Clouds and the Earth's Radiant Energy System (CERES)

Data Management System

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget, Subsystems 4.5 and 4.6 Operator's Manual

Release 5
Version 3

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Document Revision Record

The Document Revision Record contains information pertaining to approved document changes. The table lists the date the Software Configuration Change Request (SCCR) was approved, the Release and Version Number, the SCCR number, a short description of the revision, and the revised sections. The document authors are listed on the cover. The Head of the CERES Data Management Team approves or disapproves the requested changes based on recommendations of the Configuration Control Board.

Document Revision Record

SCCR Approval Date	Release/ Version Number	SCCR Number	Description of Revision	Section(s) Affected
05/10/01	R3V4	259	• Added new PGE CER4.5-6.3P1. • Updated format to comply with standards.	3.0 All
09/24/01	R3V5	297	• Added the binary QC file as input to and output from PGE CER4.5-6.3P1. • Updated format to comply with standards.	3.3 All
03/21/02	R3V6	322	• Added new PGE CER4.5-6.1P2. • Added new PGE CER4.5-6.2P2. • Corrected file disposition for SSFAS-NIT files. • Updated format to comply with standards.	2.0 4.0 4.0 All
04/26/02	R3V7	346	• Updated Error Messages. • Updated Sample ASCII files. • SSFB-nadir and SSF-nadir products produced by PGE CER4.5-6.2P2. • Updated format to comply with standards.	App. B App. C 4.0 All
06/21/02	R4V1	367	• Added new PGE CER4.5-6.1P3 for processing Aqua data. • Updated CER4.5-6.1P2 to use dynamic SSC produced by PGE CER2.4P1. • Updated format to comply with standards.	3.0 2.0 All
08/20/02	R4V2	381	• Updated CER4.5-6.2P2 to produce binary SSF/SSFA validation product. • Updated format to comply with standards.	Sys. Overview & 5.6 All
09/19/02	R4V3	393	• Added Production Strategy PS4_7 to PGEs CER4.5-6.1P2 and CER4.5-6.1P3. For normal operations, $PS4_7 = "Null." When Default Spectral Correction Coefficients are to be used, $PS4_7 = "DefaultSCC." • Updated format to comply with standards.	2.2.2, 2.3.5, 2.3.6, 3.2.2, 3.3.5, 3.3.6, B.1 All

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10/10/02	R4V4	399	• Corrected Input CCode for PGE CER4.5-6.2P2 from $CC4_8 to $CC4_5. • Updated format to comply with standards.	5.2.2, 5.3.1, 5.3.2 All
01/27/03	R4V5	416	• Changed Parent PGE name to CER4.1-1.1P3. • Updated format to comply with standards.	3.3.3, 3.3 All
08/27/03	R4V6	461	• Added new PGE CER4.5-6.3P2. • Added new PGE CER4.5-6.4P1 for production of monthly validation product. • Updated format to comply with standards.	Sys. Overview, 7.0, App. B, App. C Sys. Overview, 8.0, App. B, App. C All
12/08/03	R4V7	488	• Added new PGE CER4.5-6.3P3. • Updated format to comply with standards.	8.0, App B, App. C.8 All
06/30/04	R4V8	543	• Output validation files no longer removed in CER4.5-6.2P2. Files required as input to CER4.5-6.4P1. • Corrected input data file name for CER4.5-6.4P1. • Updated format to comply with standards.	5.6 9.3.2 All
08/02/04	R4V9	547	• Changed output Configuration Code for CER4.5-6.1P2 and CER4.5-6.1P3 from CC4_8 to CC4_5. • Added 'Archive' destination for CER_GQCI* files created by PGEs CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.3P2, and CER4.5-6.3P3. • Updated format to comply with standards.	1.2, 2.2, 2.4, 2.5, 2.6, 2.7, 3.2, 3.4, 3.5, 3.6, 3 2.6, 3.6, 7.6, 8.6 All
11/24/04	R4V10	568	• Added new PGE CER4.5-6.6P2. • Modified Alternate contact for all PGEs. • Added spectral correction coefficient file descriptions to input. • Updated format to comply with standards.	Sys. Overview, 10.0, App. B, App. C 1.1, 2.1, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1, 9.1 8.3.5, 8.3.6 All

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12/08/04	R4V11	572	• Added new PGE CER4.5-6.6P3.	Sys. Overview, 11.0, App. B, App. C
			• Changed file frequency designation for CER4.5-6.6P2.	10.6
			• Updated format to comply with standards.	All
3/07/05	R4V12	578	• Added Environment variables, SS2, PS2.4, and CC2.4.	10.2
			• Added input files (SCCD, SCCN) for spectral correction.	10.3
			• Updated format to comply with standards.	All
4/04/05	R4V13	581	• Added additional parent PGE info for PGEs CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, and CER4.5-6.6P3.	7.1.3, 8.1.3, 10.1.3, 11.1.3
			• Added alternate source PGEs and corrected input numbering for CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, and CER4.5-6.6P3.	7.3, 8.3, 10.3, 11.3
			• Corrected file names for CER4.5-6.6P2 PCF generator and PCF and PCFin output files.	10.4.1
			• Added input files (SCCD, SCCN) for spectral correction for CER4.5-6.3P2.	7.3
			• Updated format to comply with standards.	All
5/11/05	R4V14	587	• Corrected PGE descriptions.	Overview
			• Added additional input and output to PGE CER4.5-6.2P2.	5.1-6
			• Changed File Disposition for dynamic ancillary files.	2.3.5-6, 3.3.5-6, 7.3.5-6, 8.3.5-6, 10.3.5-6, 11.3.5-6
			• Changed File Disposition for input files.	6.3.1, 7.3.1, 8.3.1, 9.3.1-2, 10.3.1, 11.3.1
			• Remove disabled PGE CER5.2P1 as a target PGE from all Inversion PGEs.	1.1.4, 1.6, 2.1.4, 2.6, 3.1.4, 3.6, 6.1.4, 6.6, 7.1.4, 7.6, 8.1.4, 8.6, 10.1.4, 10.6, 11.1.4, 11.6

