

## May 30, 2007 - System Issues and Status

**Table 1: Process Strategy/Geier as of 05/30/07  
Active Requests in order of priority (1 of 4)**

<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>
M-PR 3-02		NSIDC-NESDIS	EICE ESNOW (SS4.1)	4.1-4.0P1	Standing request	
PR 69-07	FM1 or FM2	Beta3	TISA avg (SS 8)	8.1P1 8.2P1	3/00 - 2/03	Done 5/25/07
PR 5-07	FM1 or FM2	Beta3	Synoptic SARB (SS 7.2)	7.2.1P1	6/01, 3/03 - 10/05, 1/03	Done 5/23/07
PR 69-07	FM1 or FM2	Beta3	TISA avg (SS 8)	8.1P1 8.2P1	3/03 - 10/05	Done 5/18/07
PR 84-07 to 89-07	FM3 or FM4	ValR10	Inst. SARB (SS 5)	5.0P1 5.1P2 5.4P2	3 select months (7/02, 12/05, 4/06)	
PR 79A-07 to 79D-07	FM1 or FM2	Edition2B	Inst. SARB (SS 5)	5.0P1 5.1P1 5.4P1	Select months/ days	Validation files for Terra must be called Edition2B and be run with a cc# that distinguishes them as such.
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.

**Table 1: Process Strategy/Geier as of 05/30/07**  
**Active Requests in order of priority (2 of 4)**

<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 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.
PR 20-07 to 30-07	FM1, FM2	Edition2	Instrument/ERBELike (SS 1-3)	2.4P1 1.3P3 1.2P1 2.2P1 2.3P1 2.3P2 3.1P1 3.2P1	2006	Done 5/3/07.
PR 63-07	FM1, FM2, MODIS 004	Edition2-QC	Clouds (SS4.1-4)	4.1-4.1P3 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	1/1/06 - 8/1/06	
PR 62-07	FM1	Edition2B	Inversion (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	3/1/06 - 8/1/06	
PR 60-07	FM1	Edition2C	TISA grid (SS 9)	9.2P1 9.3P1 9.4P1	3/1/06 - 8/1/06	
PR 61-07	FM2	Edition2B	Inversion (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	1/1/06 - 8/1/06	
PR 59-07	FM2	Edition2C	TISA grid (SS 9)	9.2P1 9.3P1 9.4P1	1/1/06 - 8/1/06	
PR 74-07 to 76-07	FM2	Edition2B	SARB (SS5)	5.0P1 5.1P1 5.4P1	12/31/05 - 3/1/06	<b>Wait for Terra Validation CRS to be approved.</b>
PR 72-07	FM2	Edition2C	TISAgid (SS6)	6.1P1 6.2P1 6.3P1	12/31/05 - 3/1/06	<b>Wait for Edition2B CRS.</b>
PR 77-07 to 79-07	FM1	Edition2B	SARB (SS5)	5.0P1 5.1P1 5.4P1	3/06 - 6/06	<b>Wait for Terra Validation CRS to be approved.</b>

**Table 1: Process Strategy/Geier as of 05/30/07**  
**Active Requests in order of priority (3 of 4)**

<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>
PR 73-07	FM1	Edition2C	TISAgird (SS6)	6.1P1 6.2P1 6.3P1	3/06 - 6/06	<b>Wait for Edition2B CRS.</b>
PR 68-07	FM3, FM4, MODIS 004	Edition1A	Clouds (SS4.1-4)	4.1-4.1P3 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	1/1/06 - 5/1/06	
PR 67-07	FM3	Edition2B	Inversion (SS4.5-6)	4.5-6.1P3 4.5-6.2P2 4.5-6.4P1	1/1/06 - 5/1/06	
PR 65-07	FM3	Edition2B	TISA grid (SS 9)	9.2P1 9.3P1 9.4P1	1/1/06 - 5/1/06	
PR 81-07 to 83-07	FM3	Edition2B	SARB (SS5)	5.0P1 5.1P2 5.4P2	12/31/05 - 5/1/06	<b>Wait for Aqua ValR10 CRS approval.</b>
PR 80-07	FM3	Edition2B	TISAgird (SS6)	6.1P1 6.2P1 6.3P1	12/31/05 - 4/06	<b>Wait for Edition2B CRS.</b>
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 1/1/06 hr 11	
PR 9-07	FM3	Edition2B	TISA grid (SS 9)	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 (SS 9)	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	<b>Wait for Aqua ValR10 CRS approval.</b>
PR 84D-07	FM3 or FM4	Edition2B	TISAgird (SS6)	6.1P1 6.2P1 6.3P1	7/02 - 12/05	<b>Wait for Edition2B CRS.</b>

