



Nowcasting the Orbit Decay of Earth orbiting Satellites

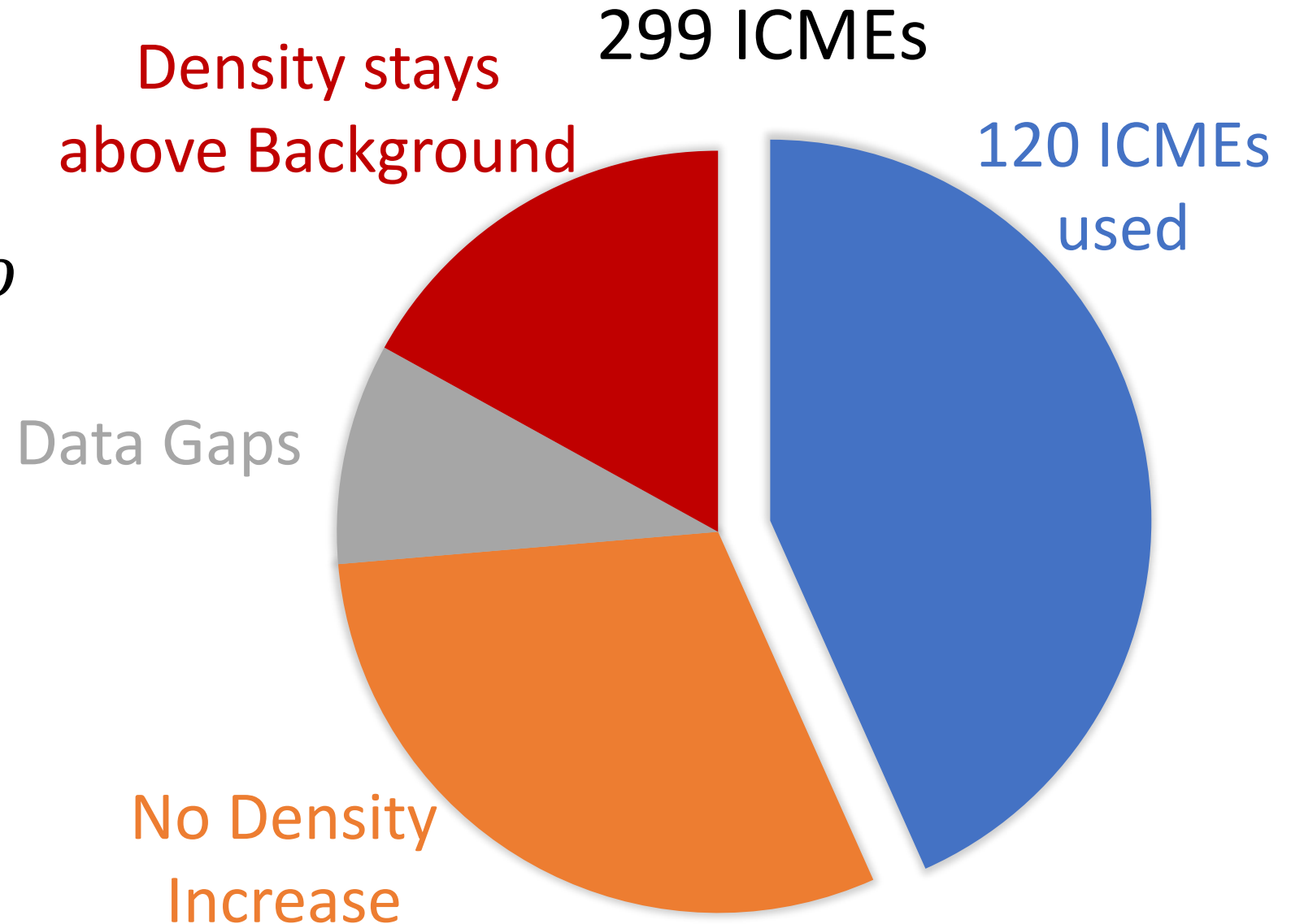
L. Drescher¹, S. Kroisz¹, M. Temmer¹, S. Krauss², B. Suesser-Rechberger²,
S. Behzadpour², T. Mayer-Guerr²