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SCCR Approval Date	Release/ Version Number	SCCR Number	Description of Revision	Section(s) Affected
Cont'd.			• Added Parent PGE. • Modified environment script requirements. • Added additional error messages for PGE CER4.5-6.2P2. • Updated PCFin entry for PGE CER4.5-6.2P2. • Updated format to comply with standards.	7.1.3, 8.1.3 7.2.2, 8.2.2 Appendix B Appendix C All
10/10/05	R4V15	596	• Added CC4_8 line and a note. • Updated PCFin entry for PGE CER4.5-6.1P3, CER4.5-6.3P3, and CER4.5-6.6P3. • Updated format to comply with standards.	2.2.2 & 3.2.2 Appendix C All
05/02/06	R4V16	625	• Expected output files SSFB-nadir and SSF-nadir were changed from mandatory to optional. • Updated format to comply with standards.	Table 5-6 All
12/08/08	R5V2	690	• Updated directory structure for PGEs CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.2P2, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.4P1, CER4.5-6.6P2, and CER4.5-6.6P3. • Updated Responsible Persons for all PGEs. • Updated estimated runtime, memory and disk usage for PGEs CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.2P2, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.4P1, CER4.5-6.6P2, and CER4.5-6.6P3.	1.1.1, 2.1.1, 2.2.4, 2.4.1, 2.4.2, 2.5.3, 3.1.1, 3.2.4, 3.4.1, 3.4.2, 3.5.3, 4.1.1, 5.1.1, 5.2.4, 5.4.1, 5.4.2, 5.5.3, 6.1.1, 7.1.1, 7.2.4, 7.4.1, 7.4.2, 7.5.3, 8.1.1, 8.2.4, 8.4.1, 8.4.2, 8.5.3, 9.1.1, 9.2.4, 9.4.1, 9.4.2, 9.5.3, 10.1.1, 10.2.4, 10.4.1, 10.4.2, 10.5.3, 11.1.1, 11.2.4, 11.4.1, 11.4.2, 11.5.3 App C: C.2, C.3, C.5, C.7, C.8, C.9, C.10, and C.11

Document Revision Record

SCCR Approval Date	Release/ Version Number	SCCR Number	Description of Revision	Section(s) Affected
03/04/09	R5V3	704	• Added new PGEs CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.2P3, and CER4.5-6.4P2 and renumbered subsequent PGEs.	Subsystem Overview, 4.0-7, 5.0-7, 8.0-7, 13.0-7
			• Updated Environment Variables for PGEs CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, and CER4.5-6.6P3.	2.1.3, 2.2.2, 2.3.1-3, 2.4.1-2, 2.5.3, 2.7, 3.2.2, 3.3.1-3, 3.4.1-2, 3.5.3, 3.7, 10.2.2, 11.2.2, 14.2.2, 15.2.2
			• Added Mandatory/Optional file information for Environment Variable PS4_7 to PGEs CER4.5-6.3P2, CER4.5-6.3P3, and CER4.5-6.6P2.	10.3.5-6, 11.3.5-6, 14.3.5-6
			• Updated directories in the Expected Output table for PGEs CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.2P2, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.4P1, CER4.5-6.6P2, and CER4.5-6.6P3.	2.6, 3.6, 7.6, 10.6, 11.6, 12.6, 14.6, 15.6
			• Corrected SCOOL filename and file location.	7.3.3, 8.3.3
			• Changed "PCF" to "pcf" in filenames. (03/30/09)	Secs. 2.4.1, 3.4.1, 4.4.1, 5.4.1, 7.4.1, 8.4.1, 10.4.1, 11.4.1, 12.4.1, 13.4.1, 14.4.1, & 15.4.1, & Tables 2-6, 3-6, 4-6, 5-6, 7-6, 8-6, 10-6, 11-6, 12-5, 13-5, 14-5, & 15-6

Preface

The Clouds and the Earth's Radiant Energy System (CERES) Data Management System supports the data processing needs of the CERES Science Team research to increase understanding of the Earth's climate and radiant environment. The CERES Data Management Team works with the CERES Science Team to develop the software necessary to support the science algorithms. This software, being developed to operate at the Langley Atmospheric Sciences Center (ASDC), produces an extensive set of science data products.

The Data Management System consists of 12 subsystems; each subsystem represents one or more stand-alone executable programs. Each subsystem executes when all of its required input data sets are available and produces one or more archival science products.

This Operator's Manual is written for the data processing operations staff at the Langley ASDC by the Data Management Team responsible for this Subsystem. Each volume describes all Product Generation Executables for a particular subsystem and contains the Runtime Parameters, Production Request Parameters, the required inputs, the steps used to execute, and the expected outputs for each executable included within this Subsystem. In addition, all subsystem error messages and subsequent actions required by the ASDC operations staff are included.

Acknowledgment is given to the CERES Documentation Team for their support in preparing this document.