**Table 1: Process Strategy/Geier as of 05/30/07**  
**Active Requests in order of priority (4 of 4)**

<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>
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 1/1/06	
PR 7-07	FM4	Ed2B-NoSW	TISA grid (SS 9)	9.2P1 9.3P1 9.4P1	3/31/05 hr 12 to 1/1/06 hr 11	
PR 66-07	FM4	Ed2B-NoSW	Inversion (SS4.5-6)	4.5-6.1P3 4.5-6.2P2 4.5-6.4P1	1/1/06 - 5/1/06	
PR 64-07	FM4	Ed2B-NoSW	TISA grid (SS 9)	9.2P1 9.3P1 9.4P1	1/1/06 - 5/1/06	
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: May 30, 2007 - System Issues and Status**

Activity	Lead	Status
CM	Ayers	<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>• Provided the updated CRS and FSW Data Products Catalog sections to the ASDC for inclusion in the appropriate sample read packages. (Ayers)</li><li>• Delivered the updated Clouds Operator's Manual to the ASDC. (Saunders)</li><li>• Testing the CERESlib delivery associated with SCCR 657. (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 - May 2007**

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)
CERESlib (SCCR 657)	May 11	May 25	June 1	Clouds and MOA modifications.			<i>warlock &amp; magneto</i>
Clouds (SCCR 654)	May 11	May 25	June 1	To process MODIS V005. Delivery needs to be made prior to processing Collection 5. To continue Terra/Aqua Ed2 processing.	X	X	<i>warlock</i>
TISA Averaging (SCCR 650)	March 30	June 8	June 15	Support Terra Edition2E and Aqua Edition2B SRBAVG1-3 and Daily processing.		X	<i>warlock &amp; magneto</i>
GGEO (SCCR 653)	June 15	June 29	July 6	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</i>
Instrument (SCCR 641)	July 6	July 20	July 27	Delivery of simulated IES PGE to support TRMM VIRS-only processing.			<i>warlock &amp; magneto</i>
Instrument (SCCR 610)	August			To allow processing of both Edition2 and Edition3 data through PGE CER1.3P3			<i>warlock &amp; magneto</i>
Clouds	Summer			Support TRMM VIRS-only processing of August 2001 forward.			<i>warlock</i>
TISA Averaging	Summer			To support Terra Beta4 and Aqua Beta1 TSI processing.			<i>warlock</i>

**Table 3: CERES Subsystem Delivery Schedule - May 2007**

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		Summer		To support Terra Beta4 and Aqua Beta1 SYNI processing.			<i>warlock &amp; magneto</i>
SARB		Summer		MATCH (collection 5) data files for May - December 2006.			<i>warlock &amp; magneto</i>
TISA Averaging		Fall		To support Terra Beta4 and Aqua Beta1 AVG, ZAVG, and SYN processing.			<i>warlock</i>
SARB		Fall		MATCH (collection 5) data files for January - June 2007.			<i>warlock &amp; magneto</i>
Clouds		November		Terra/Aqua Beta1 Edition3 SSF processing.			<i>warlock</i>
Inversion		Two weeks after Clouds		Terra/Aqua Beta1 Edition3 SSF processing.	X		<i>warlock &amp; magneto</i>
TISA Gridding		Two weeks after Inversion		Support Terra/Aqua Beta Edition3 SFC processing.			<i>warlock &amp; magneto</i>
TISA Gridding		???		PMOA delta delivery dealing with overlap file checking.			<i>warlock</i>

**Table 4: CERES Coefficients Delivery Schedule - May 2007**

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	Early Fall 2007		Terra Edition3 gains and spectral response function files for February 2000 - June 2005.	<i>warlock/ magneto</i>
Instrument/ ERBE-like	N/A	Early Fall 2007		Aqua Edition3 gains and spectral response function files for June 2002 - March 2005.	<i>warlock/ magneto</i>
GGEO	Fall	Fall		Final coefficients for 1/06 - 4/06.	<i>warlock</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>
Instrument/ ERBE-like	???			TRMM Edition3 gains and spectral response function files for December 1997 - April 2000.	<i>warlock/ magneto</i>



**Table 5: SCCR Activity May 15 at 9:00 a.m. - May 29 at 4:30 p.m.**

SCCR	S	U	A	C	D	SS	Page No.	Comments
603		X					9	
653			X			11		
654		X	X			4.1 - 4.4	12	
655			X			4.4		CERESlib modifications
656	X					12	15	CERESlib modifications
657	X					CERESlib	16	
658	X						17	

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

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

Subsystem: Clouds4.1-3

SCCR Date: 10/13/2005

SCCR Number: 603

Parameter Change: (X) YES ( ) NO

Description of Change (Science):

CER4.1-4.1P2

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

(I) Clouds (Req 4-1.3)

(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 4-1.4)

(a) Footprints influenced by a solar eclipse will be removed from the file.

