

## November 5, 2003 - System Issues and Status

**Table 1: Process Strategy/Geier as of 11/05/03**  
**Active Requests in order of priority (1 of 2)**

<b>Production Request (PR)</b>	<b>Satellite</b>	<b>Production Strategy</b>	<b>Data Product</b>	<b>Data Dates</b>	<b>Special Status</b>
PR 99-03		GEOS4	MOA	2/25/00 - 12/31/03	Rerun 2/25/00 - 9/00 when MOA redelivery promotes.
PR 110-03, 111-03	Terra	ValR1A	SSF	Select hours of 6/00	Once MOA reprocessed, attempt to rerun select hours.
PR 108-03	Terra/FM1	Edition2	SCC	2/00 - 1/01	Need dynamic Spectral Correction Coefficients for ALL Terra months.
PR 100-03, 101-03	Terra	ValR1	SSF	6/00	Done 10/31/03 - requires verification prior to kicking off Edition2-QC.
PR 96-03, 97-03	Terra	Edition2-QC	SSF	3/00 - 2/03	ValR1 Clouds must be approved before Edition2-QC starts.
PR 109-03		GEOS4	PMOA	3/1/00 - 12/31/03	Rerun 3/00 when MOA promotes.
PR 106-03, 107-03		ValR9, ValR9E	GGEO	3/00 - 2/03; every 3rd month	10/31/03 delivery date.
PR 103-03 to 105-03	Terra	Beta3, Beta3B, Beta3E	SRBAVG	3/00 - 2/03; every 3rd month	No delivery needed.
PR 95-03	Terra	Beta2	SFC	3/00 - 2/03; every 3rd month	No delivery; run for same months as ValR9 GGEO using Edition2-QC.
PR 92-03	Terra	Beta5 (Inversion only)	SSF	1/01 - 10/02	Done 10/21/03.
PR 102-03	Terra	Beta5	CRS	FM2: 1/2/01	Process single alongtrack day.
PR 94-03	Terra	Beta5	CRS	1/01 - 12/01	Beta5 SSF input; Process crosstrack only.

**Table 1: Process Strategy/Geier as of 11/05/03**  
**Active Requests in order of priority (2 of 2)**

<b>Production Request (PR)</b>	<b>Satellite</b>	<b>Production Strategy</b>	<b>Data Product</b>	<b>Data Dates</b>	<b>Special Status</b>
PR 93-03	Terra	Beta5	FSW	1/01 - 12/01	New CRS parameters NOT included; Beta5 CRS input; delivery promoted 10/8.
Standing requests PM-PR 23-02 to 30-02 and PM-PRs 1-03, 3-03 to 6-03	Aqua	Baseline1 Edition1	BDS/ ERBELike BDS/ ERBELike	For 6/03 - present	
Standing request PM-PR 2-03	Aqua/ Terra	Edition1	ES4/ES9	For 6/03 - present	
Standing requests AM-PR 1-00 to 7-00	Terra	Edition1	BDS/ ERBELike	For 6/03 - present	
PR 94-02		ECMWF-GEOS4	MOA	Through 9/03	Done 10/17/03.
PR 25-03, 26-03		ECMWF-GEOS4	PMOA	Through 9/03	Done 10/20/03.
M-PR 3-02		NSIDC-NES-DIS	EICE ESNOW	Standing request	
PR 102-03	Terra	Beta5	CRS	FM2: 1/16/01, 1/30/01, 6/5/01, 6/19/01; FM1: 3/13/01, 3/27/03	Selected alongtrack days.
PR 96-03, 97-03	Terra	Edition2-QC	SSF	3/03 - 6/03	Run at LOW priority after 2/03 finishes.
PR 61-03	Terra	Beta1	Synoptic SARB	1/01, 4/01, 7/01	<b>ON HOLD</b> Requires redelivery currently scheduled 10/3/03. Full delivery fixes segmentation faults, rerun TRMM data.

