

Table 1: May 23, 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 delivery to the ASDC. (Ayers) • Released the Regrid MOA delta delivery to the ASDC. (Ayers) • Delivered the updated Inversion Operator's Manual to the ASDC. (Ayers) • Updated Instantaneous SARB files in SSI&T at the ASDC. (Ayers) • Currently testing the Inversion delivery. (Ayers) • Modified the format of the CERES CM Schedules Web Page by placing the delivery schedules in tabular form. (Franklin) • Modified the SCCR web application code to automatically set the "CERESlib Change" flag to YES for CERESlib SCCRs. (Franklin) 	

Table 2: SCCR Activity May 7 at 3:00pm - May 21 at 3:30pm

SCCR	S	U	A	C	D	SS	Page No.	Comments
246				X		5		
258			X			4.6		
259			X			4.5-4.6		
262	X	X				4.1-4.4	3	
263	X		X			CERESlib		
264	X		X			CERESlib		

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

CERES System Configuration Change Request Submittal

Subsystem: Clouds

SCCR Date: 05/15/2001

SCCR Number: 262

Description of Change (Science):

- (1) New cloud property parameterizations.
- (2) 1.6um cloud retrieval
- (3) Cloud height fix.
- (4) Re-define Cloud Category in Cookie Dough.
- (5) Use existing CRH clear-sky histories.
- (6) Correct S'COOL year format.

Reason for Change (Science):

- (1) New cloud property parameterizations.
- (2) 1.6um cloud retrieval
- (3) Cloud height fix.
- (4) Re-define Cloud Category in Cookie Dough.
- (5) Use existing CRH clear-sky histories.
- (6) Correct S'COOL year format.

Description of Change (non-Science):

None

Reason for Change (non-Science):

None

Estimates Man Power:

Schedule :

Impact :

Date: 05/15/2001

Status: SUBMITTED

Originator: BROWN, RICKY R. (SAIC)

ADDITIONAL CHANGES TO SCCR NO. 262:

Description of Change (Science):

- (1) New cloud property parameterizations.
- (2) 1.6um cloud retrieval

- (3) Cloud height fix.
- (4) Re-define Cloud Category in Cookie Dough.
- (5) Use existing CRH clear-sky histories.
- (6) Correct S'COOL year format.
- (7) Correct VIRS 1.60 radiance due to temperature variations of the detector.
- (8) Implement Stowe's third generation aerosol optical thickness algorithm that will be run using footprint data obtained from those pixel used in the second generation algorithm.
- (9) Include footprint level strong and weak/glnt areal coverage.

Reason for Change (Science):

- (1) Allow New cloud property parameterizations.
- (2) 1.6um cloud retrieval
- (3) Cloud height fix.
- (4) Re-define Cloud Category in Cookie Dough.
- (5) Use existing CRH clear-sky histories.
- (6) Correct S'COOL year format.
- (7) Improve the accuracy of clear air aerosol optical thickness values.
- (8) Allow ADM development to understand those pixels without cloud properties.

Description of Change (non-Science):

Change first and last observation time to be that as oppose to time of first and last footprint.

Reason for Change (non-Science):

The data inventory database does not accept end times before start times that can occur on RAPS hours with small amount of data.

Date & Time: 2001-05-15 12:03:20

Originator : BROWN, RICKY R. (SAIC)

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Description of Change (Science):

SUPERSEDES 2001-05-15 11:50:58 and 2001-05-15 12:03:20 SUBMISSIONS

- (1) New cloud property parameterizations.
- (2) Place original cloud submask category on pixels that cloud properties cannot be retrieved. Include footprint level cloud strong and weak/glnt areal coverage (including those without cloud properties)
- (3) Deliver the Edition1 CRH clear-sky histories.
- (4) The 1.6 um cloud retrievals algorithm will be added for internal testing (not passed to SSF).
- (5) Implement Stowe's third generation aerosol optical thickness algorithm that will be run using footprint data obtained from those pixel used in the second generation algorithm.

- (6) Set cloud fraction to clear over land and desert when thermal channels are saturated and CERES window filtered radiance supports high surface temperatures.
- (7) Correct VIRS 1.60 radiance due to temperature variations of the detector.
- (8) A new bad data area will be added to SSF to allow footprint with no cloud fraction to be included.

