

## **MAJOR SOLAR PROTON EVENTS OBSERVED BY IMP-8 (FROM 1973 TO PRESENT)**

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The unprecedented long and still ongoing mission of the IMP-8 spacecraft has generated a uniform and nearly time-continuous database of energetic particle events for the last two solar cycles and the rising phase of the solar cycle 23. In this paper we use energetic proton (0.3-440 MeV) intensities from the CPME instrument in order to select the major solar energetic proton (SEP) events observed during this long-term period (November 1973 – March 2001). We examine their time-intensity profiles and their temporal distribution within the sunspot solar cycles. We compare the two recent large SEP events observed so far in solar cycle 23 (i.e., the Bastille Day 2000 event and the November 9, 2000 event) with the other major SEP events observed over the last two solar cycles. These two events show by far the most intense SEP fluxes ever observed by IMP-8. The study of these observations will help us to determine how intense a SEP event can be.