

Table 1: March 14, 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 Inversion, GGEO, and TISA Gridding deliveries to the ASDC. (Ayers)• Currently testing the Clouds delivery. CERESlib and TISA Averaging have delivered and will be tested next. Expecting deliveries from SARB, Instrument, and ERBE-like this week. (Ayers)• Updated the Delivery Schedule and posted it on the CERES Configuration Management Schedules Web page (http://earth-www.larc.nasa.gov/cerescm/schedules/). (Ayers, Franklin)• Posted the latest Toolkit information to the CERES CM Web page. (Franklin)	

Table 2: SCCR Activity February 28 - March 12 at 4:20pm

SCCR	S	U	A	C	D	SS
184		1	X			9
236		1				2-3
237		2				1
238		1				10
239			X	X		11
240			X	X		12
241		1				4.1-4.4
242			X			4.5-4.6
243		1	X			4.5
244				X		9
245				X		CERESlib
248	X	1	X		X	4.1-4.4
249	X		X			5
250	X		X			CERESlib

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

CERES System Configuration Change Request Submittal

Subsystem: ERBElite

SCCR Date: 12/28/2000

SCCR Number: 236

Description of Change (Science):

N/A

Reason for Change (Science):

N/A

Description of Change (non-Science):

CER2.2P1

1) Produce a NEW daily ES-8 Nadir archival product. The file would then be copied to the ERBE-like Web directory in the same manner as the daily QC files for viewing and downloading from the web. The file would be in binary format containing a subset of the parameters that are written to the ES-8 for the nadir scans only. The 15 parameters written to the nadir product file are:

Julian time, Colatitude @ TOA, Longitude @ TOA,
TOT filtered radiance, SW filtered radiance,
WN filtered radiance, Viewing zenith at TOA,
Solar zenith at TOA, Relative azimuth at TOA,
SW unfiltered radiance, LW unfiltered radiance,
WN unfiltered radiance, SW TOA flux, LW TOA flux,
and the Scene ID.

Reason for Change (non-Science):

CER2.2P1

1) Requested by Dr. Kory Priestly (RAB). Many calibration efforts for CERES involve analyzing only the nadir science measurements. The files, at most 0.838 MB, are much smaller and easier to manage than the ES8 files.

Estimates Man Power: 2 weeks to implement/test the software and Web interface.

Schedule : N/A

Impact : Addition of ONE archival product, documentation changes will also be needed.

Date: 01/10/2001

Status: APPROVED

Originator: KIZER, EDWARD A. (SAIC)

ADDITIONAL CHANGES TO SCCR NO. 236:

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Description of Change (Science):

N/A

Reason for Change (Science):

N/A

Description of Change (non-Science):

-- Update to "Description of Change" #1

1a) The NEW daily ES-8 Nadir product will be saved to the tape archive upon completion of CER2.2P1 and not considered an "archival" product because the file is not to be viewed by the public. The format of the file will now be a formatted text file. The Earth-Sun Distance was also added to the list of parameters written to the ES-8 Nadir file.

CER2.2P1 CER2.3P1 CER2.3P2

2) Modified ES-8 Inversion code to capture the Spacecraft Vector at the end of the first record if it is not available at the start of the first record. Text is provided in the ES-8 QC Report when this situation occurs.

3) Modified ES-8 Inversion code to add an additional space in the formatted write statement to the ERBE-like Daily QC Report for a blackout period extending more than 999.99 minutes.

4) Modified CER2.2 clear script "clr_dir.PGE2" to remove addition of the ES-8 Nadir file.

5) Modified PCF generator script "gen_pcf.CER2.2" to add the ES-8 Nadir file.

6) Created compare program for ES-8 Nadir file.

ALL ERBE-like PGEs

7) Modified "iscnam" variable throughout ERBE-like PGEs from a six element array to a single character string.

8) Use HDF library compression routines for the EOS-HDF ES-8, HDF ES-9, and HDF ES-4 files.