¹ Institute of Physics, University of Graz

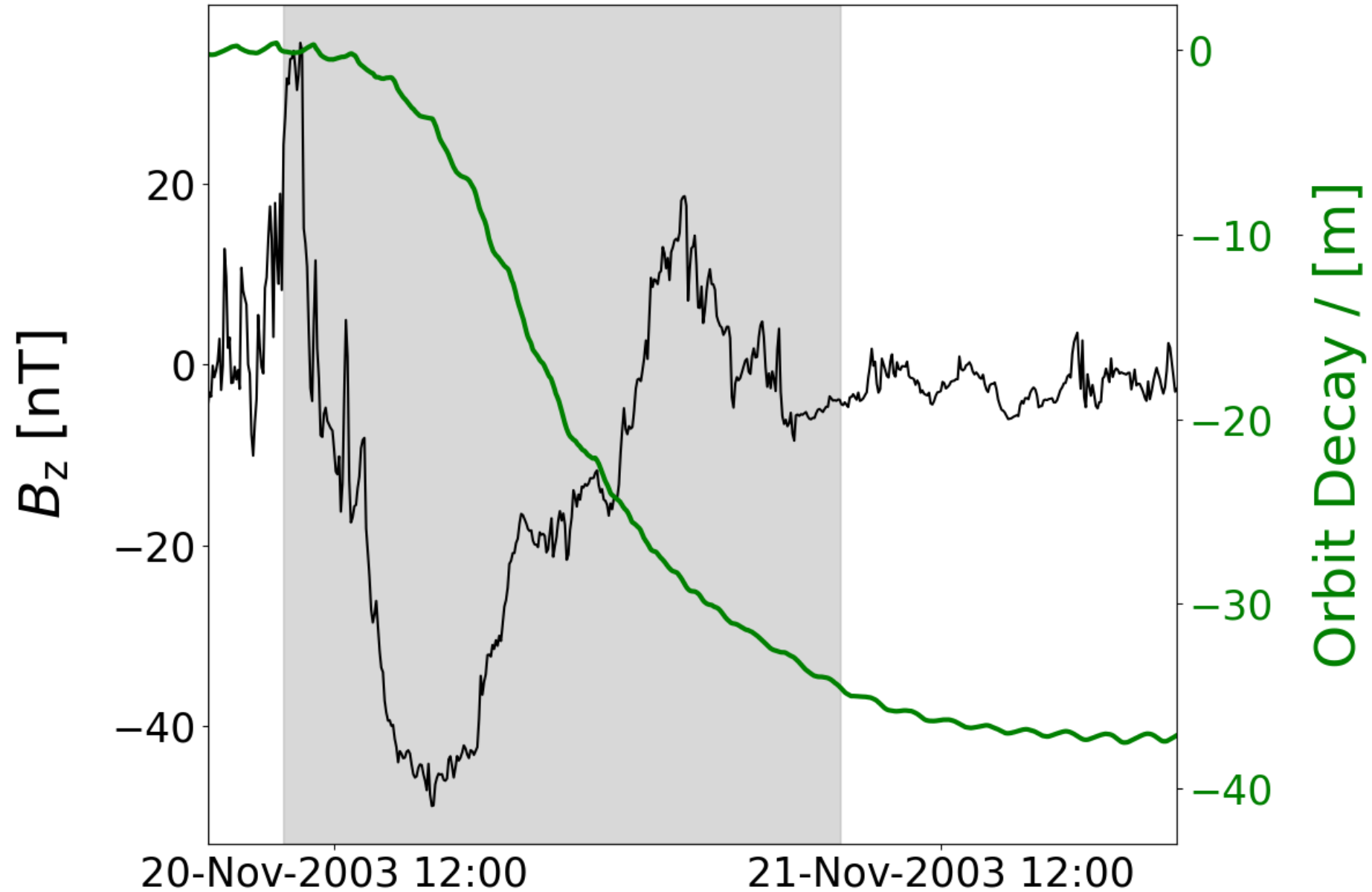
² Satellite Geodesy, Technical University Graz

