

FORECAST FOR SOLAR CYCLE 23 ACTIVITY: A PROGRESS REPORT

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At the 25th International Cosmic Ray Conference (ICRC), at Durban, South Africa, I announced the discovery of a three-cycle-quasiperiodicity in the ion chamber data assembled by me for the 1937 to 1994 period (Conf. Pap., v.2, p.109, 1997). It corresponded in time with a similar quasi-periodicity observed in the planetary index Ap data set. At the 26th ICRC, at Salt Lake City, UT, I reported on a new method of analysis of Ap data which enabled me to forecast the amplitude of the solar cycle 23 activity (Conf. Pap., v.2, p.260, 1999). I predicted that cycle 23 will be moderate (a la cycle 17), notwithstanding the early exuberant forecasts by some solar astronomers that cycle 23, "may be one of the greatest cycles in recent times, if not the greatest." Sunspot number data upto 31 March 2001 indicate that our forecast is right on the mark. We shall review the solar, the interplanetary and the geophysical data as of the end of July 2001 and describe the important lessons learned by us.