THEMIS Overview

Time History of Events and Macroscale Interactions during Substorms

RESOLVING THE MYSTERY OF WHERE, WHEN AND HOW AURORAL ERUPTIONS START

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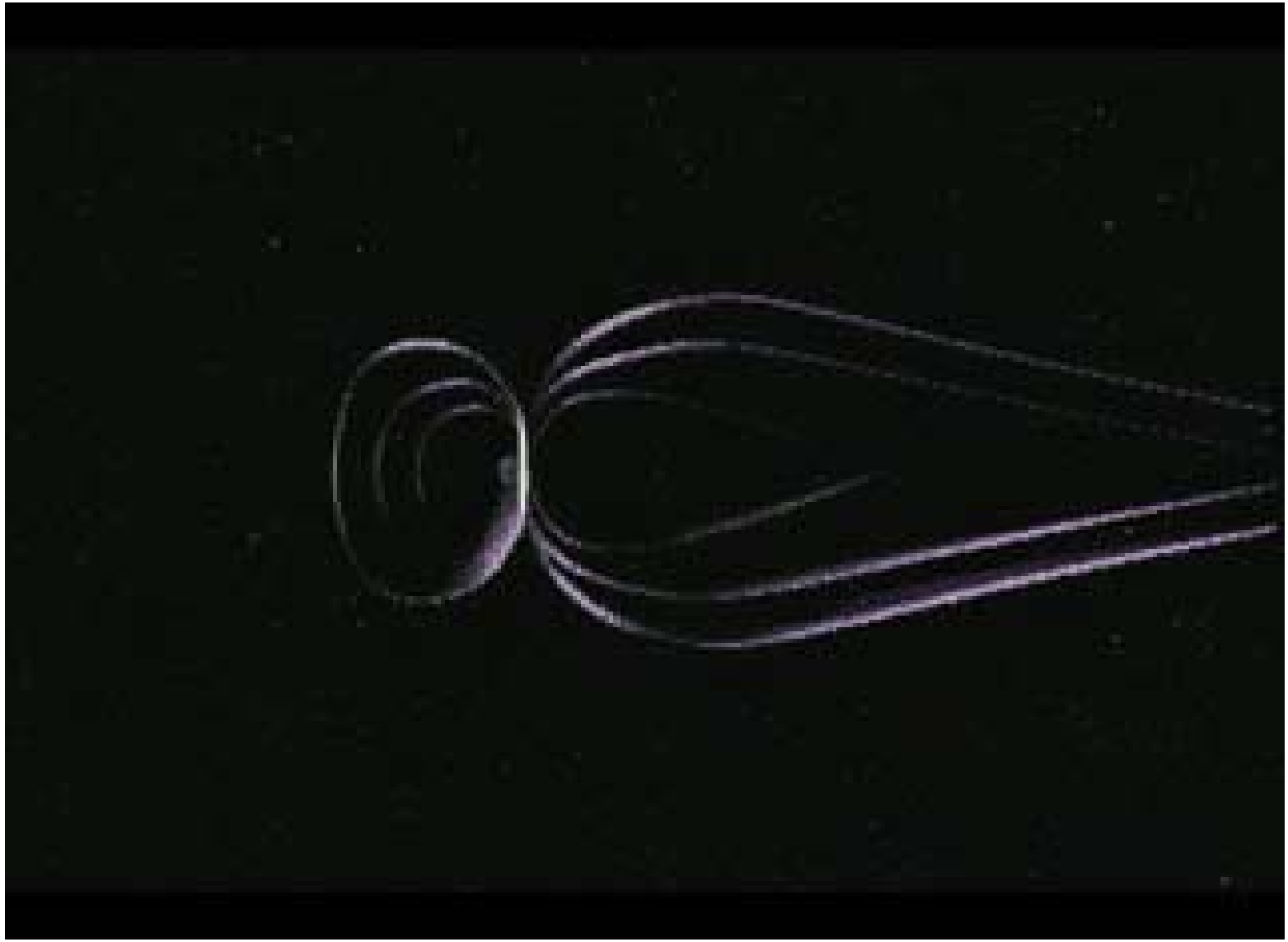
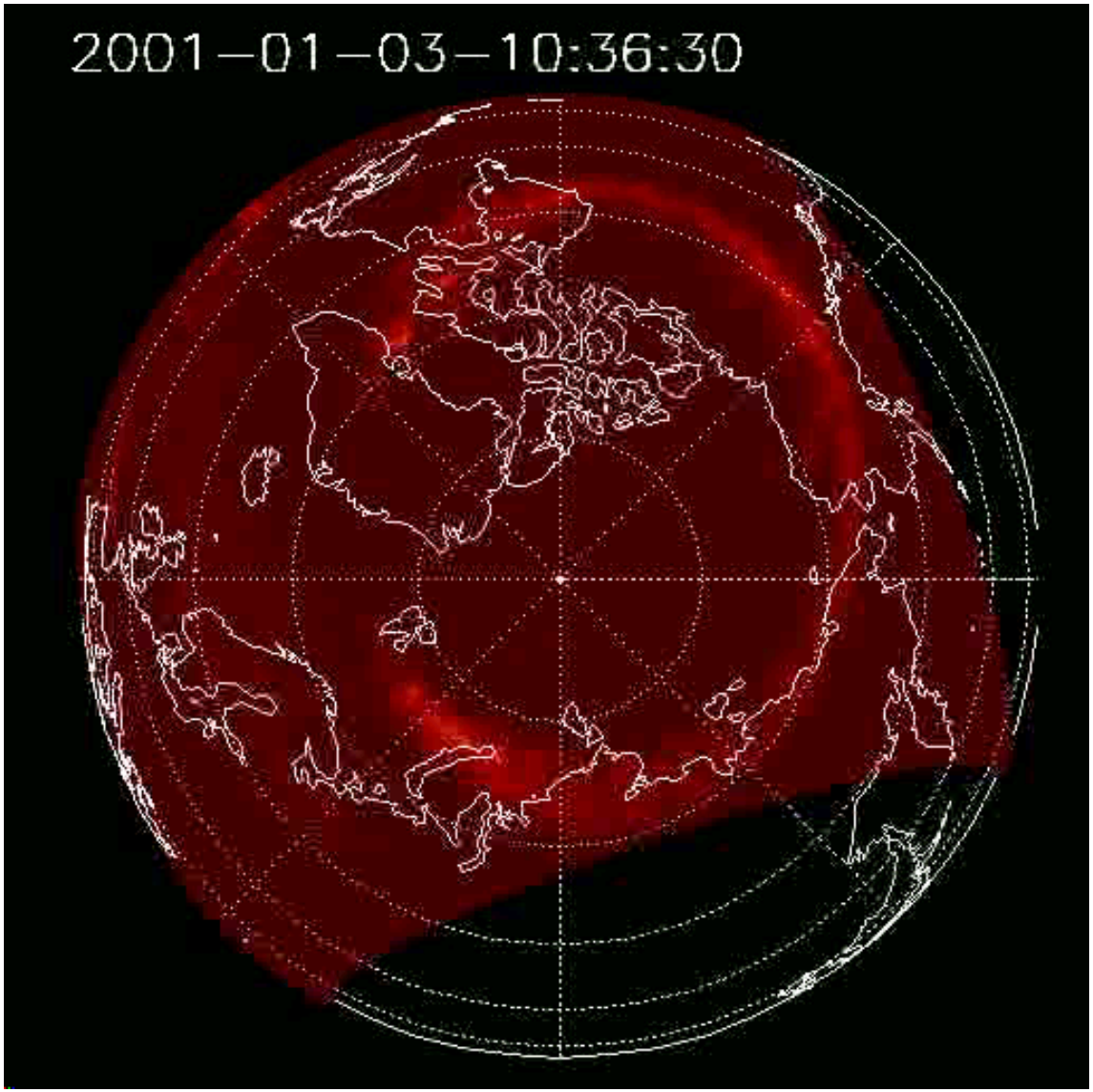
May 25, 2006
Baltimore, MD