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Introduction

The Clouds and the Earth's Radiant Energy System (CERES) is a key component of the Earth Observing System (EOS) program. The CERES instrument provides radiometric measurements of the Earth's atmosphere from three broadband channels: a shortwave channel (0.3 - 5 μm), a total channel (0.3 - 200 μm), and an infrared window channel (8 - 12 μm). The CERES instruments are improved models of the Earth Radiation Budget Experiment (ERBE) scanner instruments, which operated from 1984 through 1990 on the National Aeronautics and Space Administration's (NASA) Earth Radiation Budget Satellite (ERBS) and on the National Oceanic and Atmospheric Administration's (NOAA) operational weather satellites NOAA-9 and NOAA-10. The strategy of flying instruments on Sun-synchronous, polar orbiting satellites, such as NOAA-9 and NOAA-10, simultaneously with instruments on satellites that have precessing orbits in lower inclinations, such as ERBS, was successfully developed in ERBE to reduce time sampling errors. CERES continues that strategy by flying instruments on the polar orbiting EOS platforms simultaneously with an instrument on the Tropical Rainfall Measuring Mission (TRMM) spacecraft, which has an orbital inclination of 35 degrees. In addition, to reduce the uncertainty in data interpretation and to improve the consistency between the cloud parameters and the radiation fields, CERES includes cloud imager data and other atmospheric parameters. The TRMM satellite carries one CERES instrument while the EOS satellites carry two CERES instruments, one operating in a fixed azimuth plane scanning mode (FAPS) for continuous Earth sampling and the other operating in a rotating azimuth plane scan mode (RAPS) for improved angular sampling.

Document Overview

This document, CERES Inversion to Instantaneous Top-of-Atmosphere (TOA) Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Release 4 Operator's Manual, is part of the CERES Subsystems 4.5 and 4.6 Release 4 delivery package provided to the Langley Atmospheric Sciences Data Center (ASDC). It provides a description of the CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Release 3 software and explains the procedures for executing the software. A description of acronyms and abbreviations is provided in Appendix A, a comprehensive list of messages that can be generated during the execution of Product Generation Executives (PGE), CER4.5-6.1P1, CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.2P1, CER4.5-6.2P2, CER4.5-6.2P3, CER4.5-6.3P1, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.4P1, CER4.5-6.4P2, CER4.5-6.6P2 and CER4.5-6.6P3 is contained in Appendix B, and Sample ASCII (PCFin) File Listings are provided in Appendix C.

This document is organized as follows:

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Subsystem Overview
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2.0 PGEName: CER4.5-6.1P2
3.0 PGEName: CER4.5-6.1P3

4.0 PGEName: CER4.5-6.1P4
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References
Appendix A - Acronyms and Abbreviations
Appendix B - Error Messages for Subsystem 4.5-6
Appendix C - Sample ASCII (PCFin) File Listing for Subsystem 4.5-6

Subsystem Overview

CER4.5-6.1P1 - CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for TRMM Processing

The Main Processor converts CERES filtered radiance measurements to instantaneous radiative flux estimates at the top of the Earth's atmosphere and produces radiative flux estimates at the Earth's surface for each CERES footprint.

CERES Inversion Subsystem 4.5 calculates estimates of the radiant flux at the TOA based on input from the Preliminary Single Scanner Footprint (PRE_SSF) produced by the Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function (PSF) Subsystem 4.4. This inversion process is dependent on several factors, including Earth surface features; the extent of cloudiness; and the relative geometry of the spacecraft, the Sun, and the measurement field-of-view. Each radiometric measurement is spectrally corrected to give an unfiltered measurement. Estimates of the radiant flux at the TOA are computed based on scene information, geometrical considerations, and the unfiltered measurements.

Surface Flux Estimation, Subsystem 4.6, calculates estimates of radiant flux at the Earth's surface based on TOA fluxes calculated in Subsystem 4.5. Additional input data required by Subsystem 4.6 include precipitable water, surface emissivity, and cloud properties from the PRE_SSF. Pressure, temperature, and humidity profiles are from a Meteorological, Ozone, and Aerosol (MOA) Product. Model A Shortwave (SW) net and downward surface fluxes are estimated using the Li-Leighton algorithm. Model B SW downward surface fluxes are estimated using the Staylor algorithm. Model A Longwave (LW) net and downward surface fluxes are estimated using the Ramanathan-Inamdar Algorithm. Model B LW net and downward surface fluxes are estimated using the Gupta Algorithm.

The output of Subsystems 4.5 and 4.6 Main Processor consists of a binary Single Scanner Footprint (SSF) product, which serves as input for CERES Subsystems 5.0 and 9.0, an ASCII Quality Control (QC) report, a binary QC file, and an SSF product in Hierarchical Data Format (HDF).

CER4.5-6.1P2 and CER4.5-6.1P3 - CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for Terra and Aqua Processing

The Main Processor converts CERES filtered radiance measurements to instantaneous radiative flux estimates at the top of the Earth's atmosphere and produces radiative flux estimates at the Earth's surface for each CERES footprint. CER4.5-6.1P2 processes Terra data and CER4.5-6.1P3 processes Aqua data.

CERES Inversion Subsystem 4.5 calculates estimates of the radiant flux at the TOA based on input from the Preliminary Single Scanner Footprint (PRE_SSF) produced by the Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function (PSF) Subsystem 4.4. This inversion process is dependent on several factors, including Earth surface features; the extent of cloudiness; and the relative geometry of the spacecraft, the Sun, and the measurement field-of-view. Each radiometric measurement is spectrally corrected to give an unfiltered measurement. Estimates of the radiant flux at the TOA are computed based on scene information, geometrical considerations, and the unfiltered measurements.

