

# The Facts

- SCIENCE DATA VALIDATION PLANS ARE DUE SOON
- TEAM VALIDATION ACTIVITIES FUNDED FROM TEAM BUDGETS
- LIMITED SUPPLEMENTAL FUNDING (e.g., FLIGHT HOURS)
- NRA FOR SELECTED COMPONENTS
  - ESSENTIAL NEED
  - BROAD APPLICATION/BENEFIT
- PEER REVIEW OF PLANS

## Science Data Validation Plan Due Dates

MOPITT	September 1995
MODIS	December 1995
LIS	December 1995
ASTER	annual update to ATBDs
CERES	March 1996
MISR	~April 1996
SAGE-III	???

The Science Data Validation Plan must:

- 1) describe the APPROACHES for establishing scientific validity,
- 2) describe HOW accuracy, precision and resolution will be confirmed,
- 3) list required EOS and non-EOS experimental activities,
- 4) list required operational measurements, and
- 5) describe ARCHIVAL PLANS for validation information.

*The Validation Plan must specify and describe what needs to be done, including what the team will do and what potentially could be done by or in cooperation with others.*

It is especially important to indicate

- PRIORITY and COST
- RESOURCES and NEEDS (people, things, funding)
- GAPS and CONNECTIONS (intra-/inter-team, programmatic, etc.)
- SCHEDULE (dates).

## **1.0 INTRODUCTION**

- 1.1 Measurement & science objectives**
- 1.2 Missions (e.g., TRMM, AM-1, etc.)**
- 1.3 Science data products**

## **2.0 VALIDATION CRITERION**

- 2.1 Overall approach ( radiances and higher order products)**
- 2.2 Sampling requirements & trade-offs**
- 2.3 Measures of success**

## **3.0 PRE-LAUNCH ALGORITHM TEST/DEVELOPMENT**

- 3.1 Field experiments and studies**
- 3.2 Operational surface networks**
- 3.3 Existing satellite data**

## **4.0 POST-LAUNCH ACTIVITIES (be as specific as possible)**

- 4.1 Planned field activities and studies**
- 4.2 New EOS-targeted coordinated field campaigns**
- 4.3 Needs for other satellite data**
- 4.4 Measurement needs (in situ) at calibration/validation sites:**
- 4.5 Needs for instrument development (simulator)**
- 4.6 Geometric registration site**
- 4.7 Intercomparisons (multi-instrument)**

## **5.0 IMPLEMENTATION IN DATA PRODUCTION**

- 5.1 Approach (include long-term calibration considerations)**
- 5.2 Role of EOSDIS**
- 5.3 Plans for archival of validation data**

## **6.0 SUMMARY**

**SUMMARY      CHARTS**

- EOS WILL BE JUDGED BY ITS SCIENTIFIC OUTPUT
- EOS WILL BE JUDGED BY THE QUALITY OF ITS DATA
- EOS WILL BE JUDGED BY THE ACCESSIBILITY AND UTILIZATION OF ITS DATA BY THE ENTIRE NATIONAL AND INTERNATIONAL EARTH SCIENCE COMMUNITY
- AN INTEGRATED EOS VALIDATION PLAN IS NEEDED

# Upcoming Validation Events

VALIDATION WORKSHOP

MAY 1996

REVISED FINAL PLANS

JULY 1996

RELEASE NRA

AUGUST 1996

PEER REVIEW OF VALIDATION PLANS

FALL 1996

## Coordination/Cooperation Opportunities

- Other Instrument Teams
- IDS Teams
- Other MTPE Projects
- National Programs (NSF, DOE, NOAA, ....)
- International Programs (GEWEX, CLIVAR, IGBP, ...)

## Coordination/Cooperation Benefits

- IMPROVED VALIDATION OF SCIENCE DATA
- GREATER UTILIZATION OF VALIDATION DATA
- ENHANCED SCIENTIFIC OUTPUT
- REDUCED COSTS
- INCREASED PARTICIPATION AND COMMUNITY SUPPORT



## Science Data Validation Workshop

### WORKSHOP PARTICIPANTS

- **AM-1 Instrument Teams**
- **LIS Instrument Team (TRMM)**
- **SAGE-III Instrument Team (METEOR)**
- **Data Assimilation Team**
- **SIMBIOS Team (Ocean Color)**
  
- **EOS IDS Teams**
- **IWG Panels**
- **Project Science Office**

**FUNDAMENTAL PRODUCTS THEMES (RADIANCES)**

**1) HIGH ALTITUDE UNDERFLIGHT**

==> Radiances

**2) ATMOSPHERIC CORRECTION**

==> Radiances after transmission through atmosphere

**3) BDRF**

==> Radiances after transmission and then reflection

**4) RADIOMETRIC CALIBRATION AND PROTOCOLS**

==> "in situ" instrumentation (standards)

**HIGHER ORDER GEOPHYSICAL PRODUCTS THEMES**

**1) CLOUDS**

**2) AEROSOLS, MOISTURE AND TEMPERATURE**

**3) EARTH RADIATION BUDGET**

**4) LAND SURFACE CHARACTERIZATION (TEST SITE WG)**

**5) OCEAN CHARACTERIZATION (SIMBIOS)**

**6) ????????????**

# Remember

Archival of and open access  
to all validation data is  
absolutely essential!