EPSC Abstracts,
Vol. 2, EPSC2007-A-00264, 2007
European Planetary Science Congress 2007


# Decameter Type II radio burst with three harmonics

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The unique decameter type II burst consisting of three harmonics is described. This burst was observed on June 4, 2004 at the world largest decameter radio telescope UTR-2 equipped with back-end with high temporal resolution in frequency band 10-30MHz. As was found by (Melnik et al., SoPh, v.222, 151-166, 2004) type II bursts at the decameter waveband used to have fine time structure in the form of fast drifting short sub-bursts. All three harmonics of the observed Type II burst appeared to have this fine structure also. These sub-bursts had different durations for different harmonics (in average 7s for fundamental, 3s for second and 1-2s for third harmonic). The lifetime of each harmonic was 8-12 min. Wide frequency band of the analysis allowed to observe all three harmonics at one moment of time ($7^h53^m50^s$ UT). At this time, the drift rates of the harmonics were: -10kHz/s for fundamental (f=10MHz), -30kHz/s for second harmonic (f=20MHz) and -50kHz/s for third harmonic (f=30MHz). The second harmonic was the most intensive (maximal flux about 1000 s.f.u.) Discussed here Type II burst followed a very intense (flux of an order 10000 s.f.u.) complex event consisted of series of Type-III bursts with rich fine structure. At this time two successive CMEs were observed by SOHO-LASCO – one was respectively slow ($\approx$300km/s) and narrow (angular size $\approx 13^\circ$) and another was much faster ($\approx$1200km/s) and wider ($>273^\circ$). The connection between the observed Type-II burst and CMEs is analyzed. The extensions of this Type II burst at higher frequencies (NDA data at frequencies 20-70MHz) and lower frequencies (WIND data at frequencies 1-11MHz) were also found.