Surface Flux Estimation, Subsystem 4.6, calculates estimates of radiant flux at the Earth's surface based on TOA fluxes calculated in Subsystem 4.5. Additional input data required by Subsystem 4.6 include precipitable water, surface emissivity, and cloud properties from the PRE_SSF. Pressure, temperature, and humidity profiles are from a Meteorological, Ozone, and Aerosol (MOA) Product. Model A Shortwave (SW) net and downward surface fluxes are estimated using the Li-Leighton algorithm. Model B SW downward surface fluxes are estimated using the Staylor algorithm. Model A Longwave (LW) net and downward surface fluxes are estimated using the Ramanathan-Inamdar Algorithm. Model B LW net and downward surface fluxes are estimated using the Gupta Algorithm.

The output of Subsystems 4.5 and 4.6 Main Processor consists of a binary Single Scanner Footprint (SSF) product and an SSF binary Aerosol (SSFA) product, which serves as input for CERES Subsystems 5.0 and 9.0, an ASCII Quality Control (QC) report, a binary QC file, and an SSF product in Hierarchical Data Format (HDF).

CER4.5-6.1P4 and CER4.5-6.1P5 - CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for Terra and Aqua Edition3 Processing

The Main Processor converts CERES filtered radiance measurements to instantaneous radiative flux estimates at the top of the Earth's atmosphere and produces radiative flux estimates at the Earth's surface for each CERES footprint. CER4.5-6.1P4 processes Terra data and CER4.5-6.1P5 processes Aqua data.

CERES Inversion Subsystem 4.5 calculates estimates of the radiant flux at the TOA based on input from the Preliminary Single Scanner Footprint (PRE_SSF) produced by the Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function (PSF) Subsystem 4.4. This inversion process is dependent on several factors, including Earth surface features; the extent of cloudiness; and the relative geometry of the spacecraft, the Sun, and the measurement field-of-view. Each radiometric measurement is spectrally corrected to give an unfiltered measurement. Estimates of the radiant flux at the TOA are computed based on scene information, geometrical considerations, and the unfiltered measurements.

Surface Flux Estimation, Subsystem 4.6, calculates estimates of radiant flux at the Earth's surface based on TOA fluxes calculated in Subsystem 4.5. Additional input data required by Subsystem 4.6 include precipitable water, surface emissivity, and cloud properties from the PRE_SSF. Pressure, temperature, and humidity profiles are from a Meteorological, Ozone, and Aerosol (MOA) Product. Model A Shortwave (SW) net and downward surface fluxes are estimated using the Li-Leighton algorithm. Model B SW downward surface fluxes are estimated using the Staylor algorithm. Model A Longwave (LW) net and downward surface fluxes are estimated using the Ramanathan-Inamdar Algorithm. Model B LW net and downward surface fluxes are estimated using the Gupta Algorithm.

The output of Subsystems 4.5 and 4.6 Main Processor consists of a binary Single Scanner Footprint (SSF) product and an SSF binary Aerosol (SSFA) product, which serves as input for CERES Subsystems 5.0 and 9.0, an ASCII Quality Control (QC) report, a binary QC file, and an SSF product in Hierarchical Data Format (HDF).

CER4.5-6.2P1 - CERES Subsystems 4.5 and 4.6 SSF Subset Postprocessor for TRMM

The Postprocessor reads up to 24 hourly binary TRMM SSF products as input and generates two daily binary, packed SSF subset files, one containing daytime footprints and the other containing nighttime footprints. The hourly SSF files are subsetted in two ways. First every third SSF footprint, plus all footprints with a viewing zenith angle of 45 degrees or greater are selected for TRMM products and then the number of parameters on those footprints are reduced. Each selected footprint is packed using a scale factor and offset. Selected footprints with a solar zenith angle of less than 90 degrees are written to the daytime SSF subset file and selected footprints with a solar zenith angle greater than or equal to 90 degrees are written to the nighttime SSF subset file.

CER4.5-6.2P2 - CERES Subsystems 4.5 and 4.6 SSF Subset Postprocessor for Terra and Aqua

The Postprocessor reads up to 24 hourly binary Terra or Aqua SSF products as input and generates two daily binary, packed SSF subset files, one containing daytime footprints and the other containing nighttime footprints. The number of parameters on each footprint is reduced and the modified footprint is packed using a scale factor and offset. Footprints with a solar zenith angle of less than 90 degrees are written to the daytime SSF subset file and footprints with a solar zenith angle greater than or equal to 90 degrees are written to the nighttime SSF subset file. For Terra or Aqua processing, the SSFA file is also subsetted and a daytime SSF aerosol

binary file is created. The same footprints that were placed on the daytime SSF subset file are selected for the SSF aerosol subset file.

A daily binary and an HDF SSF Nadir product, a daily binary SSF validation product, a daily binary SSF Aerosol validation product, a daily daytime binary SSF SCOOL validation product, and a daily nighttime binary SSF SCOOL validation product are also created by this PGE. The SSF Nadir product contains the nadir viewing SSF footprints from 24 hours of SSF data. The binary SSF and SSF Aerosol validation products contains all SSF footprints over CERES validation sites from 24 hours of SSF data. The daytime binary SSF SCOOL validation product contains all subsetted footprints over SCOOL validation sites which have a solar zenith angle of less than 90 degrees. The nighttime binary SSF SCOOL validation product contains all subsetted footprints over SCOOL validation sites which have a solar zenith angle greater than or equal to 90 degrees.

CER4.5-6.2P3 - CERES Subsystems 4.5 and 4.6 SSF Subset Postprocessor for Terra and Aqua Edition3

The Postprocessor reads up to 24 hourly binary Terra or Aqua SSF products as input and generates two daily binary, packed SSF subset files, one containing daytime footprints and the other containing nighttime footprints. The number of parameters on each footprint is reduced and the modified footprint is packed using a scale factor and offset. Footprints with a solar zenith angle of less than 90 degrees are written to the daytime SSF subset file and footprints with a solar zenith angle greater than or equal to 90 degrees are written to the nighttime SSF subset file. For Terra or Aqua processing, the SSFA file is also subsetted and a daytime SSF aerosol binary file is created. The same footprints that were placed on the daytime SSF subset file are selected for the SSF aerosol subset file.

