

Table 1: April 25, 2001 - CM Status

SS No.	SS Lead	Status	Problems
CM	Ayers	<ul style="list-style-type: none"> • See Table 2 for SCCR activity since the last DMT meeting. SCCRs for Subsystems 1-4 that need to be reviewed follow Table 2. (Ayers) • Released the CERESlib, Regrid MOA, and Clouds deliveries to the ASDC. (Ayers) • Currently testing TISA Gridding delivery. (Ayers) • Updated GGEO files in SSI&T at the ASDC. (Ayers) • Updated the PGE Sizes Tables for the latest deliveries and posted them to the CM Home Page. (Saunders, Franklin) 	

Table 2: SCCR Activity April 9 at 2:00pm - April 23 at 2:00pm

SCCR	S	U	A	C	D	SS	Page No.	Comments
241		X				4.1-4.4	2	
253		X				9		
254	X		X	X		12		
255	X		X	X		4.1-4.4		
256	X		X	X		9		
257	X		X	X		CERESlib		

S=Submitted; U=Updated; A=Approved; C=Closed; D=Disapproved; SS=Subsystem

CERES System Configuration Change Request Submittal

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Subsystem: Clouds SCCR Date: 02/12/2001 SCCR Number: 241

Description of Change (Science):
None.

Reason for Change (Science):
None.

Description of Change (non-Science):
Process Control File generator script has been modified to update Toolkit version from 5.2.6 to 5.2.7.

Reason for Change (non-Science):
To accommodate Toolkit version update.

Estimates Man Power: Done
Schedule : February 23, 2001
Impact :N/A

Date: 02/12/2001 Status: APPROVED

Originator: SUN-MACK, SUNNY (SAIC)

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ADDITIONAL CHANGES TO SCCR NO. 241:

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Description of Change (Science):
None

Reason for Change (Science):
N/A

Description of Change (non-Science):
Deliver the PFM PSF ancillary file with name change to accommodate SIM processing.

Reason for Change (non-Science):
The PSF file is instrument specific.

Date & Time: 2001-02-12 09:23:20
Originator : MILLER, WALTER F. (SAIC)

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Description of Change (Science):

None

Reason for Change (Science):

None

Description of Change (non-Science):

Turn off certain parameter fields in CloudVis and CloudVis Subset.

Reason for Change (non-Science):

To reduce CloudVis output size and CloudVis Subset output size.

Date & Time: 2001-03-06 14:23:01

Originator : SUN-MACK, SUNNY (SAIC)

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Description of Change (Science):

None

Reason for Change (Science):

None

Description of Change (non-Science):

Process Control File generator script has been modified to reflect the fact that DAO MOA is a hourly file before January 1st, 2000 and a every 6-hour file after January 1st, 2000.

Reason for Change (non-Science):

- (1) To handle two types of DAO MOA produced before and after January 1st, 2000.
- (2) To accommodate CERESLIB update related to MOA reading routines.

Date & Time: 2001-03-28 11:39:56

Originator : SUN-MACK, SUNNY (SAIC)

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Description of Change (Science):

Cloud retrieval included:

- (1) the MODIS 3.7 um calibration correction.
- (2) a MODIS version of the CorrK algorithm.

- (3) the polar mask.
 - (4) delT4 as a function of viewing angle
 - (5) a test version of CO2 slicing algorithm
 - (6) correction to vint when Tcs = Toa Convolution now calculates the cloud IR emissivity at night and allows values up to 4 on individual imager pixels. The footprint value is limited to 2.
- Both executables were changed to perform 2x2 sampling on MODIS. A new Point Spread Function for each Terra instrument was delivered.

Reason for Change (Science):

The science algorithms were updated to process MODIS data in its polar orbit. An adjustment to the brightness temperature clear sky standard deviation is made based on viewing zenith angle to compensate for an increase in cloud fraction seen in Edition 1. The CO2 slicing algorithm will only be report through cloud retrieval QC and CloudVis products. It will not be included in algorithms for the SSF. The vint correction is to handle that special case. The code now subsets the MODIS data using every other pixel on every other scan line. This was implemented to speed up processing.

