

## January 23, 2008 - System Issues and Status

**Table 1: Process Strategy/Geier as of 1/23/08  
Active Requests in order of priority**

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
M-PR 3-02		NSIDC-NESDIS	EICE ESNOW (SS4.1)	4.1-4.0P1	Standing request	
PR 138-07	FM3	Test-G5-CERES1	Clouds (SS4.1-4)	4.1-4.1P5 4.1-4.2P3 4.1-4.2P2 4.2-4.3P2	1/06	<b>When the DAO-TestSCF-G5-CERES MOA files are delivered to ASDC, drop everything and run PRs 130-07 to 138-07.</b>
PR 137-07	FM3	Test-G5-CERES1	Inversion (SS4.5-6)	4.5-6.1P3 4.5-6.2P2 4.5-6.4P1	1/06	<b>Waiting on MOA.</b>
PR 136-07	FM3	Test-G5-CERES1	TISA grid (SS9)	9.2P1 9.3P1 9.4P1	1/06	<b>Waiting on MOA.</b>
PR 135-07	FM2	Test-G5-CERES1	Clouds (SS4.1-4)	4.1-4.1P4 4.1-4.2P3 4.1-4.2P2 4.2-4.3P2	1/06	<b>Waiting on MOA.</b>
PR 134-07	FM2	Test-G5-CERES1	Inversion (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	1/06	<b>Waiting on MOA.</b>
PR 133-07	FM2	Test-G5-CERES1	TISA grid (SS9)	9.2P1 9.3P1 9.4P1	1/06	<b>Waiting on MOA.</b>
PR 132-07	FM1	Test-G5-CERES1	Clouds (SS4.1-4)	4.1-4.1P4 4.1-4.2P3 4.1-4.2P2 4.2-4.3P2	7/04	<b>Waiting on MOA.</b>
PR 131-07	FM1	Test-G5-CERES1	Inversion (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	7/04	<b>Waiting on MOA.</b>
PR 130-07	FM1	Test-G5-CERES1	TISA grid (SS9)	9.2P1 9.3P1 9.4P1	7/04	<b>Waiting on MOA.</b>
PR 111-07	FM1, FM2	ValR9	TISA avg (SS10)	10.0P1 10.0P2 10.0P3	7/02, 1/03	<b>Waiting on Delivery.</b>

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PR 113-07	FM3, FM4	ValR9	TISA avg (SS10)	10.0P1 10.0P2 10.0P3	7/02, 1/03, 10/04	<b>Waiting on Delivery.</b>
PR 112-07	FM3, FM4	ValR10	TISA avg (SS10)	10.0P1 10.0P2 10.0P3	7/02, 1/03	<b>Waiting on Delivery.</b>
PR 129-07	FM1 or FM2	Beta4	TISA avg (SS 7.1)	7.1.1P1	4/00 – 10/05 seasonal months only	<b>Delivered, waiting on promotion.</b>
PR 128-07	FM1 or FM2	Beta4	Synoptic SARB (SS 7.2)	7.2.1P1	4/00 – 10/05 seasonal months only	<b>Delivered, waiting on promotion.</b>
PR 127-07	FM3 or FM4	Beta4	TISA avg (SS 7.1)	7.1.1P1	7/02 – 10/05 seasonal months only	<b>Delivered, waiting on promotion.</b>
PR 126-07	FM3 or FM4	Beta4	Synoptic SARB (SS 7.2)	7.2.1P1	7/02 – 10/05 seasonal months only	<b>Delivered, waiting on promotion.</b>
Standing requests AM- PR 1-05 to 7-05	Terra	Edition1-CV	BDS/ ERBELike (SS1-3)	1.1P3 1.2P1 1.3P1 1.3P2 2.1P1 2.2P1 2.3P1 2.3P2 3.1P1	Standing request	These PRs replace standing requests AM- PR 1-00 to 7-00.
Standing requests PM-PRs 15-05 to 18-05	FM3	Edition1-CV	BDS/ ERBELike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1	Standing request	These PRs replace standing requests PM-PRs 1-05 to 4-05.
Standing requests PM-PRs 11-05 to 14-05	FM4	Ed1-CV- NoSW	BDS/ ERBELike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1	Standing request	These PRs replace standing requests PM-PRs 7-05 to 10-05.

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PR 77-07 to 79-07	FM1	Edition2B	SARB (SS5)	5.0P1 5.1P1 5.4P1	3/06 - 6/06	Waiting on delta delivery for 5.4P1.
PR 73-07	FM1	Edition2C	TISAgrid (SS6)	6.1P1 6.2P1 6.3P1	3/06 - 6/06	
PR 80-07	FM3	Edition2B	TISAgrid (SS6)	6.1P1 6.2P1 6.3P1	12/31/05 - 4/06	
PR 92-07	FM1, FM2, V005	Edition2A-QC	Clouds (SS4.1-4)	4.1-4.1P4 4.1-4.2P3 4.1-4.2P2 4.2-4.3P2	4/30/06 - 1/1/07	
PR 91-07	FM1, FM2	Edition2F	Inversion (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	4/30/06 - 1/1/07	
PR 90-07	FM1, FM2	Edition2F	TISA grid (SS9)	9.2P1 9.3P1 9.4P1	5/06 - 12/06	
PR 12-07	FM3	Edition2B	Inversion (SS4.5-6)	4.5-6.6P3 4.5-6.2P2 4.5-6.4P1	7/2/02 hr 15 to 12/31/05 hr 11	
PR 9-07	FM3	Edition2B	TISA grid (SS9)	9.2P1 9.3P1 9.4P1	7/2/02 hr 15 to 1/1/06 hr 11	
PR 11-07	FM4	Edition2B	Inversion (SS4.5-6)	4.5-6.6P3 4.5-6.2P2 4.5-6.4P1	7/2/02 to 3/30/05 hr 17	
PR 8-07	FM4	Edition2B	TISA grid (SS9)	9.2P1 9.3P1 9.4P1	7/2/02 to 3/30/05 hr 17	
PR 84A-07 to 84C-07	FM3 or FM4	Edition2B	SARB (SS5)	5.0P1 5.1P2 5.4P2	7/02 - 12/05	Aqua CRS approved 7/13/07.
PR 84D-07	FM3 or FM4	Edition2B	TISAgrid (SS6)	6.1P1 6.2P1 6.3P1	7/02 - 12/05	
PR 10-07	FM4	Ed2B-NoSW	Inversion (SS4.5-6)	4.5-6.6P3 4.5-6.2P2 4.5-6.4P1	3/30/05 hr 18 to 12/31/05 hour 11	
PR 7-07	FM4	Ed2B-NoSW	TISA grid (SS9)	9.2P1 9.3P1 9.4P1	3/31/05 hr 12 to 1/1/06 hr 11	

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PR 108-07	FM1, FM2	Edition2E	TISA avg (SS10)	10.0P1 10.0P2 10.0P3	3/00 - 10/05	<b>Waiting on ValR9 approval.</b>
PR 110-07	FM3	Edition2B	TISA avg (SS10)	10.0P1 10.0P2 10.0P3	7/02 - 10/05	<b>Waiting on ValR10 approval.</b>
PR 109-07	FM4	Edition2B	TISA avg (SS10)	10.0P1 10.0P2 10.0P3	7/02 - 3/05	<b>Waiting on ValR10 approval.</b>
M PR 2-06		GEOS4	MOA (SS12)	12.1P1	Standing request	
M PR 1-06		GEOS4	PMOA (SS9.1)	9.1P1	Standing request	

