

May 2009 - CERES Processing Update

MODAPS is currently sending only Collection 005/051 Terra and Aqua data. Starting with 08/21/2006, the Aqua Aerosol LUT correction was implemented in the forward data stream. The Aqua-corrected reprocessing, which includes the deep blue algorithm and a LUT correction, began on 03/09/2007. Reprocessing of the Terra MOD04 data files to include the deep blue algorithm was expected to begin late February 2009. The Aqua files that include the deep blue algorithm are identified as Collection 051. The ASDC has received Collection 051 files for Aqua from October 11, 2003 through September 10, 2008 and from January 1, 2009 through the present. Collection 004 Terra data were received through July 2006. Collection 004 Aqua data were received through April 2006. The most recently obtained information regarding Collection 006 was provided on May 1 and indicated that the Collection 006 production runs are not expected to occur prior to January 2010. The CERES Team does not yet know details regarding the continuation of Collection 005.

The CERES team agreed to accept the latest version of the G5-CERES meteorological data provided by GMAO. The CERES Team expects to use these data for the remainder of Edition2 processing.

An evaluation of the sample 1/16 snow mesh data received by the ASDC from the provider has indicated that the data are satisfactory for CERES use. The ASDC will continue to receive the 1/8 data for an unspecified time. (Remember that the 1/16 data is in meters, not inches.) The Clouds Subsystem delivered the software to process the 1/16 data to CERES CM and it is now undergoing pre-operational testing. It is anticipated that once promoted to production, this software will process the 1/16 data beginning with January 2009 for CERES use. Until all projects currently requiring the 1/8 data no longer need it, the 1/8 data will be processed.

Software and Coefficients Delivery Updates:

TRMM:

The Instrument delivery to bring back simulated TRMM IES data is on hold due to other higher priorities requiring personnel and computing resources. The software to be delivered has successfully tested on the SCF SGI platforms.

The deliveries of the versions of the Clouds and Inversion Subsystems that will use the simulated TRMM IES data as input are also on hold.

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Terra:

All MATCH files necessary for processing of the Instantaneous SARB Subsystem (SS5) have been delivered through December 2007.

Delivery of the gains and spectral response function coefficients for September through December 2008 was promoted to production processing.

The Instantaneous SARB Subsystem Main-Processor and Post-Processor to process Terra Edition2 CRS in the *magneto* IBM P4 Linux environment has completed ValRx testing and is undergoing evaluation at the ASDC.

The TISA Gridding Subsystems to produce Terra and Aqua Edition2 FSW and SFC in the *magneto* IBM P4 Linux environment are undergoing for ValRx testing at the ASDC.

The Inversion/SOFA Subsystem to produce Terra and Aqua Edition2 SSF in the *magneto* IBM P4 Linux environment is undergoing pre-operational testing at the ASDC.

The Clouds and Convolution Subsystem to produce Terra and Aqua Edition2 SSF in the *magneto* IBM P4 Linux environment are undergoing pre-operational testing at the ASDC.

The Regrid MOA Subsystem to produce the Edition3 MOA files was delivered to CM and is undergoing pre-operational testing at the ASDC in the *magneto* IBM P4 Linux environment.

The following subsystems are expected to deliver to the *magneto* IBM P4 Linux environment as follows:

- ERBE-like Edition2 in July 2009

- GGEO to process Beta10 in summer 2009

- The TISA-Averaging for Terra Edition2E and Aqua Edition2B SRBAVG in early summer 2009

- Clouds and Convolution Beta2-Ed3 for Terra and Aqua in late summer 2009

- Inversion/SOFA Beta2-Ed3 for Terra and Aqua in late summer 2009

The Instrument Subsystem is expected to deliver the Ada language version of the main-processor that can also ingest FM5 data to the ASDC IBM X86 environment once the system is available. A delivery of the same software was also made to *warlock* in May 2009 to ensure that there is an operational version of the software to support any testing needed for FM5 purposes should there be a need before the X86 version is operational.

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Delivery of Build 1 of the C++ version of the Instrument Subsystem to the *magneto* IBM P4 Linux environment was made in May 2009 and is undergoing CM testing.

Aqua:

Aqua software delivery updates are included with the Terra updates.

