INTRODUCTION

to the

UNIVERSITY OF CALIFORNIA

at BERKELEY

SPACE SCIENCES LABORATORY

SPACE SCIENCES LABORATORY

Background

- Initiated in 1958 by Drs. Teller and Seaborg
- Multidisciplinary organization
- Connecting campus research to space efforts
- Facility opened in 1966
- New facilities added in 1998

Research Efforts Involving

- Balloons
- Sounding rockets
- Satellite Instruments & Science Complements
- Complete Satellites
- Mission and Science Operations
- Ground Station Operations

Agencies Involved

- NASA, NSF, NSBF, USAF, DOE
- ESA, ISAS, IKI, PSI, etc

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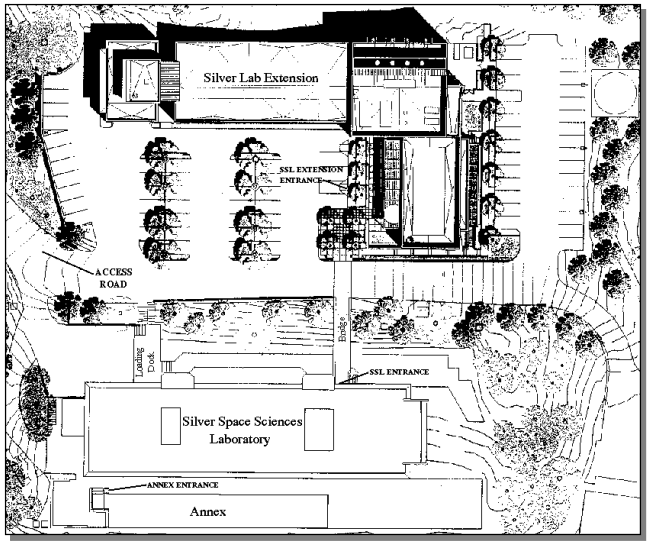

Facilities

- 55000 sq. ft. Office and Laboratory Space
- Employing 420 Scientists, Engineers, Staff
- On-Site Machine Shop
- Clean Room Facilities to Class 100
- Thermal Vacuum Facilities up to 3m diameter
- Spacecraft Integration Facility
- 4-story High Bay
- Radiation Sources Laboratory
- Mission Operations Centers
- Science Operations Centers
- 11 Meter S-Band Satellite Antenna
- Secure High Speed Communications to NASA

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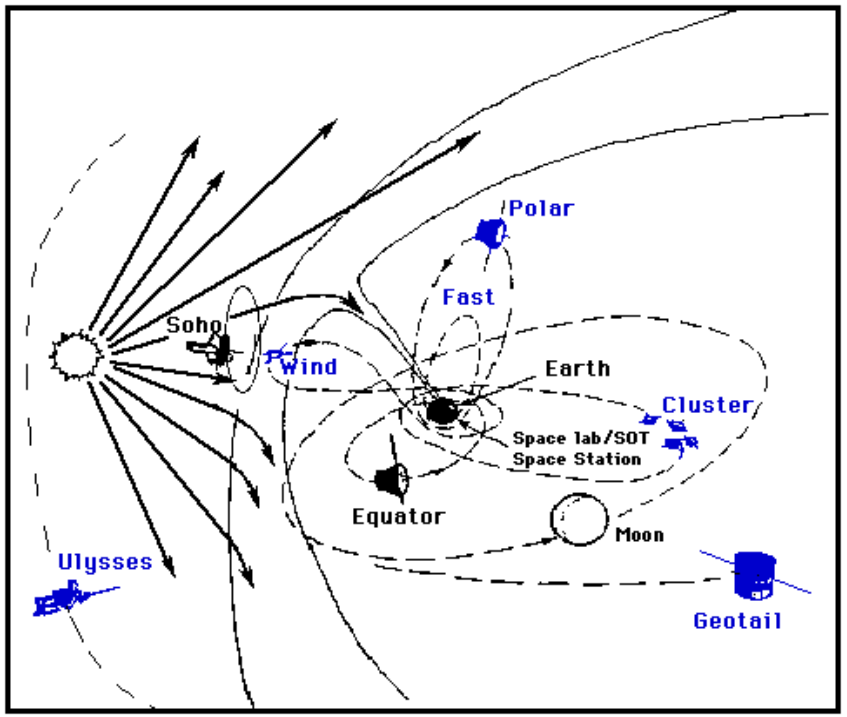
FLIGHT INSTRUMENTS (Recent)

- CRRES LP
- Polar EFI
- Wind 3DP
- Cluster I EFW, CIS
- Cluster II EFW, CIS
- Image FUV, WIC
- Mars Observer ER
- Mars Global Surveyor ER
- Ulysses LAN
- Lunar Prospector ER
- FUSE
- SOHO UVCS & SUMER
- GALEX
- COS
- ISUAL
- CHIPS



