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Fates of Langmuir Waves in Solar Type III Bursts.

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A part of the SWAVES experiment on STEREO was devoted to trying to understand the conversion of electrostatic Langmuir waves to the electromagnetic radiation which can be sensed remotely. Now, after a very long solar minimum with no suitable events, seven Type III bursts with Langmuir waves suitable for analysis have been observed. Results and analysis of these observations will be presented. Many of the Langmuir waves show waveforms which are interpreted as parametric decay to a daughter Langmuir wave, but not all. A few show the waveforms expected for trapping in density minima. In some of the Type III bursts, Langmuir waves are present without measureable electromagnetic radiation, which is puzzling.