Documentation Updates:

Need resolution on whether the Aqua-FM4 –NoSW data sets should be made publicly available or not. Ed2A-NoSW SSF is already public and has been since it was processed. No –NoSW BDS, ERBE-like, or SFC data sets have been publicly released. To do so would require an update to their respective, already written and released Data Quality Summaries (DQSs).

TRMM:

Need DQS for TRMM Transient-Ops2 BDS data set if it is to be made public. (ERBE-like went public in 12/2000).

If Edition1-CV is to be publicly released, need Edition1-CV and Ed1-CV-TransOps BDS/ES8/ES4/ES9 DQS

Terra:

The CERES Terra Revision_1 Table referenced by the DQS for many of the CERES Edition2 archival products has been extended through 12/2007.

Aqua:

If Aqua AnomOps-Ed1-CV and Ed1-CV-NoSW BDS/ES8/ES4/ES9 are to be made public, need DQS or add these to an existing DQS.

If Aqua-FM4 Ed1-NoSW and Ed2-NoSW BDS and ERBE-like data files are to be made publicly available, DQSs must be created or the Edition1 and Edition2 summaries must be expanded to include this data set.

The CERES Aqua Revision_1 Table referenced by the DQS for many of the CERES Edition2 archival products has been

GEO:

No updates.

Production Updates

(Processing status was verified 5/29/09)

CERES Product	Satellite	Instr.	Production Strategy	Beginning Data Date	Date Through Which Processing is Complete	Further Processing Expected? (Y/N)	Comments
BDS	Terra	Both	Baseline1-QC	2/25/2000	5/26/2009	Y	
	Aqua	Both	Baseline1-QC	6/18/2002	5/26/2009	Y	
	Terra	Both	Edition1-CV	2/25/2000	5/1/2009	Y	
	Aqua	FM3	Edition1-CV	6/18/2002	5/1/2009	Y	
		FM4	Edition1-CV	6/18/2002	3/31/2005	N	
		FM4	Ed1-CV-NoSW	4/1/2005	2/28/2009	Y	
		FM4	AnomOps-Ed1-CV	7/19/2005	8/30/2005	N	During this period diagnostics were performed in an attempt to recover FM4's shortwave channel. To help ensure that the resulting data from the front-end subsystems did not inadvertently become available to the public, the Production Strategy was set as "AnomOps-Ed1-CV".
	Terra	Both	Edition2	2/25/2000	9/1/2007	Y	
	Aqua	FM3	Edition2	6/18/2002	9/1/2007	Y	
		FM4	Edition2	6/18/2002	3/29/2005	N	
		FM4	Ed2-NoSW	4/1/2005	9/1/2007	Y	
	TRMM	PFM	Edition1-CV	1/1/1998	8/31/1998	N	
	TRMM	PFM	Edition1-CV	3/1/2000	3/31/2000	N	
TRMM	PFM	Ed1-CV-TransOps	1/19/1999	7/17/1999	N	Data set not continuous, selected days only	

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CERES Product	Satellite	Instr.	Production Strategy	Beginning Data Date	Date Through Which Processing is Complete	Further Processing Expected? (Y/N)	Comments
ES8	Terra	Both	Baseline1-QC	2/25/2000	5/29/2009	Y	
	Aqua	Both	Baseline1-QC	6/18/2002	5/26/2009	Y	
	Terra	Both	Edition1-CV	2/25/2000	5/1/2009	Y	
	Aqua	FM3	Edition1-CV	2/25/2000	5/1/2009	Y	
		FM4	Edition1-CV	6/18/2002	3/31/2005	N	
		FM4	Ed1-CV-NoSW	4/1/2005	5/1/2009	Y	
		FM4	AnomOps-Ed1-CV	7/19/2005	8/30/2005	N	Missing 07/19/05 - 08/30/05. See note for BDS Aqua FM4 AnomOps-Ed1-CV.
	TRMM	PFM	Edition1-CV	1/1/1998	8/31/1998	N	
	TRMM	PFM	Edition1-CV	3/1/2000	3/31/2000	N	
	TRMM	PFM	Ed1-CV-TransOps	1/19/1999	7/17/1999	N	Data set not continuous, selected days only
ES4	Terra	Both	Edition1-CV	3/1/2000	4/30/2009	Y	
	Aqua	FM3	Edition1-CV	6/18/2002	4/30/2009	Y	
		FM4	Edition1-CV	6/18/2002	3/29/2005	Y	
		FM4	Ed1-NoSW	4/1/2005	10/31/2005	N	No files for 7/05 & 8/05 due to temperature variations
		FM4	AnomOps-Ed1-CV	7/19/2005	8/30/2005	N	
	Comb	FM1 + FM3	Edition2	7/1/2002	8/31/2007	Y	
		FM2 + FM3	Edition2	7/1/2002	8/31/2007	Y	
		FM1 + FM4	Edition2	8/1/2002	3/29/2005	N	
	TRMM	PFM	Edition1-CV	1/1/1998	8/31/1998		
TRMM	PFM	Edition1-CV	3/1/2000	3/31/2000			