**Table 2. January 23, 2008 - System Issues and Status**

Activity	Lead	Status
CM/Documentation	Ayers (Saunders)	<ul style="list-style-type: none"> <li>• See <a href="#">Table 3</a> for the current CERES Subsystem Delivery Schedule and <a href="#">Table 4</a> for the current CERES Coefficients Delivery Schedule. (Ayers)</li> <li>• See <a href="#">Table 5</a> for SCCR activity since the last DMT meeting. SCCRs that need to be reviewed follow <a href="#">Table 5</a>. (Ayers)</li> <li>• Installed, compiled, and tested the CERESlib delivery (SCCR 665) on <i>warlock</i> and <i>magneto</i> and released it to the ASDC. (Ayers)</li> <li>• Installed, compiled, and tested the TISA Averaging delivery (SCCR 660) on <i>warlock</i> and <i>magneto</i> and released it to the ASDC. (Ayers, Saunders)</li> <li>• Provided updated Instantaneous SARB files and Test Plan (SCCR 664) in response to errors found during operational testing at the ASDC. (Ayers, Saunders)</li> <li>• Provided updated TISA Averaging Subsystem 7.1 files (SCCR 660) to the ASDC so the PCF and Operator's Manual would be in agreement. (Ayers)</li> <li>• Working on the Synoptic SARB (SCCR 663) delivery. (Ayers)</li> <li>• The effort to convert the DPC from FrameMaker to Word continued. (Saunders)</li> <li>• Documented the plan for delivering the G5-CERES data to the ASDC. (Ayers)</li> <li>• Updated the CERES Subsystem and Coefficients Delivery Schedules and posted them on the Web. (Ayers, Saunders)</li> </ul>

**Table 3. CERES Subsystem Delivery Schedule - January 2008  
Next Science Team Meeting - May 6 - 8, 2008 in Newport News**

Subsystem	Preliminary Delivery Memo to CM	Delivery to CERES CM	Release to Langley DAAC	Reason for Delivery	CERESlib Delivery Needed	New PGE(s)	Certified Platform(s)
Synoptic SARB (SCCR 663)	December 7	December 21	December 28	To support Terra Beta4 and Aqua Beta1 SYNI processing.	X		<i>warlock &amp; magneto</i>
SARB	January 4	January 18	January 25	Delta delivery for renamed MATCH files to differentiate between Collection 4-based MATCH files and Collection 5-based MATCH files. MATCH (Collection 5) data files for May 2006 – May 2007.			<i>warlock &amp; magneto</i>
Instrument (SCCR 610)	January 18	February 1	February 8	To allow processing of both Edition2 and Edition3 data through PGE CER1.3P3	X		<i>warlock</i>
TISA Averaging	January 18	February 1	February 8	To support Terra Beta4 and Aqua Beta1 AVG, ZAVG, and SYN processing.			<i>warlock &amp; magneto</i>
Clouds (SCCR 658)	January 18	February 1	February 8	Terra/Aqua Beta1 Edition3 SSF processing. New PGEs: CER4.1-4.1P6, CER4.1-4.2P5, CER4.1-4.2P6, & CER4.1-4.3P3.		X	<i>warlock</i>
Inversion (SCCR 666)	February 15	February 29	March 7	Terra/Aqua Beta1 Edition3 SSF processing. New PGEs: CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.2P3, & CER4.5-6.4P2.		X	<i>warlock &amp; magneto</i>

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TISA Averaging (SCCR 650)	February 15	February 29	March 7	Support Terra Edition2E and Aqua Edition2B SRBAVG1-3 and Daily processing. New PGEs: CER10.0P1, CER10.0P2, & CER10.0P3.		X	<i>warlock &amp; magneto</i>
TISA Gridding	March 14	March 28	April 4	Support Beta1 processing of new ISCCP-like, crosstrack-only data product based on SSF. Product name: CER_ISCCP-D2like_Terra/Aqua_FM1/2/3/4_MODIS_CC.YYYYMM. New PGE CER9.0P1.		X	<i>warlock &amp; magneto</i>
GGEO	Spring			Support Beta1 processing of new ISCCP-like, crosstrack-only, GEO data product based on GGEO. Product name: CER_ISCCP-D2like_GEO_CC.YYYYMM. New PGE CER11.7P1.		X	<i>warlock &amp; magneto</i>
GGEO (SCCR 653)	April			Final coefficient delivery for 11/05 - 12/05. Initial coefficient delivery for 1/06 - 12/06. Code delivery to support Beta10 GGEO processing.			<i>warlock &amp; magneto</i>

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Subsystem	Preliminary Delivery Memo to CM	Delivery to CERES CM	Release to Langley DAAC	Reason for Delivery	CERESlib Delivery Needed	New PGE(s)	Certified Platform(s)
Clouds		Fall		Support TRMM VIRS-only processing of August 2001 forward.			<i>warlock &amp; magneto</i>
Inversion		Two to four weeks after Clouds		Support TRMM VIRS-only processing.			<i>warlock &amp; magneto</i>
SARB		???		MATCH (Collection 5) data files for June - December 2007.			<i>warlock &amp; magneto</i>
Instrument (SCCR 641)		???		Delivery of simulated IES PGE to support TRMM VIRS-only processing. New PGE: CER1.0P1.		X	<i>warlock &amp; magneto</i>
TISA Gridding		???		PMOA delta delivery dealing with overlap file checking.			<i>warlock &amp; magneto</i>
Regrid MOA		???		To process the G5 CERES data that will be coming to support Edition3.			<i>warlock &amp; magneto</i>

**Table 4. CERES Coefficients Delivery Schedule - January 2008**

Subsystem	Preliminary Delivery Memo to CM	Delivery to CERES CM	Release to Langley DAAC	Reason for Delivery	Certified Platform(s)
Instrument/ ERBE-like	N/A	March		Terra Edition3 gains and spectral response function files for February 2000 - June 2005.	<i>warlock/ magneto</i>
Instrument/ ERBE-like	N/A	March		Aqua Edition3 gains and spectral response function files for June 2002 - March 2005.	<i>warlock/ magneto</i>
Instrument/ ERBE-like	N/A	Spring		Terra and Aqua Edition2 gains and spectral response function files January - December 2007.	<i>warlock/ magneto</i>
Instrument/ ERBE-like	N/A	2008		Terra Edition3 gains and spectral response function files for July 2005 - December 2005.	<i>warlock/ magneto</i>
Instrument/ ERBE-like	N/A	2008		Aqua Edition3 gains and spectral response function files for April 2005 - December 2005.	<i>warlock/ magneto</i>
GGEO		???		Final coefficients for 1/06 - 12/06.	<i>warlock</i>
Instrument/ ERBE-like		???		TRMM Edition3 gains and spectral response function files for December 1997 - April 2000.	<i>warlock/ magneto</i>

**Table 5. SCCR Activity January 8 at 3:15 p.m. – January 22 at 4:30 p.m.**

SCCR	S	U	A	C	D	SS	Page No.	Comments
658		X				4.1 – 4.4	10	
660		X				7.1	18	
663		X				7.2	22	
664			X			5		
665			X			CERESlib		

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

**CERES Software Configuration Change Request Submittal**

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Subsystem: Clouds

SCCR Date: 05/29/2007

SCCR Number: 658

Parameter Change: (X) YES ( ) NO

Description of Change (Science):

This SCCR is replacing SCCR 603 for items that are tied to upgrading clouds and convolution for Edition 3 processing, but not needed to process Collection 005 MODIS.

CER4.1-4.1P4 (Terra Collection 005 MODIS Main)

(1) Incorporate improvements that were made in Aqua Edition1 code that are not included in Terra Edition2B

(I) Clouds (Req 4-5.1)

(a) The problem over polar/non-polar transition ocean areas (mostly occurred in Sea of Okhotsk and Hudson Bay is resolved by having a fix ocean albedo over non-polar region.

(b) When VISST algorithm returns no cloud retrieval, LBTM algorithm is applied.

(II) Convolution (Req 4-5.2)

(a) The Surface type percent coverage (SSF-25) land coverage is reduced based on the water content map. The reduced area is added to the ocean areal coverage.

(b) The Snow/Ice percent coverage from vis albedo (SSF-30) now includes permanent snow.

(c) The land and ocean MODIS aerosol percent coverage was corrected.

