

## October 5, 2005 - System Issues and Status

**Table 1: Process Strategy/Geier as of 10/05/05**  
**Active Requests in order of priority (1 of 3)**

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
116-05		ValR7	SRBAVG( SS10)	10.1P2 10.1P1	3/00 - 2/03	
M-PR 3-02		NSIDC- NESDIS	EICE ESNOW (SS4.1)	4.1-4.0P1	Standing request	
89-05, 90-05		ValR15	GGEO (SS11)	11.1P10 11.2P2	5 months	Done 9/22/05.
86-05 to 88-05		ValR16	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2 11.4P1	7/02	Done 9/23/05.
85-05		ValR15	GGEO (SS11)	11.6P1	10/01	Done 9/23/05.
131-05	Terra	ValR5	CRS (SS5)	5.0P1	3/05	
130-05	Terra	ValR5	CRS (SS5)	5.1P1	3/15/05	
122-05 to 125-05		Beta4	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2	3/03 - 4/03	<b>Hold until ValR15 and ValR16 approved.</b>
120-05 to 121-05		Beta4	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P10 11.2P2	6/03 - 5/04	<b>Hold until ValR15 and ValR16 approved.</b>
118-05 to 119-05		Beta4	GGEO (SS11)	11.1P10 11.2P2	6/04 - 12/04	<b>Hold until ValR15 and ValR16 approved.</b>
117-05		Beta4	GGEO (SS11)	11.4P1	3/03 - 12/04	<b>Hold until ValR15 and ValR16 approved.</b>

**Table 1: Process Strategy/Geier as of 10/05/05**  
**Active Requests in order of priority (2 of 3)**

<b>Production Request (PR)</b>	<b>Satellite</b>	<b>Production Strategy</b>	<b>Data Product (SS#)</b>	<b>PGEs</b>	<b>Data Dates</b>	<b>Special Status</b>
Standing requests AM-PR 1-00 to 7-00	Terra	Edition1	BDS/ ERBELike (SS1-3)	1.1P3 1.2P1 1.3P1 1.3P2 2.1P1 2.2P1 2.3P1 2.3P2 3.1P1 <del>3.2P2</del>	For 8/05 - present	DO NOT PROCESS 3.2P2 - it is disabled.
Standing requests PM-PRs 1-05 to 4-05	FM3	Edition1	BDS/ ERBELike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1	8/05 forward	
Standing requests PM-PRs 7-05 to 10-05	FM4	Ed1-NoSW	BDS/ ERBELike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1	8/31/05 forward	
96-05	Terra	Edition2-QC	Clouds (SS4.1-4)	4.1-4.1P2 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	12/04 - 6/05	
95-05	Terra	Edition2B	Inversion (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	12/04 - 6/05	
94-05	Terra	Edition2C	TISAgri (SS9)	9.2P1 9.3P1 9.4P1	11/04 - 5/05	
94A-05	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	12/04	
94B-05	Terra	Edition2C	FSW (SS6)	6.1P1 6.2P1 6.3P1	11/04	

**Table 1: Process Strategy/Geier as of 10/05/05**  
**Active Requests in order of priority (3 of 3)**

<b>Production Request (PR)</b>	<b>Satellite</b>	<b>Production Strategy</b>	<b>Data Product (SS#)</b>	<b>PGEs</b>	<b>Data Dates</b>	<b>Special Status</b>
129-05	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	1/05 - 6/05	<b>Hold until ValR5 CRS approved.</b>
128-05	Terra	Edition2C	FSW (SS6)	6.1P1 6.2P1 6.3P1	12/04 - 5/05	
M PR 2-04		GEOS4	MOA (SS12)	12.1P1	Standing request	
M PR 1-04		GEOS4	PMOA (SS9.1)	9.1P1	Standing request	
126-05, 127-05	Terra	Edition2B	Inversion (SS4.5-6)	4.5-6.3P2 4.5-6.2P2	9/23/03 only	When originally processed, hours 3-6 were left off.
115-05	FM1	Edition1	BDS (SS1)	1.1P3 1.2P1 1.3P1 1.3P2	5/01 only	During tape migration, 5 days of latest cc# 5/01 data were lost. Rerun to replace the month.
112-05 to 114-05	Terra	ValR7	Inversion (SS4.5-6)	4.5-6.6P2 4.5-6.2P2 4.5-6.4P1	5 select days	<b>Hold until PR 95-05 completes.</b>
109-05 to 111-05	Aqua	ValR7	Inversion (SS4.5-6)	4.5-6.6P3 4.5-6.2P2 4.5-6.4P1	4 select 2003 days	<b>Hold until PR 95-05 completes.</b>