CER3.1P1 CER3.2P1

9) Modified ES-4 binary to HDF file conversion software to remove "127 = default value" from the ES-4 HDF file attributes as a valid value for Geo-Scene Type Data.

QC Report Checker

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- 10) Modified QC Report Checker code to handle combinations of missing ES-8 QC Reports within a requested time span.
 - 11) Modified QC Report Checker script "QCchecker.csh" to remove Dr. Richard Green from list of those receiving diagnostic email and to limit the size of email generated to not more than 50 kilobytes.
 - 12) Reformatted QC Report Checker email notices. Moved the key to the bottom and included relevant detailed descriptions of errors.
 - 13) Modified several QC Report Checker tests which required editing code and the "QCcheck.list". For the "QCcheck.list" we increased the maximum number of standard deviations a parameter can vary from a requested time span average. Also, we increased the minimum number of days for some tests.

Reason for Change (non-Science):

-- Update to "Reason for Change" #1

- 1a) The NEW daily ES-8 Nadir file is not to be viewed by the public. The format of the file was changed to formatted text to address any computer platform and software compatibility issues. The Earth-Sun Distance was also added to the list of parameters written to the ES-8 Nadir file at the request of several science team members.

CER2.2P1 CER2.3P1 CER2.3P2

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- 2) The position and velocity of the Spacecraft may not be known at the beginning of a record. The Inversion code will capture the Spacecraft Vector at the end of the first record to perform QC Report calculations. Text is provided in the ES-8 QC Report to alert the user of such an occurrence.
 - 3) The ERBE-like Daily QC Report needed an extra space for blackout periods extending more than 999.99 minutes to prevent format overflow.
 - 4) All output files are opened with Status = "NEW" in the CER2.2P1 software. The ES-8 Nadir file must be removed before rerunning.
 - 5) The Logic ID for the ES-8 Nadir file and associated metadata file was added to the CER2.2P1 PCF generator scripts.
 - 6) Compare program for the ES-8 Nadir file is needed for test purposes and is part of the ERBE-like software delivery process.

ALL ERBE-like PGEs

7) The "iscnam" variable throughout ERBE-like was changed to a single character string to simplify code.

8) HDF library compression routines were able to reduce the file sizes of the ES-8, ES-4, and ES-9 by approximately 50 percent.

CER3.1P1 CER3.2P1

9) The string, "127 = default value", is only described as a default value for the ES-4 HDF file attributes of the Geo-Scene Type Data.

QC Report Checker

10) The QC Report Checker code will run with missing ES-8 QC Reports within a requested time span.

11) To reduce any possible email problems, the size of email is to be limited to 50 kilobytes.

12) Searching for error code explanations will not be necessary; explanations will be available in the email key.

13) After examining results of email generated by the previous delivery, we were able to determine which notices require attention. Adjusting the code, increasing the number of days sampled and increasing the standard deviation tolerance allow us to eliminate unnecessary notices.

Date & Time: 2001-03-12 15:17:57

Originator: KIZER, EDWARD A. (SAIC)

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CERES System Configuration Change Request Submittal

Subsystem: Instrument

SCCR Date: 01/10/2001

SCCR Number: 237

Description of Change (Science):

Update the Terra Scan Mode Offset Map files for FM1 and FM2 to allow the new Normal Earth Scan without Internal Calibration scan profile to use the Normal Earth Scan Offsets for Count Conversion.

Reason for Change (Science):

The current Terra Scan Mode Offset Map files would cause the new scan profile to use zero offsets during Count Conversion.

Description of Change (non-Science):

N/A

Reason for Change (non-Science):

N/A

Estimates Man Power: 1 week

Schedule : Needs to be in production for processing Feb 2001 data

Impact : Use for all SS1 production for dates after 01/31/2001

Date: 01/10/2001

Status: APPROVED

Originator: COOPER, DENISE L. (SAIC)

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ADDITIONAL CHANGES TO SCCR NO. 237:

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Description of Change (Science):

Update BDS to Pre-ES8 generator to check Spacecraft position Co-Lat and Long to verify that the record is a good record.

