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Meteor flux estimates for the EISCAT_3D facility

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The tristatic EISCAT UHF and the EISCAT VHF have been versatile instruments for studying many properties of the meteoroid population in the solar system. However, these radars were not initially designed for studying the extra-terrestrial dust. The forthcoming EISCAT_3D facility can combine many properties found at several High-Power Large-Aperture (HPLA) radars around the world for improving the solar system dust flux estimates. A phased-array transmitter combined with several phased-array receivers will provide an improved spatial resolution of the orbit estimates due to combined interferometric and multistatic capabilities. The monitoring frequency at 233 MHz and the volumetric imaging capacity will increase the collecting volume compared to the earlier multistatic UHF at 933 MHz and the power up to 10 MW will increase the sensitivity of the radar. The feasibility of EISCAT_3D as an extra-terrestrial matter monitor will be discussed.