$$\text{Orbit Decay} = \frac{da}{dt} \propto \Delta\rho$$

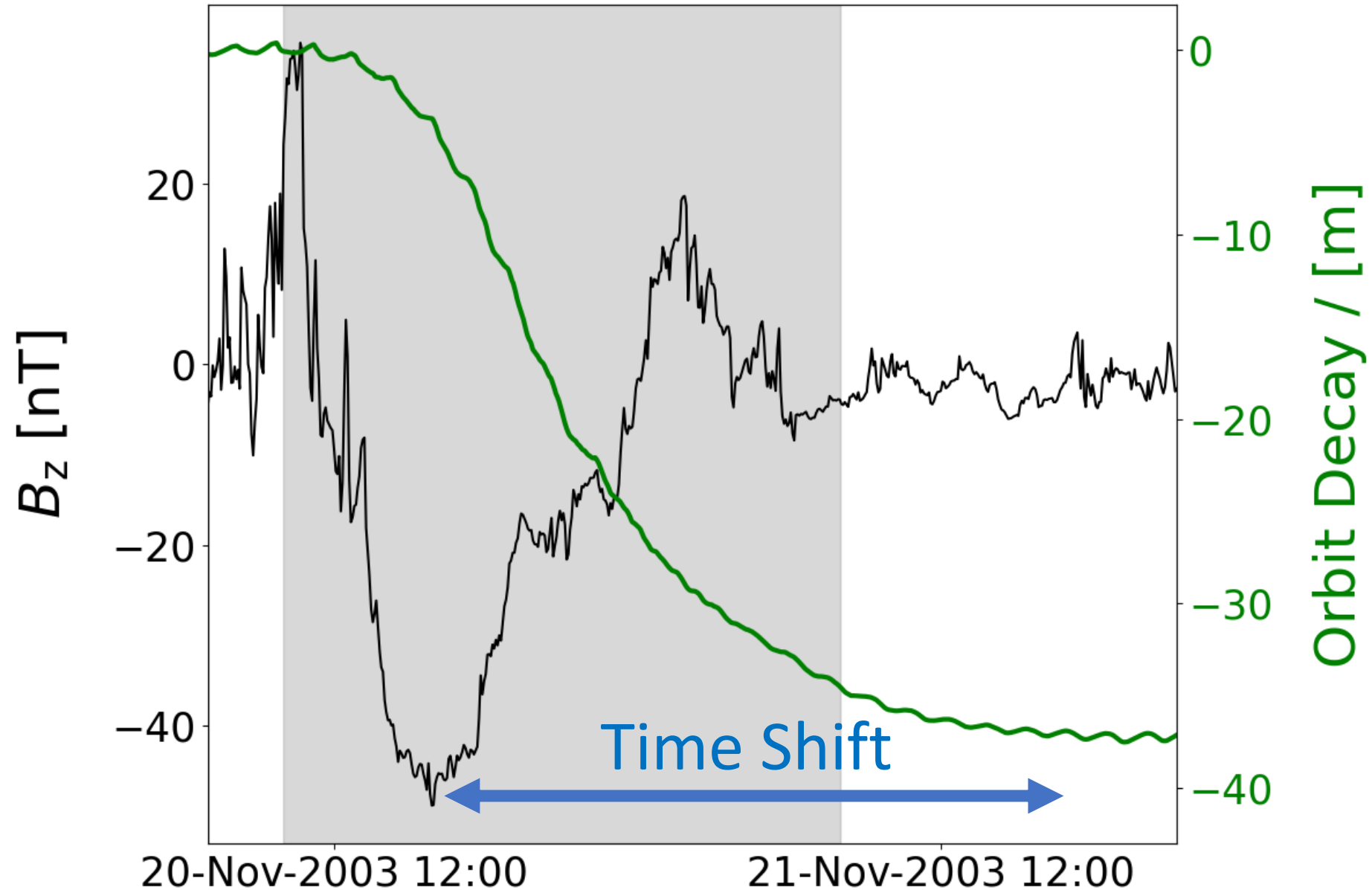