Reason for Change (Science):

Currently, records are being put on the Pre-ES8 where the Spacecraft position is undefined and set to CERES fill, which causes erroneous angular calculations for the ES8. This update should be put into production and all Terra data starting with Mar. 1, 2001 should be reprocessed CER1.1P3 and CER1.2P1 (Terra BDSs and Pre-ES8s).

Description of Change (non-Science):

N/A

Reason for Change (non-Science):

N/A

Date & Time: 2001-03-02 15:53:13

Originator: COOPER, DENISE L. (SAIC)

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Description of Change (Science):

N/A

Reason for Change (Science):

N/A

Description of Change (non-Science):

Pre-ES8 generator ASCII Input file and PCF generator scripts now need to include ephemeris data, due to the changes that were made in the conversion program to fix the error.

Reason for Change (non-Science):

Required to allow the new Pre-ES8 conversion program to work properly. The addition of ephemeris data allows the program to calculate data that was CERES-fill in the BDS.

Date & Time: 2001-03-07 17:19:38

Originator: COOPER, DENISE L. (SAIC)

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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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CERES System Configuration Change Request Submittal

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Subsystem: Inversion4.5 SCCR Date: 02/14/2001 SCCR Number: 243

Description of Change (Science):

N/A

Reason for Change (Science):

N/A

Description of Change (non-Science):

1. Modified code to set the day/night flag when simulated IES data are used.
2. Modified the code to write a window channel width of 0 to the SSF header when simulated IES data are used.
3. Corrected call to Imager regression subroutine (provided by Walt Miller) to provide the ERBE surface type ID.
4. Modified PCF generator for PGE CER4.5-6.1P1 to get the Toolkit version information dynamically.
5. Modified CER4.5-6.1P1 and CER4.5-6.2P1 scripts to send email with exit codes when production jobs fail.
6. HDF software was modified to place the code that is common to the SARB HDF software in a CERESlib module, `ssf2hdf_params.f90`, so it can be used by the Inversion and SARB subsystems. See SCCR # 242.

Reason for Change (non-Science):

1. Setting the day/night flag is required by LW Surface Flux Model B software, which can be run without having CERES radiances.
2. Window channel width is written to all SSF headers and a value must be specified for simulated IES data.
3. This change was made to provide the correct parameter as input to the Imager regression subroutine. (ERBE Scene ID was previously used.)
4. Toolkit version information should not be hardcoded.
5. No other notification is made when production jobs fail.
6. To eliminate duplicate code modifications to SARB's `crs2hdf` code when the `ssf_typdef` module is updated.

Estimates Man Power: N/A
Schedule : Delivery to CERES CM on 03/02/2001
Impact : N/A

Date: 02/14/2001 Status: SUBMITTED

Originator: NOLAN, SANDY K. (SAIC)

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ADDITIONAL CHANGES TO SCCR NO. 243:

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Description of Change (Science):
N/A

Reason for Change (Science):
N/A

Description of Change (non-Science):
7. Compression was added to the SSF HDF file.

Reason for Change (non-Science):
7. Reduction in the size of the SSF HDF file.

Date & Time: 2001-02-28 11:40:10
Originator: NOLAN, SANDY K. (SAIC)

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CERES System Configuration Change Request Submittal

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Subsystem: Clouds SCCR Date: 03/02/2001 SCCR Number: 248

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. Compress (gzip) all hourly CloudVis output files and all hourly CloudVis Subset output files.

Reason for Change (non-Science):
To reduce CloudVis output size and CloudVis Subset output size.

Estimates Man Power: Done
Schedule : March 6, 2001
Impact : N/A

Date: 03/02/2001 Status: APPROVED

Originator: SUN-MACK, SUNNY (SAIC)

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ADDITIONAL CHANGES TO SCCR NO. 248:

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Description of Change (Science):
None

Reason for Change (Science):
None

Description of Change (non-Science):
Disapproving this SCCR.