Reason for Change (Science):

- (1) Resolve the Belgian problem in optical depth.
- (2) Allow ADM developers to understand those pixels without cloud properties.
- (3) Removes restriction of daily processing for TRMM Jan 98 - Aug 98 processing while maintaining accurate clear sky histories.
- (4) The 1.6 um cloud retrieval algorithm will provide better values over snow.
- (5) Improve the accuracy of clear air aerosol optical thickness values.
- (6) The loss of these extremely warm imager pixels are biasing longwave flux.
- (7) The low albedo goes negative impacting aerosol optical thickness accuracy.
- (8) The nonrandom dropping of footprints are biasing ADMs.

Description of Change (non-Science):

- (1) Correct S'COOL year format.
- (2) Change first and last observation time to be that as oppose to time of first and last footprint.

Reason for Change (non-Science):

- (1) The wrong year was being placed on products run for 2001.
- (2) The data inventory database does not accept end times before start times that can occur on RAPS hours with small amount of data.

Estimated Manpower: 300 Hours

Schedule: Delivery May 25, 2001

Impact: The use of imager pixels with bad data may impact all subsystems using the SSF clear and cloud areas.

Date & Time: 2001-05-21 15:07:19

Originator : MILLER, WALTER F. (SAIC)

Table 3: May 23, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
1.0	Cooper/ Escuadra	<ul style="list-style-type: none"> Continuing Release 4 integration testing and data verification. (Escuadra) Completed processing of MOSS 3 data (received 05/17/01). Data review and analysis underway. (Escuadra, Hess) 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) Continue work to verify Terra operations. (Weaver) 	
2.0	Kizer	<ul style="list-style-type: none"> Completed efforts to verify ERBS 19850413 data using new type ADMs in current CERES ERBE-like inversion code. (Green, Kizer) Working to correctly implement the Spectral Correction Coefficients based on differences between ERBE and CERES channels. (Green, Kizer) Wrote program to interpolate Spectral Correction Coefficients data files to generate all 60 post-burn ERBS month input files. (Kizer) As part of the 3-channel consistency check, constructing module for tolerance testing of LW-unfiltered data. (Walikainen) Regenerated 198504, 198904 and Pre-Burn 'master' Spectral Correction Coefficients, slope-intercept day/night files for ERBE reprocessing project. (Walikainen) Added code to QC checker to accommodate differences between new and original ADM categories (from 7 to 9). This changed the line number TOTAL appears in page 3 of the QC report. (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.	

Table 3: May 23, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
4.1	Sun-Mack	<ul style="list-style-type: none">• Modified QC code for Zonal CloudAmount to create data files for plotting. Completed adding in new angle bins for MODIS data. Reprocessed MODIS data with the modified QC reader and posted the results on the web. (R. Brown)• Investigated and corrected problem for S'COOL year date format. Added in two more VZA bin to QC code. (R.Brown)• Because Ed2 will use all CRH maps produced by Ed1, worked on validating all daily CRH maps for 9 months of Ed1. Modified Clouds script to use Ed1 CRH maps for Jan-Aug, 98 and March 2000, and use updated CRH maps for the rest. (Yan, Sun-Mack)• Added a module in virs lib to read in SDS: tempCounts (for virs latest calibration). (Sun-Mack)• Looked into the issue of significant differences of cloud fraction between Ed1 and current version. This work includes: communications with Bruce and Pat, checking new mask and Ed1 mask differences, checking new clear sky thresholds and Ed1 clear sky thresholds differences, re-runs, making plots.... (Sun-Mack)	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	

