

## **CERES Data Management Team Minutes for 09/22/2004**

### **• Schedule:**

Fall, 2004      Earliest date for move back into B1250 (rumor stage only)  
11/02-04/2004      CERES Science Team Meeting, Williamsburg, VA  
11/05-12/2004      Data management Stand-down: SCF Upgrades to IRIX 6.5.25m and MIPSpro 7.4 and storage review  
Refer to the attached minutes of the planning meeting and the presentation on the upgrade.  
11/16/2004      ASDC Upgrades to IRIX 6.5.25m and MIPSpro 7.4

### **Ongoing Activities:**

- ceresarchive replacement is in progress with IOC on or about 09/23/04
- SAIC onsite personnel moving offsite (to be completed by 09/23/04)
- Center Re-organization (effective 10/01/04)

### **Priority Items:**

- Critical:
  - 3 years Terra Edition 2B SSF/SFC/SRBAVG (march 00 thru feb 03)
  - 1 year Terra Edition 2B CRS/FSW (crosstrack)
  - 1 year Aqua Edition 1A SSF/SFC
  - BDS/ERBE-Like Edition 1&2 Terra & Aqua as inputs available
- Important:
  - 5 month Terra Beta SYN/AVG/ZAVG
  - 9 month TRMM Beta SYN/AVG/ZAVG
  - additional 6 months (through 12/03) of Aqua Edition 1A SSF
  - Additional 2 years of Terra CRS/FSW (crosstrack)
- SCF
  - Re-architecture of network for security requirements
  - Storage capacity upgrades
  - Equipment reconciliation
  - IRIX Upgrade on SGI 3800
- Data Management Deliveries

## Standing Committee Reports

(These notes supplement the reports posted by the various Committee's on the CERES DMT status page.)

Agenda	Committee	Responsibility	Updated	Status/Issues
<b>1.00</b>	<b>ASDC/ECS Interfaces</b>	Hopson/Harris/ Link	09/22/04	Electrical Power for the IBM cluster will be installed during the week of 09/27/04, necessitating a 4-8 hour shutdown of the ASDC archive during this time. Weekend support by SGI was discontinued in the Spring as a cost-cutting measure. The top priority for completion of SSI&T is TISA Averaging, Subsystem 10. AMASS has again exhibited anomalous behavior and has periodically locked up the file system.
<b>2.00</b>	<b>SCF</b>	Flippo	09/22/04	Ceresarchive is ready for use. H.Flippo will supply all users with instructions for accessing the system. The AtmSci firewall has been installed and testing is in progress. Patches for the SGI compiler to eliminate the occurrence of error code 4011 during production are expected to be released near the time of the IRIX upgrade. J.Stassi and H.Flippo will attempt to obtain more specifics about the scheduled release of the patch. HVAC problems continue to plague the SCF. Failures of the control circuit for one fan controller may require a shutdown of the SCF due to heating. The failed disk in thunder has been replaced.
<b>3.00</b>	<b>Toolkit</b>	Flippo	09/22/04	No additional information was provided.
<b>4.00</b>	<b>System Issues</b>			
4.01	Processing Strategy	Geier	09/22/04	E.Geier provided a list of PGE's cross referenced to their status through the IRIX upgrade. This is attached to this report. E.Geier reported that a problem had developed with