Reason for Change (non-Science):
SCCR 248 is being disapproved since SCCR 241 was still open (associated s/w had not been promoted to production and consequently SCCR 241 had not been closed), therefore, Sunny Sun-Mack copied the appropriate information from this SCCR to SCCR 241.

We are appending to this SCCR for two reasons.

1. Provide the above explanation.
2. Provide a mechanism to disapprove this SCCR.

Date & Time: 2001-03-07 17:53:28

Originator: AYERS, TAMMY O. (SAIC)

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Table 3: March 14, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
1.0	Cooper/ Escuadra	<ul style="list-style-type: none"> Continuing SS1 scan and output redesign. (Escuadra) Continue tracking receipt of Terra Data receipt at LaRC. (Cooper) Continuing work on the program to combine Level-0 files for Terra. Testing is being done to insure that all packets are being captured from all input Level-0 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) Updated scripts that are used to create the Pre-ES8 to include ephemeris data, so that calculations to fill in missing spacecraft data can be made in the conversion program. (Cooper) Continuing analysis of Terra data, radiance, coastline detection, instrument housekeeping and Moon Viewing data. (Hess, Spence, Szewczyk) Continue work to verify Terra operations. (Weaver) 	

Table 3: March 14, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
2.0	Kizer	<ul style="list-style-type: none">• Preparing ERBE-like software for March 16, 2001 delivery to CERES CM. (Kizer)• Modifying ERBE-like Operator's Manuals and Test Plan to reflect changes in output data sizes and addition of new ES-8 Nadir file. To be delivered with software to CERES CM. (Kizer)• Generated script to process TRMM 1998 QC Report files and delivered to ASDC. Files now available via Web. (Kizer)• Generated master slope-intercept files. Exact copies of original set of 6: (Day/Night) FM1, FM2 and PFM• Generated master files for ERBS. (Walikainen)• Created SMART detailed Error Messaging for QC checker. Only relevant explanations appear in email's key. (Walikainen)• Modified several QCchecker tests as requested by Richard Green. (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: March 14, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
4.1	Sun-Mack	<ul style="list-style-type: none">• Modified post-process RAZ qc code to produce necessary data files for use during plot generation. Edited script to add in a RAZ parameter when generating graphs. Generated RAZ graphs for months of January-August 1998 and posted on the web. (R.Brown)• Clouds Subsystem Delivery (SCCR 241) to CERESCM. (R.Brown, Sun-Mack)• Implemented MODIS 3.7um calibrations for BTemp and radiance. (Sun-Mack)• March 7 (and 8,9) 2000 DAO GEOS3.3 test data arrived. Had trouble to read this MOA: Skin Temperature too low, too striping,.... lots core dumped, while reading ECMWF MOA fine with the same reader. Found one problem: The geolocation inputs to subroutine Get_SKT_Reg had been changed by the subroutine. This was fixed. But core dumped remained and new problem occurred: SkinTemp = 0.0 for some of the edging boxes. (Sun-Mack)	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	

