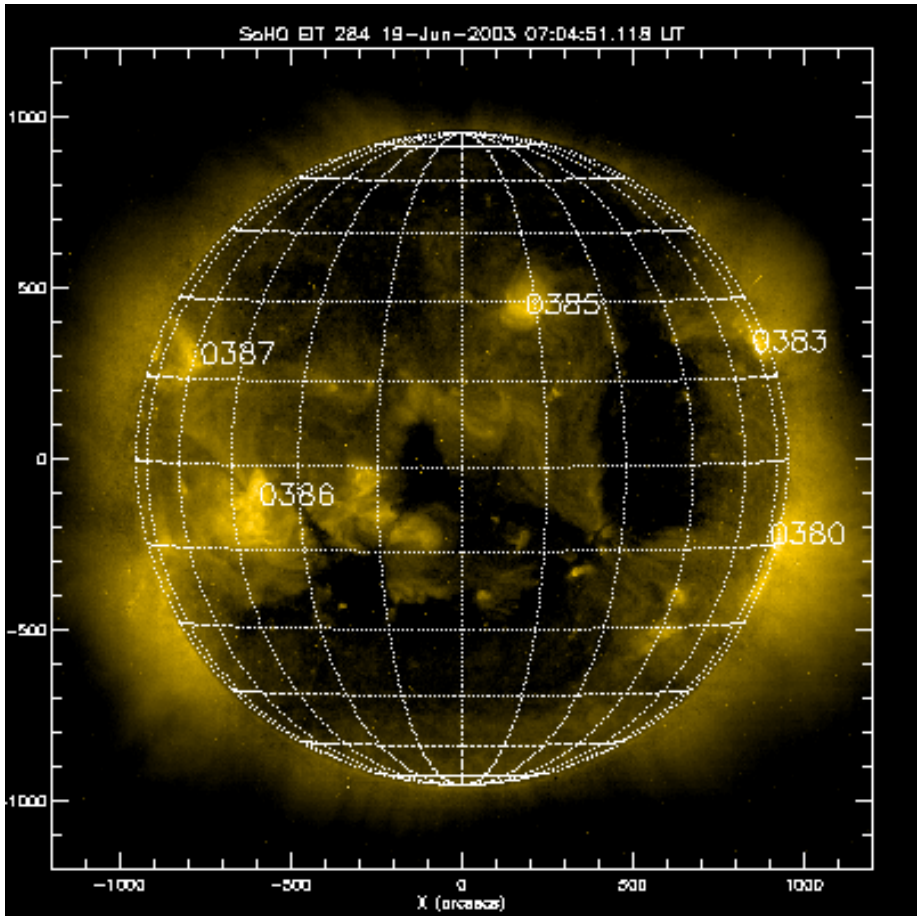
LWS MOWG

19-June-03

Agenda -

- Morning status
  - State of the system
  - State of the Theme (organization)
  - State of the Agency (status)
  - State of LWS (organization)
- Background Models
  - Model for action
  - Model for motivation
  - The Human paradigm
  - Pasteur’s Quadrant
- Goals
  - Locke’ principle
  - Government and Science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0387
0383