**Table 2: Process Strategy/Geier as of 11/05/03  
Coming Soon**

Active Month	Satellite	Processing Strategy	Data Product	Data Dates	Comments
12/03	Terra	ValR2 (Inversion only)	SSF	Several days, up to 2 month	Delivery currently scheduled for 10/24/03. This must be approved before Edition2A starts.
	Terra	Edition2A (Inversion only)	SSF	3/00 - 6/03	Production starts once ValR2 approved. Delivery currently scheduled for 10/24/03.
	Aqua	Beta2	SSF	10/02	11/7/03 delivery needed. Include renamed MODIS aerosol parameter; 4x2 MODIS; every other SSF FOV when vzen < 63 deg; 7/1 Inversion delivery handles latest SRF.
	Aqua	Beta1	CRS	10/02	Preprocessor redelivery needed; delivery needed 10/10/03.
	Terra	Beta6	FSW	1/01 - 12/01	10/31/03 delivery. Picks up new CRS parameters.
	Aqua	Beta1	FSW	0/02	Requires redelivery of 6.3; currently scheduled together with Terra delivery that picks up additional CRS parameters; delivery expected 10/31/03.
1/04	Terra	Beta2	TSI	3/00 - 2/01	Delivery need date 11/7/03.
	Terra	Beta1	SYN/AVG/ZAVG	1/01, 4/01, 7/01	
	Aqua	Beta1	TSI		Not on Bruce's schedule.
	TRMM	Beta2	Synoptic SARB	4/98, 7/98, 8/98	Rerun 3 months of SYNI to use as input for SYN/AVG/ZAVG.
	TRMM	Beta1	SYN/AVG/ZAVG	4/98, 7/98, 8/98	Delivered 8/22; If compressed HDF available when synoptic SARB delivers, TISA code will be redelivered.
	Aqua	Beta1	Synoptic SARB		Not on Bruce's schedule.
	Aqua	Beta1	SYN/AVG/ZAVG		Not on Bruce's schedule.

**Table 3: November 5, 2003 - System Issues and Status**

Activity	Lead	Status
CM	Ayers	<ul style="list-style-type: none"> <li>• See Table 4 for SCCR activity since the last DMT meeting. SCCRs that need to be reviewed follow Table 4. (Ayers)</li> <li>• Tested the following deliveries and released them to the ASDC: Clouds (SCCR 467), Inversion (SCCR 477), CERESlib (SCCR 480), and Regrid MOA (SCCR 479). (Ayers)</li> <li>• Delivered various updated files and documentation to the ASDC. (Ayers, Saunders)</li> <li>• Delivered the following files to the ASDC (Ayers): <ul style="list-style-type: none"> <li>• Instrument Gains files for Aqua FM3 and FM4 for October 1, 2003 through December 31, 2003.</li> <li>• Spectral Response Function files for Edition2 Terra FM1 for February 25, 2000 through January 31, 2001.</li> <li>• Clouds S'COOL data file for September 2003.</li> </ul> </li> </ul>

**Table 4: SCCR Activity October 20 at 12:30 p.m. - November 3 at 12:30 p.m.**

SCCR	S	U	A	C	D	SS	Page No.	Comments
467		X	X	X		4.1-4.4		
472				X		4.5&4.6		
475			X			6		CERESlib modifications
476		X	X			6 & 9		
477	X		X			4.5&4.6	5	
478	X		X			12	5	CERESlib modifications
479	X		X			12	6	
480	X		X			CERESlib	6	
481	X					7.1	7	

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

### **CERES Software Configuration Change Request Submittal**

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Subsystem: Inversion

SCCR Date & TIME: 2003-10-23 12:48:11

SCCR No.: 477

Description of Change (Science):

Parameter, admgeo (SSF #30) added to the SSF subset. SSF Subset ID increased to 120

Reason for Change (Science):

Requested by Norman Loeb

Description of Change (non-Science):

N/A

Reason for Change (non-Science):

N/A

Affected PGEs : none

Est. Time to Complete Changes : 1 week

Planned Delivery Date : Friday, October 31, 2003

Impact : New version of ssf2\_typdef with new ssf2 id.