(2) Updated Edition3 algorithms will be implemented. Descriptions of these algorithms changes and additions will be included in an update closer to delivery. (Req 4-5.3 through 4-5.10)

CER4.1-4.1P5 (Aqua Collection 005 MODIS Main)

(1) Updated Edition3 algorithms will be implemented. Descriptions of these algorithms changes and additions will be included in an update closer to delivery. (Req 4-5.3 through 4-5.10)

Reason for Change (Science):

CER4.1-4.1P4

- (1) These changes will make the results from Terra processing similar to Aqua
- (2) More advanced algorithm will better define cloud properties.

CER4.1-4.1P5

- (1) More advanced algorithms will better define cloud properties.

Description of Change (non-Science):

None

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:

Will be provided when delivery is finalized. Draft Edition3 SSF DPC pages are available.

Reason for Parameter Change:

Will be provided when delivery finalized.

Affected PGEs in this Subsystem:

CER4.1-4.1P4, CER4.1-4.1P5

Estimated Time to Complete Change: Six Months

Planned Delivery Date: Nov 2007

List Affected Subsystems and PGE Names: Inversion 4.5-6.1P2 and 4.5-6.2P2; SARB 5.0P1 and 5.1P1; and TISA 9.2P1

Date: 05/30/2007      Status: UNKNOWN

Originator: MILLER, WALTER F. (SSAI)

=====  
 ADDITIONAL CHANGES TO SCCR NO. 658:  
 =====

Parameter Change: (X) YES ( ) NO

Description of Change (Science):

Science

CER4.1-4.1P6, Terra-/Aqua-MODIS Collection 005 Edition3 Main Processor, a new PGE was

created. It will process data from both platforms. As mentioned in the original SCCR, the Terra algorithms were updated to match the Edition2 Aqua algorithms. CER4.1-4.1P5, Aqua-MODIS Collection 005 Main Processor was used as the starting point for Edition3 updates.

#### (1) Clouds

##### (I) CERES cloud mask changes (Req 4-5.3)

###### (a) Daytime non-polar mask:

- Added dust detection for ocean and land using BTDs of various IR channels and ratios of reflectances including 0.6 to 0.8 um.
- Definition of Sun glint areas changed from glint probability > 2% to 10%.
- Improvements in other areas:
  - low cloud at high Sun angles (SZA > 70).
  - better snow tests over high elevations and for melting snow;
  - warm clouds in Sun glint ocean;
  - reduced chunkiness along coasts.
  - refined cloud shadow tests.

###### (b) Nighttime non-polar mask:

- Smoothed the cloud fraction discontinuity lines over the transition zones from high-latitude into polar regions.
- Added new low/inversion clouds detection test using surface emissivity-dependent thresholds.
- Reduced T3.7-T11 STD by 0.5 degree.
- Refined snow detection and thin Ci tests.

###### (c) Daytime polar mask:

- Both Terra and Aqua use theoretical 2.1 um snow models.
- Better classification of the TBD pixels.
- Refine cloud and snow tests over super cold plateau.

###### (d) Nighttime polar mask:

- Improved cloud detections over super cold plateau.
- Improved mini-mask for TBD pixels.

###### (e) Twilight masks:

- Improved the twilight cloud and snow detection using visible channels for a smoother transition from daytime to nighttime.
- Added thin Ci clouds and low clouds tests.

##### (II) CO2 Slicing Algorithm (Req 4-5.7)

(a) Initial delivery of two channel (11 um and 13.3 um) CO2 slicing algorithm. CO2 slicing cloud properties (cloud pressure, temperature, and height) are retrieved.

(b) Use two CO2 slicing methods ( one originally is from Wisconsin and the other one is mentioned above) to detect thin cirrus that CERES mask missed. Final CERES mask is combination of regular CERES mask and the thin cirrus cloud detection, developed from the two CO2 slicing retrievals.

(III) Multilayer Detection Algorithm (Req 4-5.8)

- (a) Initial delivery of multilayer identification algorithm, based on CO2 slicing algorithm.
- (b) Initial delivery of multilayer identification algorithm, based on BTM method.
- (c) Initial delivery of multilayer cloud retrieval algorithm, based on CO2 slicing algorithm.

(IV) Cloud retrieval Updates

(a) In Terra Ed3, 2.1 um is used through out the framework and all algorithms, instead of 1.6 um as in Ed2, for consistency between Terra and Aqua.

(b) If VISST/SINT/SIST returns clear, or no retrieval, or bad data but two channel CO2 slicing has reasonable retrieval, then cloud temperature will be forced to be a CO2 value and redo some streamlined VISST/SINT/SIST to try to retrieve the rest of cloud properties.

(c) Zonal lapse rate for day/night and ocean/land were developed using CALIPSO data.

(d) Corrected Cloud-Top-Heights for optically thick high clouds, using CALIPSO data.

(e) IGBP dependent snow albedo models were implemented in Clouds processing.

(g) Cloud optical depth has been extended from 128 to 512.

(h) Initial delivery of 2.1 um cloud retrieval.

(V) New updated IGBP map will be delivered.

(2) Convolution

(I) Point Spread Function, PSF, weight average new variables obtained from Edition3 CO2 slicing and multilayer clouds algorithms. (Req 4-5.10)

(II) PSF weight average additional cloud properties from VISST. (Req 4-5.10)

(III) PSF weight average additional channels of clear and total imager radiance over the CERES footprint. (Req 4-5.10)

(IV) PSF weight average additional MODIS aerosol variables (MOD04) (Req 4-5.10)

(V) Statistics on additional variables included in QC Reports (Req 4-5.10)

(VI) For the CERES albedo model snow and ice calculation, a value of 272 is used when imager skin temperature is not available.

CER4.1-4.2P4, Edition3 Daily QC Processor, a new PGE was created New Edition3 variables were added to the QC reports.

CER4.1-4.2P5, Edition3 Imager Clear Sky Map Update, a new PGE was created Allow changes to Clear Sky Map processing without impacting Edition2.

CER4.1-4.3P3, Edition3 Monthly QC Processor, a new PGE was created. New Edition3 variables were added to the QC reports.

Reason for Change (Science):

CER4.1-4.1P6

(1) Clouds

(I) Validation of CERES cloud mask identified areas that could be improved.

(II) Science team wanted to take advantage of CO2 slicing to identify more thin cirrus clouds

(III) Science team wanted to use new algorithm to detect multilayer clouds, an initial CERES requirement, that wasn't implemented in Edition2

(IV) Validation of CERES cloud retrievals identified areas that could be improved. CALIPSO data allowed independent dataset for algorithm development.

(V) SARB produced new IGBP map as a result of Edition2 validation.

## (2) Convolution

(I) Science team wanted to take advantage of new Edition3 CO2 slicing and multilayer clouds algorithms.

(II) Science team requested additional cloud properties.

(III) Science team requested additional radiance channels.

(IV) Science team requested additional MODIS aerosol properties.

(V) Edition3 cloud property variables are needed for analysis and validation.

(VI) When the skin temperature was not available, the last value (potentially uninitialized) is used to adjust the snow and ice albedo model. The value selected uses the table value.

### CER4.1-4.2P4

Edition3 cloud property variables are needed for analysis and validation.

### CER4.1-4.2P5

Inclusion of 2.13 in Terra processing will require that map be updated.

### CER4.1-4.3P3

Edition3 cloud property variables are needed for analysis and validation.

## Description of Change (non-Science):

### CER4.1-4.1P6

#### Convolution

(I) Software was refactor to provide more independence between modules.

(II) SSF structure updated with Edition3 parameters (Req 4-5.9)

(III) Updating of imager pixel array does not jump based on IES time jump. (Req 4-5.11)

## Reason for Change (non-Science):

### CER4.1-4.1P6

#### Convolution

(I) Other data fusion efforts such as MISR and CALIPSO need PSF weighting. These changes allow needed modules to be dropped in without modifications.