0386
0380
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-500
-1000
-1000
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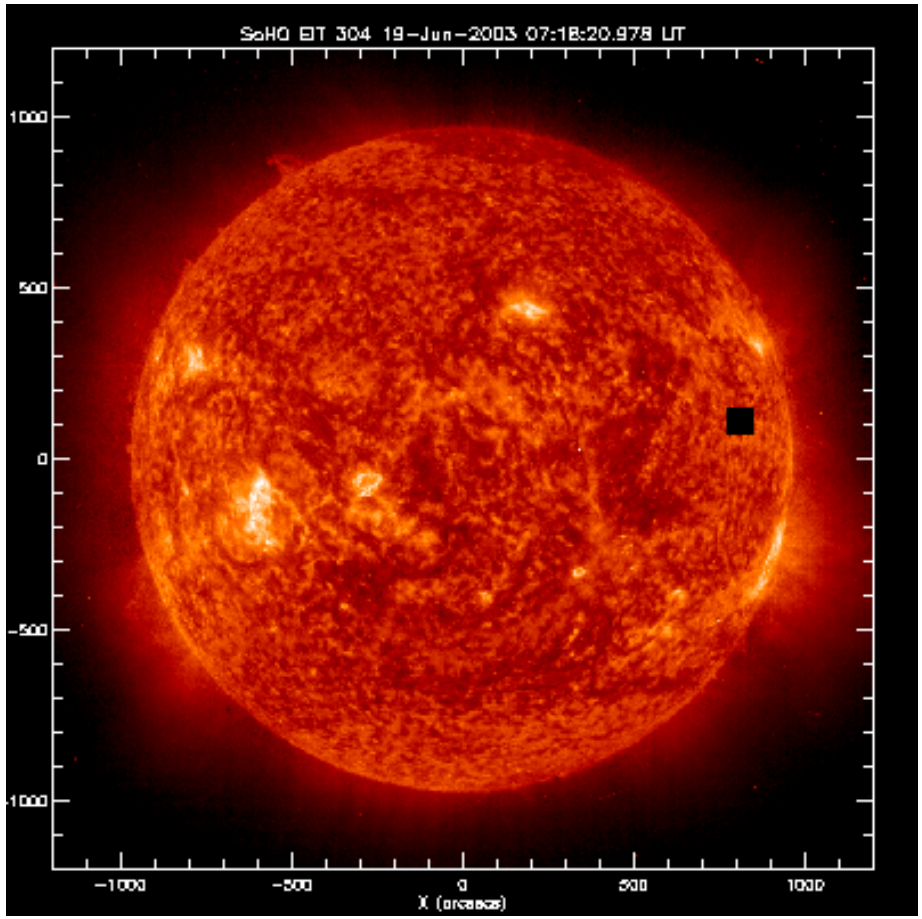
0
500
1000
X (arcsecs)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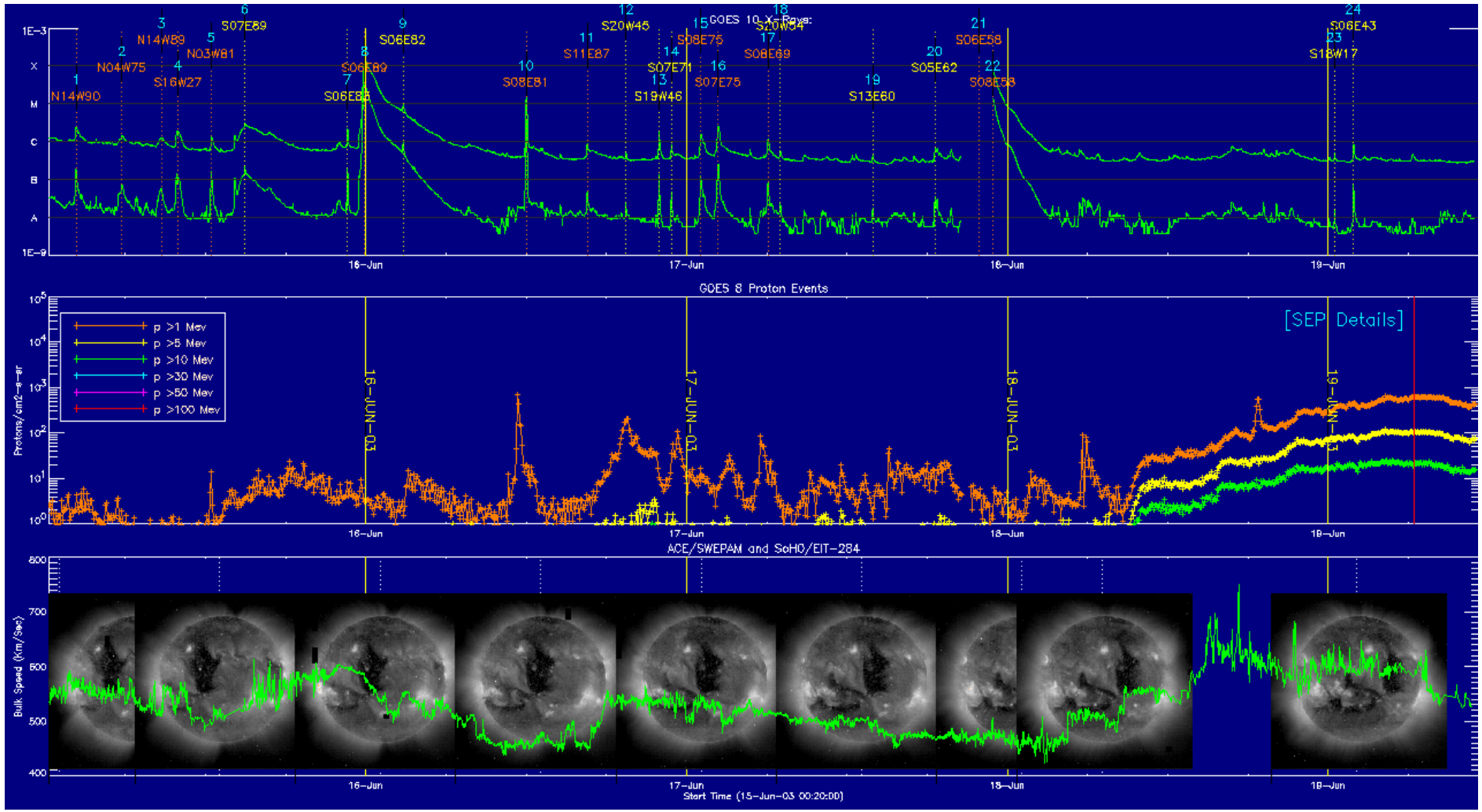
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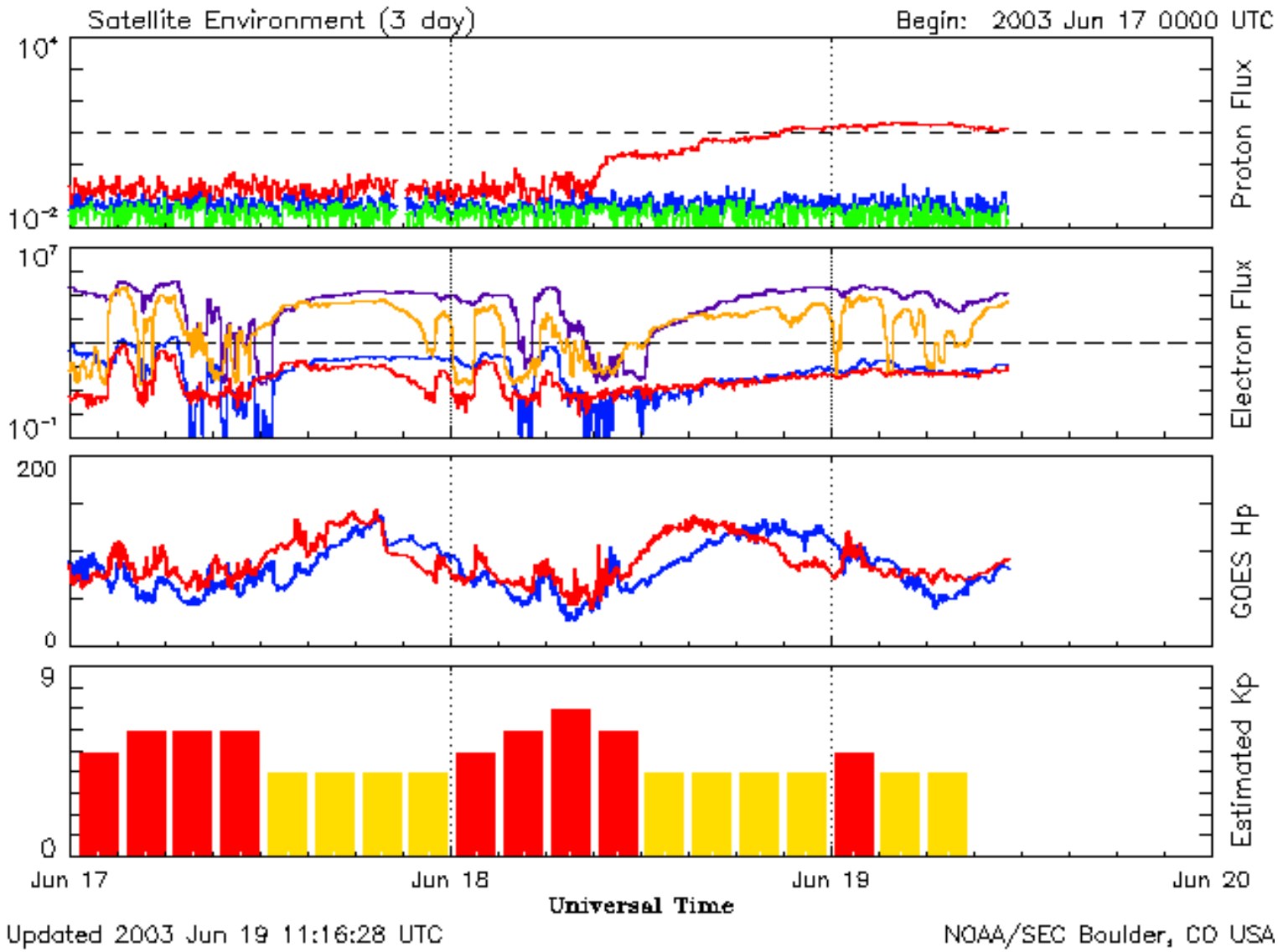
1 N14W90
2 N04W75
3 N14W89
4 S16W27
5 N03W81
6 S07E89
7 S06E88
8 S06E89
9 S06E82
10 S08E81
11 S11E87
12 S20W45
13 S19W46
14 S07E71
15 S08E75
16 S07E75
17 S08E69
18 S20W34
19 S13E60
20 S05E62
21 S06E58
22 S08E58
23 S18W17
24 S06E43
1E-3
X
M
C
B
A
1E-9
16-Jun
17-Jun
18-Jun
19-Jun
GOES 8 Proton Events
p >1 Mev
p >5 Mev
p >10 Mev
p >30 Mev
p >50 Mev
p >100 Mev
Protons/cm2-s-sr
[SEP Details]
16-JUN-03
17-JUN-03
18-JUN-03
19-JUN-03
ACE/SWEPAM and SoHO/EIT-284
Bulk Speed (Km/Sec)
Start Time (15-Jun-03 00:20:00)