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CERES Product	Satellite	Instr.	Production Strategy	Beginning Data Date	Date Through Which Processing is Complete	Further Processing Expected? (Y/N)	Comments
ES9	Terra	Both	Edition1-CV	3/1/2000	4/30/2009	Y	
	Aqua	FM3	Edition1-CV	6/18/2002	4/30/2009	Y	
		FM4	Edition1-CV	6/18/2002	3/29/2005	Y	
		FM4	Ed1-NoSW	4/1/2005	10/31/2005	N	No files for 7/05 & 8/05 due to temperature variations
		FM4	AnomOps-Ed1-CV	7/19/2005	8/30/2005	N	
	TRMM	PFM	Edition1-CV	1/1/1998	8/31/1998	N	
	TRMM	PFM	Edition1-CV	3/1/2000	3/31/2000	N	
SSF	Terra	Both	Edition2B	3/1/2000	8/1/2006	N	MOD 004 as input
		Both	Edition2F	1/1/2006	9/1/2007	Y	MOD 005 as input (no 2/1/06 - 4/29/06) (PRs 57-08, 56-08)
		Both	Beta1-Ed3	10/1/2003	10/31/2003	N	
	Aqua	Both	Edition1B	7/1/2002	3/30/2005	N	
		Both	Edition2A/Ed2A-NoSW	7/2/2002	1/1/2006	N	
		Both	Edition2B/Ed2B-NoSW	7/2/2002	5/1/2006	N	Missing 07/19/05 - 08/30/05. See note for BDS Aqua FM4 AnomOps-Ed1-CV.
		Both	Edition2C	1/1/2006	9/1/2007	Y	MOD 005 as input (no 2/1/06 - 4/29/06) (PRs 62-08, 61-08)
	Both	Ed2C-MOD-C4-Land-IGBP	1/1/2004	12/31/2005	N	XTrk only after 7/1/04 (PRs 63-08, 64-08)	

Production Updates

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SFC	Terra	Both	Edition2B	3/1/2000	10/31/2003	N	
		Both	Edition2C	3/1/2000	7/31/2006	N	MOD 004 as input
		Both	Edition2F	1/1/2006	9/1/2007	Y	MOD 005 as input (no 2/1/06 - 4/29/06) (PR 55-08)
	Aqua	Both	Edition1B	7/1/2002	2/28/2005	N	
		Both	Edition2A/Ed2A-NoSW	7/1/2002	12/31/2005	N	
		Both	Edition2B/Ed2B-NoSW	7/2/2002	4/30/2006	N	MOD 004 as input
		Both	Edition2C	1/1/2006	8/31/2007	Y	MOD 005 as input (no 2/1/06 - 4/29/06) (PR 60-08)
GGEO	N/A	N/A	Edition2A	3/1/2000	10/31/2005	Y	
		N/A	Beta9	6/1/2004	12/31/2005	N	
ISCCP-D2like-Day/Nit	Terra	XTrk	Beta1	3/1/2000	8/31/2007	N	
	Aqua	XTrk	Beta1	7/1/2002	8/31/2007	N	
ISCCP-D2like-GEO	N/A	N/A	Beta1	7/1/2002	10/31/2005	N	
SRBAVG	Terra	Both	Edition2C	3/1/2000	2/28/2003	N	
		Both	Edition2D	3/1/2000	10/31/2005	N	
	Aqua	Both	Edition2A	7/1/2002	3/31/2005	N	
SRBAVG-Daily1/2	Terra	Both	Beta1	3/1/2000	2/28/2003	N	
CRS	Terra	XTrk	Edition2B	3/1/2000	6/30/2006	N	MOD 004 as input to SSF.
	Terra	XTrk	Edition2F	5/1/2006	8/31/2007	Y	MOD 005 as input to SSF (PRs 2-08, 54-08)
	Terra	XTrk	ValR12	5/1/2007	5/31/2007	N	ValRx for 2008 processing. (PR 7-09)
	Aqua	XTrk	Edition2A	7/2/2002	12/31/2005	N	
	Aqua	XTrk	Edition2B	7/2/2002	5/1/2006	N	MOD 004 as input to SSF.
	Aqua	XTrk	Edition2C	5/1/2006	8/31/2007	Y	MOD 005 as input to SSF. (PR 59-08)