Originator: HOPPE, AARON T. (SAIC)

### **CERES Software Configuration Change Request Submittal**

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\*\*\* All changes described in this SCCR were made in CERESlib. \*\*\*

Subsystem: MOA

SCCR Date & TIME: 2003-10-29 15:13:35

SCCR No.: 478

Description of Change (Science):

None

Reason for Change (Science):

None

Description of Change (non-Science):

Correction to vertical profile checking routine in moa\_io\_read module.

Reason for Change (non-Science):

Routine allowed default data values to be assigned to non-default profile levels.

Affected PGEs : CER12.1P1

Est. Time to Complete Changes : 2 hours

Planned Delivery Date : October 30, 2003

Impact : CER4.1P1 (Clouds), CER4.5-6.1P1 (Inversion), CER9.1P1, CER5.0-5.1P1 (SARB), CER7.2P1 (SynSARB)

Originator: CALDWELL, THOMAS E. (SAIC)

### **CERES Software Configuration Change Request Submittal**

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Subsystem: MOA

SCCR Date & TIME: 2003-10-29 15:18:06

SCCR No.: 479

Description of Change (Science):  
None

Reason for Change (Science):  
None

Description of Change (non-Science):  
Recompilation of RegridMOA Subsystem (PGE CER12.1P1).

Reason for Change (non-Science):  
To implement changes made to moa\_io routines as mentioned in SCCR 478.

Affected PGEs : CER12.1P1

Est. Time to Complete Changes : 2 hours  
Planned Delivery Date : October 30, 2003  
Impact : None

Originator: CALDWELL, THOMAS E. (SAIC)

### **CERES Software Configuration Change Request Submittal**

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\*\*\* All changes described in this SCCR were made in CERESlib. \*\*\*

Subsystem: CERESlib

SCCR Date & TIME: 2003-10-29 16:59:29

SCCR No.: 480

Description of Change (Science):  
see SCCRs #475 and #478  
#475 ... TISA Gridding modules  
#478 ... moa\_io\_read.f90

Reason for Change (Science):  
see SCCRs #475 and #478

Description of Change (non-Science):  
see SCCRs #475 and #478

Reason for Change (non-Science):  
see SCCRs #475 and #478

Affected PGEs : see SCCRs #475 and #478

Est. Time to Complete Changes : n/a  
Planned Delivery Date : Thursday October 30, 2003  
Impact : see SCCRs #475 and #478

Originator: STASSI, JOE C. (SAIC)

## CERES Software Configuration Change Request Submittal

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Subsystem: TISAavg7.1

SCCR Date & TIME: 2003-10-31 10:29:02

SCCR No.: 481

### Description of Change (Science):

1. Modify code to include overlap hours from FSW data.
2. Modify code to use overlap hours from PMOA and GGEO data.
3. Correct GGEO SW interpolation algorithm to work in GMT time.
4. Correct CSZA computation to be work in GMT time.

### Reason for Change (Science):

1. Overlap hours were recently added to the FSW product.
2. Previously, PMOA and GGEO overlap data were not used.
3. This code was originally written for SS7.1 which uses local time.
4. This code was originally written to work with local time.

### Description of Change (non-Science):

None

### Reason for Change (non-Science):

None

Affected PGEs : CER7.1.1P1

Est. Time to Complete Changes : 1 week

Planned Delivery Date : November 7 2003

Impact : SS7.2

Originator: NGUYEN, CATHY (SAIC)