(b) 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.

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

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

(2) The CERES cloud mask will be modified to handle calibration changes in MODIS Collection 5.

Reason for Change (Science):

CER4.1-4.1P2

(1) Changes were placed in the Aqua productions stream that could not be included in Terra processing since it was frozen.

(I) Clouds

(a) To fix clear sky updating scheme over polar/non-polar transition ocean area.

(b) To reduce no cloud retrievals.

(II) Convolution

(a) The dark visible albedo under a solar eclipse prevented clouds from being accurately determined.

(b) Often the water between islands and other features would be lost.

(c) The standard deviation test was not being met over permanent snow. By definition, it should be considered snow.

(d) The percent coverage had already been converted to percentage for another calculation. They were converted again limiting the real range to 0 and greater than one percent.

(2) The thermal channels radiance calibration in MODIS collection 5 showed divergence in V005-V004 differences between channels at colder temperatures. This caused large changes in the polar cloud fraction.

Description of Change (non-Science):

CER4.1-4.1P2

(1) The MOD04, MODIS aerosol, reader will be modified to read the new collection 5 MOD04 format. (Req 4-1.2)

(2) The method for reading imager data when there is a data gap in the CERES data will be changed.

(3) The number of input files that can be transferred between cloud metadata into convolution metadata will be increased to 120. (Req 4.1-4)

Reason for Change (non-Science):

CER4.1-4.1P2

(1) The code can not correctly read the MOD04, Collection 5 format.

(2) When there is a gap in CERES data, the current procedure jumps twice as far as needed in the imager data. It also assumes no corresponding loss of MODIS data. This results in footprints not being included on the SSF.

(3) The files used in cloud retrieval was not being put on the metadata.

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

Description of Parameter Change:

Will be provided when delivery finalized.

Reason for Parameter Change:

Will be provided when delivery finalized.

Affected PGEs: CER4.1-4.1P2

Estimated Time to Complete Change : Five months

Planned Delivery Date : March 17, 2006

List Affected Subsystems and PGE Names: Inversion 4.5-6.1P2 and 4.5-6.3P2; SARB 5.0P1 and 5.1P1; and TISA

6.1P1, 6.1P2, 7.1.1P1, 9.2P1, and 10.1P1

Date: 11/18/2005 Status: UNKNOWN

Originator: MILLER, WALTER F. (SAIC)

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ADDITIONAL CHANGES TO SCCR NO. 603:

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Parameter Change: ( ) YES (X) NO

Description of Change (Science):

Items in this SCCR have been divided between SCCR 654 needed for Collection 005 processing and SCCR 658 requested for Edition3 processing.+Please disapprove this SCCR.

Reason for Change (Science):

Desire to process data for 2006 required splitting the deliveries.

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:

N/A

Reason for Parameter Change:

N/A

Affected PGEs: CER4.1-4.1P2

Estimated Time to Complete Change : None

Planned Delivery Date : Disapproved

List Affected Subsystems and PGE Names: None

Date & Time: 2007-05-29 16:03:04

Originator: MILLER, WALTER F. (SSAI)

## CERES Software Configuration Change Request Submittal

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Subsystem: Clouds

SCCR Date & TIME: 2007-05-15 08:43:09

SCCR No.: 654

Parameter Change: (X) YES ( ) NO

Description of Change (Science):  
None

Reason for Change (Science):  
N/A

Description of Change (non-Science):

Many of these changes were originally identified in SCCR 603, but it was decided to start Collection 005 processing before Edition3 SSF was ready.