Normalized for GRACE
at ≈ 490 km



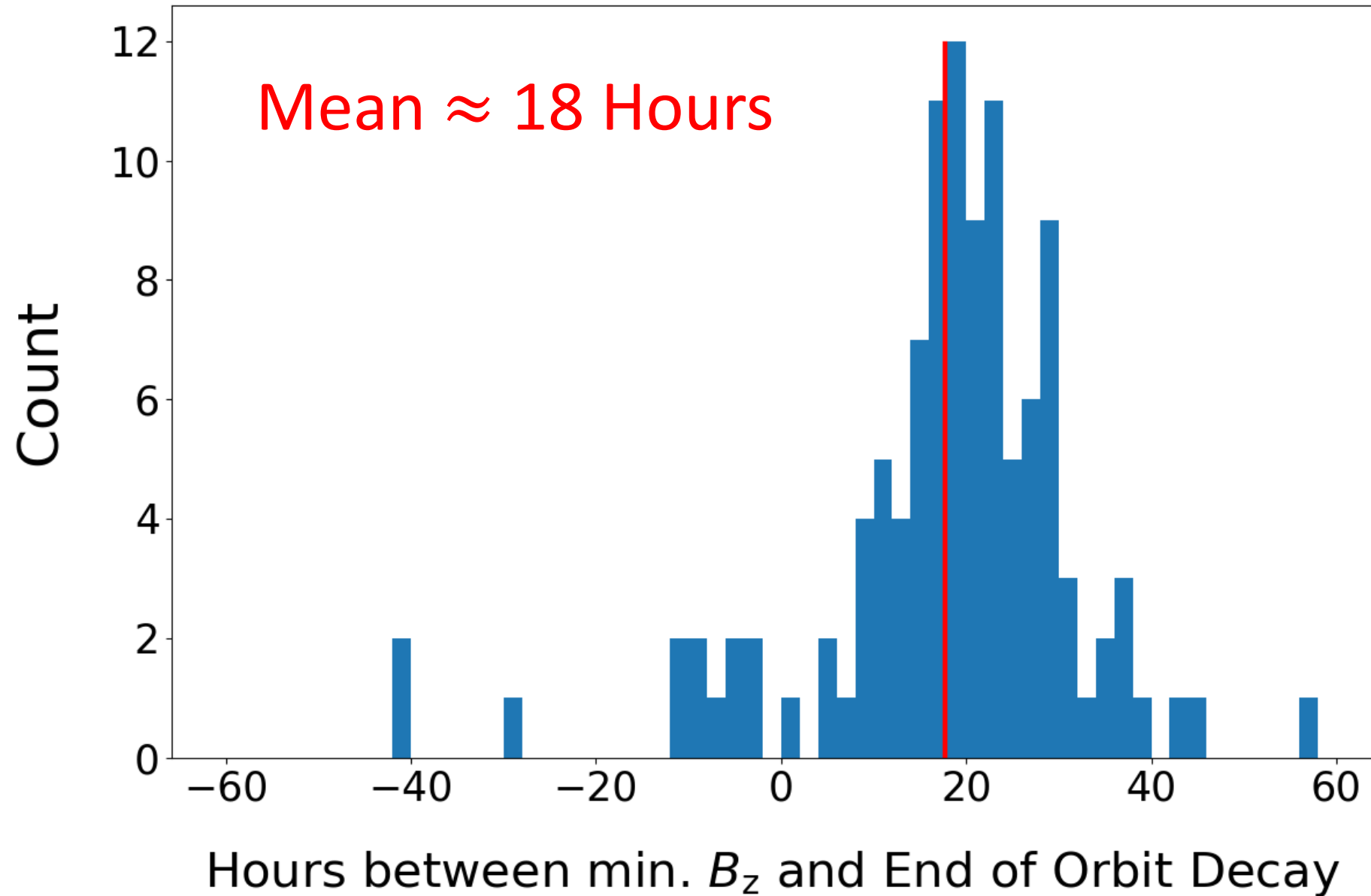
Orbit Decay