**Table 5: November 5, 2003 - Subsystem Issues and Status (1 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
1.0	Cooper	<ul style="list-style-type: none"> <li>Continued tracking receipt of Aqua and Terra data. (Cooper, Snyder)</li> <li>Continued testing of the code updates to add double drift correction for Aqua Edition2 processing. Verified that when double drift correction is turned off data matches previously created output products. (Cooper, Escuadra, Spence)</li> <li>Verifying double drift correction implementation. Analyzing BDSs created using the updated code to verify the updates are working as expected. (Spence)</li> <li>Testing updates to PGE CER1.3P3, BDS Edition2 Processor, to add double drift correction of radiances to match the SS1 main subsystem processor (PGE CER1.1Px). (Escuadra)</li> <li>Added the Solar Eclipse flagging to the Instrument Subsystem main processor and created Pre-ES8s for ERBE-Like to verify the flagging is correct. Also, updated the BDS Edition2 processor to add Solar Eclipse flagging. Created one day of IES files with the Solar Eclipse flags. (Cooper, Kizer, Walikainen)</li> <li>A paper on automated PAPS for PPS and CERES/GERB has been submitted to the AIAA Sciences Meeting. (Szewczyk)</li> <li>A new macro (Stored Command Sequence) for PPS over Antarctica to be used during the winter solstice has been generated. (Szewczyk)</li> </ul>	
2.0	Kizer	<ul style="list-style-type: none"> <li>Began investigating the usage of the eclipse flag supplied by the instrument group. (Kizer)</li> <li>Continuing to work with the TISA group to insure proper implementation and testing of the HDF file compression utility. (Kizer)</li> <li>Continuing to modify the SS3 Operator's Manual to show additional scatter plots and ES-4 statistics plots. (Kizer)</li> <li>Continuing to examine the production email generated by the QC checker software. (Walikainen)</li> </ul>	



**Table 5: November 5, 2003 - Subsystem Issues and Status (2 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
2.0	Kizer (Cont.)	<ul style="list-style-type: none"> <li>Continuing to inspect ERBE-like Aqua and Terra output plots and QC reports on the Web. (Walikainen, Kizer)</li> </ul>	
3.0	Kizer	Combined with above.	
4.1	Sun-Mack	<ul style="list-style-type: none"> <li>Processed Zonal Seasonal QC Results for Terra MODIS Edition1A from March 2000 through October 2002. Modified DX QC net to process VIRS using normal projection. Processed all TRMM VIRS Edition1 and Edition2 monthly QC data with normal projection to be used with QC Viewer Comparison Tool. (R.Brown)</li> <li>Continued processing TRMM VIRS Edition2 CloudVis data for the Cape Verde and Ascension Islands regions through July 1999 and Terra MODIS Edition1A CloudVis images for the Nauru region through October 2002 and the Alaska ARM NSA Site through January 2002. (R.Brown)</li> <li>Tested new TRMM Dprep executable produced at ASDC. Ran a day of TRMM-VIRS with the Ephemeris and Attitude files produced by the new TRMM Dprep executable. Validated the results. The results: clouds look like clouds. (Cepaitis, Sun-Mack)</li> <li>Ran Terra-MODIS granule (this is the granule when MODIS cover is closed): April 26, 2000, hour 10:30 and checked the Clouds results to see what Clouds code does when the cover is closed. The conclusion: Clouds doesn't do anything. (Geier, Sun-Mack)</li> <li>Validated 30 days of clear-sky ValR1 maps for both 0.6<math>\mu</math>m and 1.6<math>\mu</math>m. (Chen, Sun-Mack)</li> <li>Working on 8.5<math>\mu</math>m emissivity calculation to debug the stripping problems in 8.5<math>\mu</math>m emissivity map. (Chen, Sun-Mack)</li> </ul>	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	

**Table 5: November 5, 2003 - Subsystem Issues and Status (3 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
4.4	Miller	<ul style="list-style-type: none"> <li>• The new MOA read modules were tested in cloud retrieval. They resolve the problem with missing data included above the surface. (Miller)</li> <li>• Nine hours that experienced problems during ValR1 production were successfully identified as having the GEOS 4 MOA problem. (Miller)</li> <li>• Determined that clouds input data was not being placed in convolution meta data because the number of input files exceeded the internal limit. The code was modified to include the first 80 files. (Miller)</li> <li>• Terra ValR1 clouds production was monitored. Fifty-four hours did not process. Missing IES (21) and MODIS (20) data was the major cause for these missing hours. (Miller)</li> <li>• Investigated cloud retrieval and convolution algorithms when processing MODIS closed cover data. No cloud fraction information prevented most information from being placed on SSF footprints. The exception were those footprints that CERES window channel supported clear over land. (Miller)</li> </ul>	
4.5	Nolan	<ul style="list-style-type: none"> <li>• Modified PGE CER4.5-6.2P2 to include admgeo parameter in the SSF subset files. Tested and delivered tar files for SCCR 477 to CERESCM. (Hoppe)</li> <li>• Made changes to the test plan for PGE4.5-6.2P2 and delivered document to CERES Documentation. (Hoppe)</li> <li>• Initiated work to add SW and LW Terra Edition2 ADM software to PGE CER4.5-6.3P2. (Nolan)</li> <li>• Prepared number of lines of code counts for the non-production Inversion/ADM group software. (Hoppe and Nolan)</li> </ul>	
4.6	Nolan	Combined with above.	
5.0	Coleman	<ul style="list-style-type: none"> <li>• Prepared a testing area for members of the working group who want to test changes to production code. (Coleman)</li> </ul>	

