JOHNS HOPKINS
APPLIED PHYSICS LABORATORY

Natural Space Environment

Mod01a Homework / Assignment

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Consider a different reference mission

- Missions to GEO, L1 / L2, the lunar surface or cis-lunar space operate either entirely, or mostly, outside of the magnetosphere
- Use SPENVIS to define charged particle environments for such a mission (for ease of SPENVIS operations suggest GEO)
  - Trapped particles
  - Solar Energetic Particles
  - Galactic Cosmic Rays
- Compare / contrast with the reference missions we studied in class
- How might these environments (and differences therein) drive SEE test planning?
  - For a Class A (exquisite) mission?
  - For a Class D (risky) mission?
- How are these differences likely to impact error rates?
  - For a RT / RH device with onset LET of >30 MeV-cm^2/mg
  - For a non-RT / RH device with onset LET <1 MeV-cm^2/mg

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