

# Why we need active experiments in space

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## [Why We Need Active Experiments in Space \(Op-Ed\)](#)

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Fifty-six years ago, a nuclear device called Starfish Prime was detonated 250 miles (400 kilometers) above Earth. With a yield of approximately 1.4 megatons, the explosion released massive amounts of energetic fission debris into space. One of the outcomes was the creation of an artificial radiation belt, much more intense than that typical of the natural Van Allen belts, which lasted for years.

Radiation is not only dangerous to humans, it is dangerous to our space infrastructure as well. Within a few months of the test, seven satellites in orbit stopped working, including a big communications satellite, Telstar 1, launched a day after the Starfish Prime detonation. Higher-than-expected radiation levels hammering the solar panels and satellite electronics were to blame.

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