				<p>identifying re-processed data products. In order to resolve this issue a meeting will be held later this week and a policy established regarding incrementing cc numbers.</p> <p>E.Geier reported that a problem has discovered with data files that CERES requested the ASDC to remove from the archive. Some of these files are Edition files and re-processing cannot be performed to replace them, since codes have changed. E.Geier and M. Ferebee will meet next week to resolve this issue.</p> <p>The Delivery Schedule has been revised to change the next Inversion delivery to be in December, 2004.</p>
4.02	Systems Engineering Committee	Nolan/Sorlie/ Hopson/ Ayers/Cooper	09/22/04	No meeting has occurred since the last DMT meeting. No actions are outstanding.
4.03	Configuration Management & SCCR/DCCR Review	Ayers / Saunders	09/22/04	SCCR 562 adds nine new validation sites.
	<b>Working Group Status</b>			<b>(See posted Subsystem Status Reports)</b>
5.01	<b>External Interfaces- Instrument</b>	Spence	09/22/04	ADRIACS experiment will be completed on 10/12/04.
5.02	<b>External Interfaces- Data Sources</b>	Link	09/22/04	No problems with data receipt have occurred.
5.03	<b>External Interfaces- Customers</b>	Kizer	09/22/04	E.Kizer will hold a meeting with K.Bush, H. Flippo and J.Robbins to discuss how to deliver ERBE Edition 3. Further discussion of the use of data pool to support CERES was requested by the ASDC.
5.04	Simulator	Chapman	04/09/03	No additional information was provided.
5.05	Visualization/ Validation Tools	Lee	01/15/03	J.Chapman has moved to a new branch in the Systems Engineering Directorate as a result of the Center Re-organization. He will be available for consultation as required.

5.06	Instrument (SS 1)	Cooper/ Hess/Spence/ Szewczyk/Filer	09/22/04	.Gains and Spectral Response Functions are expected to be delivered on or about 10/04/04.
5.07	ERBE-like (SS 2, SS3)	Robbins Walikainen/	09/22/04	No additional information was provided.
5.08	Clouds (SS 4.1, 4.2, 4.3)	Sun-Mack	09/22/04	No additional information was provided.
5.09	Clouds (SS 4.4)	Miller	09/22/04	B.Wielicki requested W.Miller to examine radiances on CERES and MODIS for trends; an anomalie was discovered, however, does not seem to be a trend.
5.10	Inversion (SS 4.5, 4.6)	Nolan	09/22/04	Metadata problems are occurring in hour of day and hour of month elements; investigation is ongoing.
5.11	SARB (SS 5.0, 7.2, 12.0)	Coleman	09/22/04	No additional information was provided.
5.12	<b>TISA</b> -(SS 6.0, 9.0) Gridding	Raju	09/22/04	No additional information was provided.
5.13	<b>TISA</b> - (SS 11.0) GGEO	Stassi	09/22/04	No additional information was provided.
5.14	<b>TISA</b> -(SS10.0, 8.0) Averaging	Nguyen	09/22/04	Subsystems 8,10 remain in SSI&T.
5.15	<b>CERESlib</b>	Stassi	09/22/04	No additional information was provided.

# Plan for IRIX Upgrade to 6.5.25m

**The Contents of this Document are Tentative  
And NOT not to be considered an approved Plan**

Report any issues or problems to  
Mike Little  
CERES DMT Lead

# Pre-requisites for Upgrading

- Each CERES Subsystem tested at SCF
  - Executables running at time of upgrade
    - Make deliveries in new OS if old versions cannot be used
  - Test all others on SCF after upgrade
- Calipso Subsystem testing complete
  - 1-Day test complete
  - All subsystem testing complete
- ASDC
  - Production tools and supporting applications tested in new OS
    - APGS, legato, compilers, IDL, OS, NFS, logs, e-mail
    - AMASS running on Origin 350 with demonstrated performance
    - Informix running on separate platform for retention in 6.5.17m
  - Production completed on data products to be run in old OS
  - Ready to accept deliveries in new OS
  - Ready to stage data and run available executables to produce data products
  - Disable PGEs which
    - Fail under new OS until new promotion or not tested
- Production
  - Clouds production run complete (no split runs)

# Inch-Pebbles for IRIX OS Upgrade

Date	Event
DONE	CERES SS complete testing of old exec and compilation under 6.5.22m
DONE	ASDC completes testing of production support software -Begin resolution of Informix & AMASS issues
DONE	Clouds Aqua Ed1A Delivery in .16m
10/18/04	Calipso and ASDC complete testing and confirm AMASS, INFORMIX solutions
10/21/04	Go-NoGo decision (Default is GO) (Bruce, Mike, Chris and Dave)
11/04/04	SCF upgrades to IRIX 6.5.25m, MIPSpro 7.4 <b>- Deliveries on hold until ASDC is upgraded</b>
11/05/04	CERES SA's begin workstation upgrades
11/14/04	ASDC completes processing backlog in IRIX 6.5.17m -Clouds Aqua Ed1A (12mo)
11/16/04	ASDC Upgrades warlock to IRIX 6.5.25m
11/17/04	CERES CM begins Delivery on new system (Pri by Erika B. Geier) -Re-delivers old codes for re-compilation, as required -New deliveries needing processing
11/17/04	ASDC begins production with compatible old codes -Run new codes or re-deliveries as they are promoted
12/15/04	CERES SA's complete workstation upgrades

