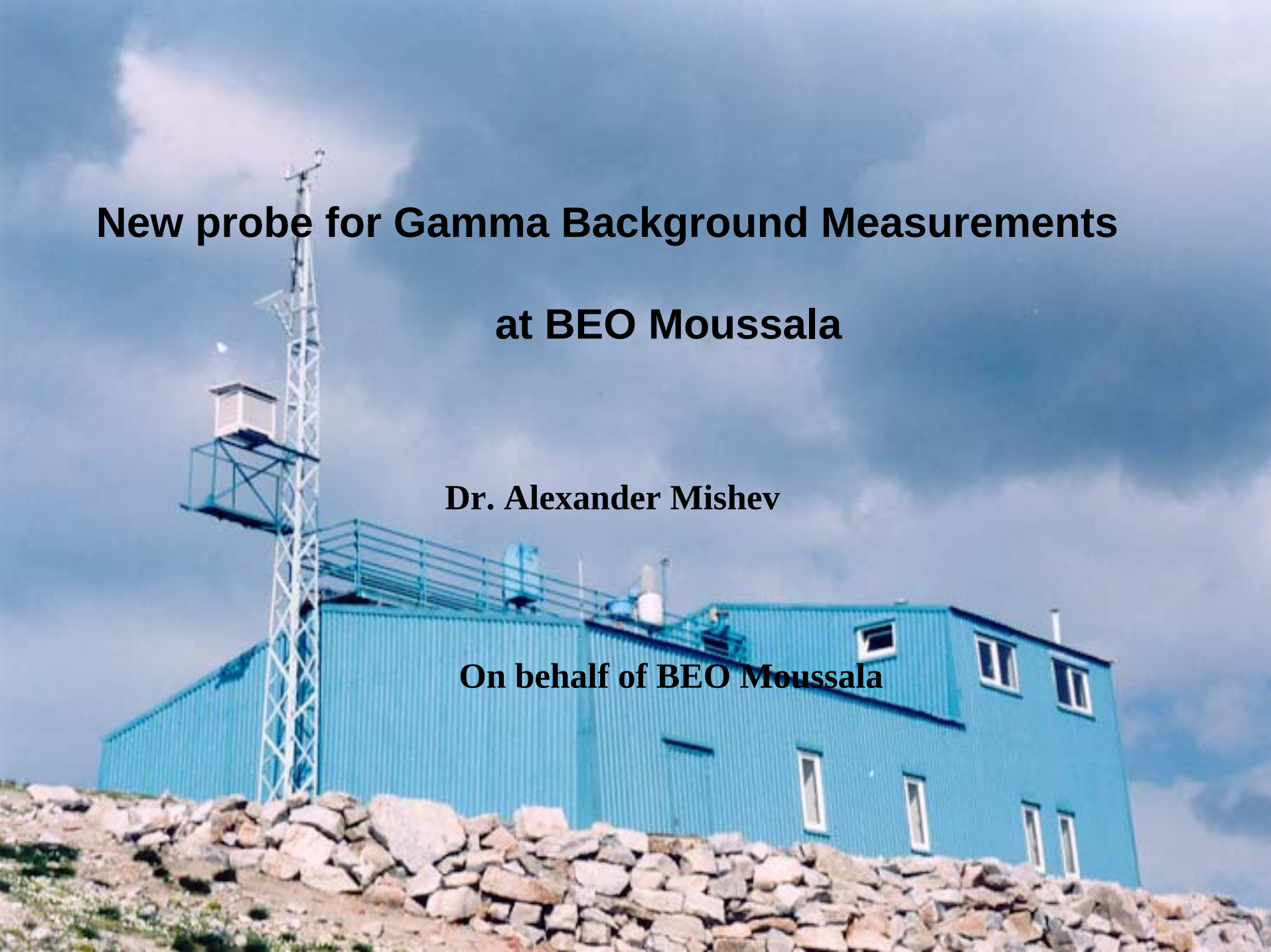


A photograph of a blue, multi-story building with a corrugated metal roof, situated on a rocky hill. A tall, white lattice tower with a small white box at the top stands next to the building. The sky is blue with scattered white clouds.

