

June 29, 2005 - System Issues and Status

Table 1: Process Strategy/Geier as of 06/01/05
Active Requests in order of priority (1 of 3)

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 47-05	Terra-FM2	Edition2C	FSW (SS6)	6.1P1 6.2P1 6.3P1	2/01	Done 5/17/05.
55-05	Terra	Edition2C	SFC (SS9)	9.3P1 9.4P1	3/03 - 6/03, 3/02	Reprocess, original runs processed without all data staged.
44-05, 45-05	geostationary	ValR12	GGEO (SS11)	11.1P10 11.2P1	5 months 7/02, 1/02, 4/02, 10/02, 12/02	Processes new MCI-DAS format.
41-05, 42-05, 43-05	geostationary	ValR13	GGEO (SS11)	11.1P5-8 11.2P1 11.4P1	7/02	Done 5/18/05.
40-05	geostationary	ValR13	GGEO (SS11)	11.6P1	7/02	Done 5/18/05.
PR 50-05	Aqua	Edition1A	Clouds (SS4.1)	4.1-4.1P3 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	7/04	Done 5/22/05.
PR 49-05	Aqua	Edition1B	Inversion (SS4.5)	4.5-6.1P3 4.5-6.2P2 4.5-6.4P1	7/04	Done 5/23/05.
PR 48-05	Aqua	Edition1B	SFC (SS9)	9.2P1 9.3P1 9.4P1	6/04	Done 5/20/05.
3-05	Aqua	Edition1B	TISA gridding (SS9)	9.2P1 9.3P1 9.4P1	7/02 - 7/1/04 hr 11	Done 5/9/05.

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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 5/05 - present	DO NOT PROCESS 3.2P2 - it is disabled.
Standing requests PM-PRs 1-05 to 4-05	FM3	Edition1	BDS/ ERBELike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1	4/05 forward	
Standing requests PM-PRs 5A-05 to 6-05	FM4	Anomalou-sOps	BDS/ ERBELike (SS1-3)	1.1P5 1.2P1 1.3P1 2.2P1 1.3P2	3/30/05 forward	
PR 26-05	Terra	Edition2C	SFC (SS9)	9.2P1 9.3P1 9.4P1	12/31/03 - 11/1/04	Done 5/17/05.
PR 54-05	Terra	Edition2B	CRS (SS5)	5.0P1 5.1P1 5.4P1	4/03 - 11/04	All MATCH now available.
PR 53-05	Terra	Edition2C	FSW (SS6)	6.1P1 6.2P1 6.3P1	4/03 - 10/04	
PR 52-05	Aqua	Beta1	CRS (SS5)	5.0P1 5.1P1 5.4P1	4/03 - 7/04	Process as MATCH available.
PR 51-05	Aqua	Beta1	FSW (SS6)	6.1P1 6.2P1 6.3P1	4/03 - 6/04	
M PR 2-04		GEOS4	MOA (SS12)	12.1P1	Standing request	

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Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
M PR 1-04		GEOS4	PMOA (SS9.1)	9.1P1	Standing request	

**Table 2: Process Strategy/Geier as of 06/01/05
Coming Soon (1 of 2)**

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
4/05	Terra	ValRx	SRBAVG (SS10)	3/00 - 2/03	Waiting on delivery.
	Terra	Edition2D	SRBAVG (SS10)	3/00 - 2/03	
	Aqua	ValRx	SRBAVG (SS10)	7/02 - 2/03	
	Aqua	Edition1B	SRBAVG (SS10)	7/02 - 2/03	
		ValR13	GGEO (SS11)	3/03 - 6/03	Requires coefficients.
	Terra	ValRx	SRBAVG (SS10)	3/03 - 6/03	Waiting on GGEO and TISAavg deliveries.
	Aqua	ValRx	SRBAVG (SS10)	3/03 - 6/03	
		Edition2A	GGEO (SS11)	3/03 - 6/03	ValR11 must be approved.
	Terra	Edition2D	SRBAVG (SS10)	3/03 - 6/03	
	Aqua	Edition1B	SRBAVG (SS10)	3/03 - 6/03	
unkn		ValR13	GGEO (SS11)	? months	7/03 - 6/04; requires coefficients.
		Edition2A	GGEO (SS11)	7/03 - 6/04	
	TRMM	Beta4	TSI (SS7.1)	9 months	
	Terra	Beta3	TSI (SS7.1)	12 months	
	TRMM	Beta4	Synoptic SARB (SS7.2)	9 months	
	Terra	Beta3	Synoptic SARB (SS7.2)	12 months	
	TRMM	Beta4	SYN/AVG/ ZAVG (SS8)	9 months	

