

# BepiColombo/MMO KAGUYA

(4.2.3 Solar wind planetary magnetosphere interaction) (4.4.1 Moon) (4.4.2 Mercury)

## MOON

### KAGUYA



2007-2008

#### Outline of KAGUYA

- Launch : September 2007 by H-IIA launch vehicle
- 15 mission instruments; for global mapping to elucidate the lunar origin and evolution.

chemical elements	X-ray Spectrometer Gamma-ray Spectrometer
mineralogy	Spectral Profiler, Multi-band Imager
surface structure	Terrain Camera Radar Sounder Laser Altimeter
surface environment	Magnetometer, Plasma Analyzer Plasma Imager Charged Particle Spectrometer Radio Science Observation
gravity field	Differential VLBI Radio Sources Relay Satellite Transponder
imaging	High Definition Television Camera

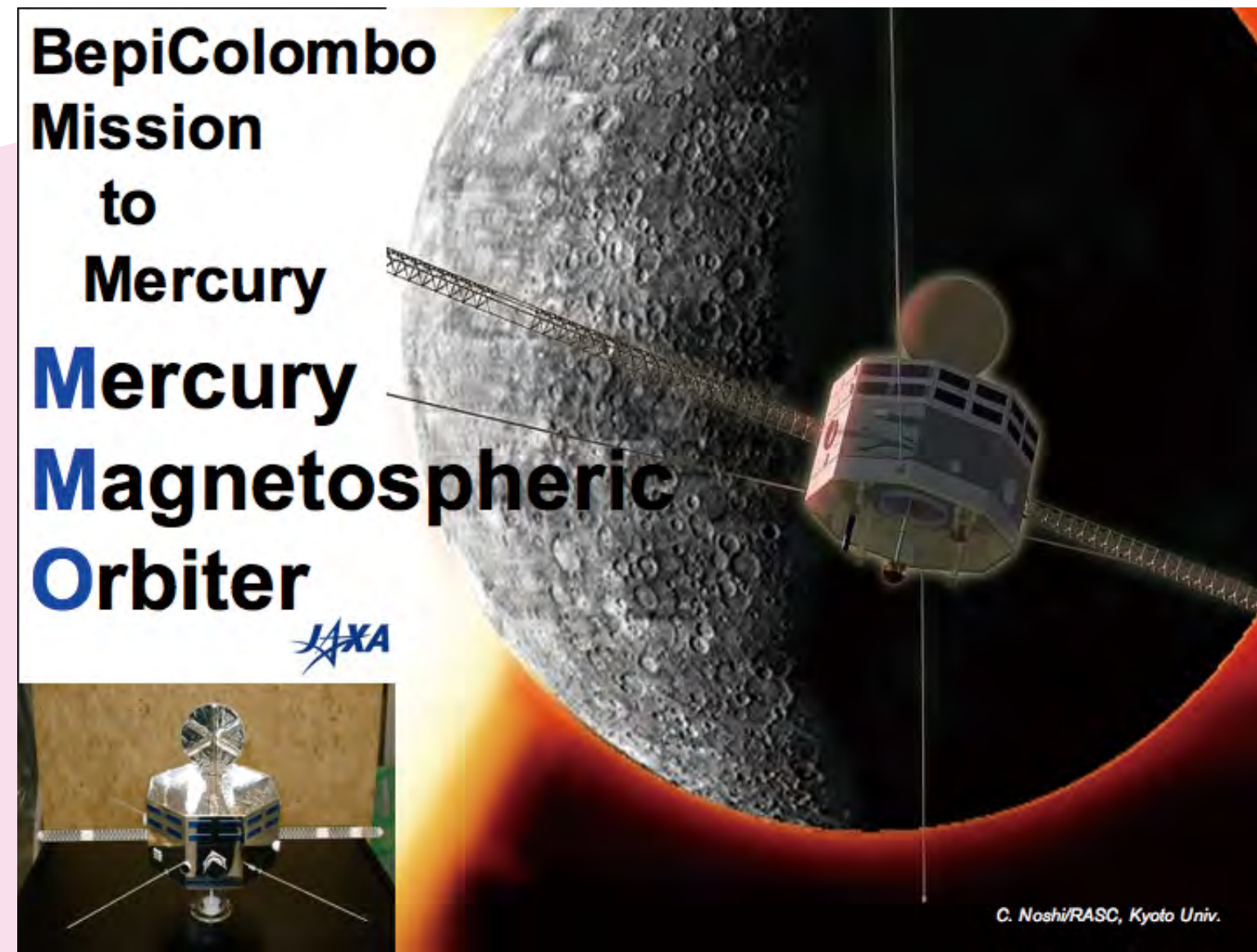