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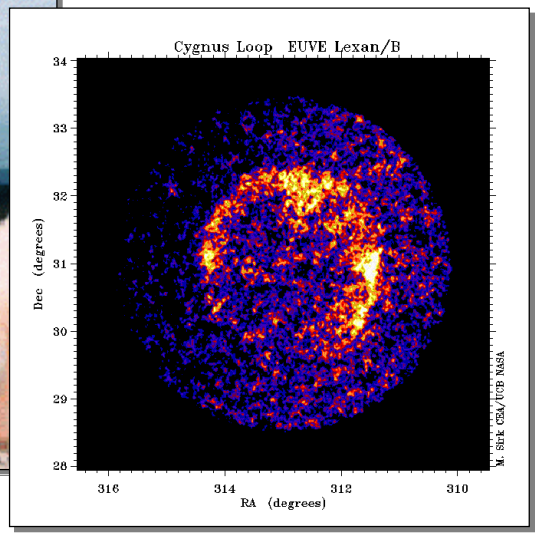

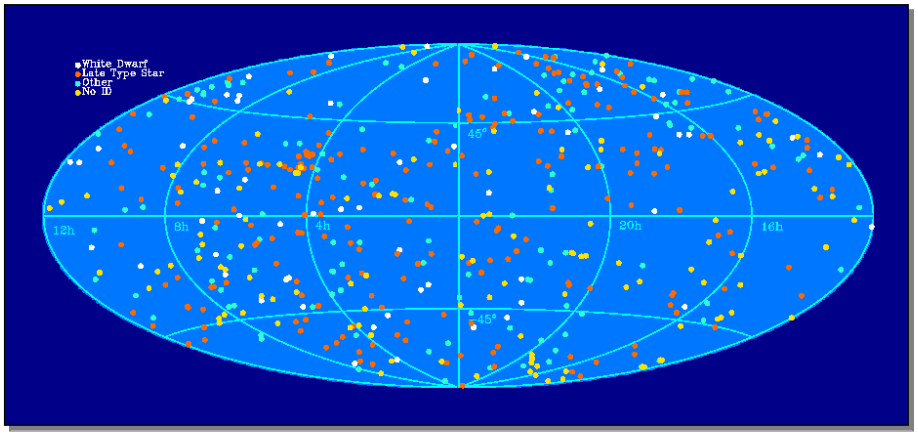

Extreme Ultra Violet Explorer (EUVE)

- Project Management
- Science Package
  - Telescopes
  - Electronics
- Mission Operations
- Science Operations

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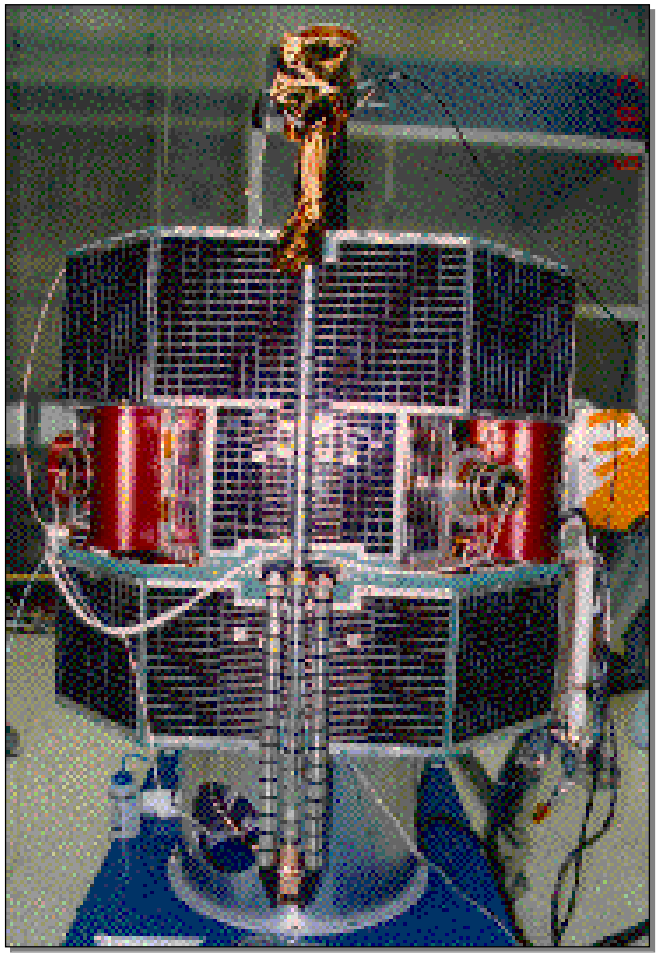
Fast Auroral SnapshoT (FAST)

- Science Package
  - Electric Field Instruments
  - Particle Instruments
  - Electronics
- Mission Operations
- Science Operations



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<u>High Energy Solar Spectroscopic Imager (HESSI)</u>

- Overall Project Management
  Project Manager: Mr. Peter Harvey
- Spacecraft Bus
- Science Package
  - Imager
  - Spectrometer
  - Electronics
- Mission Operations
- Science Operations
- Ground Data Systems
- Ground Based Observations

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Operations Components

- Mission OperationsCenters
- Science Operations Centers
- 11-meter S-Band Antenna with
  X-band capability
- High Speed Communications to NASA
  Ground Network
- Network Security
- Autonomous Operations
  Pass Supports
  Orbit Determination & Tracking
  Emergency Response System
  Self Checking