

MODIS SCIENCE DATA SUPPORT TEAM PRESENTATION

February 28, 1992

AGENDA

1. Action Items
2. MODIS Airborne Simulator (MAS) Status
3. MAS Data Catalog
4. MAS Data Storage and Distribution
5. Legal NOTICE

ACTION ITEMS:

08/30/91 [Lloyd Carpenter and Team]: Draft a schedule of work for the next 12 months. Include primary events and milestones, documents to be produced, software development, MAS support, etc. (The workplan is being modified to correspond to the schedule.) STATUS: Open. Due date 09/27/91.

12/06/91 [Liam Gumley]: Investigate a cataloguing scheme for the MAS data. Consider the Master Catalogue, PLDS and PCDS. (Results of the investigation were included in the handout on 02/21/92.) STATUS: Open. Due date 02/14/92.

12/06/91 [Liam Gumley, Tom Goff, Ed Masuoka]: Develop a plan for storing and distributing MAS data. (The plan was included in the handout on 02/21/92.) STATUS: Open. Due date 02/14/92.

01/03/92 [Ed Masuoka]: Check on the UCAR "copyright" as a first step in standardizing an SDST software copyright statement for code sharing. Check with legal. (The original version of the GSFC Patent Counsel's notice has been modified by that office. The new version is included in the handout.) STATUS: Open. Due date 02/14/92.

01/03/92 [Team]: Check on the set of software engineering tools available in Code 530 to see if any of these would be of use to the SDST. (Further attempts are being made to contact Julie Breed, Joy Henegar, or Stephanie Nickens, Code 563, and arrange to run the Cloud Algorithm through their PR:QA.) STATUS: Open. Due date 02/14/92.

01/17/92 [Tom Goff]: Have a polished version (with peer review) of the file dump routine ready for the MODIS Science Team Meeting. STATUS: Open. Due date 04/01/92.

02/21/92 [Ed Masuoka]: Talk to Code 930 and find out what tools they have for porting data between computers from different vendors. STATUS: Open. Due date 03/13/92.

02/21/92 [Lloyd Carpenter and Team]: Identify a list of risks associated with porting Team Members' algorithms to the PGS. Prepare these for discussion at the Science Team Meeting. STATUS: Open. Due date 04/01/92.

MODIS Airborne Simulator status (Liam Gumley)

Progress up to 27 February 1992

(1) MAS data processing status

<u>Flight Date</u>	<u>Area covered during flight</u>	<u>Level-0 data received</u>	<u>Processing completed</u>	<u>INS offset fixed</u>
10/31/91	Ames test flight CA/NV	yes	3/3 tracks	yes
11/12/91	Ferry flight CA to TX	yes (subset)	1/1 tracks	no
11/14/91	Coffeyville KS	yes	16/16 tracks	no
11/18/91	Coffeyville KS	yes		
11/21/91	Coffeyville KS	yes		
11/22/91	Coffeyville KS	yes		
11/24/91	Gulf coast TX/LA	yes		
11/25/91	Coffeyville KS	yes		
11/26/91	Coffeyville KS	yes		
12/03/91	Gulf coast TX/LA	yes		
12/04/91	Gulf coast TX/LA	yes		
12/05/91	Coffeyville KS	yes	29/29 tracks	no
12/07/91	Coffeyville KS	yes		
11/16/91	Ground visible calibration	yes		
11/20/91	Ground visible calibration	yes		
11/23/91	Ground visible calibration	yes		

(2) MAS processing software development

The code which computes regressions from INS data has been modified to include an offset (INS time - MAS time) to be applied to the INS time data:

INS time = INS time - offset

where the offset is determined by examining the INS and MAS roll data. This change has been used in processing the MAS data from 10/31/91, where the INS offset was found to be ≈ 0.0125 hours = 45 seconds.

The code which converts digital counts to radiances for visible/near-IR channels was modified to (optionally) allow the use of blackbody 1 count data to compute the calibration intercept. Jeff Myers of Ames confirmed via phone that the digital counts for blackbody 1 in the visible/near-IR channels are always recorded at a gain of 1.0, regardless of gain setting. Thus, the data may be calibrated by the relationship

$$\text{radiance} = (\text{slope} \times (\text{scene_count} - (\text{BB1_count} \times \text{gain}))) / \text{gain}$$

where the slope (from integrating sphere calibration) is adjusted for an instrument gain of 1.0.

It was noticed that the sensor zenith angles computed for the Level-1B data could fall outside the range 0 to 360 degrees. This has been fixed.

The latest version of netCDF (2.02) was downloaded from UCAR by anonymous ftp (from unidata.ucar.edu). The code was installed on LTPIRIS2 (SGI) with very few problems. The Level-1B production code was recompiled to use the netCDF v2.02 libraries, and is functioning normally.

(3) MAS Atlantic Stratocumulus Transition Experiment (ASTEX) deployment

MAS support personnel will be in the Azores from 31 May to 29 June, 1992. I (Liam Gumley) will be in the field from 31 May to 10 June. The possibility of going to Ames for additional training on the MAS Quick View System (QVS) before ASTEX is being explored.

MAS Data Catalog

(See MODIS SDST Presentation Handout of 02/21/92)

MAS Data Storage and Distribution

(See MODIS SDST Presentation Handout of 02/21/92)

NOTICE

FDUMP.C, Version 1.1, February, 1992

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*(Note: Ron Sandler, GSFC Patent Counsel's Office,
insists that the above notice be displayed on the screen
whenever the code is executed.)*