Satellite Environment (3 day)
Begin: 2003 Jun 17 0000 UTC
10^4
10^{-2}
Proton Flux
10^7
10^{-1}
Electron Flux
200
0
GOES Hp
9
0
Estimated Kp
Jun 17
Jun 18
Jun 19
Jun 20
Universal Time
Updated 2003 Jun 19 11:16:28 UTC
NOAA/SEC Boulder, CO USA

Office of Space Science

Draft Agency Strategic Plan Components

•Goal 1: Understand the Earth system and apply Earth system science to improve production of climate, weather and natural hazards

•Goal 5: Explore the solar system and the universe beyond , understand the origin and evolution of life, and search for evidence of life elsewhere.

“ The Sun-Earth Connection theme investigates the structure and behavior of our Sun . . .and how it affects the planets and the space between them . . .”

SEC Division Scientific Objectives

SEC Strategic Goal: *Understand how the Sun, heliosphere, and the planets are connected in a single system.*

- **Explore** the fundamental physical processes of plasma systems in the universe

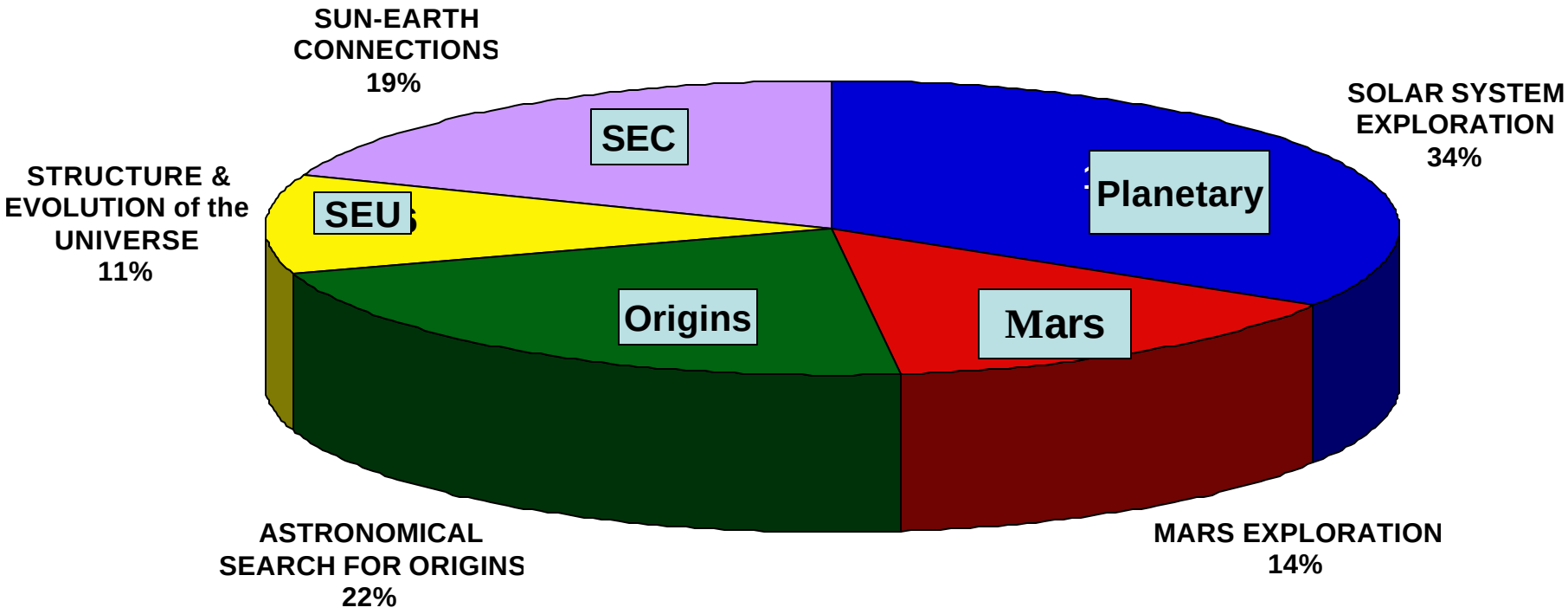
- **Understand** the changing flow of energy & matter throughout the sun, heliosphere, and planetary environments

- **Define** the origins and societal impacts of variability in the Sun-Earth Connection

SEC Operating Missions

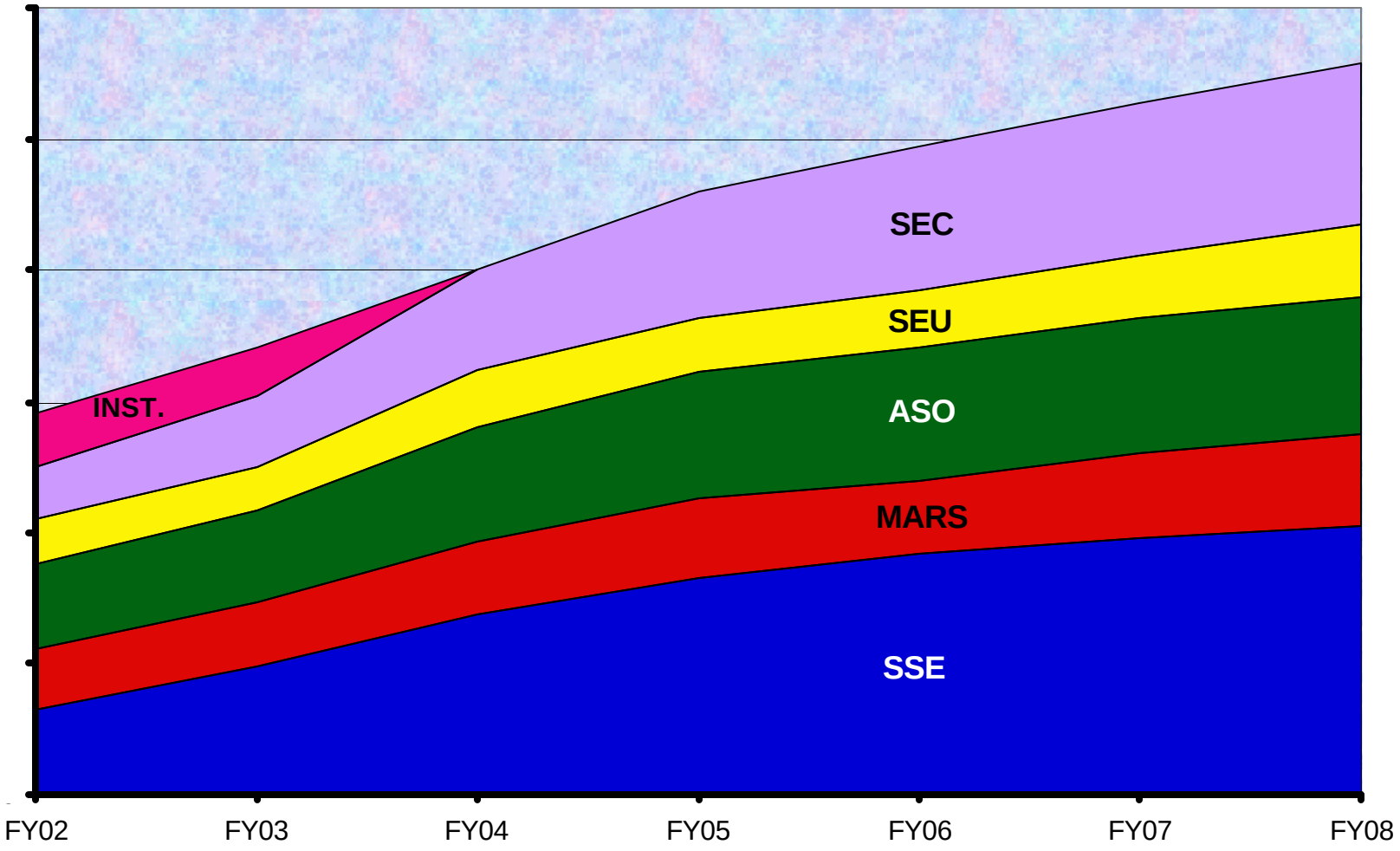
- Solar and Heliospheric Physics
  - Distant Heliospheric missions
    - **VOYAGER, ULYSSES**
  - L1 *in situ* sensing missions
    - **ACE, SOHO (solar wind instruments), and WIND (2003)**
  - Solar remote sensing missions
    - **SOHO, TRACE, and RHESSI**
- Geospace Physics
  - Magnetospheric/Ionospheric missions
    - **CLUSTER, FAST, GEOTAIL, IMAGE, POLAR, and SAMPEX**
  - Earth's Mesosphere
    - **TIMED**

