Table 1: June 7, 2000 - Subsystem Status.

SS No.	SS Lead	Status	Problems
1.0	Escuadra /Cooper	• Continued to maintain the TRMM housekeeping data plots on the web, so they could be viewed by TRW. (Filer, Hess, Spence) • Continued work to update the CERES Noise program to gather data during the Azimuth scan test and determine if any Azimuth offsets exist for FM1 and FM2. Results have been sent to Kory for evaluation. (Escuadra) • Continuing analysis of the TRMM data to determine a method to extract the radiometric data from the noisy data stream. (Escuadra, Hess, Spence) • Updating SS1 code to set radiance data to 16-bit fill when crosstalk between the channels is detected for TRMM. Updating QC report to add a new table showing the amount of data that is affected. A new runtime parameter is being added to turn on the crosstalk check, and the generator scripts have been modified to include this new parameter. The value for Terra has been hardcoded to OFF at this time. (Cooper) • Continued monitoring Terra data production/ processing and providing data analysis support. Updating Terra Missing Data and Available Data spreadsheets and web pages. May is still missing a lot of Level-0 and ephemeris/attitude data. (Cooper) • Integrating new code updates for the next delivery in July. (Cooper) • Continued to work on the Moon Radiance program. Initial results sent to Bob Lee for his comments. (Szewczyk) • Continued TRMM/Terra operations/analysis support. (Weaver)	

Table 1: June 7, 2000 - Subsystem Status.

SS No.	SS Lead	Status	Problems
2.0	Kizer	• Approx. 40 Gigs of TRMM “NoFlatnessLimit” data was archived on several 8mm tapes to be later retrieved if necessary. • Continuing to look at updating the inversion code by incorporating F90 modules. Calls to cereslib Openfile and Closefile subroutines have been incorporated and tested. Input file name pointers removed from metadata subroutine. Updating prologues to reflect changes. (Kizer) • Looking into modifying WriteReport subroutine in cereslib to emulate ERBE-like sysmsg subroutine output. Working with Joe S. to investigate problems created with code changes in cereslib. (Kizer) • Continuing to inspect ERBE-like Terra and TRMM output plots and QC reports on the Web. (Walikainen, Kizer)	
3.0	Kizer	• Continuing to look at updating the mtsa code by incorporating F90 modules. Incorporating calls to cereslib Openfile and Closefile subroutines. Writing prologues for new modules. (Kizer) • Continue with creating a program that will check multiple ascii QC reports. Html QC report checker module completed and tested. Additional changes made to input parameter file to ease user interface. Working on User’s Manual and test examples. Mail option added. (Walikainen)	

Table 1: June 7, 2000 - Subsystem Status.

SS No.	SS Lead	Status	Problems
4.1	Murray	• Implemented and tested the 2 by 2 pixel uniformity test for aerosol. Analyzed difference between runs. (Sun-Mack) • Added a clear only field to the CloudVis structure and DX. It was successfully tested. (Sun-Mack) • Corrected an error in the clear sky 10.8 minus 11.9 micrometer value becoming negative. (Sun-Mack) • Responded to questions from Mr. Kawamoto on cloud retrieval algorithms. (Sun-Mack) • Discussed tools and requirements for cloud validation procedures. (Sun-Mack, Rapp) • Developed waterflag maps for DAO and ECEMF data and coded switch into cloud retrieval. (Sun-Mack) • Added 3.7 micrometer reflectance for MODIS data. Allowed Welch algorithm to work for MODIS. (Sun-Mack) • Responded to Dr. Stowe on changes in CERES mask as a result of checking Welch mask. (Sun-Mack) • Investigated methods to increase the standard deviation values in ECMWF map. (Sun-Mack) • Continued integrating the GIF-file generator with scripts used for DAAC and SCF processing. (Brown)	
4.2	Murray	Combined with above.	
4.3	Murray	Combined with above.	

Table 1: June 7, 2000 - Subsystem Status.