CER4.1-4.1P2 (Terra Main)

++(1)+Current MODIS reader with this delivery handles both collection 004 and collection 005 MOD02, MOD03 and MOD04. MOD04 reader was modified.+ Mean\_Reflectance\_Land for 3.75um are not provided in MOD04 collection 005. (Req 4-3.1)

++(2) Terra Edition2 Hourly QC format were changed to match Aqua Edition1. (Req 4-3.2)

++(3) CloudVis subset regions were increased to 68. (Req 4-3.3)

++(4) Whole hour CloudVis was turned on for Terra Edition2. (Req 4-3.4)

++(5) Footprints influenced by a solar eclipse will be removed from the file by checking the IES quality flag. (Req 4-3.5)

++(6)+The number of input files that can be transferred between cloud metadata into convolution metadata will be increased to 120. (Req 4-3.6)

CER4.1-4.1P3 (Aqua Main)

++(1)+Current MODIS reader with this delivery handles both collection 004 and collection 005 MOD02, MOD03 and MOD04. MOD04 reader was modified.+ Mean\_Reflectance\_Land for 3.75um are not provided in MOD04 collection 5. (Req 4-3.1)

++(2) CloudVis subset regions were increased to 68. (Req 4-3.3)

CER4.1-4.2P1 (Daily QC)

++(1) Daily QC executables between Terra Edition2 and Aqua Edition1 were combined. (Req 4-3.2)

CER4.1-4.2P2 (Clear Sky Update)

++(1) No changes, delivered as part of the processing stream.

CER4.1-4.3P1 (Monthly QC)

++(1) Monthly QC between Terra Edition2 and Aqua Edition1 were combined. (Req 4-3.2)

All PGEs

++ (1) Replaced LaRC email addresses with NOMAD email addresses.+This is a script change only. (Req 4-3.8)

Reason for Change (non-Science):

CER4.1-4.1P2

+ (1) MODIS is no longer providing collection 004 data after July 2006.+the formats for the MOD04 file is not the same as collection 004.

+ (2) This provides consistency between platforms.

+ (3) Frequent requests for data over additional areas have been received.

+ (4) Frequent requests have been received for pixel level data.

- + (5) Previously, whole 5 minute MODIS granules were removed from the archive when a solar eclipse occurred within it.+Now, only CERES FOV under the eclipse are removed.
- + (6) The addition of MOD04 files exceeded the original limit, but was not identified in previous delivery

#### CER4.1-4.1P3

- + (1) MODIS is no longer providing collection 004 data after April 2006.+The formats for the MOD04 file is not the same as collection 004.
- + (2) Frequent requests for data over additional areas have been received.

#### CER4.1-4.2P1

- + (1) Simplifies running Daily clouds QC.

#### CER4.1-4.2P2

- + (1) Eases delivery, SSIT, and Configuration Code assignment, CER4.1-4.3P1
- + (1) Simplifies running Monthly clouds QC

#### All PGEs

- + (1) With the change to NOMAD, the current Email addresses will not be delivered.

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

The Single Scanner Footprint (SSF) is being changed.

PSF-wtd MOD04 mean reflectance land (3.750) (SSF-144) will be default due to the loss of that variable in the collection 005 MOD04 product.

MODIS radiance calibration and small geolocation changes will result in differences in parameters that are based on MODIS data.+Clear Footprint Area (SSF-66 through SSF-79), Cloudy Footprint Area (SSF-81 through SSF-114), Footprint Imager Radiance Statistics (SSF-115 through SSF-131).

New MODIS aerosol and cloud clearing algorithm will change MODIS Land Aerosols (SSF-132 through SSF-145) and MODIS Ocean Aerosols (SSF-146 through SSF-160).+

#### Reason for Parameter Change:

Changes in MODIS radiance, geolocation, and aerosol with collection 005 will cause some inconsistencies when compared to collection 004 parameters.

#### Affected PGEs:

CER4.1-4.1P2, CER4.1-4.1P3, CER4.1-4.2P1, CER4.1-4.2P2, CER4.1-4.3P1

Estimated Time to Complete Change : Five months (work performed under SCCR603)

Planned Delivery Date : May 25, 2007

List Affected Subsystems and PGE Names: Inversion 4.5-6.1P2 and 4.5-6.1P3; SARB 5.0P1 and 5.1P1; and TISA 9.2P1,

Originator: MILLER, WALTER F. (SSAI)

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#### ADDITIONAL CHANGES TO SCCR NO. 654:

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Parameter Change: (X) YES ( ) NO

#### Description of Change (Science):

None

#### Reason for Change (Science):

N/A

Description of Change (non-Science):

To maintain the ability to process MODIS collection 004, instead of modifying the PGEs identified above, new PGEs were created for MODIS collection 005 processing.

CER4.1-4.1P4, Terra Collection 005 Main Processor, is based on CER4.1-4.1P2 and include the changes above for that PGE.