A daily binary and an HDF SSF Nadir product, a daily binary SSF validation product, a daily binary SSF Aerosol validation product, a daily daytime binary SSF SCOOL validation product, and a daily nighttime binary SSF SCOOL validation product are also created by this PGE. The SSF Nadir product contains the nadir viewing SSF footprints from 24 hours of SSF data. The binary SSF and SSF Aerosol validation products contains all SSF footprints over CERES validation sites from 24 hours of SSF data. The daytime binary SSF SCOOL validation product contains all subsetted footprints over SCOOL validation sites which have a solar zenith angle of less than 90 degrees. The nighttime binary SSF SCOOL validation product contains all subsetted footprints over SCOOL validation sites which have a solar zenith angle greater than or equal to 90 degrees.

CER4.5-6.3P1, CER4.5-6.3P2, and CER4.5-6.3P3- CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor

The Alternate Main Processor converts CERES unfiltered radiance measurements to instantaneous radiative flux estimates at the top of the Earth's atmosphere and produces radiative flux estimates at the Earth's surface for each CERES footprint. This processor uses an archived binary SSF as input and only the TOA and surface fluxes are replaced. PGE CER4.5-6.3P1

processes TRMM data and PGE CER4.5-6.3P2 processes Terra data. PGE CER4.5-6.3P2 also unfilters the CERES radiances.

CERES Inversion Subsystem 4.5 calculates estimates of the radiant flux at the TOA based on input from an archived Single Scanner Footprint (SSFB). Estimates of the radiant flux at the TOA are computed based on scene information, geometrical considerations, cloud properties, and the unfiltered measurements.

Surface Flux Estimation, Subsystem 4.6, calculates estimates of radiant flux at the Earth's surface based on TOA fluxes calculated in Subsystem 4.5. Additional input data required by Subsystem 4.6 include precipitable water, surface emissivity, and cloud properties from the SSFB. Pressure, temperature, and humidity profiles are from a Meteorological, Ozone, and Aerosol (MOA) Product. Model A Shortwave (SW) net and downward surface fluxes are estimated using the Li-Leighton algorithm. Model B SW downward surface fluxes are estimated using the Staylor algorithm. Model A Longwave (LW) net and downward surface fluxes are estimated using the Ramanathan-Inamdar Algorithm. Model B LW net and downward surface fluxes are estimated using the Gupta Algorithm.

The output of Subsystems 4.5 and 4.6 Alternate Main Processor consists of a binary Single Scanner Footprint (SSF) product, a binary QC file, and an SSF product in Hierarchical Data Format (HDF). CER45.5-6.3P2 and CER4.5-6.3P3 also create an binary SSF Aerosol (SSFA) product.

CER4.5-6.4P1 - CERES Subsystems 4.5 and 4.6 Monthly Validation Site SSF Postprocessor for Terra

The Postprocessor reads up to 31 daily Validation Site SSF products as input and generates a monthly binary SSF validation site product containing all SSF footprints over CERES validation sites from an entire month of SSF data.

CER4.5-6.4P2 - CERES Subsystems 4.5 and 4.6 Monthly Validation Site SSF Postprocessor for Terra for Edition3

The Postprocessor reads up to 31 daily Validation Site SSF products as input and generates a monthly binary SSF validation site product containing all SSF footprints over CERES validation sites from an entire month of SSF data.

CER4.5-6.6P2 - Daily CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor for Terra

The Daily Alternate Main Processor converts up to 24 hours of CERES unfiltered radiance measurements to instantaneous radiative flux estimates at the top of the Earth's atmosphere and produces radiative flux estimates at the Earth's surface for each CERES footprint. This processor uses archived binary SSF files as input and only unfiltered radiance, TOA fluxes, and surface fluxes are replaced.

The output of Subsystems 4.5 and 4.6 Daily Alternate Main Processor consists of up to 24 hourly binary Single Scanner Footprint (SSF) products, binary QC files, and SSF products in Hierarchical Data Format (HDF).

CER4.5-6.6P3 - Daily CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor for Aqua

The Daily Alternate Main Processor converts up to 24 hours of CERES unfiltered radiance measurements to instantaneous radiative flux estimates at the top of the Earth's atmosphere and produces radiative flux estimates at the Earth's surface for each CERES footprint. This processor uses archived binary SSF files as input and only the TOA and surface fluxes are replaced.

The output of Subsystems 4.5 and 4.6 Daily Alternate Main Processor consists of up to 24 hourly binary Single Scanner Footprint (SSF) products and SSF products in Hierarchical Data Format (HDF).

1.0 PGEName: CER4.5-6.1P1

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for TRMM processing

1.1 PGE Details

1.1.1 Responsible Persons

Table 1-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

1.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 1-1.

