## Slide 2

- Space-based communication networks face unique constraints:
  - Intermittent connectivity as satellites move in/out of range
  - Propagation delays of 500ms-several seconds
  - Limited contact windows between ground stations and satellites

- Traditional TCP/IP protocols fail in these conditions:
  - Assumes always-on connectivity
  - Connection timeouts cause packet loss
  - Requires end-to-end paths to exist simultaneously

- Delay/Disruption Tolerant Networking (DTN) solves this through store-and-forward:
  - But lacks accessible tools for testing routing algorithms

## Slide 3

- •A realistic Earth-based DTN simulator specifically designed for satellite constellation networks that enables:
  - •Performance comparison of DTN routing protocols
  - •Visualization of satellite link availability
  - •Real-world RF modeling with atmospheric effects
  - •Rapid prototyping of new routing algorithms

## Slide 4

- No changes made