(II) Interface for Edition3 needed. (Req 4-5.9)

(III) Previous algorithm assumed no imager gaps when there were gaps in IES. Also, skipped imager scan lines were not accounted for in the calculation.

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

Parameter(s) and Product(s) Being Changed The Single Scanner File (SSF) will be changed for Edition3 processing. Item references are to the Edition3 SSF DPC R4V2.

### SSF Header

1. SSF-H15a - H15c Satellite position at hour start (X, Y, and Z)

2. SSF-H15d - H15f N vector at hour start (X, Y, and Z)

SSF Record

3. All imager derived parameters
4. SSF-46a CERES downward SW surface flux - Model B, clearsky
5. SSF-49a CERES downward LW surface flux - Model B, clearsky
6. SSF-49b CERES downward LW surface flux - Model C, clearsky
7. SSF-49c CERES net LW surface flux - Model C
8. SSF-50 CERES CERES broadband surface albedo
9. SSF-59a Surface Pressure
10. SSF-60a Surface minus 750 mb air temperature difference
11. SSF-60b Estimated Inversion Stability
12. SSF-65a Additional notes on cloud algorithm
13. SSF-65b Notes on cloud multilayer
14. SSF-79a CWG precipitable water
15. SSF-94a Mean cloud top temperature for cloud layer
16. SSF-94b Mean cloud top height for cloud layer
17. SSF-102a Mean cloud base temperature for cloud layer
18. SSF-110 (Ed2) Mean cloud particle phase for cloud layer (1.6)
19. SSF-110 (Ed3) Mean logarithm of visible optical depth (1.6)
20. SSF-110a Mean water particle radius for cloud layer (2.1)
21. SSF-110b Mean ice particle effective diameter for cloud layer (2.1)
22. SSF-110c Mean logarithm of visible optical depth (2.1)
23. SSF-111 (Ed2) Mean vertical aspect ratio for cloud layer
24. SSF-111 (Ed3) CO2 slicing percent coverage for cloud layer
25. SSF-111a Mean infrared emissivity for cloud layer - CO2 slicing
26. SSF-111b Mean effective pressure for cloud layer - CO2 slicing
27. SSF-111c Mean effective temperature for cloud layer - CO2 slicing
28. SSF-112 (Ed2) Stddev of vertical aspect ratio for cloud layer
29. SSF-112 (Ed3) Mean effective height for cloud layer - CO2 slicing
30. SSF-114 (Ed2) Percentiles of IR emissivity for cloud layer
31. SSF-114a Single layer/multilayer percent coverages
32. SSF-114b Mean visible optical depth for multilayer
33. SSF-114c Mean logarithm of visible optical depth for multilayer
34. SSF-114d Mean cloud infrared emissivity for multilayer
35. SSF-114e Mean cloud top pressure for multilayer
36. SSF-114f Mean cloud top temperature for multilayer
37. SSF-114g Mean cloud top height for multilayer
38. SSF-114h Mean cloud effective pressure for multilayer
39. SSF-114i Mean cloud effective temperature for multilayer
40. SSF-114j Mean cloud effective height for multilayer
41. SSF-114k Mean cloud base pressure for multilayer
42. SF-124 (Ed2) 5th percentile of imager radiances over full CERES FOV
43. SF-125 (Ed2) 95th percentile of imager radiances over full CERES FOV
44. SSF-131a Additional imager channel central wavelength
45. SSF-131b Additional mean imager radiances over clear area

46. SSF-131c Additional stddev imager radiances over clear area
47. SSF-131d Additional mean imager radiances over full CERES FOV
48. SSF-131e Additional stddev imager radiances over full CERES FOV
49. SSF-135 PSF-wtd MOD04 optical depth ratio small land
50. SSF-144 (Ed2) PSF-wtd MOD04 mean reflectance land (3.750)
51. SSF-144 (Ed3) PSF-wtd MOD04 mean reflectance land (0.550)
52. SSF-161 PSF-wtd MOD04 mean reflectance ocean (0.470)
53. SSF-162 PSF-wtd MOD04 mean reflectance ocean (0.555)
54. SSF-163 PSF-wtd MOD04 mean reflectance ocean (0.659)
55. SSF-164 PSF-wtd MOD04 mean reflectance ocean (0.865)
56. SSF-165 PSF-wtd MOD04 mean reflectance ocean (1.240)
57. SSF-166 PSF-wtd MOD04 mean reflectance ocean (1.640)
58. SSF-167 PSF-wtd MOD04 mean reflectance ocean (2.130)
59. SSF-81 through SSF-113, Cloudy Footprint Area

Reason for Parameter Change:

SSF Header

1. Allows convolution of other data products with SSF (instead of using SSF and IES)
2. Allows convolution of other data products with SSF (instead of using SSF and IES)

SSF Record

3. Location of CERES FOV in imager pixel buffer was optimized to remove premature cutoff for large view zenith FOVs
4. and 5. Placeholder to allow addition Model B parameters in inversion.
6. and 7. Placeholder to allow Model c parameters in inversion.
8. A skin temperature that does not adjust snow and ice table values is assigned when skin temperature is not available from imager pixels.
9. Placeholder to allow the MOA surface pressure to be included in inversion
- 10 and 11 Placeholder to allow MOA derived parameters to be included in inversion
12. Additional supplemental digits are included to provide insight into cloud retrieval algorithms
13. Supplemental digits are included to provide insight into cloud multilayer retrieval algorithms
14. The precipitable water used for Corr-K and other clouds algorithms is provided.
- 15, 16, and 17 Cloud properties that are needed in latter subsystems
18. Science decided that it would be computationally more efficient to use a single phase for particle size and optical depth at multiple wavelength
- 19, 20, 21, and 22 additional optical depth and particle size provided to allow better determination of vertical distribution of properties in the cloud
23. Lower priority cloud properties were dropped to allow room for additional properties.
- 24 through 27 Results from newly implemented CO2 slicing algorithm provided.
28. Lower priority cloud properties were dropped to allow room for additional properties.
- 29 and 30. Results from newly implemented CO2 slicing algorithm provided.
- 31 through 41, New parameters were added to provide information from new multilayer algorithm well keeping results from the single layer cloud algorithm.
- 42 and 43, Lower priority imager radiance information were dropped to allow for additional imager channel radiances

44 through 48. Additional imager channel radiances were added for various uses in other subsystems.  
49. Parameter name changed to match the name change in MODIS aerosol product.  
50 and 51. The 3.750 reflectance land was replaced with 0.55 reflectance land when MODIS product removed 3.750  
52 through 58. Additional ocean reflectances were added for other subsystems use.  
59. CERES cloud mask and cloud retrieval algorithms were changed.

Affected PGEs in this Subsystem:

CER4.1-4.1P6, CER4.1-4.2P4, CER4.1-4.2P5, and CER4.1-4.3P3

Estimated Time to Complete Change: Two weeks

Planned Delivery Date: February 2008

List Affected Subsystems and PGE Names: Inversion 4.5-6.1P4, 4.5-6.1P5, and 4.5-6.2P2;  
SARB 5.0P1 and 5.1P1; and TISA

Date & Time: 2008-01-18 17:07:55

Originator: MILLER, WALTER F. (SSAI)

**CERES Software Configuration Change Request Submittal**

=====

Subsystem: TISAavg7.1

SCCR Date: 09/21/2007

SCCR Number: 660

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

Req#7 - 67 Make TSI hourbox center to be the same with FSW hourbox center

Req#7 - 68 Replace old code in computing CSZA, solar incidence and AM, PM times

Req#7 - 69 Update code to use the new csza, solar incidence, am and pm times.

