November 3, 2004 - System Issues and Status

Table 1: Process Strategy/Geier as of 11/03/04
Active Requests in order of priority (1 of 4)

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
PR 98-04	Terra	ValR5	SRBAVG (SS10)	10.1P1	4/00 - 12/00, 1/02 - 4/02	Done 10/15/04.
PR 96-04 PR 97-04	Aqua	ValR4	BDS (SS1)	1.3P3 1.2P1	9 selected days (see PR)	Done 10/23/04.
PR 95-04	Aqua	ValR4	ERBElike (SS2)	2.4P1	3/04 - 7/04	Done 10/26/04.
PR 94-04	Aqua	ValR4	ERBElike (SS2)	2.2P1	7 selected days (see PR)	Done 10/26/04.
PR 9304	Aqua	ValR4	ERBElike (SS2)	2.3P1 2.3P2	3/1/04 6/30/04	Done 10/26/04.
PR 74-04	Terra	Edition2B	SSF (SS4) Inversion	4.5-6.3P2 4.5-6.2P2 4.5-6.4P1	3/00 - 12/03 2/25/00 - 2/29/00	
PR 73-04	Terra	Edition2B	SFC (SS9)	9.2P1 9.3P1 9.4P1	3/00 - 12/03	
PR 84-04	Terra	Beta2	Synoptic SARB (SS7.2)	7.2.1P1	3/00	Done 10/19/04.
PR 86-04	Terra	Beta2	TISA avg (SS8)	8.1P1	3/00	
PR 83-04	TRMM	Beta3	Synoptic SARB (SS7.2)	7.2.1P1	3/00	
PR 84-04	Terra	Beta2	Synoptic SARB (SS7.2)	7.2.1P1	1/01, 4/01, 7/01, 10/01	1/01, 4/01 complete. 7/01 running.
PR 86-04	Terra	Beta2	TISA avg (SS8)	8.1P1	1/01, 4/01, 7/01, 10/01	3/00 and 4/01 running.
PR 72-04	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	3/00 - 6/00	Done 10/18/04.

Table 1: Process Strategy/Geier as of 11/03/04
Active Requests in order of priority (2 of 4)

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
PR 72-04	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	3/02	Done 10/27/04.
PR 72-04	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	7/00 - 2/01	In production. Process crosstrack Instrument only.
PR 71-04	Terra	Edition2B	FSW (SS6)	6.1P1 6.2P1 6.3P1	3/00 - 6/00	Done 10/18/04.
PR 71-04	Terra	Edition2B	FSW (SS6)	6.1P1 6.2P1 6.3P1	3/02	Done 10/27/04.
PR 71-04	Terra	Edition2B	FSW (SS6)	6.1P1 6.2P1 6.3P1	7/00 - 2/01	In production. Process crosstrack Instrument only.
PR 61-04	Aqua	Edition1A	SSF (SS4) Clouds	4.1-4.1P3 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	7/02 - 6/03	Complete through 3/03.
PR 60-04	Aqua	Edition1A	SSF (SS4) Inversion	4.5-6.1P3 4.5-6.2P2 4.5-6.4P1	7/02 - 6/03	In production.
PR 59-04	Aqua	Edition1A	SFC (SS9)	9.2P1 9.3P1 9.4P1	7/02 - 6/03	In production.
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 ~~3.2P2~~	For 9/04 - present	DO NOT PROCESS 3.2P2 - it is on hold.

Table 1: Process Strategy/Geier as of 11/03/04
Active Requests in order of priority (3 of 4)

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
Standing requests PM-PR 7-03A to 10-03	Aqua	Edition1	BDS/ ERBElike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1 ~~3.2P2~~	For 10/04 - present	DO NOT PROCESS 3.2P2 - it is on hold.
Standing requests AM-PR 8A-02 to 11-02	Terra	Edition2	BDS/ ERBElike (SS1-3)	1.2P1 1.3P3 2.2P1 2.3P1 2.3P2 2.4P1 3.1P1 ~~3.2P2~~	For 1/04 - present	**HOLDING - waiting for associated ValRx to run.** DO NOT PROCESS 3.2P2 - it is on hold.
Standing requests PM-PR 11-03, 13-03 to 17-03	Aqua	Edition2	BDS/ ERBElike (SS1-3)	1.3P3 1.2P1 2.2P1 2.3P1 2.3P2 2.4P1 3.1P1 ~~3.2P2~~	For 3/04 - present	**HOLDING - waiting for associated ValRx to be verified.** DO NOT PROCESS 3.2P2 - it is on hold.
Standing request PM-PR 12-03	Aqua/ Terra	Edition2	ES4/ES9 (SS3)	3.2P1	For 1/04 - present	**HOLDING - waiting for both Terra and Aqua to have processed Edition2 data beyond 1/04.**
PR 83-04	TRMM	Beta3	Synoptic SARB (SS7.2)	7.2.1P1	1/98	Cancelled: talked to Dave Young, no 2nd month needed.
PRs 60-04, 61-04	Aqua	Edition1A	SSF (SS4)	4.1-4.1P3 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1 4.5-6.1P3 4.5-6.2P2 4.5-6.4P1	7/03 - 12/03	