**Table 2: Process Strategy/Geier as of 06/01/05
Coming Soon (2 of 2)**

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
	Terra	Beta3	SYN/AVG/ ZAVG (SS8)	12 months	
	Aqua	Beta1	TSI (SS7.1)		Not on Bruce's schedule.
	Aqua	Beta1	Synoptic SARB (SS7.2)		Not on Bruce's schedule.
	Aqua	Beta1	SYN/AVG/ ZAVG (SS8)		Not on Bruce's schedule.

Table 3: June 29, 2005 - System Issues and Status

Activity	Lead	Status
CM	Ayers	<ul style="list-style-type: none">• 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)• Testing Inversion (SCCR 587) and Instrument (SCCR 589). (Saunders, Ayers)

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

Subsystem	Preliminary Delivery Memo to CM	Delivery to CERES CM	Delivery to Langley DAAC	Reason for Delivery	CERESlib Delivery Needed	New PGE(s)
Inversion (SCCR 587)	May 13	May 27	July	Delivering PGE CER4.5-6.2P2 to add S'COOL validation products.		
Instrument	June 10	June 24	July 1	To process FM4 as Baseline1-QC and Anomalou-sOps in such a manner as to retain the WN and To-tal radiances.		
TISA Averaging (SCCR 583)	July			Process Terra Edition2D SRBAVG.		X
Instrument	June			Aqua gains.		
ERBE-like	June			Aqua spectral response function files.		
TISA Gridding	June/July			Delta delivery of modified scripts that will count the number of SFC hourly files available before monthly processing will run.		
GGEO	Mid July			Delta delivery of ancillary input for PGE CER11.6P1.		
Clouds	July			To process MODIS V005. Delivery needs to be made just before delivery of July 2005 Terra gains and spectral response function files.		
Clouds	???			Support TRMM VIRS-only processing of August 2001 forward.		

Table 5: SCCR Activity June 13 at 11:15 a.m. - June 27 at 12:00 p.m.

SCCR	S	U	A	C	D	SS	Page No.	Comments
589	X		X			1	3	

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

CERES Software Configuration Change Request Submittal

Parameter Change: () YES (X) NO

Subsystem: Instrument SCCR Date & TIME: 2005-06-21 17:02:40 SCCR No.: 589

Description of Change (Science):

CER1.3P2

- 1 - Widen Blackbody Temperature stability standard deviation from 0.5 to 1.0.
- 2 - Widen SWICS Photodiode output count level ranges
- 3 - Set second of 3 SWICS lamp HK sample equal to first sample

CER1.1P1 thru CER1.1P6

- 1 - Update code to read in flags to turn on/off the radiance 3-channel intercomparison check and the saturation check by channel.
- 2 - Update instrument code to properly flag DAC status of OFF instead of RESET.
- 3 - Update code to ignore a specified channel having a saturated value causing the remaining channel(s) to be set to a fill-value.

Reason for Change (Science):

CER1.3P2

- 1, 2, 3 -- Calibration data is noisier than expected and the current settings cause us to throw out too many data samples.

CER1.1P1 thru CER1.1P6

- 1 - Due to the failure of the SW channel on the Aqua-FM4 instrument radiance edit checks needed to be turned off to allow processing of the WN and TOTAL channel data, which is still good. The code needs to read the new flags from the PCF.
- 2 - Due to the failure of the SW channel on the Aqua-FM4 instrument, the DAC status was shut off for the SW channel to keep the SW channel from being in a constant reset state. When this was done it was discovered that the existing code did not recognize this state and so it set the flag to RESET erroneously.
- 3 - Due to the SW anomaly on Aqua-FM4 the SW channel is virtually always at saturation (either 0 or 4095), the current instrument code sets all channels to a fill-value when one of the channels is saturated. It has been determined that the other two channels are actually good.