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Contact: Michael Little

CERES SCF & ASDC IRIX Upgrade

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# Pre-Req Status for IRIX OS Upgrade

Subsystem	Run Old EXEC In 2.2m	Compile PGEs in .22m & MIPSpro7.4	Next Delivery after Upgrade	Next Production After Upgrade
Instrument	OK	OK	TBD	Executables should run immediately - needs VALRx
ERBE-like	OK	OK	TBD	Run immediately - needs VALRx 3.2P2-redelivery
Clouds	Needs recompile, not redelivery	Terra-OK Aqua-OK	12/3/04	4.1-4.1P3, 4.1-4.2P1, 2-need VALRx 4.1-4.3P1-redelivery
Inversion	OK	Redelivery required due to CERESlib changes	Aqua-TBD (.25m) Terra-TBD (.25m)	Executables should run immediately - needs VALRx
SARB	OK	OK	TBD	Executables should run immediately - needs VALRx
MOA	OK	2-3 weeks work to clean up ECMWF lib interfaces	TBD	Not Until redelivery
TISA Ave	OK	OK	TBD	If enough months before Upgrade, disable until delivery
TISA Grid	OK	OK	TBD	TBD
GGEO	OK	OK	12/17/04-all PGE's	Disable until delivery
CERESlib	OK	OK	TBD	TBD
DAAC Prod Systems	Inst Testing in progress AMASS OK after 8/9/04	OK	N/A	Need 2 day notice Need 24 hr outage
CERES Prod Schedule			+16 Processors	ASDC working
Calipso	N/A	Testing during 1-day test Conting-New OS, Old Comp	1-day test 7/15/04	TBD
Icing Study	OK	OK	OK	OK

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Contact: Michael Little

CERES SCF & ASDC IRIX Upgrade

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Date: 9/21/04

Date: 9/21/04

PGE testing needed at ASDC for IRIX 6.5.25m upgrade

PGE	Subsystem	Status (A, B, C, D <sup>a</sup> )	comment
1.1P3	Instrument	A	Terra level 0
1.1P5	Instrument	A	Aqua level 0
1.2P1	Instrument	A	BDS -> PRES8
1.3P1	Instrument	A	Internal Cal
1.3P2	Instrument	A	Analyze gains
1.3P3	Instrument	A	Edition2 BDS
2.1P1	ERBE-like	A	Snow Map
2.2P1	ERBE-like	A	Inversion
2.3P1	ERBE-like	A	Overlap 1 <sup>st</sup> day
2.3P2	ERBE-like	A	Overlap last day
2.4P1	ERBE-like	A	Spectral Response
3.1P1	ERBE-like	A	Single TISA
3.2P1	ERBE-like	A	Multi TISA
4.5-6.3P2	Inversion	A	Inversion-only Terra
4.5-6.2P2	Inversion	A	Subsetter - Aqua/Terra
4.5-6.4P1	Inversion	A	Monthly validation regions Terra/Aqua
9.1P1	TISA Gridding	A	PMOA
9.2P1	TISA Gridding	A	grid SSF - hourly
9.3P1	TISA Gridding	A	merge SFC hourly files
9.4P1	TISA Gridding	A	HDF post processor
10.1P1	TISA Averaging	A	SRBAVG
5.0P1	Instantaneous SARB	A	Monthly preprocessor
5.1P1	Instantaneous SARB	A	Main processor
5.3P1	Instantaneous SARB	A	HDF post processor