Table 1: Process Strategy/Geier as of 11/03/04
Active Requests in order of priority (4 of 4)

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	Currently not running - files getting sent have naming problem (3 digit month starting Oct'04).
PR 72-04	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	3/01 - 2/02 4/02 - 2/03	Process crosstrack Instrument only.
PR 71-04	Terra	Edition2B	FSW (SS6)	6.1P1 6.2P1 6.3P1	3/01 - 2/02 4/02 - 2/03	
M PR 2-04		GEOS4	MOA (SS12)	12.1P1	10/04 - present	
M PR 1-04		GEOS4	PMOA (SS9.1)	9.1P1	10/04 - present	
PR 63-04	Aqua	Beta1	CRS (SS5)	5.0P1 5.1P1 5.4P1	7/02 - 6/03	
PR 62-04	Aqua	Beta1	FSW (SS6)	6.1P1 6.2P1 6.3P1	7/02 - 6/03	
PRs 60-04, 61-04	Aqua	Edition1A	SSF (SS4)	4.1-4.1P3 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1 4.5-6.1P3 4.5-6.2P2 4.5-6.4P1	1/04 - 6/04	**HOLDING - waiting on IES availability.**
PR 72-04	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	3/03 - 6/03	Process crosstrack Instrument only.
PR 71-04	Terra	Edition2B	FSW (SS6)	6.1P1 6.2P1 6.3P1	3/03 - 6/03	

Table 2: Process Strategy/Geier as of 11/03/04
Coming Soon (1 of 2)

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
12/04	Terra	ValR6	SFC (SS 9)	3/00 - 2/03	Redelivery expected 11/04, correct region numbers; run only 9.3 & 9.4.
	Terra	ValR6	SRBAVG (SS10)	3/00 - 2/03	Redelivery expected 11/04.
	Aqua	ValR1	SFC (SS 9)	7/02 - 2/03	Redelivery expected 11/04, correct region numbers; run only 9.3 & 9.4.
	Aqua	ValR1	SRBAVG (SS10)	7/02 - 2/03	
	Terra	Edition2C	SFC (SS 9)	3/00 - 12/03	Redelivery expected 11/04; run only 9.3 & 9.4.
	Terra	Edition2C	SRBAVG (SS10)	3/00 - 2/03	Redelivery expected 11/04.
	Aqua	Edition1B	SFC (SS 9)	7/02 - 6/03	Redelivery expected 11/04, correct region numbers.
	Aqua	Edition1B	SRBAVG (SS10)	7/02 - 2/03	
2/05		ValR11	GGEO (SS11)	3/03 - 6/03	Requires redelivery to handle GOES-9 and GOES-12; requires coefficients.
	Aqua	ValR1	SRBAVG (SS10)	3/03 - 6/03	
3/05		Edition2A	GGEO (SS11)	3/03 - 6/03	ValR11 must be approved.
	Aqua	Edition1B	SRBAVG (SS10)	3/03 - 6/03	
unkn		ValR11	GGEO (SS11)	? months	7/03 - 6/04; requires coefficients.
		Edition2A	GGEO (SS11)	7/03 - 6/04	
	Aqua	Edition1A	SRBAVG (SS10)	7/03 - 6/04	
	TRMM	Beta4	TSI (SS7.1)	9 months	Not on Bruce's schedule.
	Terra	Beta3	TSI (SS7.1)	12 months	Not on Bruce's schedule.
	TRMM	Beta4	Synoptic SARB (SS7.2)	9 months	Not on Bruce's schedule.