Table 3: May 23, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
4.4	Miller	<ul style="list-style-type: none"> Implemented and tested third generation aerosol optical thickness algorithm. Produced SSF for April 9, 1998. (Miller) Obtained 1.6 correction from Dr. Barnes. Working with Mr. Lyu to obtain correction conversion equation for counts. (Miller) Investigated VIRS 10.8 and 11.9 differences. Developed plot showing 0.6 K shift in day difference in mean 10.8 and 11.9 brightness temperature when radiance less than 3.0. Discussed with Dr. Inoue. (Miller) Updated convolution to handle first/last observation time, separated error messages for FAIL and bad QA_FLAG, and added overall footprint cloud submask. (Miller) Discussed method to recover bad data due to saturated imager pixel thermal radiances over desert (land). Discussed philosophy of which footprints should be on SSF. (Miller) Reviewed SSF Terra Alpha Quality Summary. (Miller) Modified cloud retrieval to process all imager pixels to obtain cloud properties. (Miller) 	
4.5	Nolan	<ul style="list-style-type: none"> Completed testing second version of the CERES Shortwave ADM module. (Nolan) Completed testing of the CERES Longwave ADM module from Nitchie Manalo-Smith. (Nolan) Additional modifications were made to Shashi Gupta's LW Surface Flux Model B module and testing was completed. (Nolan) Completed testing of new PGE CER4.5-6.3P1 which will only replace TOA and surface fluxes on Edition 1 TRMM SSFs. (Nolan and Franklin) Delivered Inversion Subsystem to CERES CM on May 21, 2001. (Nolan) Completed Inversion Test Plan and Operator's Manual. (Nolan and Franklin) Provided Joe Stassi with updated version of CERESlib modules, surf_sw_model_b.f90. (Nolan) Summer intern Bryan Walter started his internship on May 14, 2001. 	

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4.6	Nolan	Combined with above.	
5.0	Coleman	<ul style="list-style-type: none"> Gleefully monitoring all the SARB runs making their way through production at ASDC. (Coleman) Working on ways to sort out all of the above information. (Coleman, Caldwell) 	
7.2	Coleman	Combined with above.	
12.0	Coleman	<ul style="list-style-type: none"> No new updates. Taking advantage of lull to review prologues for accuracy after several recent major "storms." (Caldwell) 	
7.1	Nguyen/ Raju	<ul style="list-style-type: none"> No new updates. 	
8.0	Raju/ Nguyen	<ul style="list-style-type: none"> No new updates. 	
10.0	Nguyen/ Raju	<ul style="list-style-type: none"> Validating the new SW surface flux model B algorithm. (Nguyen) Estimated the change of SRBAVG file size with addition daily mean of all of the monthly mean parameters plus the solar constant. (Nguyen) Created the .pdf file from Dave Kratz's presentation view graphs, .ps files, for posting the view graphs on the web. (Nguyen) Dave Kratz suggested to compute SW surface flux model A using the ratio of the net surface flux from model A and model B. However, from SSF Edition1, net surface flux of model A and model B are the same. This analysis has to be postponed until we get the new SSF with new SW model B algorithm. (Nguyen) 	
6.0	Stassi/ Raju/ Nguyen	<ul style="list-style-type: none"> No new updates. 	
9.0	Stassi/ Raju/ Nguyen	<ul style="list-style-type: none"> No new updates. 	

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SS No.	SS Lead	Status	Problems
11.0	Stassi/Fan	<ul style="list-style-type: none"> Added runtime parameter to main processor to indicate whether to adjust the radiance conversion coefficients using the intercalibration information. If not, then the code automatically assigns default adjustment coefficients (slope=1, intercept=0) instead of attempting to the namelist input file. All defaults values were removed from the namelist file. (Stassi) The Clouds code which GGEO interfaces determines the SARB input location based on whether the job is running on thunder on lightning. Added a script to the GGEO process to make the same distinction for the purpose of consistency. (Stassi) Modified the GGEO delivery so that snow/ice and MOA input files are delivered in separate directories located under the ggeo/test_suites directory rather than in the input directories where they are used during processing. Added scripts to the test suites to check the input directories and to move the snow/ice and MOA files to their respective directories prior to testing if necessary. (Stassi) Created intercalibration process in a separate directory structure under GGEO. Ready for testing. (Raju) 	
CERESlib Stassi/Ayers		<ul style="list-style-type: none"> Added modified versions of the surface model modules to CERESlib. (Nolan, Stassi) Updated CERESlib documents describing update and delivery procedures. (Stassi) Corrected problem in one of the surface model modules. Added it to CERESlib and delivered CERESlib to CM. (Nolan, Ayers) 	
IST	Flug	<ul style="list-style-type: none"> No new updates. 	