1.1.3 Parent PGE(s)

Table 1-2. Parent PGEs for CER4.5-6.1P1

PGEName	Description
CER4.1-4.1P1	Cloud Property Retrieval and Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

1.1.4 Target PGE(s)

Table 1-3. Target PGEs after CER4.5-6.1P1

PGEName	Description
CER4.5-6.2P1	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

1.2 Operating Environment

1.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 1-4. Runtime Parameters for CER4.5-6.1P1

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

1.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

One Environment Script, named '**ENVinversion-env.csh**', is required and contains the following parameters:

SS4_4 - Sampling Strategy for Clouds (Cookiecutter), see Production Request
SS4_5 - Sampling Strategy for Inversion Output, see Production Request
PS4_1 - Production Strategy for Clouds, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
PS4_5 - Production Strategy for Inversion, see Production Request
PS4_6 - Production Strategy for CER4.5-6.3P1 input, see Production Request
PS12 - Production Strategy for RegridMOA, see Production Request
CC4_1 - Configuration Code for Clouds, see CM Database
CC4_5 - Configuration Code for CER4.5-6.1P1, see CM Database
CC4_6 - Configuration Code for CER4.5-6.3P1 input, see CM Database
CC4_7 - Configuration Code for CER4.5-6.2P1, see CM Database
CC4_5 - Configuration Code for CER4.5-6.1P2, see CM Database

CC4_9 - Configuration Code for CER4.5-6.2P2, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

1.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when input is available.

1.2.4 Memory/Disk Space/Time Requirements

Memory:	206848 K
Disk Space:	679 Megabytes
Total Run Time:	4:56 minutes

1.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 1.3).

1.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

1.3.1 Input Dataset Name (#1): SSFI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

$CERESHOME/clouds/data/out_comp/data/SSF_Int/
CER_SSFI_$SS4_4_$PS4_1_$CC4_1.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.1-4.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **203**

1.3.2 Input Dataset Name (#2): FQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/clouds/data/out_comp/QA_Reports/
CER_FQCI_$SS4_4_$PS4_1_$CC4_1.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER4.1-4.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

1.3.3 Input Dataset Name (#3): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/sarb/data/out_comp/data/regridmoa/

CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

CER_MOA_$SS12_$PS12_$CC12.H1
CER_MOA_$SS12_$PS12_$CC12.H1.met
CER_MOA_$SS12_$PS12_$CC12.H2
CER_MOA_$SS12_$PS12_$CC12.H2.met

Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.**

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

1.4 Operating Procedures (Procedure for each part of the processor's elements)

The Main Processor and Postprocessor production script, **run_4.5-6.1P1.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by first sourcing the inversion-specific environment script, **ENVinversion-env.csh**, then executing the PCF generator, **pcfgen_4.5-6.1P1.csh**.

1.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.1P1.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

> cd $CERESHOME/inversion/bin
> $CERESHOME/inversion/bin/pcfgen_4.5-6.1P1.csh YYYYMMDDHH

The following files will be generated in **$CERESHOME/inversion/rcf/**:

CER4.5-6.1P1_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH
CER4.5-6.1P1_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

1.4.2 How to Execute PGE CER4.5-6.1P1

Execute the production script by typing the script name, **run_4.5-6.1P1.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 1-4.

At the command line (>) type:

>cd $CERESHOME/inversion/bin
>$CERESHOME/inversion/bin/run_4.5-6.1P1.csh
$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

1.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

1.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P1.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

1.5 Execution Evaluation

1.5.1 Exit Codes

The processor CER4.5-6.1P1 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 1-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 1-1) for assistance.

Table 1-5. Exit Codes for CER4.5-6.1P1

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

1.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.1P1.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

1.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/data/runlogs**.

1. **Report Log File: CER4.5-6.1P1_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. **Status Log File: CER4.5-6.1P1_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. **User Log File: CER4.5-6.1P1_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

1.5.4 Solutions to Possible Problems

As mentioned in Section 1.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P1.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

1.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

1.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 1-6. Expected Output File Listing for CER4.5-6.1P1

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P1 CER5.1P1 CER9.2P1	Archive
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, /QA, rm
CER_GQCA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.02	1/hr	N/A	Archive, /QA, rm
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm
CER4.5-6.1P1_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/rcf)	m	.01	1/hr	N/A	Archive, rm
CER4.5-6.1P1_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/rcf)	m	.005	1/hr	N/A	Archive, rm
CER4.5-6.1P1_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/data/runlogs)	m	.008	1/hr	N/A	Archive, rm
CER4.5-6.1P1_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/data/runlogs)	m	.002	1/hr	N/A	Archive, rm
CER4.5-6.1P1_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/data/runlogs)	m	.001	1/hr	N/A	Archive, rm

a. See Section 1.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b.
VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
/QA - File is to be written to the DAAC designated /QA directory
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

1.7 Expected Temporary Files/Directories

Table 1-7. Temporary Files Listing for CER4.5-6.1P1

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a.
YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy - $SS4_5
PS - Production Strategy - $PS4_5
CC - Configuration Code - $CC4_5

2.0 PGEName: CER4.5-6.1P2

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for Terra Processing

2.1 PGE Details

2.1.1 Responsible Persons

Table 2-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

2.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 2-1.

2.1.3 Parent PGE(s)

Table 2-2. Parent PGEs for CER4.5-6.1P2

PGEName	Description
CER2.4P1	CERES ERBE-like Spectral Response Functions and Correction Coefficients
CER4.1-4.1P2	Cloud Property Retrieval and Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

2.1.4 Target PGE(s)

Table 2-3. Target PGEs after CER4.5-6.1P2

PGEName	Description
CER4.5-6.2P2	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

2.2 Operating Environment

2.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 2-4. Runtime Parameters for CER4.5-6.1P2

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

2.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following environment variables must be set:

SS4_1 - Sampling Strategy for Clouds (Cookiecutter), see Production Request
SS4_5 - Sampling Strategy for Inversion Output, see Production Request
SS2 - Sampling Strategy for CER2.4P1 input, see CM Database
SS12 - Sampling Strategy for RegridMOA, see Production Request
PS4_1 - Production Strategy for Clouds, see CM Database
PS2_4 - Production Strategy for CER2.4P1 input, see CM Database
PS4_5 - Production Strategy for Inversion, see Production Request
PS4_7 - Production Strategy (normally set to "Null") set to "DefaultSCC" when default Spectral correction Coefficients are to be used
PS12 - Production Strategy for RegridMOA, see Production Request
CC4_1 - Configuration Code for Clouds, see CM Database
CC2_4 - Configuration Code for CER2.4P1 input, see CM Database
CC4_5 - Configuration Code for CER4.5-6.1P2 and CER4.5-6.1P3, see CM Database

CC4_8 - Configuration Code for CER4.5-6.1P2 and CER4.5-6.1P3, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

NOTE: CC4_5 and CC4_8 for CER4.5-6.1P2 must always be set to the same value.