Req#7 - 70 Update code to change the interpolation of aerosol optical depths to meet SYNI requests

Reason for Change (Science):

To support the process of Beta4 TSI

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 in this Subsystem:

CER7.1.1P1

Estimated Time to Complete Change: 2 weeks

Planned Delivery Date: October 5, 2007

List Affected Subsystems and PGE Names: Subsystem 7.2

Date: 10/11/2007

Status: UNKNOWN

Originator: NGUYEN, CATHY (SSAI)

=====

ADDITIONAL CHANGES TO SCCR NO. 660:

=====

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

Req7-71 Rescale TOA SW fluxes using correction factors based on year, month and instrument (Rev1).

Req7-72 Include the TOA daytime LW correction ratios

Reason for Change (Science):

Improve Beta4 TSI

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 in this Subsystem:

CER7.1.1P1

Estimated Time to Complete Change: Complete

Planned Delivery Date: October 5, 2007

List Affected Subsystems and PGE Names: Subsystem 7.2

Date & Time: 2007-10-02 15:07:10

Originator: NGUYEN, CATHY (SSAI)

=====

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

Req#7 73 Change the solar declination, distance correction, and delta longitude from daily to hourly.

Req#7 74 Add a restriction bases on 50 percents cloud amount for land and 50 percents cloud amount or 80 degrees sza for ocean to eliminate the GGEO clear-sky IR to improve the clear-sky LW fluxes

Req#7 75 Improved the temporal interpolation for GGEO SW fluxes.

Reason for Change (Science):

To improve Beta4 TSI

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 in this Subsystem:

CER7.1.1P1

Estimated Time to Complete Change: Completed

Planned Delivery Date: December 14, 2007

List Affected Subsystems and PGE Names: Subsystem 7.2

Date & Time: 2007-12-13 13:52:52

Originator: NGUYEN, CATHY (SSAI)

=====

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

Req#7 76 For snow regions, make total-sky GGEO SW fluxes to be non-GGEO SW fluxes.

Req#7 77 Recompute albedos after extrapolate non-GGEO SW fluxes.

Reason for Change (Science):

To make TOA fluxes to match with fluxes from SRBAVGs

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 in this Subsystem:  
CER7.1.1P1

Estimated Time to Complete Change: Completed  
Planned Delivery Date: Delivered  
List Affected Subsystems and PGE Names: Subsystem 7.2

Date & Time: 2008-01-04 11:50:20

Originator: NGUYEN, CATHY (SSAI)  
=====

Parameter Change: ( ) YES (X) NO

Description of Change (Science):  
N/A

Reason for Change (Science):  
N/A

Description of Change (non-Science):  
Req#7 78 Change the negative cosine solar zenith angles(CSZA) to be zeros.

Reason for Change (non-Science):  
The CSZA calculation on the IBM Cluster caused the CSZAs to be negative numbers in some regions during sunset hours. Changing the negative CSZAs to be zeros to produce good match with the CSZAs from SGI runs.

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 in this Subsystem:  
CER7.1P1

Estimated Time to Complete Change: Completed  
Planned Delivery Date: Delivered  
List Affected Subsystems and PGE Names: Subsystem 7.2

Date & Time: 2008-01-16 13:42:09

Originator: NGUYEN, CATHY (SSAI)

## CERES Software Configuration Change Request Submittal

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Subsystem: SynSARB

SCCR Date: 11/30/2007

SCCR Number: 663

Parameter Change: (X) YES ( ) NO

Description of Change (Science):

(Req# 7.2-1.14)

Using new surface albedo history map (SAH.v5.YYYYMM)

(Req# 7.2-1.15)

Edition3 daytime longwave correction implemented

(Req# 7.2-1.16)

Cloudy sky colorization look-up-table used in applying retrieved clear sky albedo to cloudy conditions

(Req# 7.2-1.17)

Zhuo Wang two parameter diurnal models for surface albedo implemented (IGBP 1-10 & 12)

(Req# 7.2-1.18)

Snow grain retrieval at CERES-only times whenever Snow > 90% of grid box.+Retrievals use Zhonghai Jin's snow spectral albedos coupled with FuLiou to produce look up table for snow grain size as a function of albedo, solar zenith angle, precipitable water, aerosol optical thickness, elevation and O3.

Spectral surface albedo for cloudy sky and other non-retrieval times use the latest snow grain retrieval in ZJin snow spectral albedo look up table. The older ASSALUT/SAH method is used as backup for invalid SGR.

(Req# 7.2-1.20)

Removed use of STOWE aerosols from aerosol hierarchy control file

Reason for Change (Science):

(Req# 7.2-1.14)

Improve retrieved surface albedo by inclusion of a weighting function using overhead sun,near nadir and low aerosol optical depths at a higher weighting.

Also, inclusion of monthly average snow/ice allows aperturbation method to be applied to use daily sea ice maps to give an estimate of daily surface albedo.

(Req# 7.2-1.15)

It was determined by SARB group that SYN should try to use REV1 SW TOA correction and make an attempt at longwave correction based on LW correction developed for Edition3.

(Req# 7.2-1.16)

Application of a broadband surface albedo retrieved from clear-sky conditions to cloudy sky conditions have a different spectral distribution, i.e., 'color' so a cloudy sky colorization table was added when adjusting an apriori surface albedo shape to cloudy sky conditions.

(Req# 7.2-1.17)

A recent paper from Zhuo Wang showed a better diurnal model could be fit to observed MODIS surface spectral albedos using this two parameter fit

(Req# 7.2-1.18)

A broadband clearsky retrieval over snow that retrieves snow grain size and its associated spectral albedo based on COART model calculations.

This method also allows a spectral surface albedo to be given at other non-retrieval SZAs by holding the grainsize constant, varying the SZA and using the given spectral albedos.

Out of range retrieved grainsizes use the Surface Albedo History maps as a backup

(Req# 7.2-1.20)  
STOWE removed as only MODIS or MATCH were desired as sources

Description of Change (non-Science):  
(Req# 7.2-1.22)

Addition of new output file: SYNS.+This represents a combined TSI/SYNI record only at specific locations designated by Science Team members.+This is different from the subset output which is produced at CERES validation regions.

Reason for Change (non-Science):  
(Req# 7.2-1.22)

A small data volume subset of operational data over surface observation locations and as well a representative set of global grid boxes where no validation data were available was requested for quick analysis of results.

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

Parameter changes described in  
SCCR 662

Reason for Parameter Change:  
See SCCR 662 for parameter changes

Affected PGEs in this Subsystem:  
PGE 7.2.1P1

Estimated Time to Complete Change: 1 week  
Planned Delivery Date: December 7, 2007  
List Affected Subsystems and PGE Names: PGE 8.1P1

Date: 12/12/2007      Status: UNKNOWN

Originator: CALDWELL, THOMAS E. (SSAI)

=====  
ADDITIONAL CHANGES TO SCCR NO. 663:  
=====

Parameter Change: (X) YES ( ) NO

Description of Change (Science):  
Correction to (Req# 7.2-1.15)

An Edition3-like daytime longwave correction was implemented.  
This is still an Edition2 PGE. REV1 shortwave TOA correction was also applied at TSI level to be used in SYNI.

Reason for Change (Science):  
Correction to (Req# 7.2-1.15)

It was determined by SARB group that SYN should use REV1 shortwave TOA correction and longwave correction developed for Edition3.

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:  
Same as before

Reason for Parameter Change:  
Same as before

Affected PGEs in this Subsystem:  
PGE 7.2.1P1

Estimated Time to Complete Change: 1 week  
Planned Delivery Date: December 7, 2007  
List Affected Subsystems and PGE Names: PGE 8.1P1

Date & Time: 2007-12-03 15:34:39

Originator: CALDWELL, THOMAS E. (SSAI)

=====

Parameter Change: ( ) YES (X) NO

Description of Change (Science):  
Req 7.2-1.15 does not require changes to Synoptic SARB subsystem.  
Changes made to TSI product affect results of SYNI processing.

