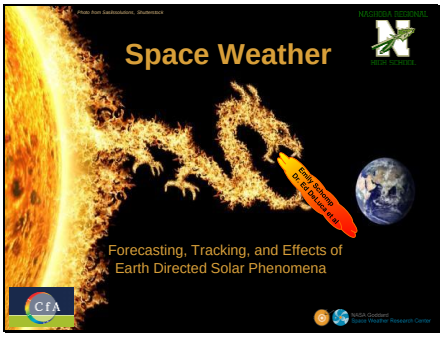
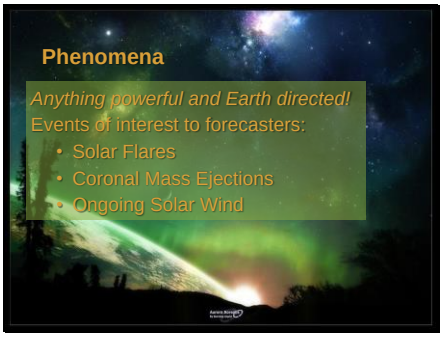
Slide 1



Slide 2

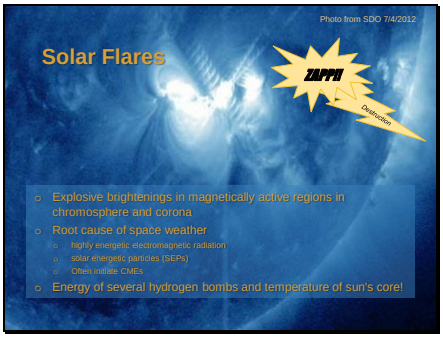
Slide 3

Slide 4

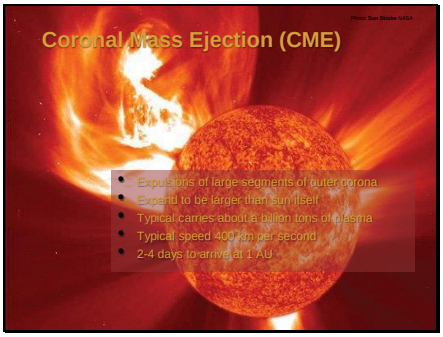


----- Meeting Notes (8/5/13 16:01) -----
connectivity separate, events of intrest to focasters

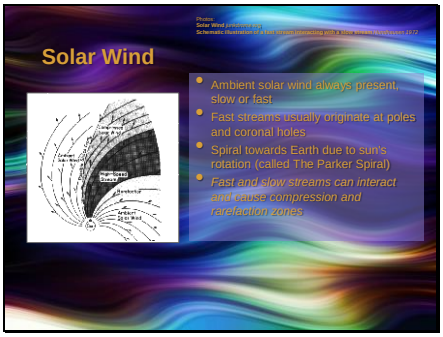
Slide 5



Slide 6



Slide 7



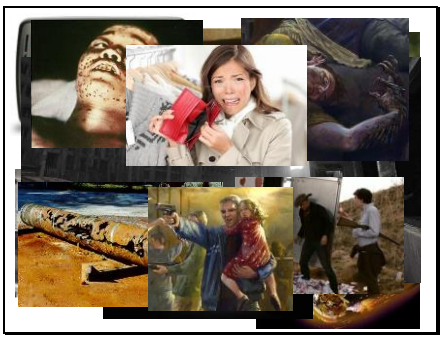
Slide 8

----- Meeting Notes (8/5/13 16:01) -----
flare optical signature on sun
CME eruption of material
stuff that errputed in interplanetary space
group ICME with magnetic structure

----- Meeting Notes (8/5/13 16:18) -----
no flux rope
ICME features

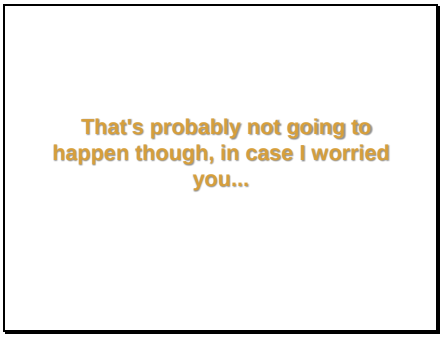
Slide 9

Slide 10



----- Meeting Notes (8/5/13 16:18) -----
no cosmic rays
no water vaper/lightning
focus on
astronaut safty
computer upsets
magnetic atitude control
ground currents

Slide 11



Slide 12

antiparallel) field lines connect to Earth and funnel through open field lines at the poles

North-directed are deflected but formation of neutral field lines in magnetotail allow entry become ionized to O^+, O_2^+, and NO^+