Table 2: Process Strategy/Geier as of 11/03/04
Coming Soon (2 of 2)

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
	Terra	Beta3	Synoptic SARB (SS7.2)	12 months	Not on Bruce's schedule.
	TRMM	Beta4	SYN/AVG/ ZAVG (SS8)	9 months	Not on Bruce's schedule.
	Terra	Beta3	SYN/AVG/ ZAVG (SS8)	12 months	Not on Bruce's schedule.
	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: November 3, 2004 - System Issues and Status

Activity	Lead	Status
CM	Ayers	• See Table 4 for the current CERES Subsystem Delivery Schedule. (Ayers) • See Table 5 for SCCR activity since the last DMT meeting. SCCRs that need to be reviewed follow Table 5. (Ayers) • Delivered updated Instantaneous SARB files (SCCR 563) to the ASDC. (Saunders) • Updated the CERES Subsystem Delivery Schedule and posted it on the CERES CM Web site. (Ayers, Saunders)

Table 4: CERES Subsystem Delivery Schedule - November 2004
(Next CERES Science Team Meeting - November 2 - 4, 2004 in Williamsburg)

Subsystem	Preliminary Delivery Memo to CM	Delivery to CERES CM	Delivery to Langley DAAC	Reason for Delivery	CERESlib Delivery Needed	New PGE(s)
TISA Gridding (SCCR 565)	October 22	November 5	November 12	Support Terra Edition2C and Aqua Edition1B SFC processing.		
TISA Averaging (SCCR 566)	October 29	November 12	November 19	Support Terra Edition2C and Aqua Edition1B SRBAVG processing.		
Clouds	November 5	November 19	November 26	Turn on CloudVis parameters and file for Bing Lin. Support Aqua Edition1A processing.		
Inversion	November 19	December 3	December 10	To run alternate main on a daily basis.		X
Instrument	2005			Terra gains files.		
ERBE-like	2005			Terra spectral response function files.		
GGEO (SCCR 553)	January 28	February 11	February 18	Delivery to handle GOES-9 and GOES-12, new McIdas format and processing data beyond March 2003.		X
Clouds	Spring 2005			Support TRMM VIRS-only processing of August 2001 forward.		

Table 5: SCCR Activity October 18 at 12:00 p.m. - November 1 at 1:45 p.m.

SCCR	S	U	A	C	D	SS	Page No.	Comments
562				X		4.5-4.6		
564				X		8		
565	X					9	9	
566	X					10	10	

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

CERES Software Configuration Change Request Submittal
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Subsystem: TISAgrid9.0 SCCR Date & TIME: 2004-10-25 08:16:20 SCCR No.: 565

Description of Change (Science):
N/A

Reason for Change (Science):
N/A

Description of Change (non-Science):
File record index was corrected in PGE 9.3P1 code to write end of the month hourly records correctly for some regions on SFC product.

Reason for Change (non-Science):
End of the month hourly records were not written in ascending order for some regions on Edtion2B SFC product. A check in SRBAVG code setting a flag not to process these regions and showing data gaps on monthly mean plots.

Affected PGEs : PGE CER9.3P1
Est. Time to Complete Changes : 1 Week
Planned Delivery Date : November 5, 2004
Impact : SS9.0, SS10.0
Originator : RAJU, RAJA (SAIC)

CERES Software Configuration Change Request Submittal
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Subsystem: TISAavg10.0 SCCR Date & TIME: 2004-10-28 11:36:04 SCCR No.: 566

Description of Change (Science):
1. Correct the error in the calculation of the cloud log optical depth.
2. Include non-default SW surface flux data
3. Correct coding errors in the halfsine fit for the clear-sky LW TOA fluxes
4. In the regional average of the TOA fluxes, snow ice regions were considered to be land. Add the identification of the snow ice regions to separate from land to avoid the halfsine fit
5. Add the zonal linear interpolation for the clear-sky non-GEO and GGEO LW fluxes

Reason for Change (Science):
1. The log optical depths were incorrect when compare with the linear optical depths
2. SW surface flux data should be defaults
3. The zonal clear-sky LW TOA fluxes were defaults at the polar zones
4. Should not apply halfsine fit for snow ice regions
5. The zonal clear-sky LW TOA should not be defaults

Description of Change (non-Science):
N/A

Reason for Change (non-Science):
N/A

Affected PGEs : CER10.P1
Est. Time to Complete Changes : 2 weeks
Planned Delivery Date : November 12, 2004
Impact : None
Originator : NGUYEN, CATHY (SAIC)