Description of Change (non-Science):

CER1.1P1 thru CER1.1P6

1 - Add new flags to ASCII Input file and PCF to allow turning on/off of the radiance 3-channel intercomparison check and the saturation checks based on channel.

Reason for Change (non-Science):

CER1.1P1 thru CER1.1P6

1 - Due to the SW anomaly on Aqua-FM4 these flags were necessary to allow us to be able to turn off QC checks for the FM4 instrument while still doing these checks for all the other instruments.

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: CER1.1P1 thru CER1.1P6, CER1.3P2

Estimated Time to Complete Change : 1 week

Planned Delivery Date : June 24, 2005

List Affected Subsystems and PGE Names: SS1 - Instrument PGE CER1.1P1 thru CER1.1P6, CER1.3P2

Originator: COOPER, DENISE L. (SAIC)

Table 6: June 29, 2005 - Subsystem Issues and Status (1 of 5)

SS No.	SS Lead	Status	Problems
1.0	Cooper	<ul style="list-style-type: none"> Continued monitoring receipt of Aqua and Terra Level-0, Ephemeris and Attitude data. (Cooper & Snyder) Delivered updates to CER1.1P1 thru CER1.1P6 along with CER1.3P2 to CERES CM. Updates for CER1.1P1 thru CER1.1P6 are to handle the Aqua-FM4 anomaly and allow processing of the WN and TOT channels when the SW channel is saturated. This is done via flags that are set in the PCF, so that normal processing can continue on all other instruments. (Cooper) Continue running the FM4 data at the SCF to track changes in the radiance values. (Snyder) Continue to monitor FM4 anomaly. (Team) Implementation ODSs for both Aqua instruments for the current Terra/Aqua intercomparisons. (Szewczyk) Peter Szewczyk received a thank you plaque from AIAA for serving on AIAA Intelligent Systems Technical Committee from 1998-2005. 	
2.0	Walikainen	<ul style="list-style-type: none"> Working with science team to determine spectral correction coefficients for Aqua Edition2 [Aug04-Mar05]. (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) Investigating difference in night time total radiance; cross track instrument has a higher radiance than the along track instrument. Showed that total channel space clamp shows a peak when going into night. (Walikainen) Investigating Nadir direct compare for Terra's LW flux. Discovered that increasing or decreasing solar zenith versions show a strong seasonal or beta angle dependence. (Walikainen) 	

Table 6: June 29, 2005 - Subsystem Issues and Status (2 of 5)

SS No.	SS Lead	Status	Problems
3.0	Walikainen	Combined with above.	
4.1	Sun-Mack	<ul style="list-style-type: none"> CloudVis images for TRMM Edition2 and TRMM Edition2_VIRSonly data for January through December 2000 were generated and posted on the Web for the Southwest African Coast region. CloudVis images for Terra Edition2-QC data for the Oklahoma ARM SGPSite, the Salt Lake City, Paliseau, France (SIRTA), Tropical Western Pacific (ARM Site) regions from January 2004 through November 2004. CloudVis images for Aqua MODIS Edition1A data from July 2002 and July 2004 for the Sede-Boger, Israel region were generated and posted on the Web. (R. Brown) Difference plots were generated for QC global images between Aqua MODIS and Terra-MODIS Edition datasets as well as Terra MODIS and MOD08 datasets. Modifications were made to DX code, PERL scripts, QC Colormaps and C code to generate the data files and images. Statistical zonal plots and web pages were updated with new format and additional plots for total results as a function of ecosystem and phase. (R. Brown) Working on developing multi-layered cloud retrieval algorithm. (Sun-Mack) 	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	
4.4	Miller	<ul style="list-style-type: none"> Investigating missing data in TISA. Modified code to look at grid data in local time. The consistent gap migrated to Southern Hemisphere. (Miller) Reviewed CMMI on Process and Product Quality Assurance. (Miller) 	

Table 6: June 29, 2005 - Subsystem Issues and Status (3 of 5)