**Table 5: November 5, 2003 - Subsystem Issues and Status (4 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
7.2	Coleman	<ul style="list-style-type: none"> <li>Evaluating results of test cases at the SCF, and working with the TISA group to resolve questions. (Coleman)</li> <li>Modified ascii filename and PCF generators to include the daily MATCH files that are input beginning with the Terra data. Now working on the Fortran code that ingests the daily MATCH files. (Zentz)</li> </ul>	
12.0	Coleman	<ul style="list-style-type: none"> <li>Determined the cause of the erroneous default meteorological profile values above the surface problem and made emergency delivery of CERESlib MOA interface software to correct it. (Caldwell)</li> </ul>	
7.1	Nguyen	<ul style="list-style-type: none"> <li>Testing and preparing for the delivery. (Nguyen)</li> </ul>	
8.0	Nguyen	<ul style="list-style-type: none"> <li>Adding the HDF compression for SYN, AVG, and ZAVG. It seems to be there is a problem with the SYN HDF compression. Getting help from Ed Kizer to solve the problem. (Nguyen)</li> </ul>	
10.0	Nguyen	<ul style="list-style-type: none"> <li>Merging SS7 with SS10 interpolation code. Testing and comparing the time-series of both Subsystems. (Nguyen)</li> <li>Count the lines of the validation code for the three Subsystems plus Jeff Boghosian's code which used for production of directional models and for the direct integration of the TRMM SW data. (Nguyen)</li> </ul>	
6.0	Raju	<ul style="list-style-type: none"> <li>New parameter, Snow/Ice Percentage from Imager History was added to FSW data structure. (Raju)</li> <li>Snow/Ice percentage for clear sky area was calculated and written to FSW product. (Raju)</li> <li>Preparing for Subsystem delivery. (Raju)</li> </ul>	
9.0	Raju	<ul style="list-style-type: none"> <li>New parameter, Snow/Ice Percentage from Imager History was added to SFC data structure. (Raju)</li> <li>Snow/Ice percentage for clear sky area was calculated and written to SFC product. (Raju)</li> <li>Preparing for Subsystem delivery. (Raju)</li> </ul>	

**Table 5: November 5, 2003 - Subsystem Issues and Status (5 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
11.0	Stassi	<ul style="list-style-type: none"><li>• Sunny corrected problems in the Clouds subsystem code along paths used by GGEO processing. The data months January and April 2001 were run through GGEO with the corrections. The Web plots show that the problem in the cloud percent values has been fixed. (Sun-Mack, Stassi)</li><li>• Ran first-pass processing on March 2003 data. Provided output to Dave Young and Dave Doelling. (Stassi)</li><li>• Reran first-pass processing for Jan 2001 data to create again the cold cloud files. (Stassi)</li><li>• Calculated estimated LOC for GGEO validation programs. (Stassi)</li></ul>	
CERESlib Stassi/Ayers		<ul style="list-style-type: none"><li>• Updated the TISA Gridding modules on the SCFs. (Raju, Stassi)</li><li>• Updated the moa_io_read.f90 file on the SCFs. (Caldwell, Stassi)</li><li>• Delivered CERESlib to CERES CM. (Stassi)</li></ul>	