#### SELENE-MAP

#### MAGNETIC FIELD & PLASMA ENVIRONMENT

**MAGNETIC ANOMALIES**  
LMAG  
ELECTRICAL CONDUCTIVITY  
STRUCTURE OF INTERIOR

**MOON-SOLAR WIND INTERACTION**  
PACE  
MOON-EARTH'S MAGNETOSPHERE  
INTERACTION

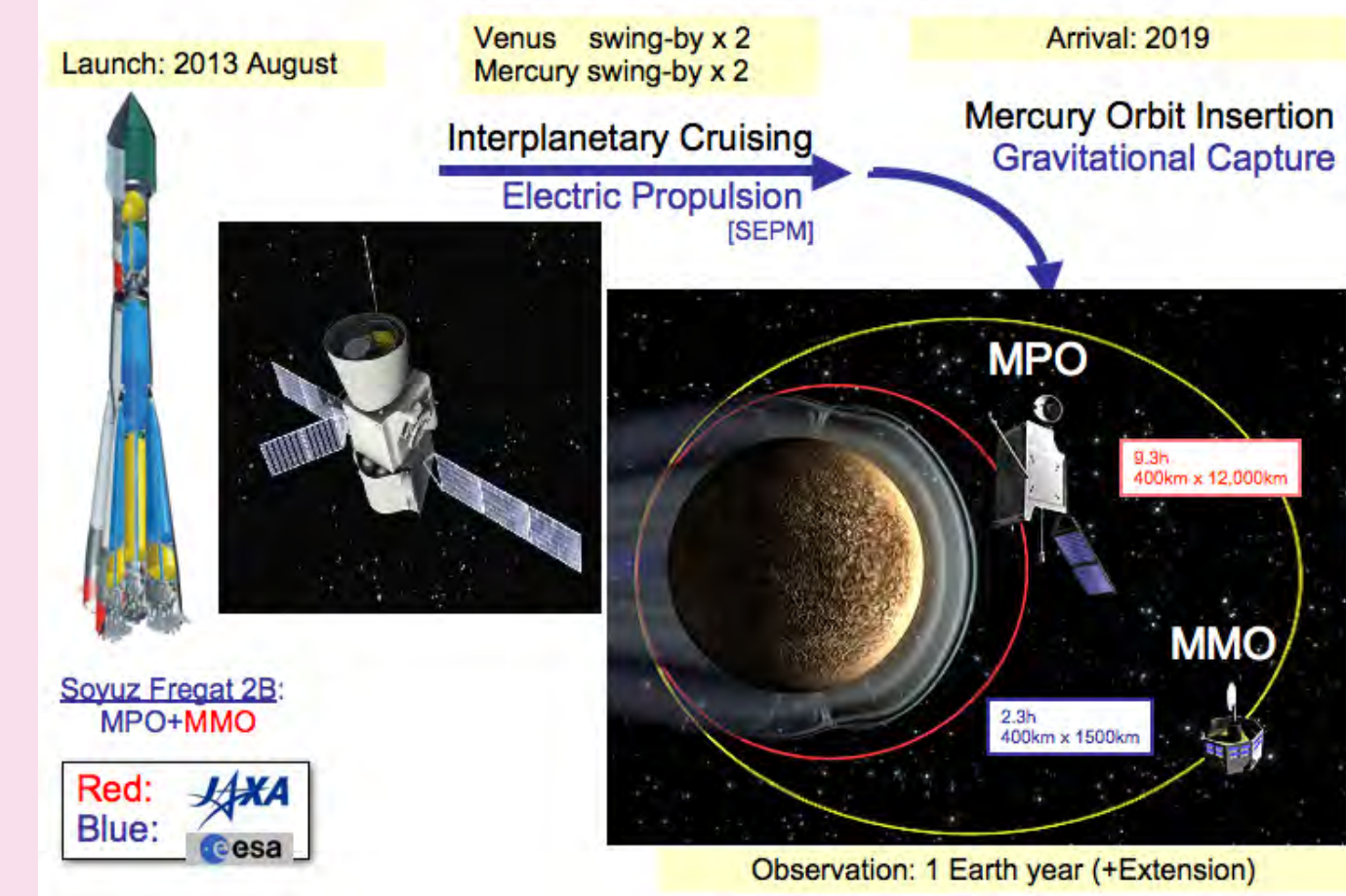
## BepiColombo/MMO



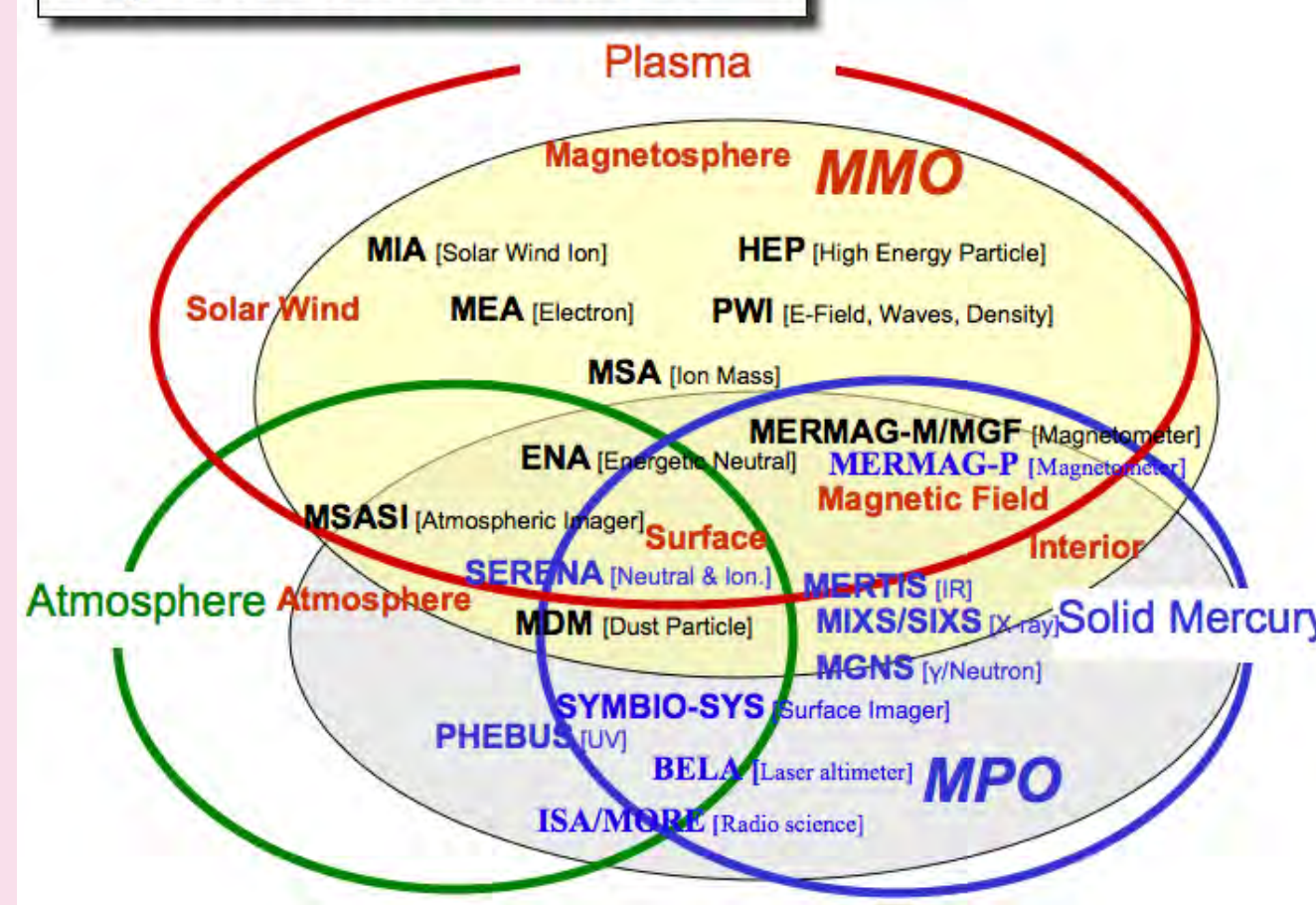
2019-2020

## MERCURY

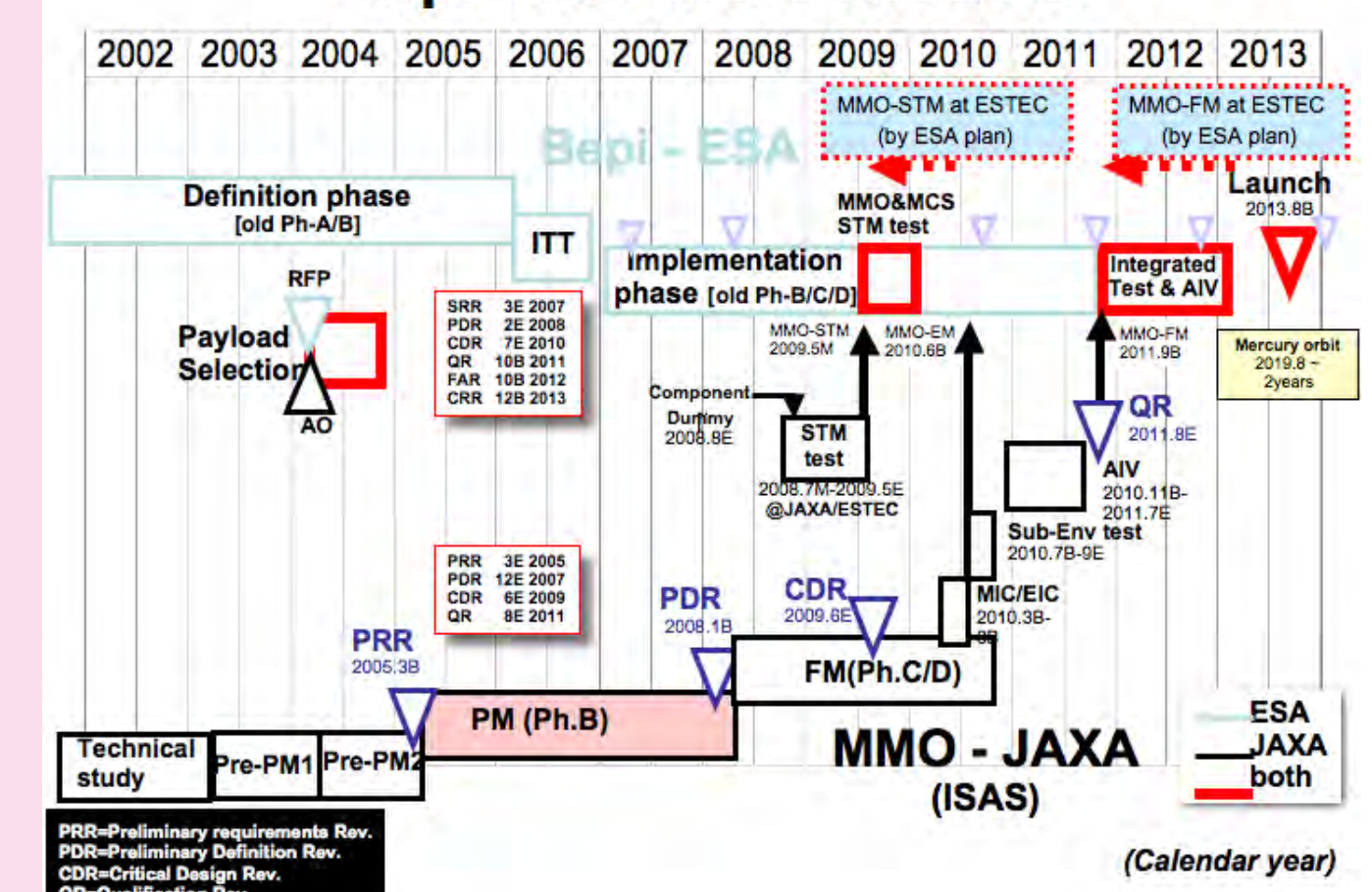
#### Mission Scenario



#### BepiColombo: Science

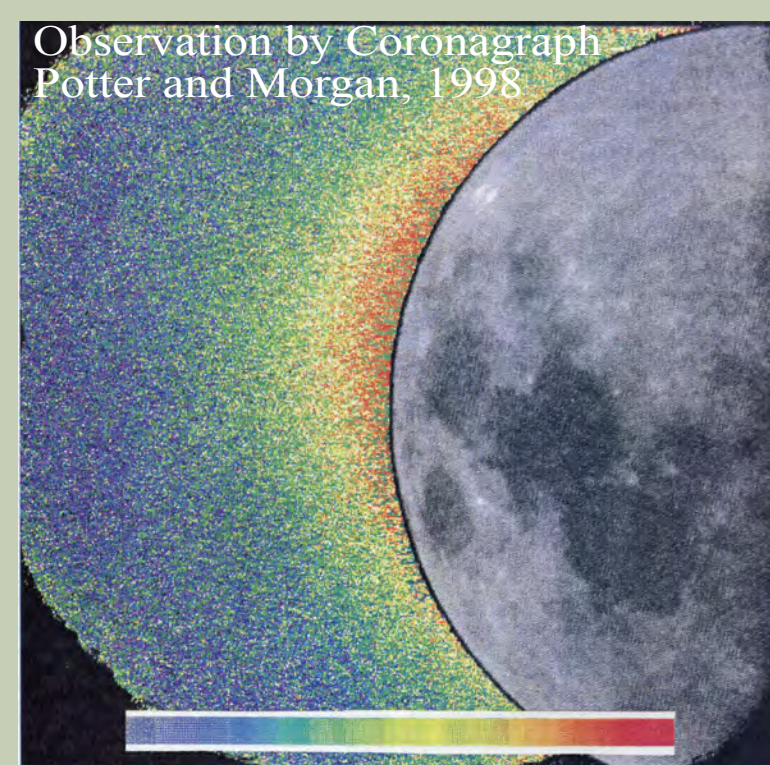