SS No.	SS Lead	Status	Problems
4.5	Nolan	<ul style="list-style-type: none"> Completed work to update CVS Inversion directories. (Sothcott) Completed work to modify and document code changes required to make Inversion code ANSI standard. (Nolan) Started work to generate Web pages to correspond to the Inversion CVS repository and to maintain file links across different PGE's. (Sothcott) 	
4.6	Nolan	Combined with above.	
5.0	Coleman	<ul style="list-style-type: none"> Posted CRS QC plots to SARB Web site for completed months. (Caldwell) Developed a script to remove tabs from source code and used it to eliminate compiler error messages when compiling with the -ansi option. (Zentz & Caldwell) Continuing to replace non-ANSI compliant code with compliant code in the DMT-developed portions of the SARB software. (Caldwell) 	
7.2	Coleman	<ul style="list-style-type: none"> Reviewed and tested modifications requested by Fred Rose for the surface albedo retrieval for cloudy coastal surfaces. (Zentz & Coleman) 	
12.0	Coleman	<ul style="list-style-type: none"> No new updates. 	
7.1	Nguyen	<ul style="list-style-type: none"> No new updates. 	
8.0	Nguyen	<ul style="list-style-type: none"> No new updates. 	
10.0	Nguyen	<ul style="list-style-type: none"> Used the one-hourly MET8 GGEO data to run July 2004 SRBAVG and created ascii format file with the CERES raw data, GGEO fluxes and cloud data for Dave Doelling to compare with GERB data. (Nguyen) Received new GGEO interpolation code from Dave Doelling. Incorporating the new code into TISA averaging code. (Nguyen) Support Jeff Boghosian in getting ready to work with the directional models. (Nguyen) 	

Table 6: June 29, 2005 - Subsystem Issues and Status (4 of 5)

SS No.	SS Lead	Status	Problems
6.0	Raju	<ul style="list-style-type: none"> Continued to monitor Terra FM1 2004 production process, and documenting the missed hours in monthly process. (Raju) Updated Description/Abstract document to support Terra Edition2C, Aqua Beta1 FSW product and sent the document to Tomeka Watkinson. (Raju) 	
9.0	Raju	<ul style="list-style-type: none"> Completed processing July 2004 Aqua FM4 data through PGEs CER9.2P1 & PGE CER9.3P1 at SCF and generated FM4 SFC binary. Processed July 2004 FM1+FM4 data through combined satellite process and generated SFC product was made available to Dave Doelling and Cathy Nguyen. (Raju) Updated Description/Abstract document to support Terra Edition2C, Aqua Edition1B SFC product and sent the document to Tomeka Watkinson. (Raju) Work started to examine the validation months SFC binary data to see if there are any albedo mean values that are higher than 1.0. (Raju) Work started to process July 2004 Aqua FM4 data in GMT time through PGEs CER9.2P1 & PGE CER9.3P1 at SCF for regions between 60N-60S; 60E-60W and generate SFC. (Raju) 	
11.0	Stassi	<ul style="list-style-type: none"> Reran the REGAVG files for all months between March 2000 and February 2003 with the allowable snow/ice percentage allowed in land and ocean regions reduced from 25% to 5%. (Stassi) Added a new subroutine to the hourbox module to dump matched data from two GGEO granfiles. Wrote a validation program to access this subroutine. Used program to dump matched McIDAS and native format data for a single noon image for GMS-5, GOES-8, GOES-10, and METEO-5. Similar matched image files for METEO-7 could not be found, so I matched data from two files with a time difference of 1/2 hour. The outputs were sent to Dave Doelling and Dennis Keyes for evaluation. (Stassi) 	

Table 6: June 29, 2005 - Subsystem Issues and Status (5 of 5)

SS No.	SS Lead	Status	Problems
11.0	Stassi (Cont'd)	<ul style="list-style-type: none"> The matched data files from the previous bullet showed a better match from the mismatched METEO-7 data than from the METEO-5 data. Dave Doelling suspected a time error in either the McIDAS or native format files. Native format data dumps were created to compare against the McIDAS raw data. The solar zenith angle measurements showed a problem in the McIDAS time calculation. Further research indicated that the McIDAS nominal image time was from the end time of the image scan rather than from the beginning. (Keyes, Doelling, Stassi) Created Granfile outputs using simulated lower resolution McIDAS images for GOES-8 and GOES-10. Ran matched data comparisons between the low resolution data and the native format data, and then between the low resolution data and the high resolution data. The results were sent to Dennis for analysis. (Spangenberg, Stassi, Raju, Keyes) 	
CERESlib Stassi/Ayers		<ul style="list-style-type: none"> No updates. 	