Description of Change (non-Science):

The mean nadir radiance was replaced with the mean hour radiance in performing automated QC. The minimum GRing will be forced to 0.1 by 0.1 degrees.

Reason for Change (non-Science):

During VIRS subset processing, nadir radiances were not available. If a few footprints occur during an hour, a line would be produced instead of a box.

Date & Time: 2001-04-16 14:16:02

Originator : MILLER, WALTER F. (SAIC)

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Table 3: April 25, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
1.0	Cooper/ Escuadra	<ul style="list-style-type: none">• Preparing information for CERES Science Team Meeting. (Team)• Continuing SS1 scan and output redesign. (Escuadra)• Continue tracking receipt of Terra Data receipt at LaRC. (Cooper)• Updating Operator's Manual and Test Plan to include new Aqua information, changes relating to ephemeris and attitude data for Aqua are expected, due to change in time span of the files. (Cooper)• Continuing work on the program to repair SW radiances from TRMM data from the end of March 2000 through mid-April 2000 and June 2000. (Szewczyk)• Continuing analysis of Terra data, radiance, coastline detection, instrument housekeeping and Moon Viewing data. (Hess, Spence, Szewczyk)• Continue work to verify Terra operations. (Weaver)	

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SS No.	SS Lead	Status	Problems
2.0	Kizer	<ul style="list-style-type: none">• Working with Richard Green to verify ERBS 19850413 data using old type ADMs in current CERES ERBE-like inversion code. Modifying code to process with new type ADMs. (Kizer)• Continuing to work with Bing Lin (RAB) to statistically analyze TRMM 1998 ES-8 data. Problems with several corrupted ES-8 files from daacget process. (Kizer)• Continuing to examine Three Channel Consistence Check. Examined worse case tolerance (> 20 standard deviations) for LW unfiltered radiance so that we have a probability of approximately 1 in 10 million (46 measurements from 448 million, FM2) that a measurement exceeds the tolerance. (Walikainen)• Used view_hdf to examine drift corrected counts for data that exceeded tolerance. In the few cases examined, some showed large 'off-scale' readings characteristic of a bit flip. Began examining the others that do not. (Walikainen)• Continuing to examine the 'production' email generated by the QC checker software. (Walikainen)• Continuing to inspect ERBE-like Terra and TRMM output plots and QC reports on the Web. (Walikainen, Kizer)	
3.0	Kizer	Combined with above.	

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SS No.	SS Lead	Status	Problems
4.1	Sun-Mack	<ul style="list-style-type: none"> Clouds MODIS processing Delivery. (Brown, Walt, Sun-Mack) Writing and testing scripts to run DX in a batch job. The purpose of this is to produce pixel level (CloudVis) pictures of all retrieval results and post the pictures on the web in an automation process. (Brown, Gibson) Per requests from Bruce W and Pat M, investigated why cloud fraction is a function of view angle. Implemented chan4 standard deviation as a function of view angle and ran a couple of days of virs. It's better. (Sun-Mack, Chen, Trepte) For MODIS, cloudvis can't be turned on for 1x1 due to memory limitation. Investigated the possibility of turning on CloudVis subset with 2x2. CloudVis subset was produced successfully with 2x2. Modified cloud production code to produce a reasonable CloudVis Subset size. (Sun-Mack) 	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	
4.4	Miller	<ul style="list-style-type: none"> Calculated monthly mean slope and intercept between VIRS 10.8 vs. 11.9 for all footprints and when 10.8 micrometer is less than 3.0 W m⁻² sr⁻¹ m⁻⁶ using the SSF subset data. (Miller) Updated convolution to produce cloud IR emissivities at night and handle subsetted MODIS imager file. (Miller) Ported convolution to samantha and produced expected outputs. Responded to problems during delivery. (Miller) Responded to questions from the ADM development team. (Miller) 	