2.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when input is available.

2.2.4 Memory/Disk Space/Time Requirements

Memory:	298143 K
Disk Space:	679 Megabytes
Total Run Time:	4:20 minutes

2.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 2.3).

2.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

2.3.1 Input Dataset Name (#1): SSFI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/clouds/data/out_comp/data/SSF_Int/
   CER_SSFI_$SS4_1_$PS4_1_$CC4_1.YYYYMMDDHH

   1. Mandatory/Optional: **This file is Mandatory.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **203**

2.3.2 Input Dataset Name (#2): SSFAI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/clouds/data/out_comp/data/SSF_Int/
   CER_SSFAI_$SS4_1_$PS4_1_$CC4_1.YYYYMMDDHH

   1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

2.3.3 Input Dataset Name (#3): FQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/clouds/data/out_comp/QA_Reports/
   CER_FQCI_$SS4_1_$PS4_1_$CC4_1.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

2.3.4 Input Dataset Name (#4): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/sarb/data/out_comp/data/regridmoa/
   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

   CER_MOA_$SS12_$PS12_$CC12.H1
   CER_MOA_$SS12_$PS12_$CC12.H1.met
   CER_MOA_$SS12_$PS12_$CC12.H2
   CER_MOA_$SS12_$PS12_$CC12.H2.met

   Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6**

hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

2.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

2.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

2.4 Operating Procedures (Procedure for each part of the processor's elements)

The Main Processor and Postprocessor production script, **run_4.5-6.1P2.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.1P2.csh**.

2.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.1P2.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.1P2/rcf
> $CERESHOME/inversion/CER4.5-6.1P2/rcf/pcfgen_4.5-6.1P2.csh
    YYYYMMDDHH
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.1P2/rcf/pcf/**:

CER4.5-6.1P2_PCFin_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH
CER4.5-6.1P2_PCF_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

2.4.2 How to Execute PGE CER4.5-6.1P2

Execute the production script by typing the script name, **run_4.5-6.1P2.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 2-4.

At the command line (>) type:

>cd $CERESHOME/inversion/CER4.5-6.1P2/rcf
>$CERESHOME/inversion/CER4.5-6.1P2/rcf/run_4.5-6.1P2.csh
$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

2.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

2.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P2.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

2.5 Execution Evaluation

2.5.1 Exit Codes

The processor CER4.5-6.1P2 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 2-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 2-1) for assistance.

Table 2-5. Exit Codes for CER4.5-6.1P2

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

2.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.1P2.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

2.5.3 Log and Status Files Results (Include <u>ALL</u> Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.1P2_LogReport_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.1P2_LogStatus_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.1P2_LogUser_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

2.5.4 Solutions to Possible Problems

As mentioned in Section 2.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P2.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

2.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

2.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 2-6. Expected Output File Listing for CER4.5-6.1P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P1 CER5.1P1 CER9.2P1	Archive
CER_SSFA_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P1 CER5.1P1 CER9.2P1	Archive
CER_GQCI_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, /QA, rm

Table 2-6. Expected Output File Listing for CER4.5-6.1P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_GQCA_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.02	1/hr	N/A	/QA, rm
CER_SSF_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm
CER4.5-6.1P2_PCF_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P2/rcf/pcf)	m	.01	1/hr	N/A	rm
CER4.5-6.1P2_PCFin_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P2/rcf/pcf)	m	.005	1/hr	N/A	rm
CER4.5-6.1P2_LogReport_$SS4_5_$PS4_5_$CC4_8.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.05	1/hr	N/A	rm
CER4.5-6.1P2_LogStatus_$SS4_5_$PS4_5_$CC4_8.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.005	1/hr	N/A	rm
CER4.5-6.1P2_LogUser_$SS4_5_$PS4_5_$CC4_8.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.03	1/hr	N/A	rm
CER4.5-6.1P2_QC_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH.tar @($CERESHOME/inversion/data/out_comp/QC)	m	.16	1/hr	N/A	Archive, rm
CER4.5-6.1P2_PCF_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH.tar @($CERESHOME/inversion/runlogs)	m	.04	1/hr	N/A	Archive, rm

a. See Section 2.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b.
VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

2.7 Expected Temporary Files/Directories

Table 2-7. Temporary Files Listing for CER4.5-6.1P2

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy - $SS4_5
PS - Production Strategy - $PS4_5
CC - Configuration Code - $CC4_8

3.0 PGEName: CER4.5-6.1P3

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for Aqua Processing

3.1 PGE Details

3.1.1 Responsible Persons

Table 3-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

3.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 3-1.