SS No.	SS Lead	Status	Problems
4.4	Miller	• Prepared for a meeting on "quickiecutter". Obtained statistics for TRMM and Terra concerning number of footprints, pixels in a footprint, and run time. (Miller) • After discussions with Dr. Loeb, have been attempting to explain trends seen in alongtrack CERES data. This includes no variation in cloud fraction and flat PSF function. (Miller) • Supported GGEO attempt to incorporate cloud properties. (Miller) • Successfully tested code changes for full coverage areal definition, creation of correct metadata file name, and deallocation of IES arrays when imager data is exhausted. • Reviewed proposed changes for the SSF as a result of the meeting. (Miller) • Started visual comparison of cloud data and SSF for the same area. Developed new requirements for IBM DX tools. (Miller and Rapp) • Modified statistic program to assist in alongtrack investigation. (Rapp)	
4.5	Nolan	• Updated SSF subset type definition module, Version 114, and all associated software. (Nolan) • Continued work to include changes requested by Norman in draft SW channel ADM module template. (Nolan) • Continued work on stand-alone program that uses subsetted SSFs as input and executes the spectral correction and CERES inversion to TOA modules. (Nolan) • Began reviewing the latest ssf_typdef module and SSF DPC pages. (Franklin) • Copied binary SSFs for July 1998 to tape archive. (Whitley) • Tested SSF subset software and initiated work to regenerate 8 months of TRMM SSF subset files, using new SSF subset type definition. (Whitley)	
4.6	Nolan	Combined with above.	

Table 1: June 7, 2000 - Subsystem Status.

SS No.	SS Lead	Status	Problems
5.0	Coleman	• Added logic for computing the Photosynthetically Active Radiation. • Completed implementation of logic to compute the pristine-sky fluxes. • Implementing logic to define values for aerosol constituency flags. • Removed logic that redefined nighttime cloud properties passed to model, and now use the nighttime cloud properties provided on the SSF. • Began work on a surface albedo pre-processor.	
7.2	Coleman	Combined with above.	
12.0	Coleman	• Continued study of skin temperature differences between NCEP and ECMWF data over the Arctic Ice Pack for Tom Charlock. • Preparing to process some MOA data for 2000 at the SCF, as requested by various parties.	
7.1	Nguyen/ Raju	• Corrected code to write the TOA time-series data. (Nguyen)	
8.0	Raju/ Nguyen	• No new updates	
10.0	Nguyen/ Raju	• Validating surface fluxes using February data. (Nguyen) • Provided training to Cynthia Howell. (Raju)	
6.0	McKoy	• Completed the first round of modifications to the Subsystem 6.0 path of the TISA Gridding software to handle multiple instrument processing as per the directions received thus far from Dave Young. The Subsystem 6.0 path of the post-processor is ready for the second round of changes where the inputs from the multiple instruments will actually be combined based on the algorithm supplied by the TISA Science Team. (McKoy) • Compared the ES-9 HDF format to the SFC / FSW data format to see if the SFC and FSW can be made to look similar to the ES-9. The conclusion is that the products have very few similarities; however, for the items that are similar, some changes may be made if found to be beneficial. (McKoy)	

Table 1: June 7, 2000 - Subsystem Status.

SS No.	SS Lead	Status	Problems
9.0	McKoy	Combined with above.	
11.0	Stassi/ Fan	• Updated the GGEO/Clouds code with the latest changes from the Clouds directory. Still waiting for the LBTM routines. (Stassi) • Modified the Clouds initialization and made other modifications necessary for the GGEO/Clouds processing to work properly for mult-image GGEO PGE's. Successfully ran a PGE with two GOES-9 images. Compared the non-cloud output to output created with the same two images processed in regular GGEO processing. The results were good. (Stassi) • Reverted the GGEO post-processor code to an earlier version that writes data records to disk as they are processed, rather than keeping everything in memory and writing everything at the end. Because of the increase in the data record size with the inclusion of the cloud values, this method is actually the faster way of processing, and obviously it also uses a lot less memory. (Stassi) • Have found more problems with GGEO processing that appear to be related to the latest version of the SGI F90 compiler. Unfortunately, my work-arounds are not always working. Transferred all code to samantha, compiled and ran code using the previous version of compiler there (v.7.2.1.3) without any problems. See comments under CERESlib for more information. (Stassi)	
CERESlib Stassi/ Fan		• Finding more problems that appear to be related to the latest version of the SGI F90 compiler (v.7.3.1.1). Have established communication with someone from the SGI help desk. Have sent descriptions of the errors that we are finding, but have so far been unable to reduce the problems down to a small program that can be sent. Still working the problem. Ed Kizer has also found some suspicious behavior that appears to be related to the compiler, and he is also investigating. I suggest that the SGI F90 upgrade on samantha be put on hold for the time being. (Stassi)	

Table 1: June 7, 2000 - Subsystem Status.