Reason for Change (Science):  
N/A

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 in this Subsystem:  
PGE 7.2.1P1

Estimated Time to Complete Change: 1 week  
Planned Delivery Date: December 7, 2007  
List Affected Subsystems and PGE Names: PGE 8.1P1

Date & Time: 2007-12-05 10:47:44

Originator: CALDWELL, THOMAS E. (SSAI)

=====

Parameter Change: ( ) YES (X) NO

Description of Change (Science):  
N/A

Reason for Change (Science):  
N/A

Description of Change (non-Science):  
(Req# 7.2-1.23)  
Modified ASCII file generator to use collection 5 MATCH data in Synoptic processing for data dates after June 2006.

Reason for Change (non-Science):  
(Req# 7.2-1.23)  
This was done to enable Synoptic processing for data dates after June 2006.

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 in this Subsystem:  
7.2.1P1

Estimated Time to Complete Change: 1 day  
Planned Delivery Date: January 11, 2007  
List Affected Subsystems and PGE Names: None

Date & Time: 2008-01-14 10:25:16

Originator: CALDWELL, THOMAS E. (SSAI)

=====

Parameter Change: ( ) YES (X) NO

Description of Change (Science):  
N/A

Reason for Change (Science):  
N/A

Description of Change (non-Science):  
(Req# 7.2-1.23)  
Correction to previous revision. The ASCII file generator will be modified to use a new environment variable that will represent the use of collection 4 or collection 5 MATCH data.

Reason for Change (non-Science):  
(Req# 7.2-1.23)  
This change will allow the Science team more flexibility in choosing which data sets to use.

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 in this Subsystem:  
7.2.1P1

Estimated Time to Complete Change : 2 days  
Planned Delivery Date : Jan 24, 2007  
List Affected Subsystems and PGE Names: None

Date & Time: 2008-01-22 16:19:26

Originator: CALDWELL, THOMAS E. (SSAI)

**Table 6. January 23, 2008 - Subsystem Issues and Status**

SS No.	SS Lead	Status	Problems
1.0	Cooper (Walikainen)	<ul style="list-style-type: none"> <li>• Continued to track receipt of Terra and Aqua Level-0, Ephemeris and Attitude data. (Cooper, Snyder)</li> <li>• Continued working to put the Instrument Subsystem into the new directory structure before the next delivery. All PGEs are working in the new directory structure. Working on the test scripts to ensure that they work in the new directory structure. (Cooper)</li> </ul>	
2.0	Walikainen (Cooper)	<ul style="list-style-type: none"> <li>• Continuing to examine QC checker email generated during production. (Walikainen)</li> <li>• Continuing to inspect ERBE-like Aqua and Terra output plots. (Walikainen)</li> <li>• Progress restructuring directories continues. To date, compiled CER3.1P1, CER3.2P1, CER2.1P1, CER2.2P1, CER2.3P1, CER2.3P2 and CER2.4P1; ran CER2.4P1, CER2.3P1 and CER2.3P2. (Walikainen)</li> <li>• Created unfiltering coefficients for Edition3 Beta11 Aqua and Terra. The Science Team will meet this week to discuss the results. (Walikainen)</li> </ul>	
3.0	Walikainen (Cooper)	Combined with above.	
4.1	Sun-Mack (Brown)	<ul style="list-style-type: none"> <li>• Processing CloudVis images for 2006 Aqua Edition1B data for the Australian, Azores, Ascension Islands, Pacific ITCZ, Bahrain, TWP ARM site and Nauru regions. Also processing CloudVis images for Terra Edition2-QC for the Syowa, Antarctica and the Alert, Canada regions for 2006. (R. Brown)</li> <li>• Working on developing QC histogram code. (R. Brown)</li> <li>• Modified QC Web viewer scripts to add ability to compare Aqua Edition1B with Aqua Edition1A and Terra Edition2-QC for matching data. (R. Brown)</li> <li>• Working on Ed3. (All)</li> </ul>	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	

**Table 6. January 23, 2008 - Subsystem Issues and Status**

SS No.	SS Lead	Status	Problems
4.4	Miller (Sun-Mack)	<ul style="list-style-type: none"> <li>• Updating <code>ssfqc_typdef</code> by adding additional variables. (Miller)</li> <li>• Additional information added for QC of multilayer clouds. (Miller)</li> <li>• Testing of Edition3 code continued. (Miller)</li> <li>• Updating Tropical Longwave Constant module for location of some channels and addition of others. (Miller)</li> <li>• Updating in-line documentation for Edition3 code. (Miller)</li> <li>• Modified the SSF and SSFA compare program, used for testing, to handle Edition3. (Miller)</li> </ul>	
4.5	Sothcott	<ul style="list-style-type: none"> <li>• Attended weekly SOFA working group meetings. (Sothcott)</li> <li>• Continued coding and testing Edition3 Beta1 software in preparation for delivery. (Sothcott)</li> <li>• Started putting the Edition3 Beta1 software into the new Directory Structure. (Sothcott)</li> </ul>	
4.6	Sothcott	Combined with above.	
5.0	Caldwell (Coleman)	<ul style="list-style-type: none"> <li>• Proceeding with delivery of Synoptic SARB SCCR 663. (Caldwell)</li> </ul>	
7.2	Caldwell (Coleman)	<ul style="list-style-type: none"> <li>• No new updates.</li> </ul>	
12.0	Caldwell (Coleman)	<ul style="list-style-type: none"> <li>• Trying to obtain Jan 04 G5 sample data. (Caldwell)</li> </ul>	
7.1	Nguyen (Raju)	<ul style="list-style-type: none"> <li>• Tested and modified code to run on <i>magneto</i>. Wrote program to compare all parameters in TSI data from both machines. (Nguyen)</li> <li>• Redelivered code and output data. (Nguyen)</li> <li>• Updated SCCR 660. (Nguyen)</li> </ul>	

**Table 6. January 23, 2008 - Subsystem Issues and Status**

SS No.	SS Lead	Status	Problems
8.0	Nguyen (Raju)	<ul style="list-style-type: none"> <li>• Updated code to change the parameter names to match with the DPC. (Nguyen)</li> <li>• Added the all-sky twilight flux to the observed monthly mean SW from TSI and the tuned TOA level 1 all-sky flux. (Nguyen)</li> <li>• Added the clear-sky twilight flux to the observed monthly mean SW and tuned TOA level 1 clear-sky fluxes. Included the clear-sky twilight flux table from Seiji. (Nguyen)</li> <li>• Removed the clear-sky LW and SW fluxes that were added to the TSI so that the clear-sky and the all-sky were identical when the cloud amount was zero. (Nguyen)</li> <li>• Ran code on <i>manila</i> and on <i>thunder</i> and compared the outputs. Updated code to match run on both machines. (Nguyen)</li> <li>• Ran July 2002 SYN/AVG/ZAVG with the new TSI for validation. (Nguyen)</li> </ul>	
10.0	Nguyen (Raju)	<ul style="list-style-type: none"> <li>• No new updates. (Nguyen)</li> </ul>	
11.7	Nguyen (Raju)	<ul style="list-style-type: none"> <li>• No new updates. (Nguyen)</li> </ul>	
6.0	Raju (Nguyen)	<ul style="list-style-type: none"> <li>• Compiled PGE 6.1P1 software in the new directory structure without any problems. Work continued to compile the rest of the PGEs. (Raju)</li> </ul>	
9.0	Raju (Nguyen)	<ul style="list-style-type: none"> <li>• PGE 9.0P1 software was modified to grid SSF footprints before writing to the daily files. Processed July 2002 data for Moguo. Processing rest of the test months and completed 07/02 FM3 and 10/02 FM1 data. Working on the code to create ISCCP-like HDF product. (Raju)</li> <li>• Modified Operator's manual to include new PGE 9.0 information. (Raju)</li> <li>• Compiled PGE 9.2P1 software in the new directory structure. (Raju)</li> </ul>	