Near-UV spectrum produces ozone

Slide 13

Expansion of thermosphere
- increase in the density of medium craft fly through

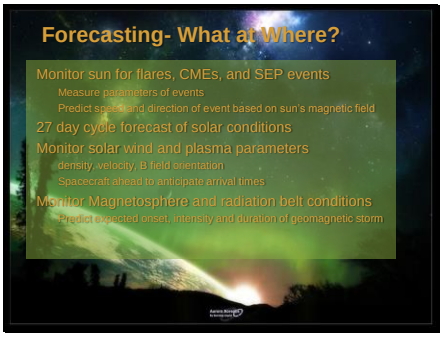
Electrostatic discharge (ESD) release of electric energy from static charge such as a spacecraft

Single Event Upsets (SEU)-charged particles interacts with atom and disrupts circuits
- Near Ultraviolet 9%
- *Far-Ultraviolet, EUV, and x-ray are negligible at 0%*

Slide 14

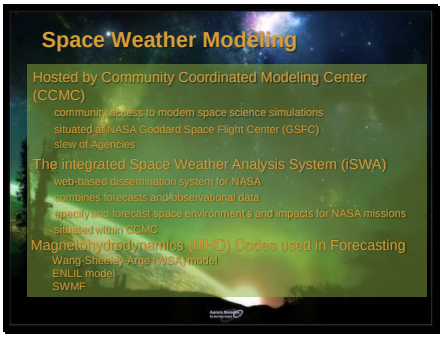
Slide 15

Slide 16



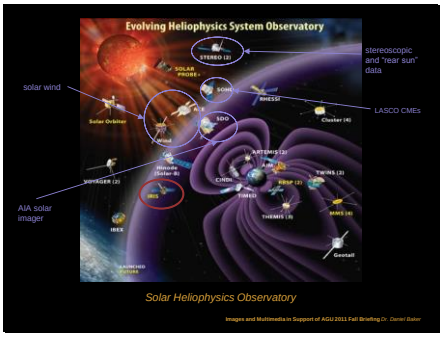
Slide 17

Slide 18



National Aeronautics and Space Administration
Air Force Materiel Command
Air Force Office of Scientific Research
Air Force Research Laboratory
Air Force Weather Agency
National Science Foundation
NOAA Space Weather Prediction Center
Office of Naval Research

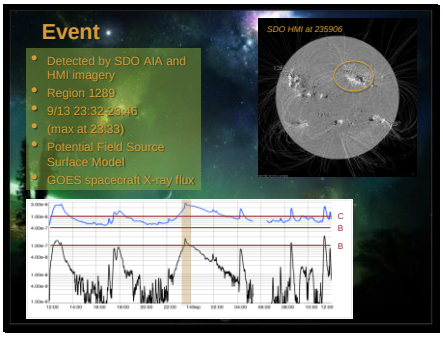
Slide 19



Solar Dynamics Observatory – Atmospheric Imaging Assembly, Helioseismic and Magnetic Imager
Advanced Composition Explorer (ACE)
Comprehensive Solar Wind Laboratory
Solar and Heliosphereic Observatory - Large Angle and Spectrometric Coronagraph

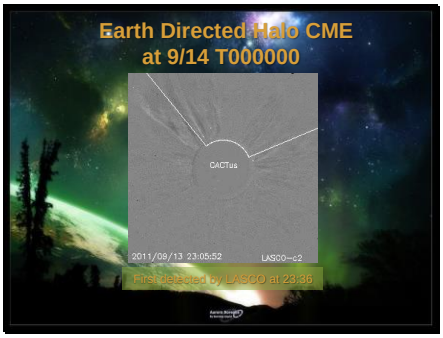
Slide 20

Slide 21



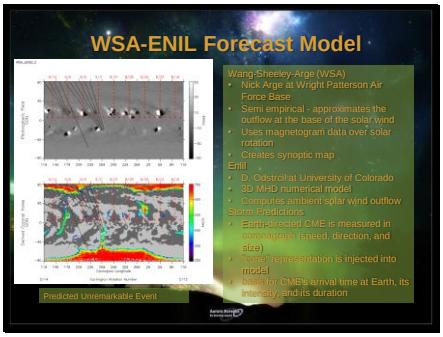
Slide 22

Slide 23



Duration: 4 hours
Principal Angle: 346° counterclockwise from N
Angular Width: 106°
Initial Velocity: 289 km/s
Type II Halo: da > 90

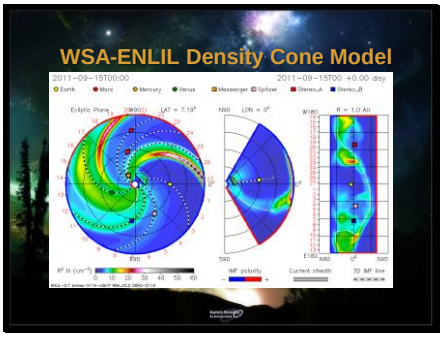
Slide 24



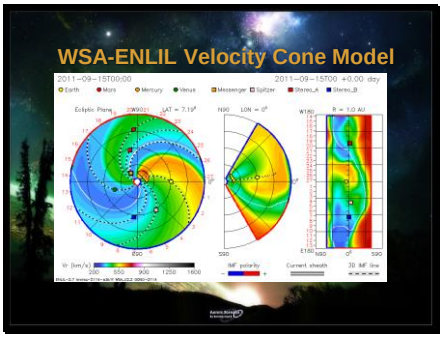
Flux-Corrected-Transport (FCT) algorithm
Structure
- Inner Boundary at 21.5 R_S
- Outer Boundary Adjustable (2 AU)
- 120° In Latitude 360° azimuth