SS No.	SS Lead	Status	Problems
CM	Ayers	• **SCCRs to be considered for approval at today's meeting can be found at the end of this report.** • Submitted a proposal for the CERES Document Identification Scheme to Jim Kibler and Maria Mitchum. (Robbins, Ayers, McKoy, Franklin) • Distributed the Draft Delivery Schedule to Subsystem Leads for comments/corrections. (Ayers) • Increased the size of the "Impact" section of the SCCR form to 256 characters. (McKoy)	
IST	Flug	• No new updates.	

CERES System Configuration Change Request Submittal
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Subsystem: SS_ERBELIKE SCCR Date & TIME: 2000-06-05 13:23:07SCCR No.: 207

Description of Change (Science):
1. Provided new day and night spectral correction coefficients for PFM, FM1, and FM2.
2. Modify ES4 gif file code.

Reason for Change (Science):
1. New spectral correction coefficients based on better spectral response functions.
2. Generate Net, Longwave, and Shortwave Cloud Forcing plots based on ES-4 data.

Description of Change (non-Science):
1. Update SS2 PCF generators.
2. Update SS3 PCF generators.
3. Replaced call to pgsio subroutine with calls to cereslib OpenFile and CloseFile subroutines in SS2 and SS3.
4. Eliminated input pointer list code in metadata subroutines.
5. Changed all source code Makefiles and run scripts to reflect FORTRAN compiled executables to have ".exe" suffix.

Reason for Change (non-Science):
1. Provide names of new spectral correction coefficient files in PCF. Eliminate seasonal files not needed during processing.
2. Add new ES4 Cloud Forcing gif file names.
3. Make use of cereslib subroutines to eliminate duplicate coding.
4. Cereslib OpenFile subroutine automatically adds filename of opened files to metadata input pointer list to be added to metadata file.
5. Allows for easier classification of executable files by naming convention.

Estimated Man Power: N/A
Schedule : Delivery to CM on or before July 21, 2000.
Impact : No impact to other subsystems.

Originator: KIZER, EDWARD A. (SAIC)

CERES System Configuration Change Request Submittal
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Subsystem: SS_1.0_Instrument SCCR Date & TIME: 2000-06-05 15:13:11SCCR No.: 208

Description of Change (Science):
1. Fix reading of first packet of Level-0 data, this packet was previously skipped.
2. Add code to check for crosstalk between the radiance channels, return a 16-bit fill value for corresponding channels whenever crosstalk is detected.
3. Add new SDSs to the BDS: Time-Ordered analog parameters, and Drift corrected counts for each channel.
4. Fix the BDS Conversion to Pre-ES8 to not pass on records where the spacecraft location has been set to a fill-value due to problems with the ephemeris/attitude data files.
5. Update Edit limits for radiance count conversion and instrument housekeeping calculations.
6. Change Terra count conversion offsets from all zeros to ground determine values, since no deep space calibration has been preformed.

Reason for Change (Science):
Post-launch version of code for Terra. Preliminary updates for
TRMM noisy data anomaly, remaining TRMM updates will be delivered at a later TBD date.

Description of Change (non-Science):
1. Update code to work with new SGI Ada 95 compiler, the new compiler found some bugs and non-standard implementations in the existing SS1 code.
2. Fix scripts to use new date scripts to calculate previous and next data dates, so that these calculations are in 1 place rather than repeated 7 times.
3. Fix scripts to use new parameter map read script, which removes the requirement that the scripts be in tcsh.
4. Add crosstalk check runtime parameter to scripts, at this time this parameter is set to OFF for Terra.
5. Add compression to the HDF write routines for the BDS to make the data product smaller, since we are adding new SDSs to the product.
6. Fix fatal error return from geolocation routines when problems with the ephemeris/attitude files are detected. Add one more ToolKit error code to the non-fatal error list for the geolocation routines.
7. Update the production QC report to add a new table, which shows the number of times crosstalk was detected between each pair of radiance channels.
8. Update the production QC report to remove the timing error report and move the timing error report to the instrument statistics QC report.
9. Add a flag to indicate when DAA ground spike has been detected.
10. Reformat BQCRPS detector_assy and instrument information.
11. Modified algorithm for the detector header DAC coarse/fine combined value.
12. Update code to flag when an Elevation scan rate glitch is detected.

Reason for Change (non-Science):

Upgrade of SGI systems which includes the new SGI Ada 95 compiler and various requested updates to QC reports requested by Instrument team and CERES team members.

Estimated Man Power:
Schedule : Delivery July 7, 2000 to CM
Impact : Reprocessing of all Terra data since launch, no reprocessing of TRMM data at this time, this will be done after the next delivery.

Originator: COOPER, DENISE L. (SAIC)