New probe for Gamma Background Measurements at BEO Moussala

Dr. Alexander Mishev

On behalf of BEO Moussala

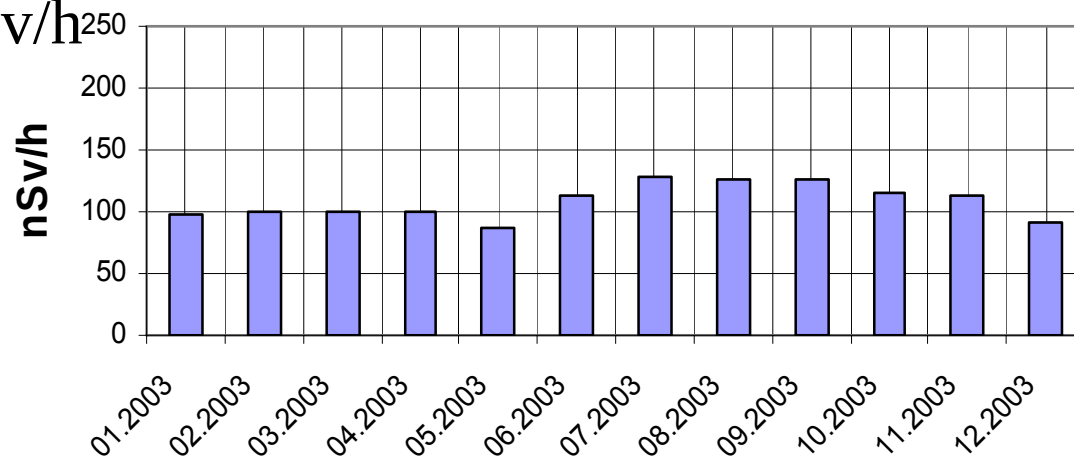
Gamma background measurements with SAPHYMO

NaJ Scintillator detector



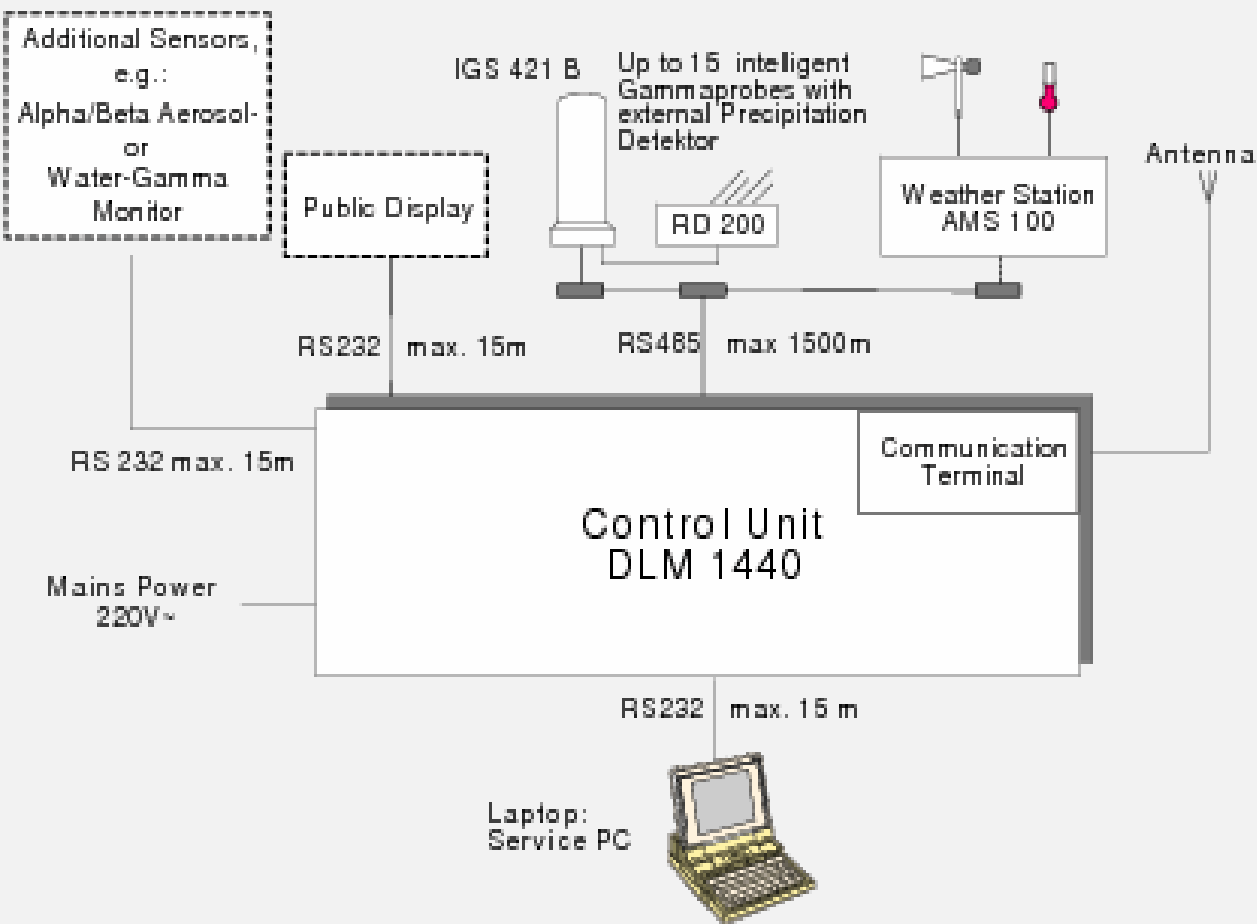
Mean dose-rate $\sim 120\text{-}130\text{ nSv/h}$