#### BepiColombo Schedule

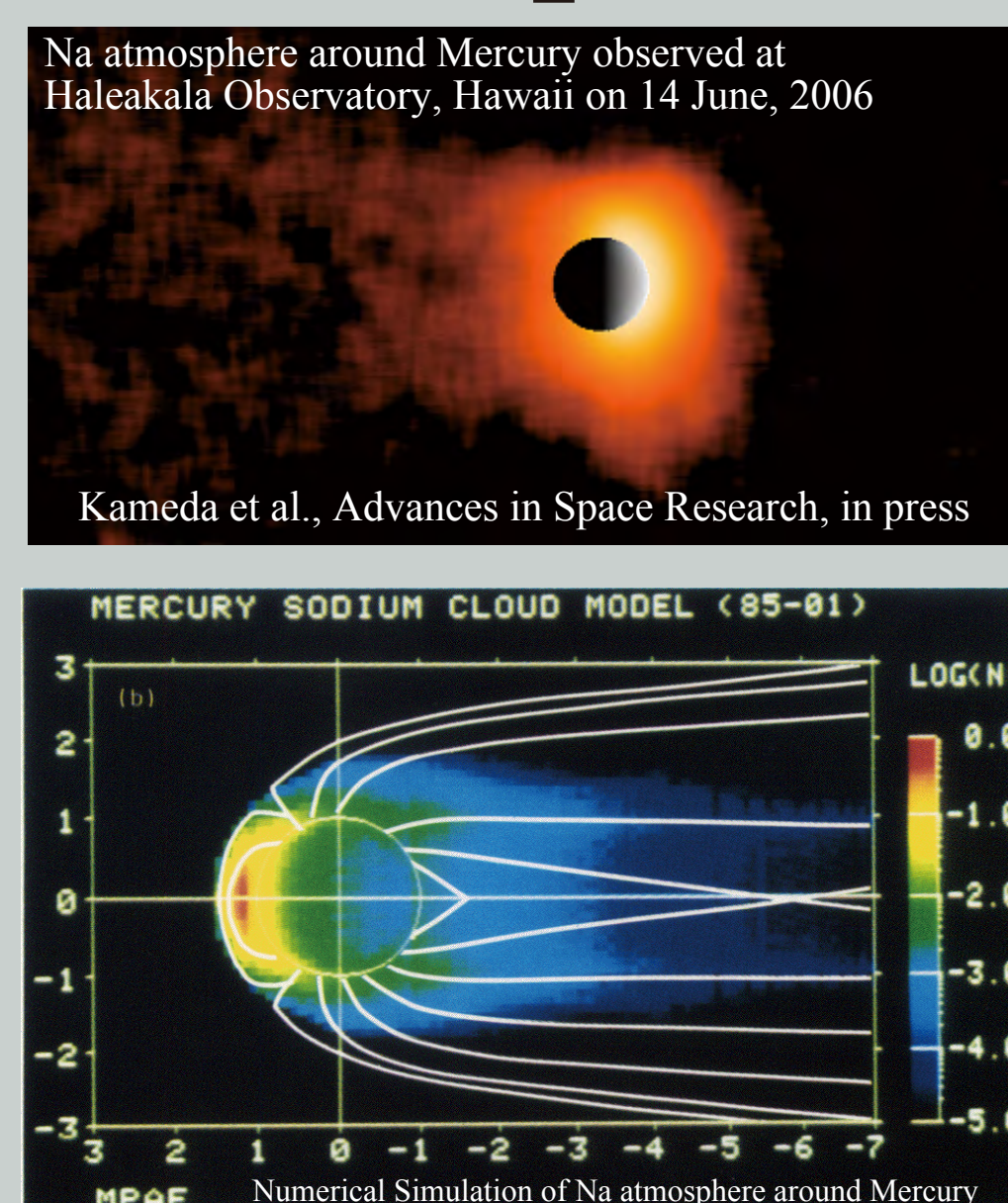


Interaction between planetary surface and solar wind / magnetosphere

Moon's sodium atmosphere



Mercury's sodium atmosphere



No Magnetic Field

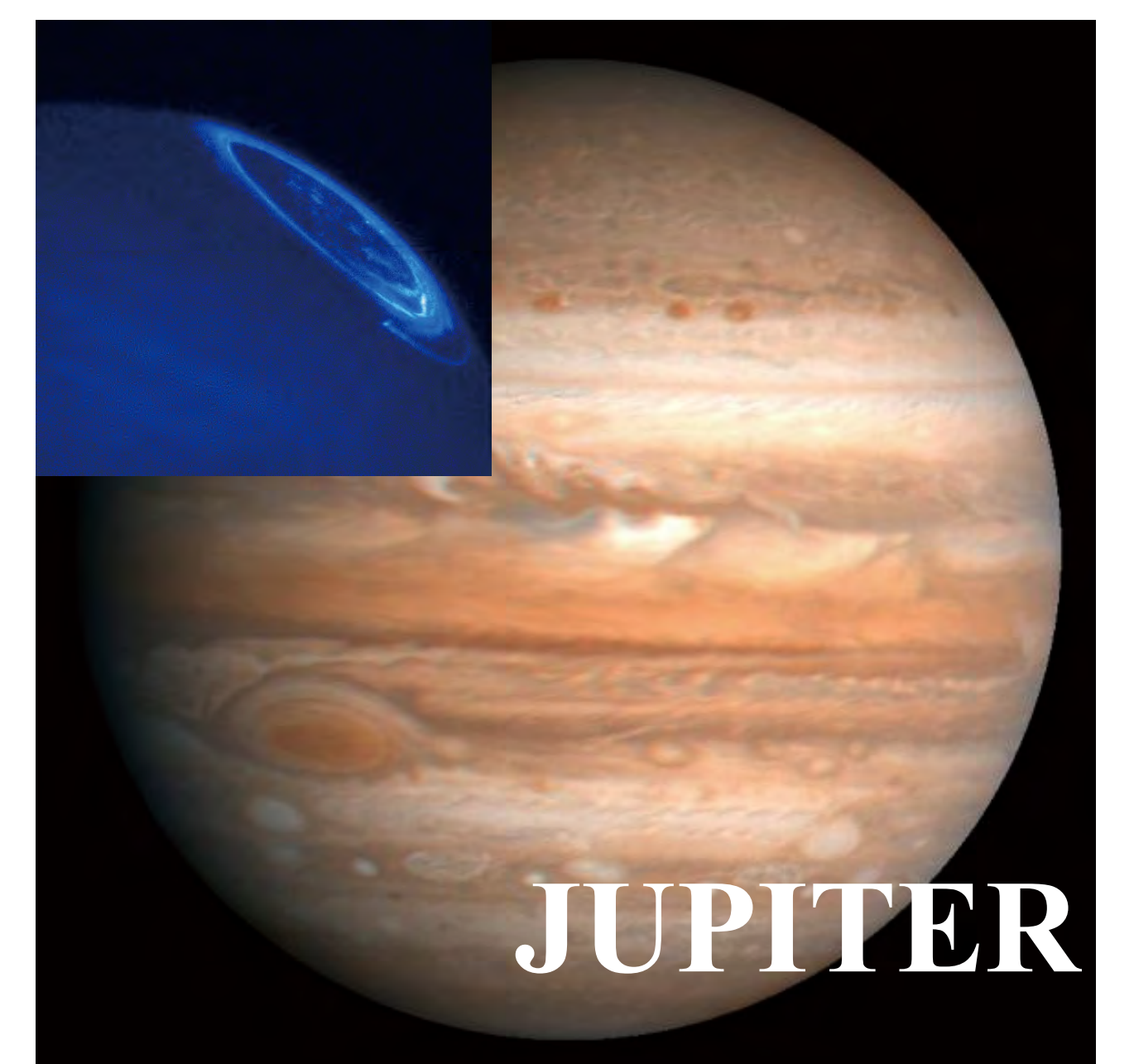
