

Legacy Processors

Dave Siegel

AOP Data Processing

- Slight differences in AOP processing lead to surprisingly large differences in AOP retrievals
- Now, we have more than slight differences in AOP processors used
- A controllable source of uncertainty

Standardization

- A good thing...
 - Makes our results *more* comparable
 - Improves quality of our data
 - Forces adherence to protocols
 - Should lead to improved algorithms & better assessment of satellite product uncertainties
 - Creates community coherence

Standardization

- There are several paths...
 - Centralized processor for all data
 - Certification of individual processors
 - Submission of raw data centrally where it is then processed uniformly
 - Some mixture of legacy & centralization

Standardization

- Re-establish *detailed* protocols...
 - Inputs & Outputs
 - Types of AOP obs, final data products, ...
 - Delimiting procedures
 - Tops/bottoms, tilt, extrapolation, ...
 - Calculation/ correction procedures
 - Depth offset, surface norm, self-shading, ...
 - In situ procedures

Standardization

- Re-establish *detailed* protocols...
 - Consistency procedures
 - Ed(0-)/Es, bio-optical models, ...
 - Performance metrics
 - How to establish, ...
 - Certification of processors
 - Test data sets
 - Revision control
 - Lineage tracking, consistent file naming, ...

Standardization

- Issues to consider...
 - Independence of researchers
 - PI data product control
 - The “black box” syndrome
 - Certification of data products & revision control
 - Realizing one size does not fit all
 - Building the “bigger mouse trap”