Gamma background (2003) measured by SBN-90



The image shows a Technidata gamma probe system. On the left, a tall, light blue cylindrical probe stands on a concrete base. A grey cable runs horizontally from its base. In the foreground on the right, a tan-colored electronic control box sits on a concrete pad, with a black cable connected to it. In the background, another similar probe is visible, and a red vehicle is parked among trees. The scene is outdoors with dry grass and a building in the distance.

**Technidata gamma probe
based on GM tubes**



Sensitivity range
10 nGy/h ... 10 Gy/h

Accuracy
~ 15% resp. to Cs-137

Operating tem.
-40 deg. C ... + 60 deg. C

Dimensions
80/115mm x 635 mm
~ 2300 g

Interface ~RS-232 (up to 15m direct connection) or RS-485

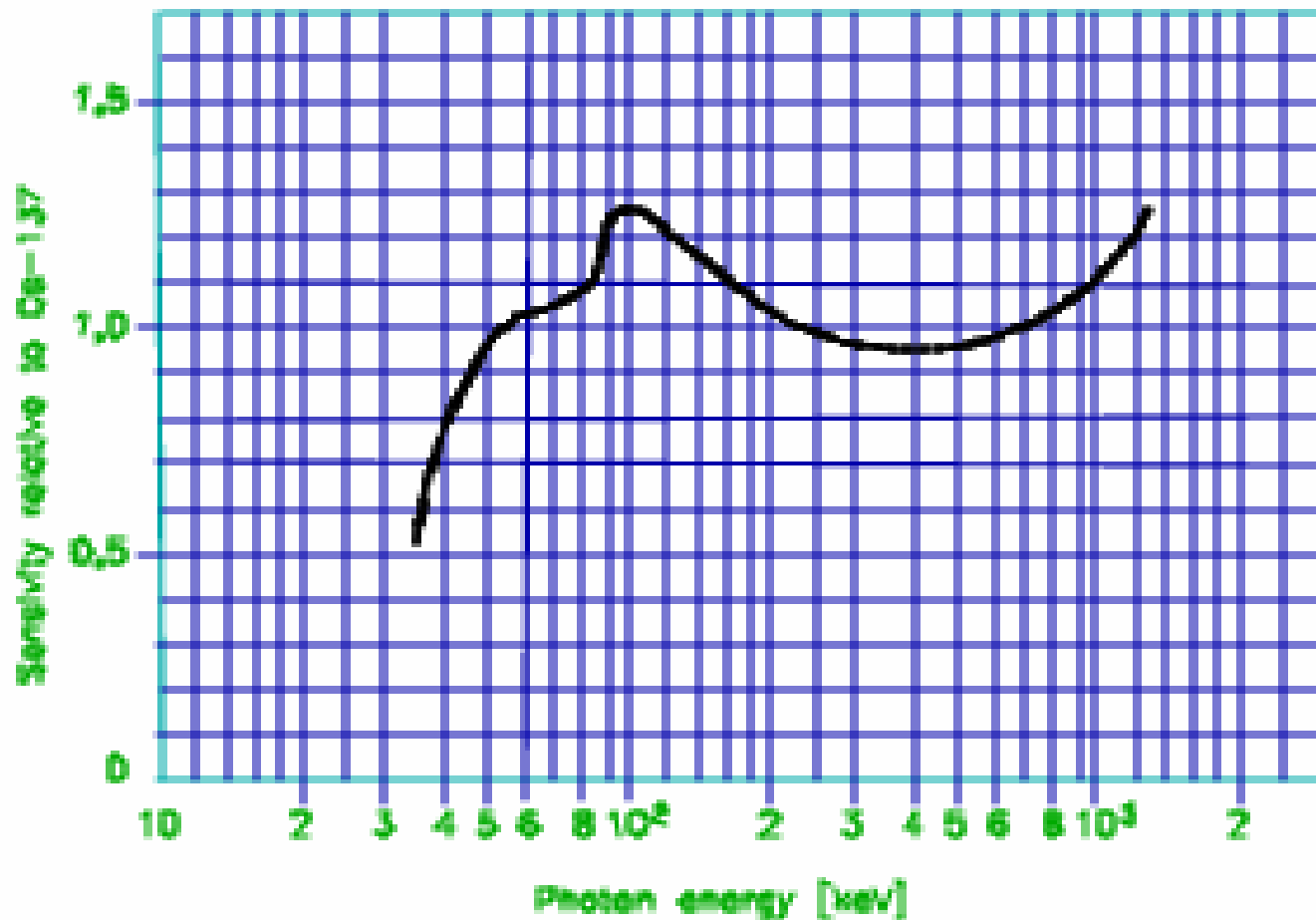
Detector 2x GM tubes 20031E

Range 10nGy/h ... 2mGy/h

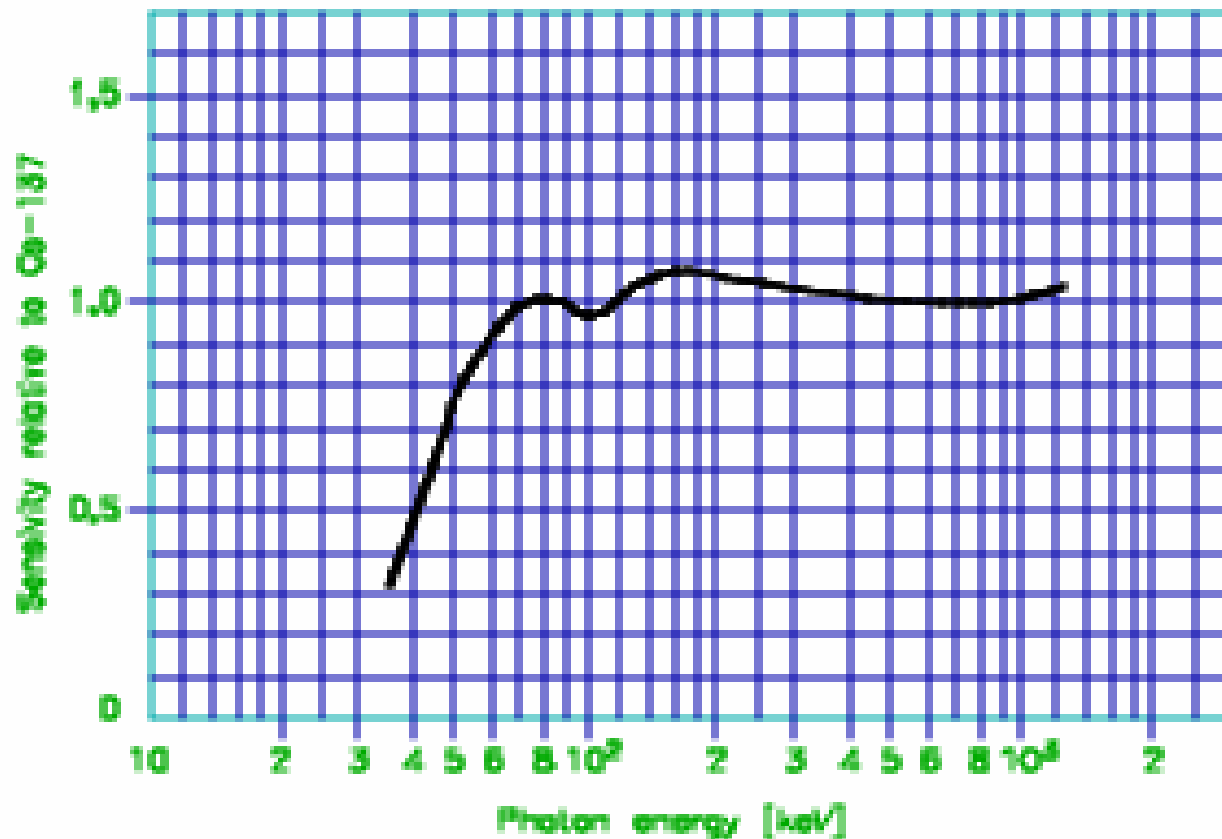
Sensitivity 1976 counts/min ~ mGy/h

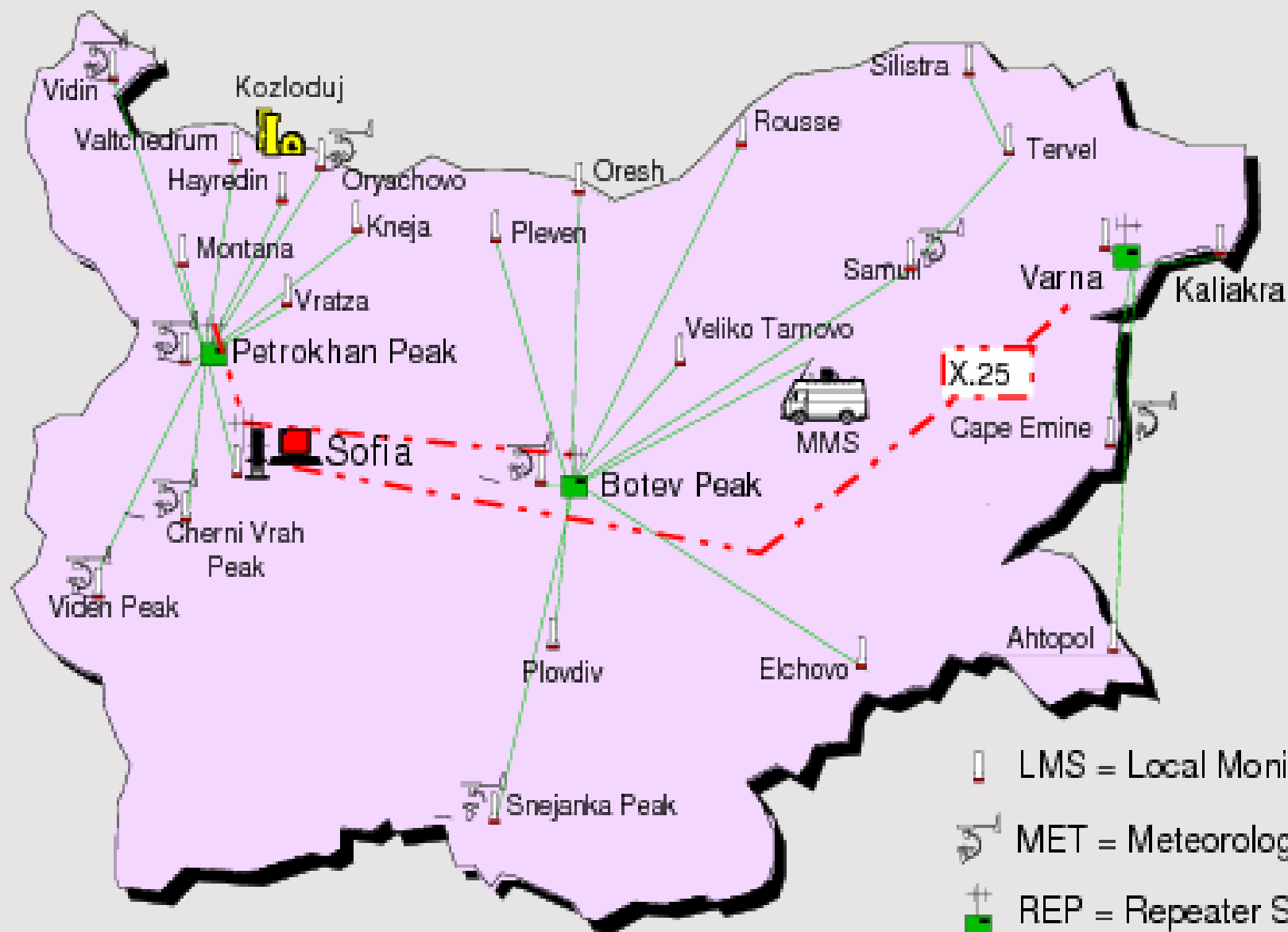
Detector background 38 counts/min ~ 38nGy/h