**Table 2: Process Strategy/Geier as of 10/05/05  
Coming Soon**

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
10/05	Terra	Edition2D	SRBAVG (SS10)	3/00 - 2/03	
11/05	Terra	Beta4	SRBAVG (SS10)	3/03 - 12/04	
	Aqua	Beta1	SRBAVG (SS10)	7/02 - 2/03	
	Terra	Beta3	TSI (SS7.1)	3/00 - 2/03	
12/05	Aqua	ValR8	Inversion (SS4.5-6)	Select dates 7/02 - 3/05	Waiting on Norman's ADMs and updated Surface Estimation.
	Aqua	Edition2A	Inversion (SS4.5-6)	7/02 - 3/05	Wait on ValR8 approval.
	Aqua	ValR8	SFC (SS 9)	Select dates 7/02 - 3/05	Waiting on Aqua Edition2A SSF.
	Aqua	Edition2A	SFC (SS 9)	7/02 - 2/05	Wait on ValR8 approval.
	Aqua	ValR8	CRS (SS 5)	Select dates 7/02 - 12/04	Wait on code delivery; to run on IBM cluster.
1/06	Aqua	Edition2A	CRS (SS 5)	7/02 - 12/04	Wait on ValR8 CRS approval; to run on IBM cluster.
	Aqua	ValR8	FSW (SS 6)	Select dates 7/02 - 11/04	Wait on Edition2A CRS.
	Aqua	Edition2A	FSW (SS 6)	7/02 - 11/04	Wait on ValR8 approval.
unkn	Terra	Beta3	Synoptic SARB (SS7.2)	12 months	
	Terra	Beta3	SYN/AVG/ ZAVG (SS8)	12 months	
	Aqua	Beta1	TSI (SS7.1)		Not on Bruce's schedule.
	Aqua	Beta1	Synoptic SARB (SS7.2)		Not on Bruce's schedule.
	Aqua	Beta1	SYN/AVG/ ZAVG (SS8)		Not on Bruce's schedule.

**Table 3: October 5, 2005 - System Issues and Status**

<b>Activity</b>	<b>Lead</b>	<b>Status</b>
CM	Ayers	<ul style="list-style-type: none"><li>• See Table 4 for the current CERES Subsystem Delivery Schedule. (Ayers)</li><li>• See Table 5 for SCCR activity since the last DMT meeting. SCCRs that need to be reviewed follow Table 5. (Ayers)</li><li>• Installed and tested the following deliveries and released them to the ASDC: GGEO (SCCR 595), Instantaneous SARB (SCCR 598), and TISA Gridding (SCCR 594). (Ayers)</li><li>• Delivered the updated TISA Averaging and TISA Gridding Operator's Manuals to the ASDC. (Saunders, Ayers)</li><li>• Installed the Clouds S'COOL data files for July and August 2005 and released them to the ASDC. (Saunders)</li><li>• Updated the CERES Subsystem Delivery Schedule. (Ayers, Saunders)</li></ul>

**Table 4: CERES Subsystem Delivery Schedule - October 2005**  
**(Next Science Team Meeting - November 1 - 3, 2005 in Hampton, VA)**

Subsystem	Preliminary Delivery Memo to CM	Delivery to CERES CM	Delivery to Langley DAAC	Reason for Delivery	CERESlib Delivery Needed	New PGE(s)
CERESlib	September 30	October 14	October 21	Inversion modifications.		
TISA Averaging (SCCR 583)	October 7	October 21	October 28	Process Terra Edition2D SRBAVG.		X
Inversion (SCCR 596)	October 14	October 28	November 4	Delivering Aqua ADMs and code changes (PGE CER4.5-6.3P3) to use them.	X	
Instantaneous SARB	November 4	November 18	November 25	To process Aqua Edition2A CRS on the IBM cluster for 7/02 - 12/04.		
TISA Averaging	November 18	December 2	December 9	Process Terra Beta TSI.		
Clouds	Spring 2006			To process MODIS V005. Delivery needs to be made prior to processing Collection 5.		
Clouds	???			Support TRMM VIRS-only processing of August 2001 forward.		