**Table 6. January 23, 2008 - Subsystem Issues and Status**

SS No.	SS Lead	Status	Problems
11.0	Raju (Nguyen)	<ul style="list-style-type: none"> <li>• Processed 08/06 – 12/06 data through PGE 11.1P10 for calibrations. Waiting for FM1 SFC product to process through PGEs 11.3P1, 11.4P1. (Raju)</li> <li>• Compiled PGE 11.1P10 in the new directory structure. (Raju)</li> <li>• Started looking in to the GGEO main processor code to implement the changes Dave Doelling requested for 10-bit MTSAT data process. (Raju)</li> <li>• Completed checking the 11/07, 12/07 10-bit MTSAT1 real time images on <i>samantha</i> and removed bad scan lines. (Raju)</li> </ul>	

Table 1: PGE Current Events Status Table

Subsystem ID	PGE ID	Current PGE Production Status <sup>1</sup>	Scripts NOMAD compliant ? (Y/N)	Scripts EXIT CODE compliant ? (Y/N)	Prod. Platform (W, M, M*) <sup>2</sup>	Test Plan in Word? (Y, N, or Review)	Op Man In Excel? (Y, N, or Review)	Comments
Instrument - 1	CER1.0P1	Developing	Y	Y	Planning W, M <sup>1</sup>	Y	Review	With upcoming delivery
	CER1.1P1	Active	Y	Y	W	Y	Review	With upcoming delivery
	CER1.1P2	Disabled	N/A	N/A	N/A	Y	Review	? -Activated w/ nxt delivery
	CER1.1P3	Active	Y	Y	W	Y	Review	With upcoming delivery
	CER1.1P4	Disabled	N/A	N/A	N/A	Y	Review	? -Activated w/ nxt delivery
	CER1.1P5	Active	Y	Y	W	Y	Review	With upcoming delivery
	CER1.1P6	Disabled	N/A	N/A	N/A	Y	Review	? -Activated w/ nxt delivery
	CER1.2P1	Active	Y	Y	W	Y	Review	With upcoming delivery
	CER1.3P1	Active	Y	Y	W	Y	Review	With upcoming delivery
	CER1.3P2	Active	Y	Y	W	Y	Review	With upcoming delivery
	CER1.3P3	Active	Y	Y	W	Y	Review	With upcoming delivery
ERBE-like - 2	CER2.1P1	Active	<b>N</b>	<b>N</b>	W	Y	<b>N</b>	
	CER2.2P1	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER2.3P1	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER2.3P2	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER2.4P1	Active	<b>N</b>	Y	W	Y	<b>N</b>	
ERBE-like - 3	CER3.1P1	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER3.2P1	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER3.2P2	Disabled	N/A	N/A	N/A	N/A	N/A	
Clouds	CER4.1-4.0P1	Active	Y	Y	W	Y	<b>N</b>	
4.1-4	CER4.1-4.1P1	Disabled	N/A	Y	W	N/A	N/A	PCF script email / eos + operations and Sunny
	CER4.1-4.1P2	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER4.1-4.1P3	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER4.1-4.1P4	Active	Y	Y	W	Y	<b>N</b>	PCF to eos operations
	CER4.1-4.1P5	Active	Y	Y	W	Y	<b>N</b>	PCF to eos operations
	CER4.1-4.1P6	Developing	Y	Y	Planning W	Y	<b>N</b>	
	CER4.1-4.2P1	Active	Y	Y	W	Y	<b>N</b>	
	CER4.1-4.2P2	Active	Y	Y	W	Y	<b>N</b>	
	CER4.1-4.2P3	Active	Y	Y	W	Y	<b>N</b>	

	CER4.1-4.2P4	Developing	Y	Y	Planning W	Y	<b>N</b>	
	CER4.1-4.2P5	Developing	Y	Y	Planning W	Y	<b>N</b>	
	CER4.1-4.3P1	Active	Y	Y	W	Y	<b>N</b>	
	CER4.1-4.3P2	Active	Y	Y	W	Y	<b>N</b>	
	CER4.1-4.3P3	Developing	Y	Y	Planning W	Y	<b>N</b>	
	CER4.1-4.4P1	Disabled	N	Y	W	<b>N</b>	<b>N</b>	In Op Man, but not in FMP. Delete?
Inversion/SOFA	CER4.5-6.1P1	Disabled	N/A	N/A	N/A	N/A	N/A	Probably to be reactivated
4.5-6	CER4.5-6.1P2	Active	Y	Y	W	Y	<b>N</b>	
	CER4.5-6.1P3	Active	Y	Y	W	Y	<b>N</b>	
	CER4.5-6.1P4	Developing	Y	Y	Planning W	Y	<b>N</b>	Terra Main Ed3 version of 1P2
	CER4.5-6.1P5	Developing	Y	Y	Planning W	Y	<b>N</b>	Aqua Main Ed3 version of 1P3
	CER4.5-6.2P1	Disabled	N/A	N/A	N/A	N/A	N/A	Probably to be reactivated
	CER4.5-6.2P2	Active	Y	Y	W	Y	<b>N</b>	
	CER4.5-6.2P3	Developing	Y	Y	Planning W	Y	<b>N</b>	Subset postprocessor for Terra and Aqua (Ed3 version of 2P2)
	CER4.5-6.3P1	Disabled	N/A	N/A	N/A	N/A	N/A	Probably to be reactivated
	CER4.5-6.3P2	Active	Y	Y	W	Y	<b>N</b>	
	CER4.5-6.3P3	Active	Y	Y	W	Y	<b>N</b>	
	CER4.5-6.4P1	Active	Y	Y	W	Y	<b>N</b>	
	CER4.5-6.4P2	Developing	Y	Y	Planning W	Y	<b>N</b>	Monthly validation site (Ed3 for 4P1)
	CER4.5-6.6P2	Active	Y	Y	W	Y	<b>N</b>	
	CER4.5-6.6P3	Active	Y	Y	W	Y	<b>N</b>	
SARB - 5	CER5.0P1	Active	<b>N</b>	Y	W, M	Y	<b>N</b>	
	CER5.1P1	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER5.1P2	Active	<b>N</b>	Y	M	Y	<b>N</b>	
	CER5.2P1	Deleted	N/A	N/A	N/A	N/A	N/A	
	CER5.3P1	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER5.4P1	Active	<b>N</b>	Y	W	Y	<b>N</b>	
	CER5.4P2	Active	<b>N</b>	Y	W	Y	<b>N</b>	
TISA Grid - 6	CER6.1P1	Active	Y	Y	W	Y	<b>N</b>	
	CER6.2P1	Active	Y	Y	W	Y	<b>N</b>	
	CER6.3P1	Active	Y	Y	W	Y	<b>N</b>	
TISA Avg - 7.1	CER7.1.1P1	Active	Y	Y	W, M	Y	<b>N</b>	
SARB - 7.2	CER7.2.1P1	Active	<b>N</b>	Y	W, M	Y	<b>N</b>	
	CER7.2.2P1	Never Was	N/A	N/A	N/A	N/A	N/A	
TISA Avg - 8	CER8.1P1	Active	Y	Y	Planning W, M <sup>1</sup>	Y	<b>N</b>	