Table 6: November 3, 2004 - Subsystem Issues and Status (1 of 6)

SS No.	SS Lead	Status	Problems
1.0	Cooper	• The flight software patch to allow sensor-independent bridge balance setpoints was reviewed for the Configuration Control Board meeting held on October 29. (Hess) • The Instrument Subsystem code was updated to include a rate-edit-limit-violation counter. (Hess) • Terra-Aqua (FM1-FM4) measurements collected during the 2004 summer solstice were compared. Since Edition 2 ES8's were not available, the comparison was done using Edition 1 data. The results will not be made public until the comparison can be made with Edition2 ES-8s. (Szewczyk) • CERES FM2 minus FM1 differences in the monthly means of the SW sensors were trended over the mission life of the Terra spacecraft. These differences were computed for Edition 1 and Edition 2 data. SW (FM2-FM1) differences should remain nearly constant between the two editions since spectral response functions were not adjusted until January 2003 for FM2 and those adjustments were small. The analysis results were provided to Dr. Kory Priestley (CSB) and are being studied. (Spence)	
2.0	Walikainen	• Verified the validation (ValR4) files created at the ASDC with benchmark files created at the SCF. The ValR4 files represented the ERBE-like data products with the new Spectral Response Functions for March through July 2004 Aqua Edition 2 processing. (Walikainen)	

Table 6: November 3, 2004 - Subsystem Issues and Status (2 of 6)

SS No.	SS Lead	Status	Problems
2.0	Walikainen (Cont'd)	• Comparison analyses consisting of three components; the three-channel inter-comparison, the direct comparison, and SW flux binning were combined into one software package for SCF processing. To begin implementation of coding practices meant to meet CMMI standards, the software was assigned an initial version label. Results were generated from the pre-combined software to be used as benchmarks for comparison to results generated with the combined-software as modifications are made. Standard prologues were placed in the C codes and the scripts. Automated debugging was implemented into the scripts. (Walikainen) • Continuing to examine the production email generated by the QC checker software. (Walikainen) • Continuing to inspect ERBE-like Aqua and Terra output plots and QC reports on the Web. (Walikainen)	
3.0	Walikainen	Combined with above.	
4.1	Sun-Mack	• Completed processing TRMM VIRS Edition2 data from January 2001 through July 2001 for the Northern and Southern Brazil, Kaashidhoo and Eastern Australian/Indonesian regions. (R. Brown) • Completed processing Aqua Edition1A data from July 2002 through March 2003 for the Oklahoma, TWP ARM Site, Nauru, and Alaskan ARM sites. (R. Brown) • Completed processing CloudVis images for Terra-MODIS Edition2-QC data for the Oklahoma ARM Site region from February 2000 through December 2003. All CloudVis results are posted on the Web. Two days from each month from February 2000 through December 2003 have been processed for Terra MODIS Edition2-QC for the Oklahoma, TWP ARM Site, Nauru, and Alaskan ARM sites. (R. Brown)	

Table 6: November 3, 2004 - Subsystem Issues and Status (3 of 6)

SS No.	SS Lead	Status	Problems
4.1	Sun-Mack (Cont'd)	• A Calendar utility was added to the CloudVis Web Viewer to produce time table of available images for each region. Ability to view MOD08 Terra MODIS images with Terra MODIS Edition2-QC within QC Web Viewer was completed. (R. Brown) • Worked on MPACE. (Chen, Gibson, & Sun-Mack) • Worked on CERES STM. (ALL) • Worked on MultiLayer Algorithm. (Chen, Gibson, & Sun-Mack)	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	
4.4	Miller	• Created daily binary SSF QC reports for Aqua Edition1A. Generated regression data for Broadband vs. Narrowband. Added Aqua Edition1A to CERES vs. MODIS validation page. Generated comparison between Aqua FM3 and FM4. Attempted to determine cause for differences in SW and WN over ocean. (Miller) • Processed available Aqua Edition1A through Tropical Longwave Constant code. Night longwave showed little difference between Terra and Aqua. The shortwave are less consistent. No corrections for time differences were made to the data. (Miller) • Attempted to convert MISR binary file from pixels into scan lines, but could not determine consistent length. (Miller)	
4.5	Nolan	• Continued work to run the latest versions of the daily subset PGE CER4.5-6.2P2 and the monthly validation PGE CER4.5-6.4P1 with the 9 additional CERES validation sites using Terra Edition2B SSFs. (Sothcott) • Initiated work to retrieve Aqua Edition1A SSF subsets from the DAAC Archive, sort the files according to the most prominent scan mode for each day of data, and place them in the CERES Archive for the ADM Working Group. (Nolan)	