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SS No.	SS Lead	Status	Problems
4.5	Nolan	<ul style="list-style-type: none"> Continued testing second version of the CERES Shortwave ADM module. (Nolan) Initiated testing of the CERES Longwave ADM module from Nitchie Manalo-Smith. (Nolan) Met with Shashi Gupta to go over SW Surface Flux Model B changes which include use of an ERBE clear sky albedo table. (Nolan) Modified code to use Shashi Gupta's latest version of SW Surface Flux Model B module and initiated testing. (Nolan) Modified Shashi Gupta's LW Surface Flux Model B module and initiated testing. (Nolan) Initiated work to create new PGE CER4.5-6.3P1 which will only replace TOA and surface fluxes on Edition 1 TRMM SSFs. (Nolan) Began modifying Inversion Test Plan and Operator's Manual to include PGE CER4.5-6.3P1. (Nolan) 	
4.6	Nolan	Combined with above.	
5.0	Coleman	<ul style="list-style-type: none"> Modified SARB Surface Albedo Monthly Pre-Processor to use either the Collins aerosol climatology or the GFDL aerosol climatology, depending on date. (Coleman) Enhanced error handling in SARB modules that write meta data files. (Coleman) Generated May, July, and August 1998 CRSB files over the CERES Validation regions in support of the upcoming CERES Science Team meeting. (Coleman) Prepared a re-delivery of subsystem to CM. (Coleman) 	
7.2	Coleman	Combined with above.	
12.0	Coleman	<ul style="list-style-type: none"> Modified Regrid MOA software to handle the November 20, 2000 ECMWF "mixed-grid" day after determining the data was not going to be delivered any other way. (Caldwell) Delivered Regrid MOA code to CM. (Caldwell) 	
7.1	Nguyen/Raju	<ul style="list-style-type: none"> No new updates. 	

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SS No.	SS Lead	Status	Problems
8.0	Raju/ Nguyen	<ul style="list-style-type: none"> No new updates. 	
10.0	Nguyen/ Raju	<ul style="list-style-type: none"> Provided plots for Kratz for the May CERES Science meeting. (Nguyen) Completed updating the code for the albedo normalization. Tested the code for several regions. (Nguyen) Modifying the code to drop the column cloud. (Nguyen) Work has been completed to read meta data from GGEO file to get satellite information into intercomparison code. (Raju) Wrote program to output albedo and lw data from VIRS and CERES for land and ocean regions and set up the IDL program to perform narrowband-broadband correlations. Generated plots and sent them to TISA science team. (Raju) 	
6.0	Stassi/ Raju Nguyen	<ul style="list-style-type: none"> Initiated a test run for Subsystem 6.1. There are some problems that need to be investigated. (Stassi) 	
9.0	Stassi/ Raju Nguyen	<ul style="list-style-type: none"> Modified the main processor run script to remove zero-length output files after an unsuccessful job completion. (Stassi) Modified the Tisa Grid tar script to include input data from Sarb and Inversion subsystems in subdirectories under the tisa_grid/data directory. Added scripts to the test suites procedures to check the input directories, and copy and/or remove files as necessary so that the correct inputs are available during testing. (Stassi) Delivered Tisa Subsystem to CM. (Stassi) 	
11.0	Stassi/Fan	<ul style="list-style-type: none"> Updated the coefficients files to contain default values for running ten months, Jan thru Aug 1998, and Mar 2000 in production. (Stassi) Modified the PCF generator scripts to include a listing for the web QC report. (Stassi) 	

Table 3: April 25, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
CERESlib Stassi/Ayers		<ul style="list-style-type: none">Updated the following modules in CERESlib: ssf_typdef.f90, moa_io_def.f90, moa_io_read.f90, fsw_type_def.f90, sfc_type_def.f90, tisa_grid_type_def.f90, fsw.f90, fsw_file.f90, sfc.f90, sfc_file.f90. Delivered CERESlib to CM. (Stassi)	
IST	Flug	<ul style="list-style-type: none">No new updates.	