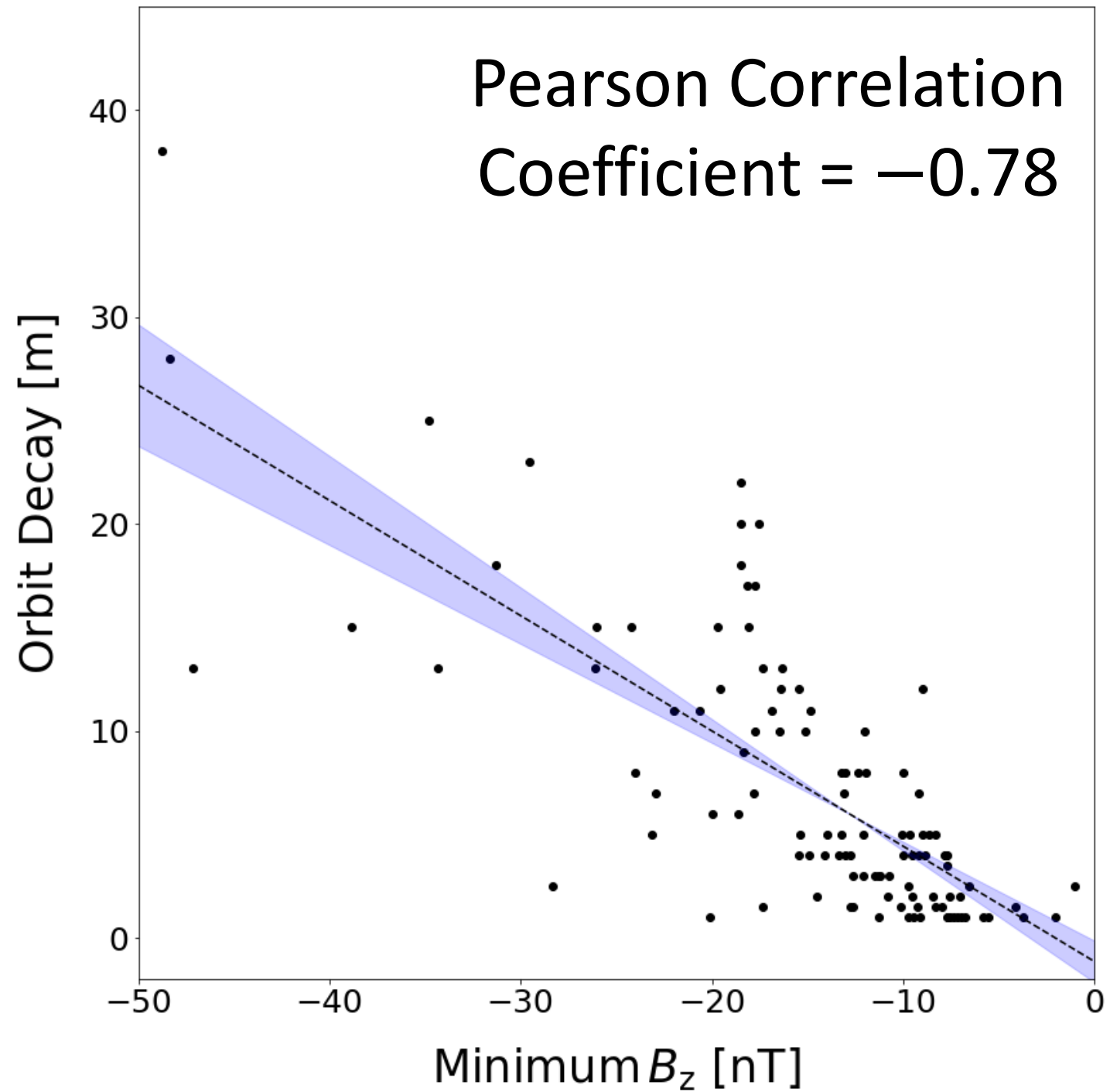


Orbit Decay



Time Shift