Energy range 40 keV ... 1.25 MeV



Detector GM tube 20018E
Range 0.1mGy/h ... 10 Gy/h
Sensitivity 1.24 counts/min $\sim$ μ Gy/h
Energy range 50 keV ... 1.25 MeV



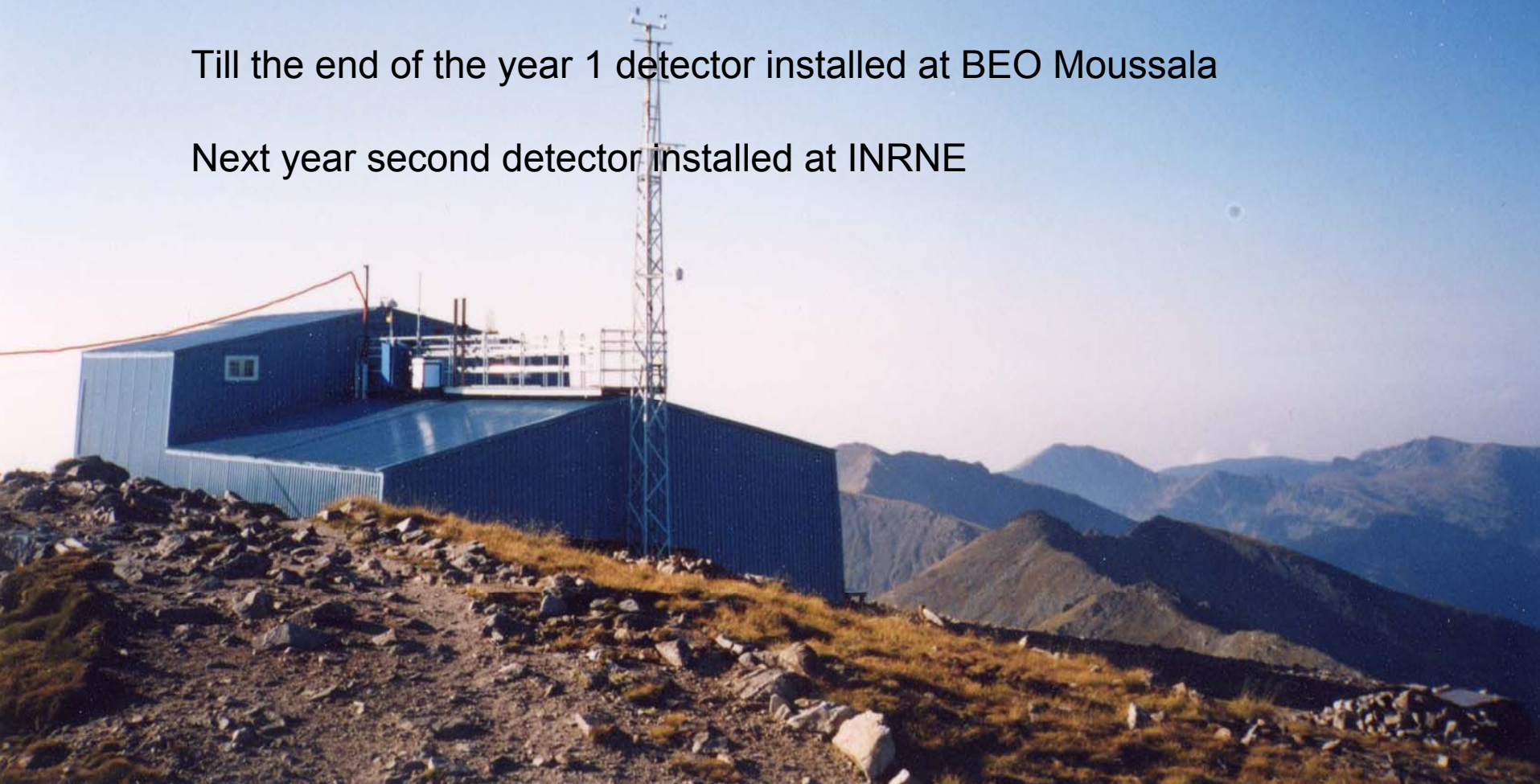


RaMo Bulgaria: Country-wide Radiation Monitoring in real-time.

Future plans and work

Till the end of the year 1 detector installed at BEO Moussala

Next year second detector installed at INRNE



We acknowledge warmly the Technidata

The staff at BEO Moussala

The staff of Lomnicki stit