Full-Cost FY04 President's Budget

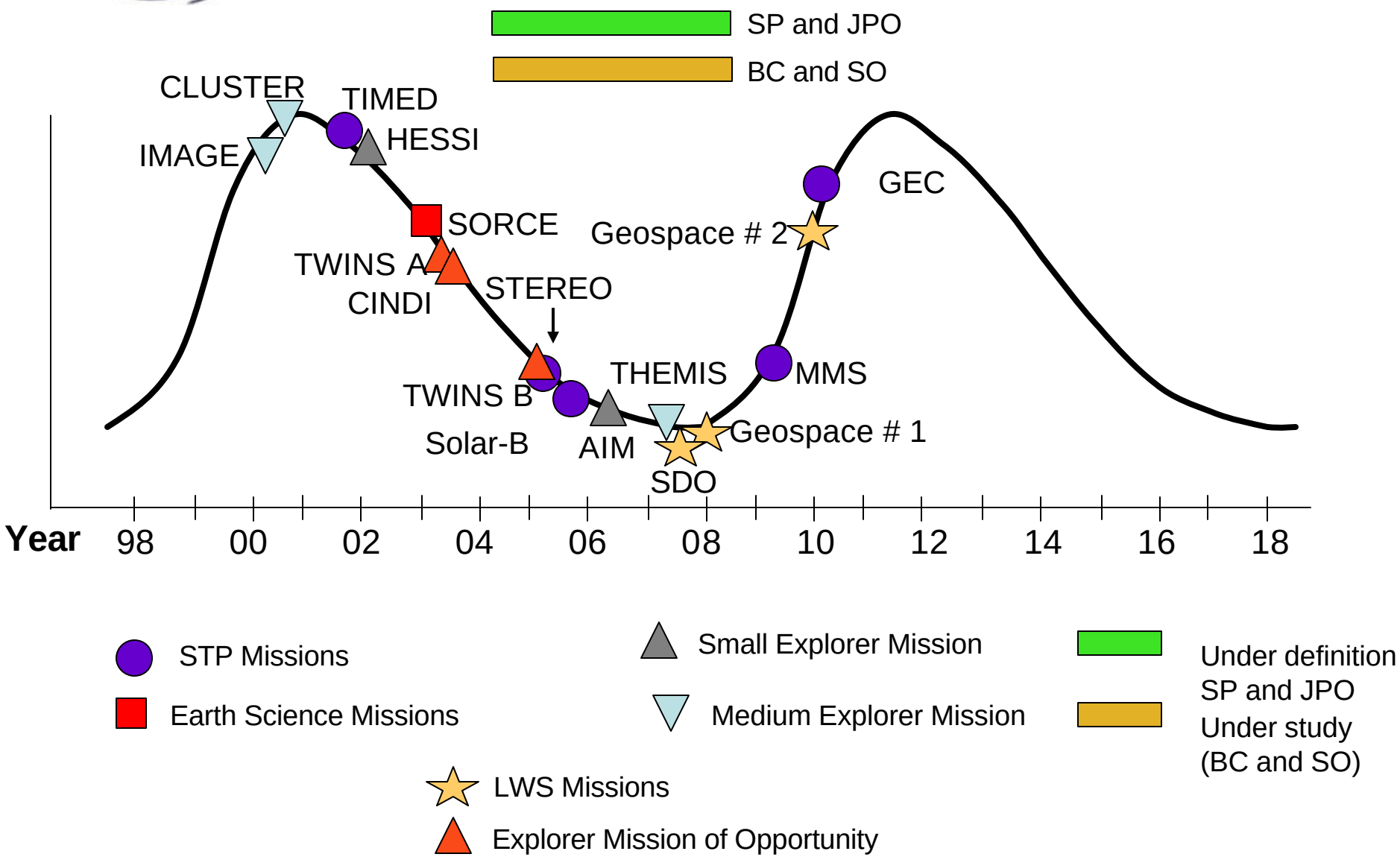


FY04 Full-Cost President's Budget

(FY02 & FY03 are BAU)

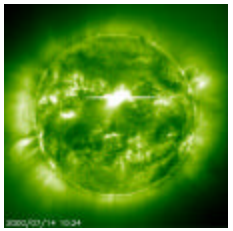


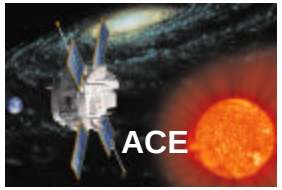
SEC Strategic Plan

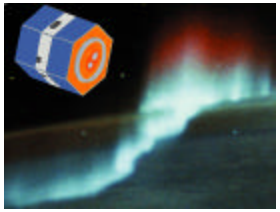


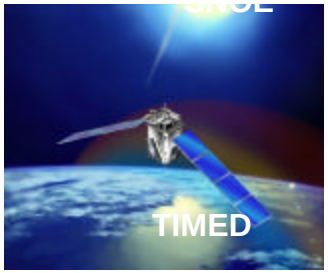
- Issues and Concerns
  - Trends ($, Launcher’s,content vs cost,
  - requirements creep, management style, risk issues)
  - SAT Report
  - TRTDT
  - CCMC
  - Sun-Climate WG
  - SWx
  - Space Weather Network
  - SET
- Forward motion
  - Program plan
  - Recognition of opportunity
  - Communication
  - Advocacy
  - Balance

Studying the Solar-Terrestrial Particle Chain **1994 vs. 2004**









Solar Source

Solar Wind Drivers

Seed Population

Precipitation And Loss

Atmospheric & Ionospheric Coupling

Situation—

1994:

No continuous solar images

2004:

Continuous views of sun in UV, x-rays, visible wavelengths (SOHO, NOAA/SXI, RHESSI, etc.)

Lack of continuous solar wind measurements

Continuous data from ACE

Limited measure of outer magnetospheric particle populations

Excellent data on plasma sheet sources of seed population (CLUSTER, GEOTAIL, POLAR, etc.)

Some available data on precipitation (SAMPEX, UARS)

SAMPEX configuration, NOAA/POES, POLAR/PIXIE

Little knowledge of atmospheric impacts (only UARS/HALOE)

improved situation with SNOE and TIMED

Anticipated

- Committee has some information
- Committee has sense of direction/purpose
- HQ has a technical/scientific consultant that is community based
- Next Meeting
- Findings - if appropriate

- Are we too narrow? - Code Y or Code U desirable/necessary participation at some point?