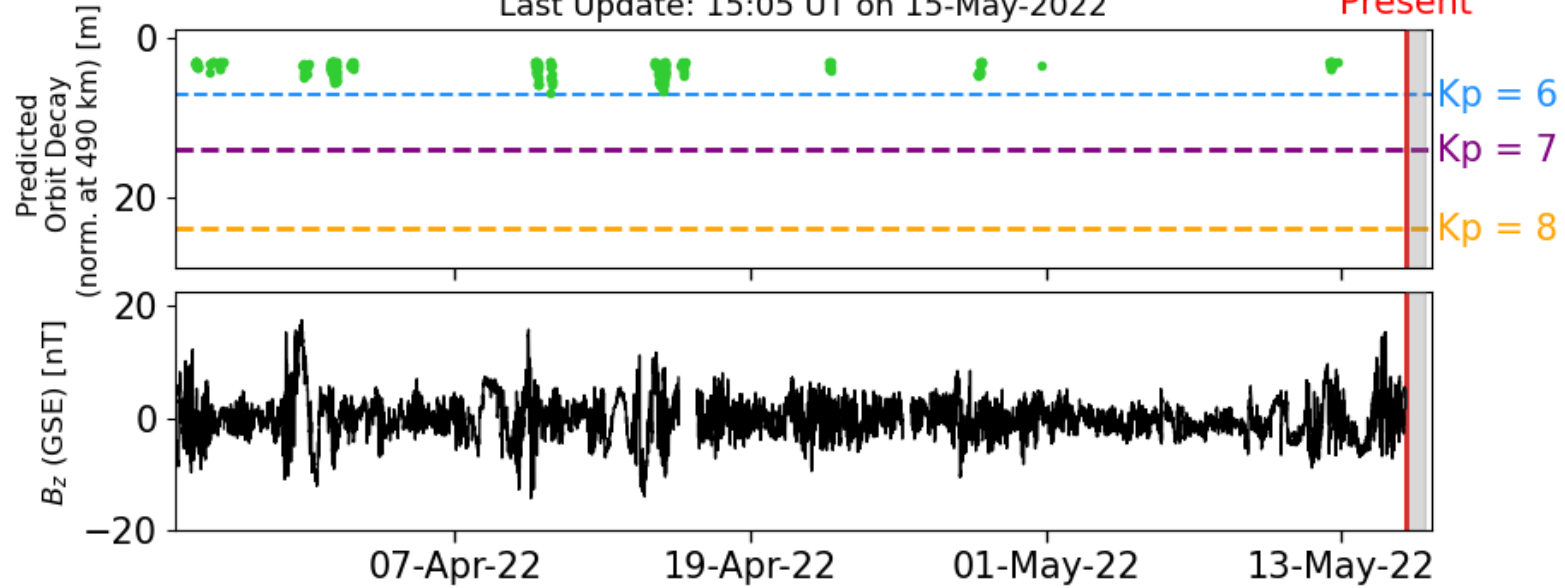




SODA – Satellite Orbit DecAy

Last Update: 15:05 UT on 15-May-2022