	CER8.2P1	Active	Y	Y	W	Y	<b>N</b>	
TISA Grid - 9	CER9.0P1	Developing	Y	Y	Planning W, M <sup>1</sup>	Y	<b>N</b>	
	CER9.1P1	Active	Y	Y	W	Y	<b>N</b>	
	CER9.2P1	Active	Y	Y	W	Y	<b>N</b>	
	CER9.3P1	Active	Y	Y	W	Y	<b>N</b>	
	CER9.4P1	Active	Y	Y	W	Y	<b>N</b>	
TISA Avg - 10	CER10.0P1	Developing	Y	Y	Planning W, M <sup>1</sup>	Y	<b>N</b>	
	CER10.0P2	Developing	Y	Y	Planning W, M <sup>1</sup>	Y	<b>N</b>	
	CER10.0P3	Developing	Y	Y	Planning W, M <sup>1</sup>	Y	<b>N</b>	New PGE for plots
	CER10.1P1	Disabled	Y	Y	W	N/A	N/A	Replace with CER10.0P2
	CER10.1P2	Disabled	Y	Y	W	N/A	N/A	Replace with CER10.0P1
	CER10.2P1	Deleted	Y	Y	W	N/A	N/A	
	CER10.3P1	Deleted	Y	Y	W	N/A	N/A	
	CER10.1P3	Disabled	Y	Y	W	N/A	N/A	
	CER10.1P4	Active	Y	Y	W	N/A	N/A	Replace with CER10.0P2 for Terra
	CER10.1P5	Active	Y	Y	W	N/A	N/A	Replace with CER10.0P1 for Terra
GGEO - 11	CER11.1P1	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P2	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P3	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P4	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P5	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P6	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P7	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P8	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.1P10	Active	Y	Y	W	Y	<b>N</b>	
	CER11.2P1	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.2P2	Active	Y	Y	W	Y	<b>N</b>	
	CER11.3P1	Disabled	N/A	N/A	N/A	N/A	N/A	
	CER11.4P1	Active	Y	Y	W	Y	<b>N</b>	
	CER11.5P1	Deleted	N/A	N/A	N/A	N/A	N/A	
	CER11.6P1	Active	Y	Y	W	Y	<b>N</b>	

	CER11.7P1	Developing	Y	Y	Planning W, M <sup>1</sup>	Y	<b>N</b>	
Regrid MOA -12	CER12.1P1	Active	<b>N</b>	Y	W, M	Y	<b>N</b>	

Table 1 Key:

<sup>1</sup> Status	Active	Currently able to run in production
	Developing	New PGE in development, still to be delivered for the first time. Values in columns to right of the "Current PGE Production Status" column, such as the "Prod. Platform" column, are assumptions only and are highly
	Disabled	PGE not currently in production but could be reinstated if requested
	Deleted	PGE no longer in production with little or no possibility of being reinstated
<sup>2</sup> Prod. Platform	W	Currently executes on warlock
	M	Currently executes on magneto
	M*	Currently in pre-delivery testing on magneto

Table 2: CERES Product Current Events Status Table

Product Name	Responsible Working Group	Archival, Internal, or Ext. Input	URL in Sample Read README updated? (Y/N) <sup>3</sup>	DPC Pages Converted to Word?
BDS	Instrument	Archival	<b>N</b>	<b>N</b>
ES-8	ERBE-like	Archival	<b>N</b>	<b>N</b>
ES-9	ERBE-like	Archival	<b>N</b>	<b>N</b>
ES-4	ERBE-like	Archival	<b>N</b>	<b>N</b>
SSF	Inversion	Archival	<b>N</b>	<b>N</b>
CRS	SARB	Archival	<b>N</b>	<b>N</b>
FSW	TISA-Gridding	Archival	<b>N</b>	<b>N</b>
SYN	TISA-Averaging	Archival	<b>N</b>	<b>N</b>

AVG	TISA-Averaging	Archival	<i>N</i>	<i>N</i>
ZAVG	TISA-Averaging	Archival	<i>N</i>	<i>N</i>
SFC	TISA-Gridding	Archival	<i>N</i>	<i>N</i>
SRBAVG	TISA-Averaging	Archival	<i>N</i>	<i>N</i>
New - 9	TISA-Gridding	Archival	<i>N</i>	<i>N</i>
New - 11	TISA-Averaging	Archival	<i>N</i>	<i>N</i>
INSTR	Instrument	Internal	<i>N</i>	<i>N</i>
IES	Instrument	Internal	N/A	<i>N</i>
EID-6	ERBE-like	Internal	N/A	<i>N</i>
CRH	Clouds	Internal	N/A	<i>N</i>
GGEO	TISA	Internal	N/A	<i>N</i>
MOA	SARB	Internal	N/A	<i>N</i>
CID-VIRS	Clouds	Ext. Input	N/A	<i>N</i>
CID-MODIS	Clouds	Ext. Input	N/A	<i>N</i>
SURFMAP	Clouds	Ext. Input	N/A	<i>N</i>
GEO	TISA	Ext. Input	N/A	<i>N</i>
APD	SARB	Ext. Input	N/A	<i>N</i>
GAP	SARB	Ext. Input	N/A	<i>N</i>
MWH	SARB	Ext. Input	N/A	<i>N</i>
OPD	SARB	Ext. Input	N/A	<i>N</i>

Table 2 Key:

<sup>3</sup> URL Update	Sample Read Package README files: References to URL <a href="http://asd-www.larc.nasa.gov/ceres/ASDceres.html">http://asd-www.larc.nasa.gov/ceres/ASDceres.html</a> need to be updated to <a href="http://science.larc.nasa.gov/ceres">http://science.larc.nasa.gov/ceres</a>
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Revisions:		
Date	Affected Section or PGE/Product ID	Revision Made
8/7/2007	All	Added color to distinguish between Yes and No answers
	CER1.1P2, CER1.1P4, CER1.1P6	Added comment indicating possible reactivation
	CER4.1-4.1P4, CER4.1-4.1P5	Changed NOMAD Compliance status from "No" to "Yes"
	CER10.1P3	New PGE added to chart
8/21/2007	All	Added Prod. Platform column
	All	Changed from red font to lightly shaded background to distinguish between Yes and No answers
	Inversion	Changed "N/A" to "Y" for NOMAD compliant for Active PGEs
9/4/2007	All	No changes
9/18/2007	All	Added 2 columns for Test Plan and Op Man conversion from Framemaker to Word.
	All	Added column for updating URL in Sample Read Packages README files consistent with Note 3 in Key Table
10/16/2007	CER7.1P1, CER8.1P1, CER8.2P2	Changed status of Test Plans to Word to indicate in review.
10/30/2007	All remaining PGEs except ERBE-like	Changed status of Test Plans to Word to indicate in review.
11/27/2007	All	Changed column heading from "Op Man in Word" to Op Man in Excel"
	CER1.NPx	Changed Op Man status from "N" to "Review"
	CER1.NPx	Changed Prod. Platform column value from "W,M*" to "W"

12/11/2007	All PGEs	Changed status of Test Plans to Word to indicate complete.
	CER9.0P1	Addition - new PGE
	CER11.0P1	Addition - new PGE
	All PGEs except CER1.nPx	Changed status of Op Man in Excel from "Review" to "N"
	All PGEs	Removed Table 1 column regarding sample read package updates
	All products	Added new Table 2 for product-specific items; (1) sample readme file updates and (2) DPC pages converted to Word
	CER10.0P1-3	Changed Production Status from "Active-to-be" to "Developing"
	Table 1 Key	Added new "Developing" status explanation to Footnote 1
	CER10.1P4 CER10.1P5	Changed Production status back to "Active" to reflect reactivation for Aqua processing
CER10.0Px	Changed Prod. Platform from "W, M*" to "Planning W, M"	

1/8/2008	CER1.0P1	Changed Production Status from "Active" to "Developing"
		Changed Prod. Platform from "W, M*" to "Planning W, M"
	CER4.1-4.1P6 CER4.1-4.2P4 CER4.1-4.2P5 CER4.1-4.3P3 CER4.5-6.1P4,5 CER4.5-6.2P3 CER4.5-6.3P4,5 CER4.5-6.4P2 CER4.5-6.6P4,5 CER11.7P1	Addition - New PGEs
	CER4.1-4.2P3 CER4.1-4.3P2	Additions to chart that were erroneously omitted previously
	CER11.0P1	New PGE under development and renumbered as CER11.7P1
1/22/2008	CER2.NPx, CER3.NPx	Changed status of Test Plan in Word column from "N" to "Y"
	CER4.5-6P4, CER4.5-6.3P5, CER4.5-6.6P4, CER4.5-6.6P5	Removed from list as they will not be delivered
	CER4.1-4.4P1	Added row to chart
	CER7.1.1P1, CER8.1P1	Changed Prod Platform to also indicate magneto