**Table 5: SCCR Activity September 19 at 2:15 p.m. - October 3 at 3:00 p.m.**

SCCR	S	U	A	C	D	SS	Page No.	Comments
587				X		4.5 & 4.6		
595				X		11		
596	X					4.5 & 4.6	7	
597	X					5	8	
598	X		X	X		5	9	

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

**CERES Software Configuration Change Request Submittal**

Subsystem: Inversion

SCCR Date & TIME: 2005-09-19 14:32:15

SCCR No.: 596

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

Update PGEs CER4.5-6.3P3 and CER4.5-6.6P3 (Aqua Inversion only) to use the new Aqua Edition2B ADMs.

Reason for Change (Science):

New Aqua Edition2B ADMs provided by ADM working Group.

Description of Change (non-Science):

n/a

Reason for Change (non-Science):

n/a

Parameter(s) and Product(s) Being Changed (Use Name(s) from Data Products Catalog) and Description of Parameter Change:

N/A

Reason for Parameter Change:

N/A

Affected PGEs: CER4.5-6.3P3, CER4.5-6.6P3

Estimated Time to Complete Change : 2 weeks

Planned Delivery Date : October 28, 2005

List Affected Subsystems and PGE Names: Inversion PGEs CER4.5-6.3P3 and CER4.5-6.6P3

Originator: NOLAN, SANDY K. (SAIC)

## CERES Software Configuration Change Request Submittal

---

Subsystem: InstSARB

SCCR Date & TIME: 2005-09-23 09:36:07

SCCR No.: 597

Parameter Change: ( ) YES (X) NO

### Description of Change (Science):

1. Correct the surface albedo retrieval for instances of MATCH values less than 0.0001.
2. Modify definition of surface albedo over cloudy coast to use the SAH cloudy land albedo value for ocean coverage of less than 1%.
3. Modify definition of surface albedo over clear sky coast to use Z. Jin's ocean LUT value.
4. Modify cloudy sky over snow surface albedo retrieval to include a more complex LUT (ASSALUT).
  - a) Use Sulfate AOT for retrieval model
  - b) Assume OCEAN sfcAlb for out of range low retrieval, Assume SNOW for out of range high retrieval
5. Modify the spectral shape in the UV region.
6. Correct the direct/diffuse definition for ice clouds.
7. Modify the definition of PAR to include Wenying Su's spectral weighting factors.
8. Include time varying trace gas concentrations for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O.
9. Alter water percentage thresholds to 20:99% to be treated as Coast for surface albedo logic.

### Reason for Change (Science):

1. Correcting potential for a division by zero.
2. Correcting unrealistically large surface albedo values for cloudy-sky coastal FOVs.
3. Correcting the resulting modeled TOA albedo that was larger than the CERES value for clear sky coast.
4. Accounting for the influence of more available input parameters.
5. Revised values for the closed shrubs, woody savanna, savanna, grassland, cropland, crop mosaic, and tundra IGBP scene types.
6. Improved handling of the ice cloud forward scattering peak for the 2-stream solver.
7. New weighting factors that convert the spectral band 7-10 (557.5-689.6nm) output to 400-700nm.
8. Account for increase in trace gas increases that have been observed.
9. Mostly land (1:20%) fovs are better served by using the Surface Albedo History (SAH) Map than using a water percent weighted IGBP default surface albedos

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

Prepare software to also process in the OpenSource environment

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

New, additional platform available for processing

Parameter(s) and Product(s) Being Changed (Use Name(s) from Data Products Catalog) and Description of Parameter Change:

N/A

### Reason for Parameter Change:

N/A

Affected PGEs: CER5.0P1, CER5.1P1

Estimated Time to Complete Change : 4 months

Planned Delivery Date : November 18, 2005

List Affected Subsystems and PGE Names: No code changes for other subsystems

Originator: COLEMAN, LISA H. (SAIC)



## CERES Software Configuration Change Request Submittal

---

Subsystem: SARB

SCCR Date & TIME: 2005-09-28 14:05:01

SCCR No.: 598

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

N/A

Reason for Change (Science):

N/A

Description of Change (non-Science):

Delivery of MATCH vertical profile and AOD daily data files for 20050101 - 20050630. No software changes.