Present

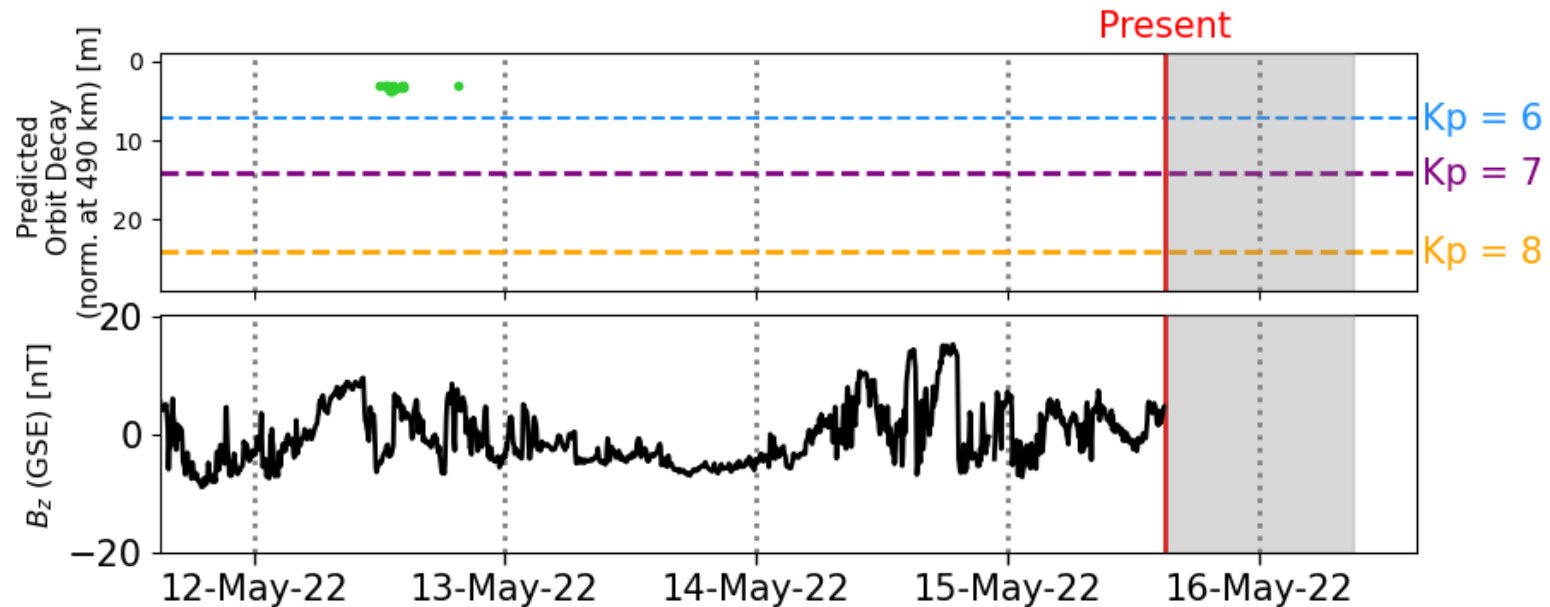
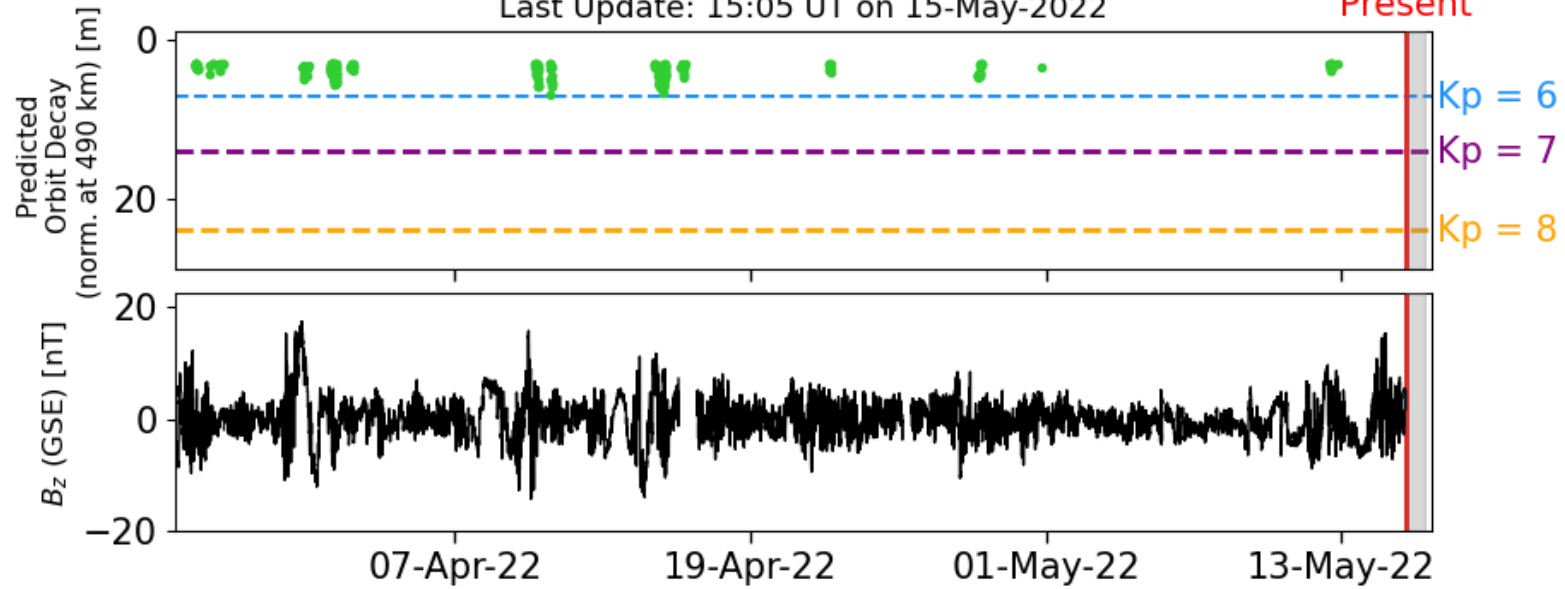