Table 6: November 3, 2004 - Subsystem Issues and Status (4 of 6)

SS No.	SS Lead	Status	Problems
4.5	Nolan (Cont'd)	• Continued work to modify and test PGE CER4.5-6.6P2, the daily Inversion-only processor. Parameters, CERHRofMonth and CERHRofDay, will not be created in the output metadata. (Nolan) • Continued work to modify and test PGE CER4.5-6.2P2 version which includes a flag to turn off the creation of the SSF subset files and allow only the SSF validation subsets to be created for FLASH Flux. (Sothcott)	
4.6	Nolan	Combined with above.	
5.0	Coleman	• Plots of the QC statistics for Terra Edition2A CRS for April 2000 through April 2001, and July and October 2001 were generated and made available to the SARB Working Group. CRS QC plots for the March 2002 Terra Edition2B were generated. Plots for the March 2000 Terra Edition2B were also made omitting the same days of the month that are missing from the March 2002 data set. Plots of the March 2000 and 2002 data sets were made to support an investigation of a possible instrument drift that will be discussed at the upcoming CERES Science Team meeting in November. (Caldwell) • A meeting was held with the SSI&T Team to discuss problems with the Instantaneous SARB Subsystem Monthly QC Summary Post-Processor PGE. The cause of the PGE terminating with an error code even though all output products are successfully produced and wrapped is not known. The group decided to continue to execute the PGE while investigating the cause so that the results can continue to be made available to the SARB Working Group as quickly as possible. (Caldwell & Coleman) • Investigating new options for selecting which Monthly QC Plots to display. (Zentz)	
7.2	Coleman	• No new updates.	
12.0	Coleman	• No new updates.	
7.1	Nguyen	• No new updates.	

Table 6: November 3, 2004 - Subsystem Issues and Status (5 of 6)

SS No.	SS Lead	Status	Problems
8.0	Nguyen	• No new updates.	
10.0	Nguyen	• Added the linear interpolation for the zonal mean LW TOA flux. (Nguyen) • Originally the code only checked for the ocean and land regions, the snow ice regions were considered to be land regions for the halfsine fits of the non-ggeo clear-sky TOA LW fluxes. Because of this assumption, the non-GGEO clear-sky TOA LW fluxes became defaults for the polar regions. Added a check for snow ice regions to avoid the halfsine fits. Also corrected errors in the halfsine fits subroutine. (Nguyen) • Reran several months of 2000 and 2001 cross-track SRBAVGs with the new SFCs. Also reran several months with the wrong TOA global net fluxes. (Nguyen) • Obtained the global mean non-GGEO TOA SW, LW, and Net fluxes from 2000 and 2001 SRBAVGs for Dave Young for the CSTM. (Nguyen) • Preparing for the upcoming delivery. (Nguyen)	
6.0	Raju	• No new updates.	
9.0	Raju	• Observations in some of the regions on Edition2B SFC had erroneous hourbox indices for the last twelve hours of the month. The error was corrected, and several months were reprocessed in non-production mode to support preparations for the CERES Science Team meeting. (Raju) • Preparing PGE CER9.3P1 for CM delivery on November 5, 2004. (Raju)	

Table 6: November 3, 2004 - Subsystem Issues and Status (6 of 6)

SS No.	SS Lead	Status	Problems
11.0	Stassi	• Found out while working with the McIdas data that the McIdas region numbers go from East to West instead of from West to East, as is the CERES convention (and I think everyone else). This caused a misplacing of the data on the globe during GGEO processing. Consulted with TISA team. Dave Doelling and Louis Nguyen decided that the region numbers on the McIdas flat files should conform to CERES rather than adjusting them during GGEO processing. Doug Spangenberg is making the change in his code. (Stassi & Spangenberg) • Ran the September 23, 2004 data through GGEO first-pass processing for satellites METEO-8, METEO-5, GOES-9, GOES-10, and GOES-12. Posted the Web plots on the validation site. The solar zenith angle plots looked twisted for the METEOSAT satellites due to an error in the time calculation for individual scanlines. The code was corrected and the data were rerun. (Stassi & Spangenberg)	
CERESlib Stassi/Ayers		• No updates. (Stassi)	