Density: 6 cm^{-3}
30000-36000 K
Velocity: 440-460 km/s
Magnetic Field Strength
- Radial: 1.5 - 2 nT
- Lateral: -0.04 - 0.04
- Longitudinal: -1.2 - -1.7 nT

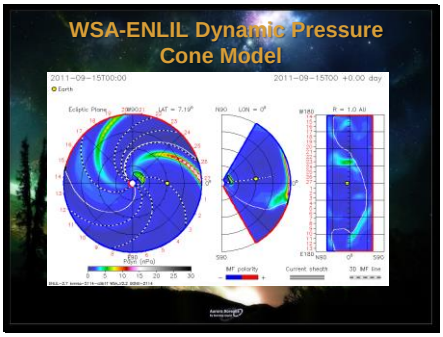
Slide 25



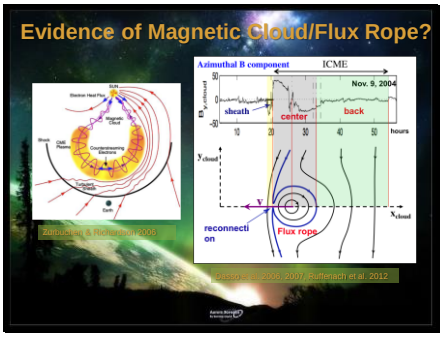
Slide 26



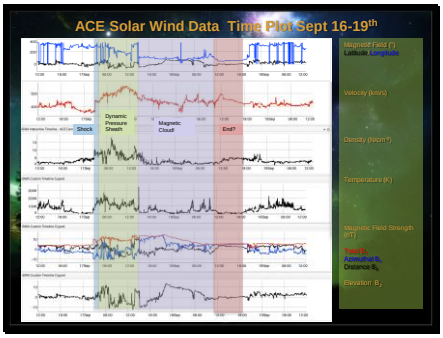
Slide 27



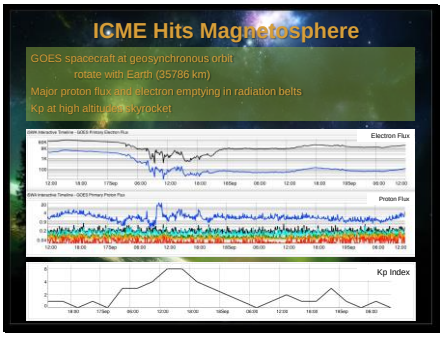
Slide 28



Slide 29

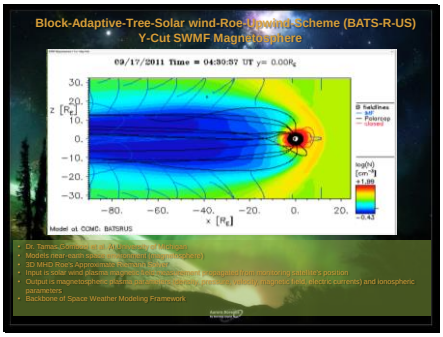


Slide 30

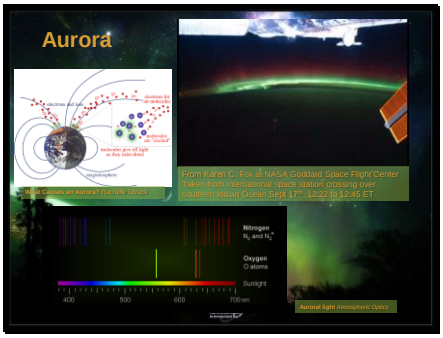


K-index quantifies disturbances in the horizontal component of earth's magnetic field with an integer in the range 0-9 with 1 being calm and 5 or more indicating a geomagnetic storm. It is derived from the maximum fluctuations of horizontal components observed on a magnetometer during a three-hour interval.

Slide 31



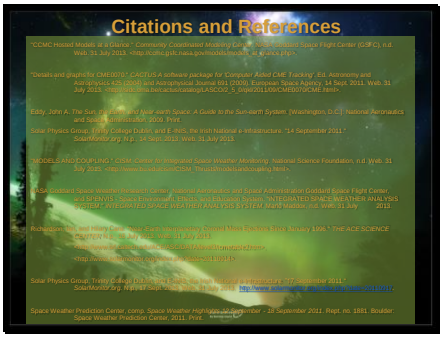
Slide 32



Slide 33

Slide 34

Slide 35



Slide 36