SODA – Satellite Orbit DecAy



Last Update: 15:05 UT on 15-May-2022

Present

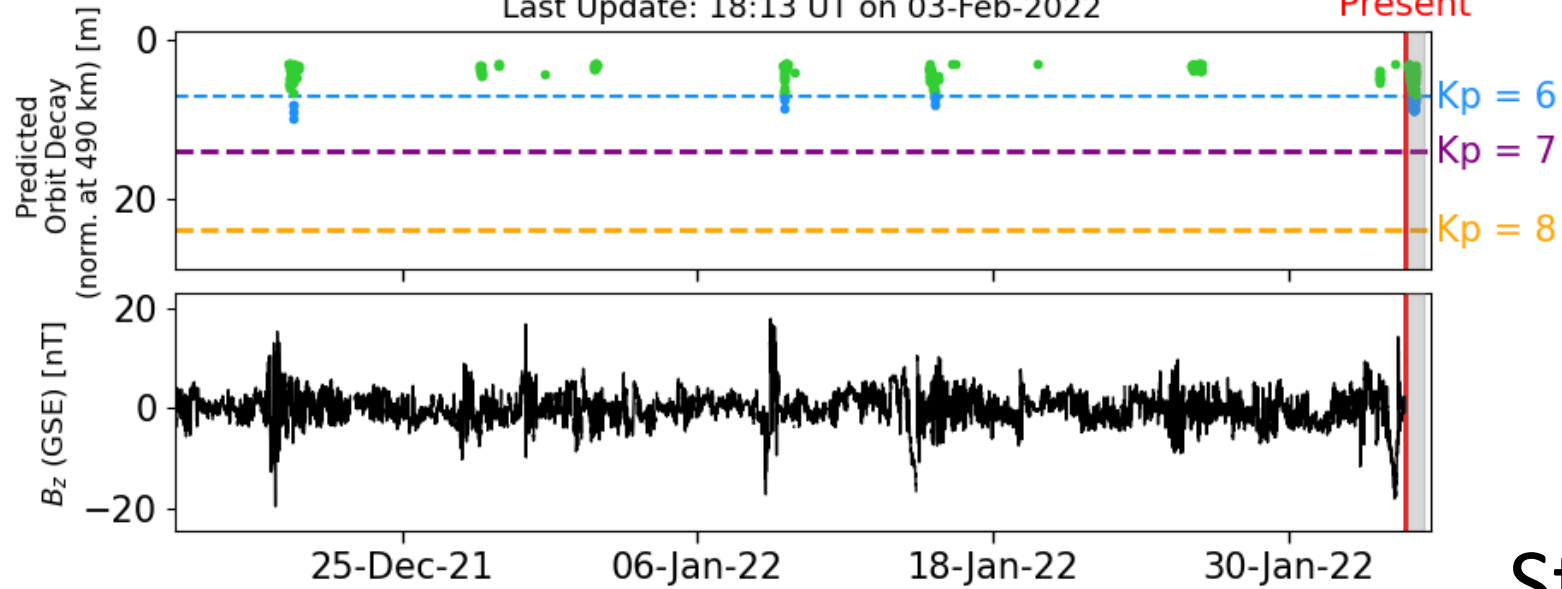




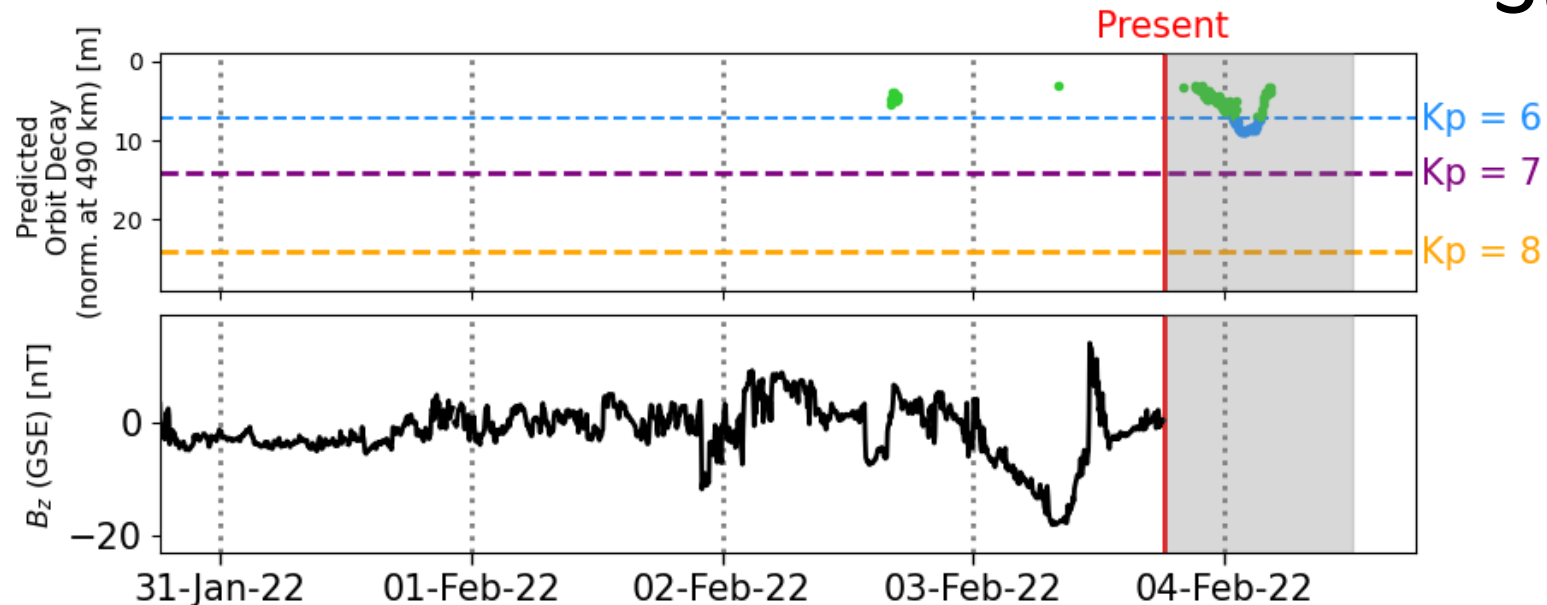
SODA – Satellite Orbit DecAy

Last Update: 18:13 UT on 03-Feb-2022

Present



Starlink Event



Up to
40/49
Satellites
crashed