

SOLAR PROTON AND GLE EVENT FREQUENCY: 1955-2000

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The number of > 10 MeV solar proton events with peak flux exceeding 10 per $\text{cm}^2\text{-sec-ster}$ during each solar cycle has remained remarkably constant for solar cycles 19-22 even though the total integrated fluence experienced at the earth per solar cycle has varied by a factor of four. In addition the number of ground-level events each solar cycle has also remained relatively constant. Similarities between the first four years of solar cycle 20 and this present cycle 23 are presented. If the proton event occurrence for these two cycles continues to be similar, we would expect the majority of solar proton events to occur during years 5-8 of the 23rd cycle (i.e. from 2000-2004) with perhaps a surge of activity during the waning years of the cycle.