Over the past decade, reconfigurable, static random-access memory (SRAM) based field programmable gate arrays (FPGAs) have made inroads into space-based computation tasks. As these devices are well-suited to the digital signal processing tasks that are often the focus of space-based processing, these devices could provide orders of magnitudes speedup over traditional radiation-hardened processors at a fraction of the cost. Unfortunately, all commercially available SRAM-based devices have problems with the harsh radiation environment in space. This paper will provide an introduction to the potential radiation-induced faults and possible mitigation methods.