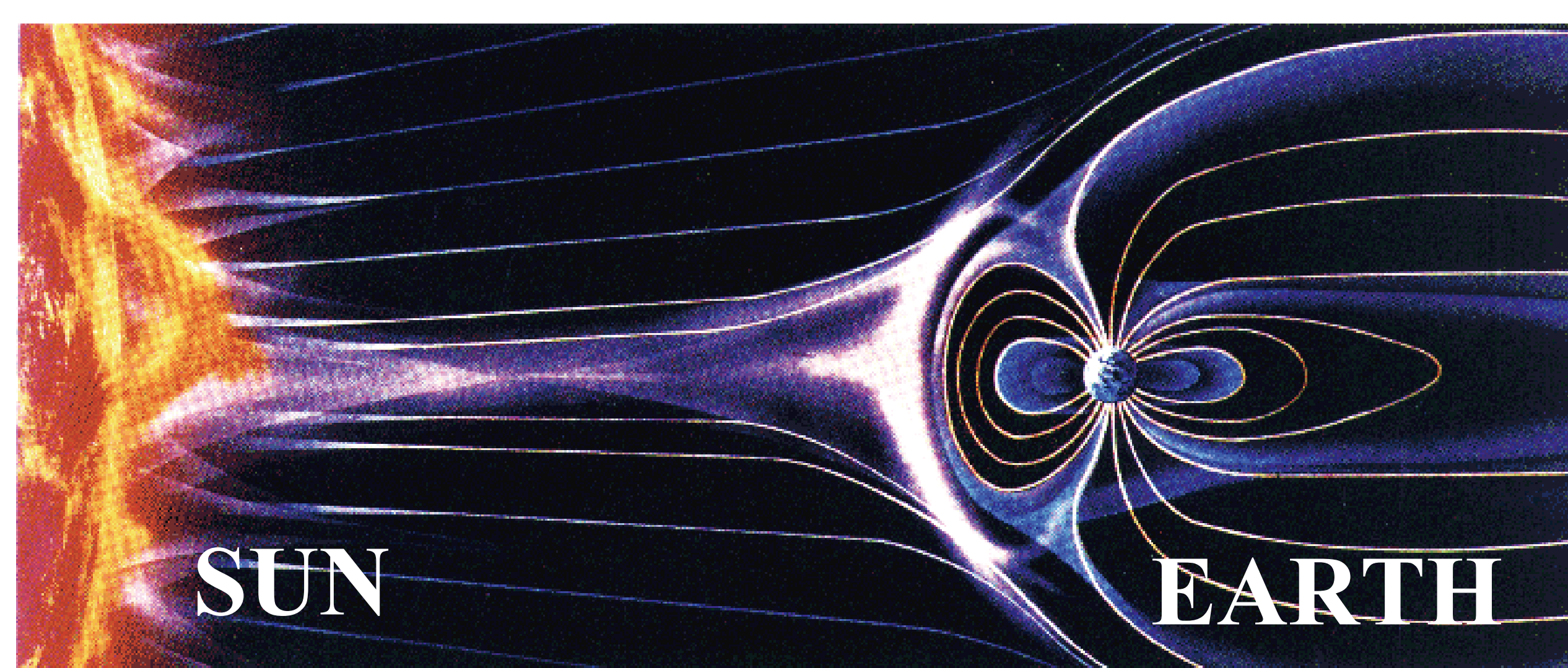
Tenuous Atmosphere

Weak Magnetic Field

Strong Magnetic Field

No protection by the magnetic field

-> Atmosphere is taken off by the solar wind.



Investigation of the Planetary Magnetospheres