Reason for Change (non-Science):

Routine ancillary input data set delivery (delta)

Parameter(s) and Product(s) Being Changed (Use Name(s) from Data Products Catalog) and

Description of Parameter Change:

N/A

Reason for Parameter Change:

N/A

Affected PGEs: CER5.0P1, CER5.1P1

Estimated Time to Complete Change : 1 day

Planned Delivery Date : 09/29/05

List Affected Subsystems and PGE Names: N/A

Originator: COLEMAN, LISA H. (SAIC)

**Table 6: October 5, 2005 - 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 monitoring receipt of Aqua and Terra Level-0, Ephemeris and Attitude data. (Cooper, Snyder)</li> <li>Continue to monitor FM4 anomaly. (Team)</li> <li>Updates to add Solar and Lunar Angles to the BDS file have been completed and are being tested. It was decided to only report Solar and Lunar Beta and Eta angles at the beginning of each record, so only 4 new SDSs are being added, Solar Azimuth and Elevation Angles along with Lunar Azimuth and Elevation Angles. CER1.3P3 will also need to be updated to include these angles in the Edition2 BDS. This will be a matter of copying over the data if it exists on a BDS; CER1.3P3 will not calculate these angles if they are not present on an existing Edition1 BDS. (Cooper)</li> </ul>	
2.0	Walikainen	<ul style="list-style-type: none"> <li>Continuing to monitor Terra Direct Compare with FM2 in cross track mode after two months of stow. Providing an upper bound estimate of possible cross track degradation by assuming Sep 05 upturn is degradation not noise. (Walikainen)</li> <li>Using SW flux binned data to provide a new look at Direct Compare. (Walikainen)</li> <li>Continuing to examine the production email generated by the QC checker software. (Walikainen)</li> <li>Continuing to inspect ERBE-like Aqua and Terra output plots and QC reports on the Web. (Walikainen)</li> </ul>	
3.0	Walikainen	Combined with above.	
4.1	Sun-Mack	<ul style="list-style-type: none"> <li>Processed S'COOL datasets for July and August 2005 and delivered to CM. (R. Brown)</li> <li>QC global images and statistics for December 2004 through March 2005 for the Terra MODIS Edition2- QC data sets were generated and posted on the Web. (R. Brown)</li> </ul>	

**Table 6: October 5, 2005 - Subsystem Issues and Status (2 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
4.1	Sun-Mack (Cont'd)	<ul style="list-style-type: none"> <li>CloudVis images for the Aqua Edition1A datasets from 200408 through 200412 for the Marie Byrd Land region were generated and posted on the Web. CloudVis images for the Terra Edition2-QC datasets from 200401 through 200405 for the Alert and Eureka, Canada regions and the Tiksi, Russia region were generated and posted on the Web. (R. Brown)</li> <li>Worked on Lightning Studies. (Gibson, Chen, Sun-Mack)</li> <li>Worked on the cause of low clouds retrieval returning defaults. (S. Sun-Mack)</li> <li>Worked on the cause of background returned clear while it should be sea ice for Tom Charlock. (S. Sun-Mack)</li> </ul>	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	
4.4	Miller	<ul style="list-style-type: none"> <li>Monitored Terra Edition2-QC processing. January through June 2005 was completed. Three, four, eight, one, two, and four hours were not processed. One hour failed in clouds, seven hours had problems with MODIS staging and scratch space, and the remaining hours did not have IES data. (Miller)</li> <li>Processed Terra data for July 1, 2003 through the Aqua production code. This was done for Dr. Norm Loeb to determine the impact of changes on the Aqua ADMs. (Miller)</li> <li>Completed the update to the MOD06, MODIS clouds, reader for use with cloud retrieval. Processed one five minute granule. (Miller)</li> <li>Updated artifact list for Requirements and Quality Assurance for CMMI Class C assessment. Attended brainstorming session for General Practices. (Miller)</li> </ul>	

