Common Platforms for Model/Data Comparisons

SDO EVE Science Team

Items for consideration

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W. Kent Tobiska

Space Environment Technologies

Topics for consideration

- **Integration of irradiance data, models, standards into common platforms**
  - ***WHY?*** *To provide users with an easy-access, reliable, scientifically sound and engineering robust tool for research and operational needs*
  - **Near real-time data source candidates:** GOES, NOAA, UARS, SOHO, TIMED, SORCE, SDO
  - **Model candidates:** SOLAR2000, VUV2002, SOLARFLARE, APEX, SETSYS, FISM, HEUVAC, NRLEUV, SPRM, SunRise
  - **Reference spectrum and standards candidates:** ASTM E490, Atlas, AIAA SP-078, ISO 21348
- **Common platform types**
  - **Requirements:** machine independence, reliable, universal access, ability of developers to upgrade software transparently, voluntary access (opt-in), stated privacy policy, proprietary code utility, stable management and supervision, archival capability, link to standards
  - **Platform types:** GUI (manual), **web (manual),** server (automated)

One option

- **Integration onto common web platform**
  - **Web interface via NGDC (Helen Coffey) as spinoff of AIAA SP-078 solar spectrum project**
  - **NGDC would be the front door link to historical data sets and servers providing near real-time irradiance data; for example:**
    - GOES XRS, SXI (mean disk), EUVS
    - NOAA 16-17 SBUV (especially Mg II)
    - SOHO SEM first order and central order
    - TIMED SEE L3A
    - SORCE XPS, SOLSTICE, SIM, TIM
    - SDO EVE
  - **Models and reference spectrum and standards inclusion**
  - **SET can provide assistance in web interface data/model/standard reference linkage and some server capability for running models**
  - **Recommend using LISIRD, USC APEX system (SEM), NOAA SEC near real-time data, and SET OPS system data**
  - **2006: AIAA SP-078 completion (use as learning curve) platform at TRL 6-7**
  - **2007: SDO EVE science team ramp up to go to platform TRL 8**
  - **2008: web/server TRL 9 at SDO launch**
  - **2009: begin ISO 21348 revision; system as solar irradiance standard**

Solar irradiances & indices