CER4.1-4.1P4, Aqua Collection 005 Main Processor, is based on CER4.1-4.1P3 and include the changes above for that PGE.

CER4.1-4.2P3, Collection 005 Daily QC Processor, is based on CER4.1-4.2P1 and include the changes above for that PGE.

CER4.1-4.3P2, Collection 005 Monthly QC Processor, is based on CER4.1-4.3P1 and include the changes above for that PGE.

CER4.1-4.1P2, CER4.1-4.1P3, CER4.1-4.2P1, CER4.1-4.2P2, and CER4.1-4.3P1 will not be delivered.+

The changes to the Email script will still be made and affects all existing and new clouds PGEs.

Reason for Change (non-Science):

To maintain the ability to process MODIS collection 004, instead of modifying the PGEs identified above, new PGEs were created for MODIS collection 005 processing.+Collection 004 results could not be duplicated with the collection 005 changes.

The reason for the individual changes in the original SCCR are still valid.

Since CER4.1-4.2P2 will process both Collection 004 and 005, it will not be delivered.

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

Same as original SCCR.

Reason for Parameter Change:

Same as original SCCR

Affected PGEs: CER4.1-4.1P4, CER4.1-4.1P5, CER4.1-4.2P3, and CER4.1-4.3P2

Estimated Time to Complete Change : Two days

Planned Delivery Date : May 25, 2006

List Affected Subsystems and PGE Names: Same as original SCCR

Date & Time: 2007-05-24 14:12:05

Originator: MILLER, WALTER F. (SSAI)

## **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: 2007-05-22 15:07:45 SCCR No.: 656

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

N/A

Reason for Change (Science):

N/A

Description of Change (non-Science):

Updates to moa\_io modules to enable reading of MERRA-based MOA files.

Reason for Change (non-Science):

These updates will allow CERES subsystems to process with MERRA MOA+files when they are produced.

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: All that use MOA

Estimated Time to Complete Change : 3 days

Planned Delivery Date : May 25, 2007

List Affected Subsystems and PGE Names: All that use MOA

Originator: CALDWELL, THOMAS E. (SSAI)

## **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: 2007-05-25 10:31:53 SCCR No.: 657

Parameter Change: ( ) YES (X) NO

Description of Change (Science):

N/A

Reason for Change (Science):

N/A

Description of Change (non-Science):

Changes correspond to 656 and 655 SCCRs.

GRing.f90, GRing.README, moa\_io\_def.f90, and moa\_io\_read.f90.

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: All that use MOA, 4.1-4P2 and 4.1-4P3

Estimated Time to Complete Change : 1 day

Planned Delivery Date : 05/25/07

List Affected Subsystems and PGE Names: All that use MOA

Originator: ZENTZ, SCOTT M. (SSAI)



## CERES Software Configuration Change Request Submittal

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Subsystem: Clouds SCCR Date & TIME: 2007-05-29 15:42:40 SCCR No.: 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: 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

Originator: MILLER, WALTER F. (SSAI)

**Table 6: May 30, 2007 - Subsystem Issues and Status (1 of 4)**

SS No.	SS Lead	Status	Problems
1.0	Cooper	<ul style="list-style-type: none"> <li>Access to dingo now available on the iMac so it is now possible to update the Terra and Aqua Latency spreadsheets from the Mac instead of having to use the Sun. (Cooper)</li> <li>Updates for Edition3 are still being tested and validated. A new set of data was processed using the beta 7 updates and new second time constant coefficients for FM2, FM3 and FM4. These files were processed on the cluster with a 2 min sleep command between qsub commands. In the past this has provided all GOOD data files; however, for this test a few (on average 1/month) BAD files were created. Continuing to work with Scott Zentz to track down this issue. (Cooper, Zentz)</li> <li>Issues retrieving data using daacget may delay the ability to provide Edition3 gains and spectral responses beyond Mar. 2005 for Aqua and June 2005 for Terra. This may cause a second delivery shortly after August to complete gains and spectral responses through Dec. 2005. (Matthews)</li> </ul>	
2.0	Walikainen	<ul style="list-style-type: none"> <li>Edition3 testing continues. Processing nadir files through ERBE-like validation with new second time constants. (Walikainen)</li> <li>Created Edition1-CV QC reports for a second time constant study. These tests are for months were the instruments are in the RAPS mode. Previously we only did cross track months. (Szewczyk and Walikainen)</li> <li>Continuing to examine QC checker email generated during production. Including the Edition1-CV data products. (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.	

