

## What are the different types, or classes, of flares?

Scientists classify [solar flares](#) according to their X-ray brightness, in the wavelength range 1 to 8 [Angstroms](#). Flares classes have names: A, B, C, M, and X, with A being the tiniest and X being the largest. Each category has nine subdivisions ranging from, e.g., C1 to C9, M1 to M9, and X1 to X9. These are logarithmic scales, much like the seismic Richter scale. So an M flare is 10 times as strong as a C flare.

SID space weather monitors can pick up X-class, M-class, and a few strong C-class flares.

<b>Class</b>	<b>Strength- Peak (W/m<sup>2</sup>)between 1 and 8 Angstroms</b>	<b>What can they do to Earth?</b>	<b>Can SIDS pick up?</b>
<b>B</b>	$I < 10^{-6}$	Too small to harm Earth.	No, too weak for SID
<b>C</b>	$10^{-6} <= I < 10^{-5}$	Small with few noticeable consequences on Earth.	SIDs can pick up only the strongest C class flares
<b>M</b>	$10^{-5} <= I < 10^{-4}$	Can cause brief radio blackouts that affect Earth's polar regions and minor radiation storms.	Yes
<b>X</b>	$I >= 10^{-4}$	Can trigger planet-wide radio blackouts and long-lasting radiation storms	Yes!