

# Kuwait – KWT

Kuwait University – Department of Physics

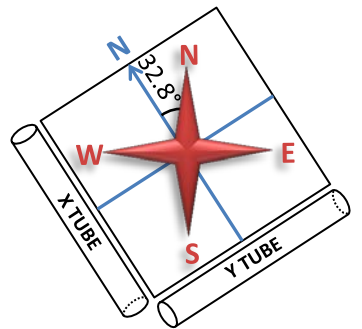
Surface Observatory  
 Location: 29.37° N, 47.98° E  
 Altitude: 0.019 km  
 Effective Geomagnetic Cutoff Rigidity: 13.0 GV  
 Standard Pressure: 1010 hPa  
 Detector Type: Proportional Counter (hodoscope)  
 Telescope Size: 9 m<sup>2</sup> (03/2006 – 03/2015)  
 21.5 m<sup>2</sup> (04/2015 – )

Operation Period: 2006 –  
 - 03/2006: The North direction of the detector was inclined 32.8° counter-clockwise from the real North direction  
 - 03/2006: New recording system using FPGA was introduced  
 - 29/03/2015: 30x30 tubes were changed to 43x50 tubes

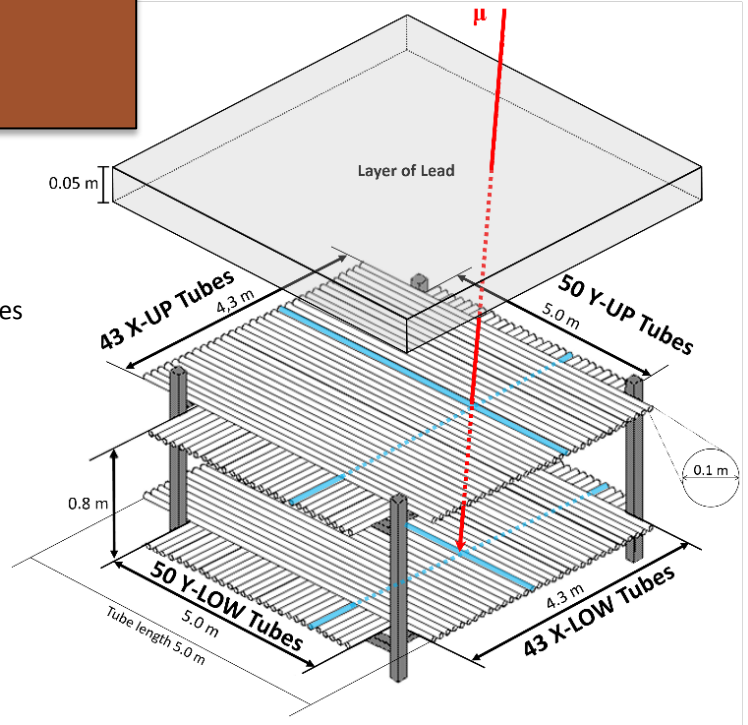
Pictures:



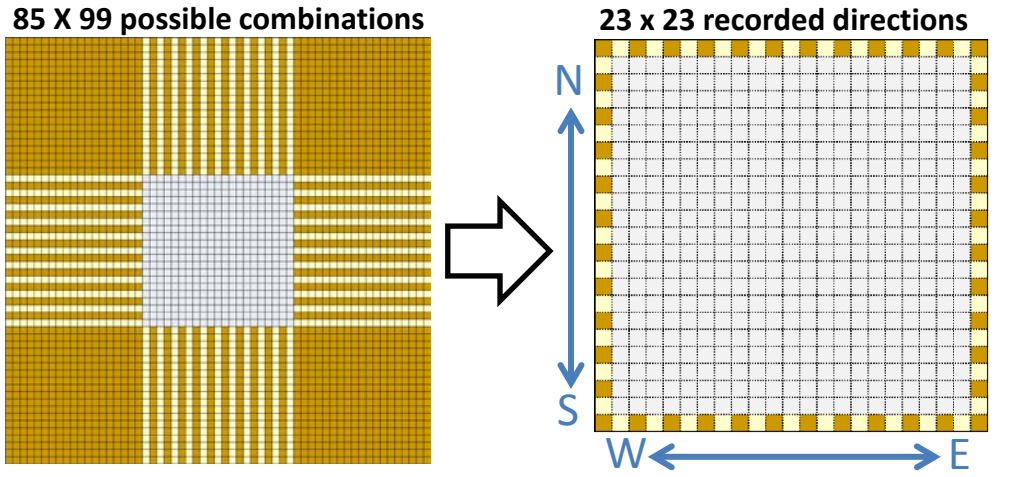
Relation between DETECTOR and GEOGRAPHIC Coordinates



Top view



**The 85x99 = 8415 possible combinations (43x50 pairs of upper counters + 43x50 pairs of lower counters) are converted in 23x23 = 529 directions.**



**Conventional Correlation System: 13 directions**  
 (Each block correspond to 7x7 tubes combination)

23 x 23 recorded directions used to form the conventional system