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FSW	Terra	XTrk	Edition2B			N	Deleted from archives
	Terra	XTrk	Edition2C	3/1/2000	6/30/2006	N	MOD 004 as input to SSF.
	Terra	XTrk	Edition2F	5/1/2006	8/31/2007	Y	MOD 005 as input to SSF (PRs 1-08, 53-08)
	Aqua	XTrk	Edition2A	7/2/2002	12/31/2005	N	
	Aqua	XTrk	Edition2B	7/2/2002	4/30/2006	N	MOD 004 as input to SSF.
	Aqua	XTrk	Edition2C	5/1/2006	8/31/2007	Y	MOD 005 as input to SSF (PRs 4-08, 60-08)
TSI	Terra	XTrk	Beta4/5	4/1/2000	10/31/2005	N	Seasonal months + 2001 + 2/04. (April months processed in SIT with PS and CC set to "GGEO-val_800800" in output filenames.)
	Terra	XTrk	Edition2C	3/1/2000	10/31/2005	Y	(PR 6-09)
	Aqua	XTrk	Beta4/5	7/1/2002	10/31/2005	N	Seasonal months only
	Aqua	XTrk	Edition2B	7/1/2002	10/31/2005	Y	(PR 3-09)
SYNI	TRMM	PFM	Beta3	3/1/2000	3/31/2000	N	
	Terra	XTrk	Beta3	3/1/2000	10/31/2005	N	10/04 - 10/05 known to have problems due to Toolkit, 11/04 - 10/05 requested to delete from archives, and for 10/04 to have only LaRC access
	Aqua	XTrk	Beta4/5	7/1/2002	10/31/2005	N	Seasonal months only
	Terra	XTrk	Edition2C	3/1/2000	10/31/2005	Y	(PR 5-09)
	Aqua	XTrk	Edition2B	7/1/2002	1/31/2005	Y	(PR 2-09)

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SYN/ AVG/ ZAVG	Terra	XTrk	Beta3	3/1/2000	10/31/2005	N	10/04 - 10/05 known to have problems due to Toolkit, 11/04 - 10/05 requested to delete from archives, and for 10/04 to have only LaRC access
	Terra	XTrk	Beta4	7/1/2000	10/31/2005	N	Jan, Jul, and Oct only.
	Terra	XTrk	Beta5	4/1/2000	4/30/2005	N	Apr only. Processed at SCF. Not archived.
	Terra	XTrk	Beta6	1/1/2001	12/31/2001	N	
	Terra	XTrk	Edition2C	3/1/2000	10/31/2005	Y	(PR 4-09)
	Aqua	XTrk	Beta4	7/1/2002	10/31/2005	N	Jan, Jul, and Oct only. Processed at SCF. Not archived.
	Aqua	XTrk	Beta6	7/1/2002	10/31/2005	N	Seasonal months only
	Aqua	XTrk	Edition2B	7/1/2002	11/31/04	Y	(PR 1-09)
MOA	N/A	N/A	ECMWF-GEOS4	1/1/1998	9/1/2003	N	
	N/A	N/A	DAO-GEOS4	12/15/1997	1/1/1998	N	
	N/A	N/A	G5-CERES	9/30/2007	10/31/2008	Y	G5-CERES forward processing stream
	N/A	N/A	G5re-CERES	10/1/2007	10/31/2007	N	G5-CERES reprocessed stream
PMOA	N/A	N/A	DAO-GEOS4	12/1/1997	12/31/2007	N	No 1999. Overlap should be included for every month
	N/A	N/A	G5-CERES	1/1/2008	9/30/2008	Y	G5-CERES forward processing stream