**Table 6: May 30, 2007 - Subsystem Issues and Status (2 of 4)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
4.1	Sun-Mack	<ul style="list-style-type: none"> <li>• Worked on Cloud Delivery SCCR #654. (R. Brown, Miller, Sun-Mack)</li> <li>• QC global images and statistics were generated for Terra-MODIS(V005,V004, and Ed2-QC) and Aqua-MODIS(V005, V004, and Ed1a) for 200506 and 20050607. Web scripts were created for viewing the results. (R. Brown)</li> <li>• Provided CERES cloud properties to GEWEX Cloud. (Chen, Sun-Mack)</li> <li>• Started geolocation merging for NEWS. (Chen, 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>• Finished modification and testing of GRing module. It was submitted for inclusion in CERESlib. (Miller)</li> <li>• All bad Aqua FM3 Edition1A and a portion of Terra Edition2A SSFB GRings were processed through new code and provided to ASDC for validation. (Miller)</li> <li>• Updated Operator's Manual to include four new PGEs and provide clarification that were requested by ASDC. (Miller)</li> <li>• Reviewed Collection 005 and 004 processing. (Miller)</li> <li>• Cloned PCFGen, Run, Validation, and Cleanup scripts for the four new PGEs. (Miller)</li> <li>• Monitored Terra Edition2-QC processing. Sixty-six hours in January and one in February 2006 failed to process. Missing IES, bad MODIS granules, and clean-up prevented the missing hours from processing. (Miller)</li> <li>• Responded to questions from ASDC on processing issues. (Miller)</li> <li>• Met with Dr. Loeb on parallax study. (Miller)</li> </ul>	

**Table 6: May 30, 2007 - Subsystem Issues and Status (3 of 4)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
4.5	Sothcott	<ul style="list-style-type: none"> <li>• Attended weekly SOFA Working Group meetings. (Sothcott)</li> <li>• Resolved issue with S'COOL subset file and the first school being dropped. (Sothcott)</li> <li>• Started work to identify solutions to the big-endian/little-endian binary file issue across the multiple platforms for processing. (Sothcott and Coleman)</li> <li>• Downloaded missing Aerosol subset files for August and September 2003 for both FM1 and FM2. (Sothcott)</li> <li>• Continued work to incorporate the updated LWB algorithms. (Sothcott)</li> </ul>	
4.6	Sothcott	Combined with above.	
5.0	Coleman	<ul style="list-style-type: none"> <li>• Working on Edition3 changes. (Caldwell)</li> </ul>	
7.2	Coleman	<ul style="list-style-type: none"> <li>• Testing Beta4 updates. (Caldwell)</li> </ul>	
12.0	Coleman	<ul style="list-style-type: none"> <li>• Delivered moa_io updates to CERESlib to allow processing of MERRA-based MOA files when they become available. (Caldwell)</li> </ul>	
7.1	Nguyen	<ul style="list-style-type: none"> <li>• Ran July 2002 without CERES SW data for Fred Rose. (Nguyen)</li> </ul>	
8.0	Nguyen	<ul style="list-style-type: none"> <li>• No new updates. (Nguyen)</li> </ul>	
10.0	Nguyen	<ul style="list-style-type: none"> <li>• Ran January 2003 with the update surface flux for Dave Doelling to analyze. (Nguyen)</li> <li>• Continued updating the average code to correct the regional surface fluxes for the case where the SW surface fluxes were not calculated by the surface flux algorithms. (Nguyen)</li> <li>• Ran January 2003 and July 2002 for FM1, FM2, FM3 and FM4 for the science team to analyze. (Nguyen)</li> </ul>	
6.0	Raju	<ul style="list-style-type: none"> <li>• No new updates. (Raju)</li> </ul>	

**Table 6: May 30, 2007 - Subsystem Issues and Status (4 of 4)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
9.0	Raju	<ul style="list-style-type: none"><li>• Tested PGE 9.1P1 processor using one day of MERRA data and found the code needed modifications to include moa_io_def changes. (Raju)</li><li>• Transition from Sun to Mac. (Raju)</li><li>• Work continued on 0.5 degree equal-angle grid structure. (Raju)</li></ul>	
11.0	Raju	<ul style="list-style-type: none"><li>• Work started to run PGE 11.2P2 on cluster. (Raju)</li></ul>	
CERESlib Coleman/Zentz		<ul style="list-style-type: none"><li>• No new updates received.</li></ul>	