Table 3: March 14, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
4.4	Miller	<ul style="list-style-type: none"> • Attended SGI tutorial in Silver Springs, MD. Excellent seminar on optimization and debugging. Reviewed notes for wider dissemination. (Miller) • Started learning about parallel coding with MPI. (Miller) • Discussed 2-day CRH update strategy with Ms. Sun-Mack. (Miller) • Produced SSF daily binary QC for those days that were missed during production. (Miller) • Produced Narrowband-Broadband scatter plots for May 6, 1998 data after much frustration with an IDL bug. There is a small range of points outside the graph range that will prevent a plot from happening even though larger values were okay. Posted these on the web. (Miller) • Processed an hour of ASDC produced simulated IES. No problems were noted. (Miller) • Coordinated with the Science Team and ASDC on the best day to run a Terra test case. Clarified incorrect items in the Operators Guide. (Miller) • Pulled SSFs that covers the Great Plain ARM site for March and April. Combined all footprints into a single monthly file. Created scatter plot files. (Miller) 	
4.5	Nolan	<ul style="list-style-type: none"> • Completed preparation and testing of Inversion software package which was delivered to CM on March 2, 2001. (Nolan and Franklin) • Completed modification to the SS 4.5-6 Test Plan and Operator's Manual which were also delivered to CM on March 2, 2001. (Nolan and Franklin) • Continued work to integrate and test the preliminary CERES ADM code. (Nolan) • Attended meeting to discuss CERES Processing and Subsetting on March 8, 2001. (Nolan) • Delivered the new CERESlib module, ssf2hdf_params, and an associated README file to be included in the CERESlib delivery. Modified it to work with the NAG compiler and redelivered it to Joe. (Franklin) 	
4.6	Nolan	Combined with above.	

Table 3: March 14, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
5.0	Coleman	<ul style="list-style-type: none"> • Determined that SARB will process in production with the Collins aerosol climatology for the Jan-Aug 1998 TRMM time frame. (Coleman) • Delivered sarb_params module (contains CRS type definitions) to CERESlib. (Coleman) • Completed software for SSI&T to compare test results against expected results for the different SARB output products. (Caldwell, Coleman) • Prepared subsystem for delivery to CM. (Coleman, Caldwell) • Answered questions from Tom Charlock regarding near-term processing at the DAAC. (Coleman) 	
7.2	Coleman	Combined with above.	
12.0	Coleman	<ul style="list-style-type: none"> • Provided Alice Fan with read software for ECMWF data. (Caldwell) • Working with Fred Rose and Sunny Sun-Mack to evaluate the latest DAS skin temperature data and retrieval software. (Caldwell) • Began modifications to pcf generator and F90 software to accommodate a change in the version number portion of the DAS input filenames. (Caldwell) • Began reviewing new ECMWF library software. (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 	

Table 3: March 14, 2001 - Subsystem Status

SS No.	SS Lead	Status	Problems
10.0	Nguyen/ Raju	<ul style="list-style-type: none"> Corrected the normalization process for total-sky and clear-sky SW TOA flux. Used the CERES measurements of the day for normalization of ggeo albedo. This process was not done before. Plotted to compare with ERBE method. According to Young, the comparison is better. (Nguyen) Used the ggeo cloud data to correct the directional model values. Added this correction to tisa averaging code before the delivery. (Nguyen) Changed the georc file with the new calibration from Raju. Tested and compared with the use of the old georc file. The comparison seems to be better according to Young. (Nguyen). Tested all the changes with February SFC data and delivered SS10 code to CM. (Nguyen) Reading April SSF Edition 1 data. Plotted the first three months of TRMM and Florianopolis surface flux data. (Nguyen) As for the science team requests wrote two IDL programs to plot all 4 fits from the 4 Geostationary satellites on one plot for LW and for Albedo. Verified generated outputs with the science team. Generated and setup the new georc file for ss10 process. (Raju) 	
6.0	Stassi/ Raju/ Nguyen	<ul style="list-style-type: none"> No updates. 	
9.0	Stassi/ Raju/ Nguyen	<ul style="list-style-type: none"> Modified test case to include 12 consecutive hours, so that output would have sufficient data to do significant testing in the Tisa Averaging subsystems. (Stassi) Completed updates to Test Plan Document. (Stassi) Delivered subsystems to CM. (Stassi) 	
11.0	Stassi/Fan	<ul style="list-style-type: none"> Completed updates to Operator's Manual. (Stassi) 	
CERESlib Stassi/Ayers		<ul style="list-style-type: none"> Updated the sarb_params.f90 module and added the ssf2hdf_params.f90 module to CERESlib. (Coleman, Franklin, Stassi) CERESlib delivered to CM. (Stassi) 	
IST	Flug	<ul style="list-style-type: none"> No new updates. 	