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Microwaves in the recent solar minimum

Hugh S. Hudson
SSL/UCB

Leif Svalgaard

Kiyoto Shibasaki

Ken Tapping

Abstract. The time series of solar microwave flux traditionally is divided into a flare component, a slowly-varying component, and a base level. Since 1947 there have been routine radiometric measurements, and the non-flare F10.7 index (2.8 GHz) from Penticton has had broad usage. Systematic radiometry at other microwave frequencies (1.0, 2.0, 3.75, 9.4 GHz) have come from Toyokawa and Nobeyama; these and other programs continue to the present time, thus including the five most recent solar maxima. We use the different measurements to show that the preceding maximum epoch (23) differed from the earlier ones. We also study the recent anomalous solar minimum and find that the joint variations of microwave flux, total solar irradiance (TSI), and sunspot number do not follow the patterns expected for TSI variability in maximum periods.