

## **VERTICAL CUTOFF RIGIDITIES FOR COSMIC RAY STATIONS SINCE 1955**

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We have computed vertical cutoff rigidities for known neutron monitor locations from 1955 to the present at five-year increments. We have utilized the Definitive International Geomagnetic Reference Field as published by IAGA for five-year intervals from 1955 to 1990 and the Interim International Geomagnetic Reference Field for 1995. The results show that the changes in cutoff rigidity are not linear and vary with location over the world. We find that the vertical cutoff rigidity is relatively stable for European cosmic ray stations. However, there is a substantial reduction in the vertical cutoff rigidity at South American and Mexican cosmic ray stations. There is a section in the North Atlantic where there is a rapid increase in the vertical cutoff rigidity. This feature in the North Atlantic area is moving westward at a rapid (in geological terms) rate resulting in an increase in the vertical cutoff rigidity at cosmic ray stations located on the east coast of North America. Fortunately, the vertical cutoff rigidity at the Climax, Colorado, USA neutron monitor has remained quite stable over the last 50 years.