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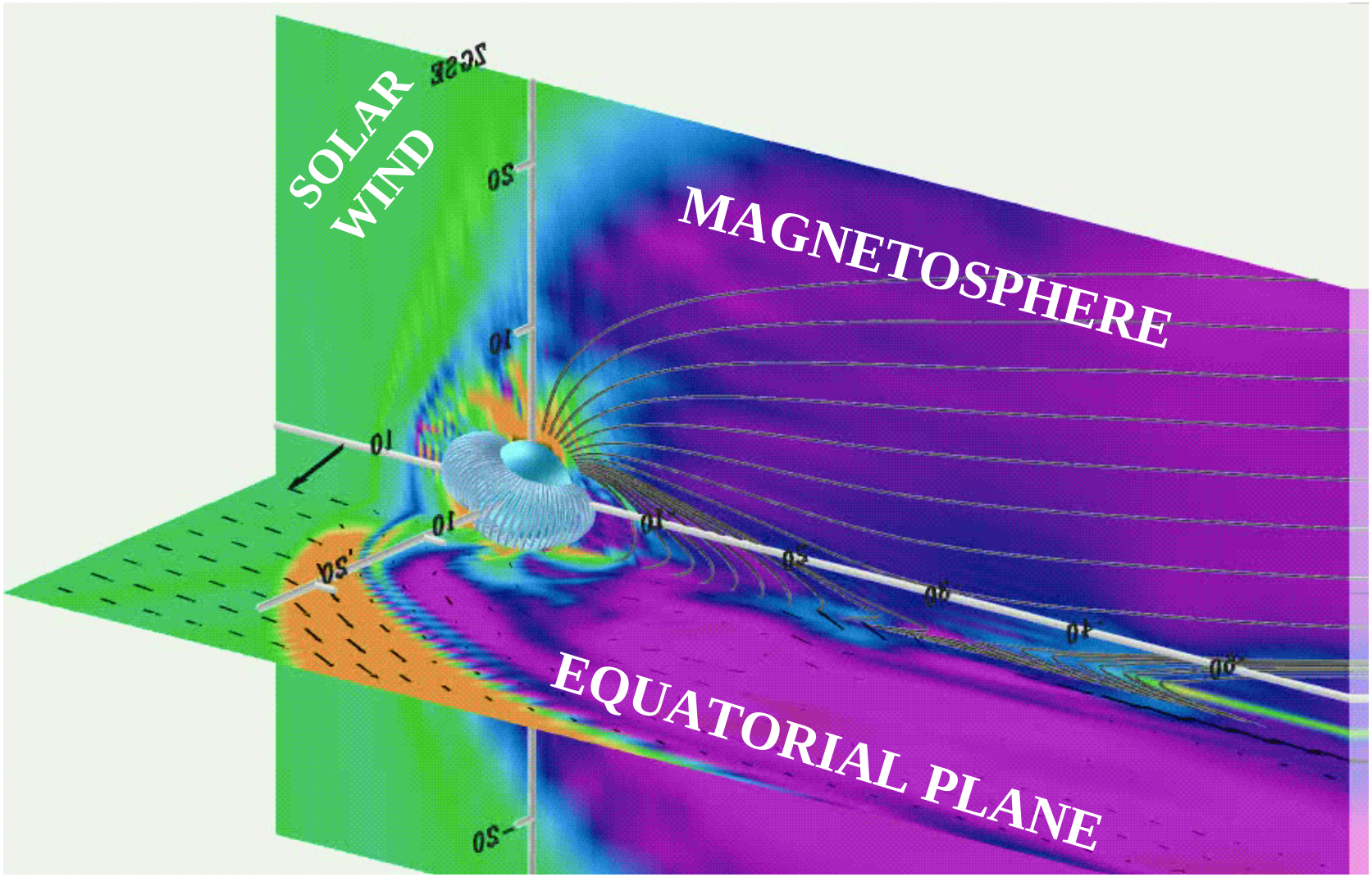
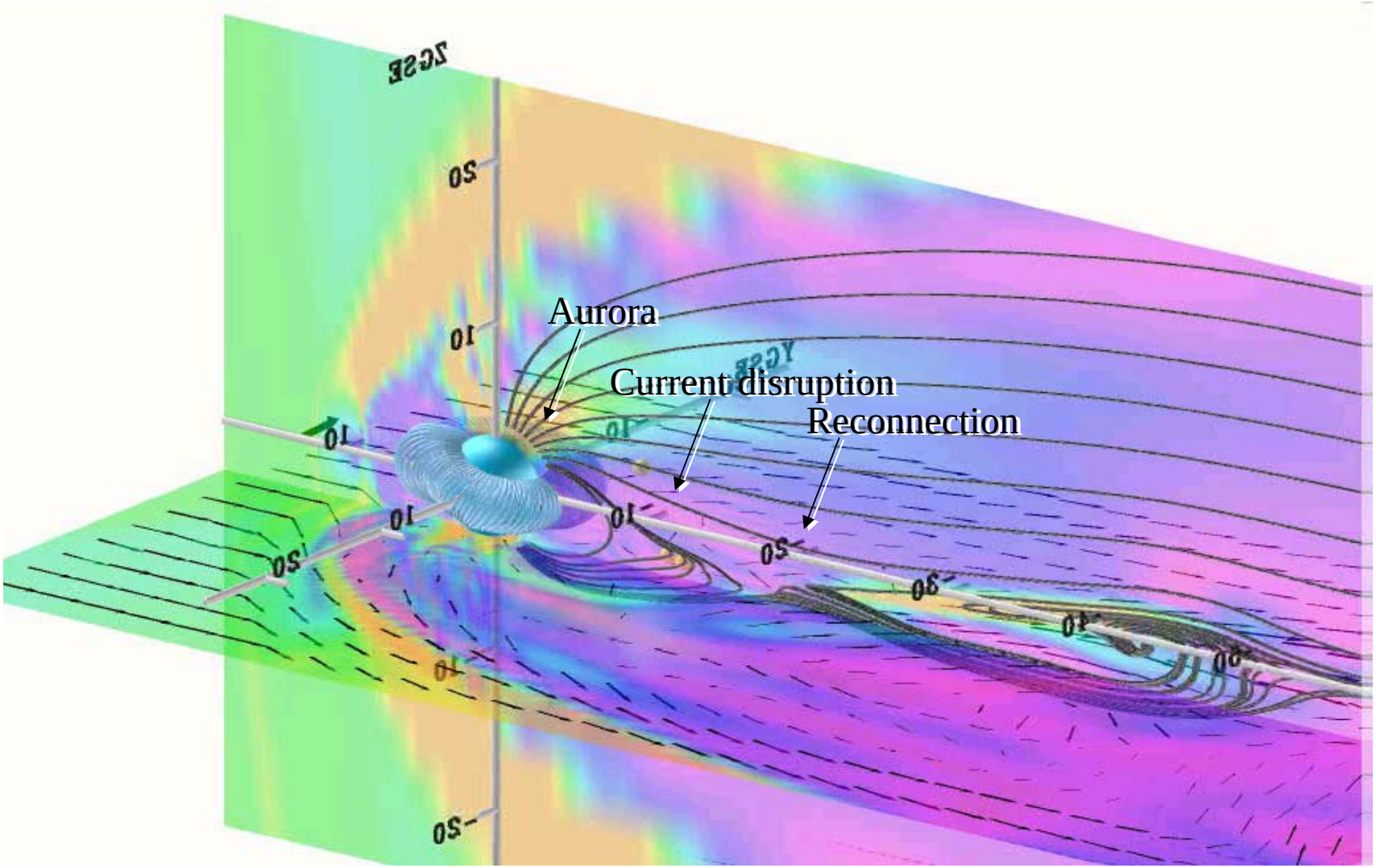
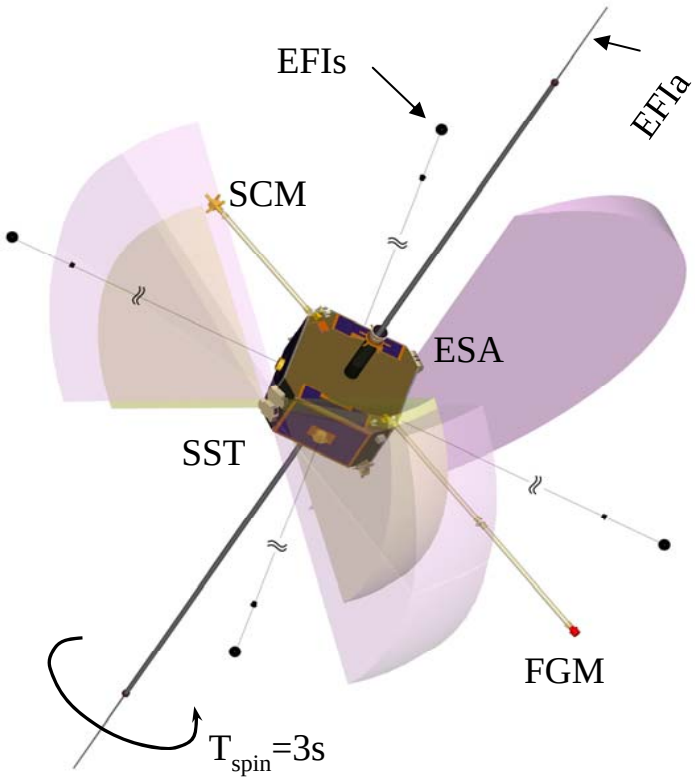
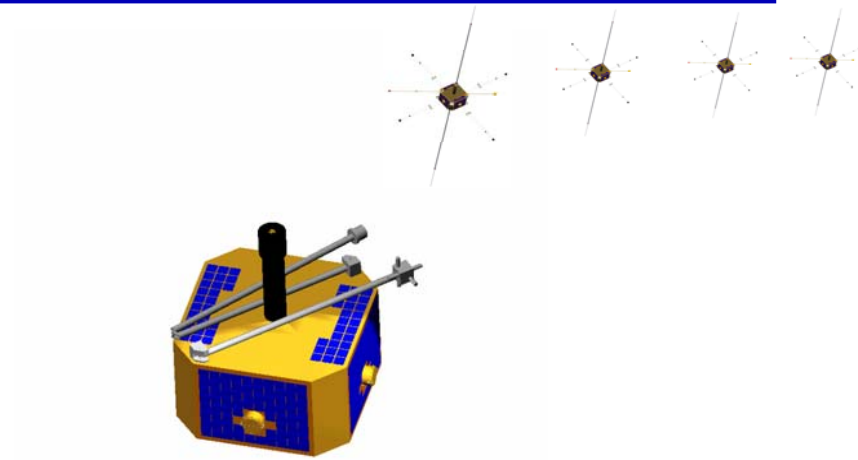
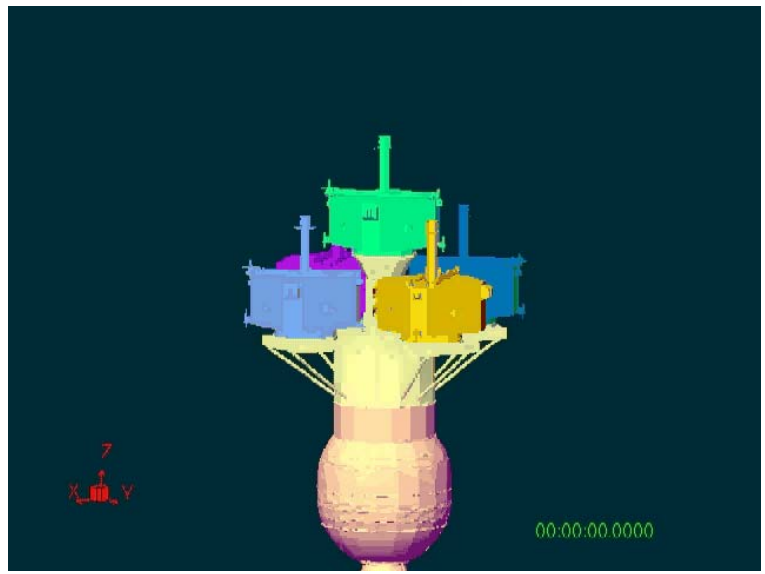

SOLAR WIND
MAGNETOSPHERE
EQUATORIAL PLANE


Aurora
Current disruption
Reconnection

Probe deployment / instrument complement







ESA	Electro-Static Analyzer	Ions and Elecctrons
SST	Solid-State Telescope	
FGM	Flux-Gate Magnetometer	Magnetic field
SCM	Search-Coil Magnetometer	
EFI	Electric Field Instrument	Electric Field

THEMIS will answer:

“How substorms operate”

– The holy grail of space physics
– A pre-requisite to understanding space weather
– Important for Heliophysics and Astrophysics