**Table 6: October 5, 2005 - Subsystem Issues and Status (3 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
4.5	Nolan	<ul style="list-style-type: none"> <li>Completed modification of SCF version of the Aqua CER4.5-6.3P3 code for the updated LW/WN and SW ADM's from Norman Loeb. Continued testing the modifications for verification and validation of the changes. (Sothcott)</li> <li>Completed work to create binary SSF and SSF validation files using the updated SW surface flux models for all FM1 Edition2 July 2002 data for Shashi Gupta. (Sothcott)</li> <li>Retrieved Terra FM2 Daytime Aerosol subset files from the DAAC archive and made them available to the ADM Working Group. (Sothcott)</li> <li>Updated LW Surface Model B. Currently running updated code to create June 2004 Terra FM1 data for Shashi Gupta. (Sothcott)</li> <li>Continued work to test Aqua CER4.5-6.1P3 code with the Aqua Edition2 updates. (Nolan)</li> <li>Completed work to modify the Inversion Test Plan and Operator's Manual to include changes for the Aqua Edition2 updates. (Nolan)</li> </ul>	
4.6	Nolan	Combined with above.	
5.0	Coleman	<ul style="list-style-type: none"> <li>Testing on manila with Perl scripts. (Caldwell, Zentz)</li> <li>Processed a full day and a subsetted month of Terra data with Aqua Ed2B code as per the SARB WG's request. (Zentz)</li> <li>Making pre-processor baseline runs on SGI for comparison against manila results. (Caldwell)</li> <li>Completed first version of Perl scripts for testing. (Zentz)</li> </ul>	
7.2	Coleman	<ul style="list-style-type: none"> <li>Developing Perl scripts. (Zentz)</li> </ul>	
12.0	Coleman	<ul style="list-style-type: none"> <li>Developing Perl scripts. (Caldwell)</li> </ul>	

**Table 6: October 5, 2005 - Subsystem Issues and Status (4 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
7.1	Nguyen	<ul style="list-style-type: none"> <li>Ran July 2002 TSI for SYNI inputs on Lanina. Scott Zentz found that the data were not correct and there was not enough record in each TSI file. Ran the whole month over again on Thunder and provided the TSI data to Scott Zentz to run SYNI. (Nguyen)</li> <li>With Fred Rose, validating TSI. (Nguyen)</li> </ul>	
8.0	Nguyen	<ul style="list-style-type: none"> <li>No new updates.</li> </ul>	
10.0	Nguyen	<ul style="list-style-type: none"> <li>Delivered the Operator's Manual to CM. (Nguyen)</li> <li>Ran from July 2002 to February 2003 of Aqua and Terra. Wrote output interpolated TOA fluxes into ascii files for Dave Doelling to compare Aqua and Terra. (Nguyen)</li> <li>Continue preparing for the delivery. (Nguyen)</li> </ul>	
6.0	Raju	<ul style="list-style-type: none"> <li>Modified and tested PGEs 6.2P1 &amp; 6.3P1 environment scripts and PCF input generator scripts to add flags. Delivered scripts to CERES CM on September 27, 2005. (Raju)</li> <li>Updated Gridding Operator's Manual and sent to CERES Documentation. (Raju).</li> </ul>	
9.0	Raju	<ul style="list-style-type: none"> <li>Modified and tested PGEs 9.3P1 &amp; 9.4P1 environment scripts and PCF input generator scripts to add flags. Delivered scripts to CERES CM on September 27, 2005. (Raju)</li> <li>Updated Gridding Operator's Manual and sent to CERES Documentation. (Raju).</li> </ul>	
11.0	Raju	<ul style="list-style-type: none"> <li>Worked with Dave Doelling to determine the cause for GOES-9 view angle noon data not aligned with other satellites like GMS-5. It was found that the sub satellite longitude points for these two satellites differ and the code needed updates to accommodate these differences. (Raju)</li> </ul>	

**Table 6: October 5, 2005 - Subsystem Issues and Status (5 of 5)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
11.0	Raju (Cont'd)	<ul style="list-style-type: none"><li>• Temporary updates were made to ggeo main processor code to increase visible radiance value by 5%. This update was requested by science members to see the effect on SRBAVG product. Started processing Jan02, July 02 at SCF. (Raju, Caldwell)</li><li>• Work started to validate ValR15, ValR16 GGEO production products. (Raju, Caldwell)</li></ul>	
CERESlib Coleman/Zentz		<ul style="list-style-type: none"><li>• No new updates.</li></ul>	