PGE testing needed at ASDC for IRIX 6.5.25m upgrade

PGE	Subsystem	Status (A, B, C, D <sup>a</sup> )	comment
5.4P1	Instantaneous SARB	A	Monthly QC
6.1P1	TISA Gridding	A	Grid CRS- hourly
6.2P1	TISA Gridding	A	merge hourly files
6.3P1	TISA Gridding	A	HDF post processor
4.1-4.1P3	Clouds	C	Aqua, adding ability to turn CloudVIS on for Bing with 12/3/04 delivery
4.1-4.2P1	Clouds	A	Clear-sky update & daily QC
4.1-4.2P2	Clouds	A	Clear-sky update 2 days
4.1-4.3P1	Clouds	C	Monthly QC 12/3/04 delivery
4.5-6.1P3	Inversion	A	Aqua main Inversion
4.1-4.0P1	Clouds	B	Snow & Ice
12.1P1	Regrid MOA	A	Can't recompile yet
7.2.1P1	Synoptic SARB	A or D	if enough months processed before OS upgrade, can dis- able this PGE
8.1P1	TISA Averaging	A or D	SYN/AVG/ZAVG if enough months processed before OS upgrade, can dis- able this PGE
4.1-4.1P2	Clouds	A	Terra-MODIS
4.5-6.1P2	Inversion	A or C	Terra main Inversion, currently Edition2A ADMs, need to update to Edition2B
1.1P1	Instrument	D	TRMM level 0
1.1P2	Instrument	D	TRMM quicklook
1.1P4	Instrument	D	Terra quicklook
1.1P6	Instrument	D	Aqua quicklook

Date: 9/21/04

PGE testing needed at ASDC for IRIX 6.5.25m upgrade

PGE	Subsystem	Status (A, B, C, D <sup>a</sup> )	comment
3.2P2	ERBE-like	D	3-channel intercomparison not in production because it requires redelivery
4.1-4.1P1	Clouds	D	TRMM-VIRS not in production because it requires a redelivery
4.5-6.1P1	Inversion	D	TRMM main Inversion
4.5-6.2P1	Inversion	D	Subsetter - TRMM
4.5-6.3P1	Inversion	D	Inversion-only TRMM
4.5-6.3P3	Inversion	D	Inversion-only Aqua
7.1.1P1	TISA Averaging	D	synoptic flux (TSI)
11.1P1	GGEO	D	GOES-East pass 1 12/17/04 delivery
11.1P2	GGEO	D	GOES-West pass 1 12/17/04 delivery
11.1P3	GGEO	D	METEOSAT pass 1 12/17/04 delivery
11.1P4	GGEO	D	GMS pass 1 12/17/04 delivery
11.1P5	GGEO	D	GOES-East pass 2 12/17/04 delivery
11.1P6	GGEO	D	GOES-West pass 2 12/17/04 delivery
11.1P7	GGEO	D	METEOSAT pass 2 12/17/04 delivery
11.1P8	GGEO	D	GMS pass 2 12/17/04 delivery
11.2P1	GGEO	D	post processor pass 1 12/17/04 delivery
11.2P2	GGEO	D	post processor pass 2 12/17/04 delivery

Date: 9/21/04

PGE testing needed at ASDC for IRIX 6.5.25m upgrade

PGE	Subsystem	Status (A, B, C, D <sup>a</sup> )	comment
11.3P1	GGEO	D	recalibrate GGEO 12/17/04 delivery
11.4P1	GGEO	D	Correlation plots 12/17/04 delivery

- a. A = The executable currently in the SSI&T area on warlock (/SSIT/CERES/  
subsystem) should work as is and needs to be tested.  
B = The source code currently in the SSI&T area on warlock (/SSIT/CERES/  
subsystem) needs to be recompiled before it can be tested.  
C = The source code will be redelivered by January 1, 2005. The executable  
currently in the SSI&T area need not be tested.  
D = The source code will be redelivered sometime after January 1, 2005, there-  
fore the PGE should be temporarily disabled. Unless otherwise noted, the  
executable currently in the SSI&T area is thought to work with the new  
OS upgrade and will be saved should it, for any reason, be needed prior to  
the redelivery.