3.1.3 Parent PGE(s)

Table 3-2. Parent PGEs for CER4.5-6.1P3

PGEName	Description
CER4.1-4.1P3	Cloud Property Retrieval and Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function
CER2.4P1	CERES ERBE-like Spectral Response Functions and Correction Coefficients
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

3.1.4 Target PGE(s)

Table 3-3. Target PGEs after CER4.5-6.1P3

PGEName	Description
CER4.5-6.2P2	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

3.2 Operating Environment

3.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 3-4. Runtime Parameters for CER4.5-6.1P3

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

3.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following parameters are used by this PGE:

SS4_1 - Sampling Strategy for Clouds (Cookiecutter), see Production Request
SS4_5 - Sampling Strategy for Inversion Output, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
SS2 - Sampling Strategy for CER2.4P1 input, see CM Database
PS4_5 - Production Strategy for CER4.5-6.1P3, see Production Request
PS4_7 - Production Strategy (normally set to "Null") set to "DefaultSCC" when default Spectral correction Coefficients are to be used
PS4_1 - Production Strategy for Clouds input, see Production Request
PS12 - Production Strategy for RegridMOA, see Production Request
PS2_4 - Production Strategy for CER2.4P1 input, see CM Database
CC4_1 - Configuration Code for Clouds, see CM Database
CC4_5 - Configuration Code for CER4.5-6.1P2 and CER4.5-6.1P3, see CM Database

CC4_8 - Configuration Code for CER4.5-6.1P2 and CER4.5-6.1P3, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database
CC2_4 - Configuration Code for CER2.4P1 input, see CM Database

NOTE: CC4_5 and CC4_8 for CER4.5-6.1P3 must always be set to the same value.

3.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when input is available.

3.2.4 Memory/Disk Space/Time Requirements

Memory:	296009 K
Disk Space:	679 Megabytes
Total Run Time:	4:20 minutes

3.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 3.3).

3.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

3.3.1 Input Dataset Name (#1): SSFI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

$CERESHOME/clouds/data/out_comp/data/SSF_Int/
CER_SSFI_$SS4_1_$PS4_1_$CC4_1.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.1-4.1P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **203**

3.3.2 Input Dataset Name (#2): SSFAI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

$CERESHOME/clouds/data/out_comp/data/SSF_Int/
CER_SSFAI_$SS4_1_$PS4_1_$CC4_1.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

3.3.3 Input Dataset Name (#3): FQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/clouds/data/out_comp/QA_Reports/
   CER_FQCI_$SS4_1_$PS4_1_$CC4_1.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

3.3.4 Input Dataset Name (#4): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/sarb/data/out_comp/data/regridmoa/
   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

   CER_MOA_$SS12_$PS12_$CC12.H1
   CER_MOA_$SS12_$PS12_$CC12.H1.met
   CER_MOA_$SS12_$PS12_$CC12.H2
   CER_MOA_$SS12_$PS12_$CC12.H2.met

   Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-**

6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

3.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

3.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

3.4 Operating Procedures (Procedure for each part of the processor's elements)

The Main Processor and Postprocessor production script, **run_4.5-6.1P3.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.1P3.csh**.

3.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.1P3.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.1P3/rcf
> $CERESHOME/inversion/CER4.5-6.1P3/rcf/pcfgen_4.5-6.1P3.csh
    YYYYMMDDHH
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.1P3/rcf/pcf/**:

CER4.5-6.1P3_PCFin_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH
CER4.5-6.1P3_PCF_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

3.4.2 How to Execute PGE CER4.5-6.1P3

Execute the production script by typing the script name, **run_4.5-6.1P3.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 3-4.

At the command line (>) type:

>cd $CERESHOME/inversion/CER4.5-6.1P3/rcf
>$CERESHOME/inversion/CER4.5-6.1P3/rcf/run_4.5-6.1P3.csh
$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

3.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

3.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P3.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

3.5 Execution Evaluation

3.5.1 Exit Codes

The processor CER4.5-6.1P3 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 3-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 3-1) for assistance.

Table 3-5. Exit Codes for CER4.5-6.1P3

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

3.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.1P3.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

3.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.1P3_LogReport_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.1P3_LogStatus_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.1P3_LogUser_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

3.5.4 Solutions to Possible Problems

As mentioned in Section 3.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P3.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

3.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

3.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 3-6. Expected Output File Listing for CER4.5-6.1P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSFA_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_GQCI_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, /QA, rm
CER_GQCA_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.02	1/hr	N/A	/QA, rm

Table 3-6. Expected Output File Listing for CER4.5-6.1P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSF_$SS4_5_$PS4_5_$CC4_8.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm
CER4.5-6.1P3_PCF_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P3/rcf/pcf)	m	.01	1/hr	N/A	rm
CER4.5-6.1P3_PCFin_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P3/rcf/pcf)	m	.005	1/hr	N/A	rm
CER4.5-6.1P3_LogReport_$SS4_5_$PS4_5_$CC4_8.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.05	1/hr	N/A	rm
CER4.5-6.1P3_LogStatus_$SS4_5_$PS4_5_$CC4_8.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.005	1/hr	N/A	rm
CER4.5-6.1P3_LogUser_$SS4_5_$PS4_5_$CC4_8.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.003	1/hr	N/A	rm
CER4.5-6.1P3_QC_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH.tar @($CERESHOME/inversion/data/out_comp/QC)	m	.16	1/hr	N/A	Archive, rm
CER4.5-6.1P3_PCF_$SS4_5_$PS4_5_$CC4_8.YYYYMM DDHH.tar@($CERESHOME/inversion/runlogs))	m	.04	1/hr	N/A	Archive, rm

a. See Section 3.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

3.7 Expected Temporary Files/Directories

Table 3-7. Temporary Files Listing for CER4.5-6.1P3

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy - $SS4_5
PS - Production Strategy - $PS4_5
CC - Configuration Code - $CC4_8

4.0 PGEName: CER4.5-6.1P4

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for Terra Edition3 Processing

4.1 PGE Details

4.1.1 Responsible Persons

Table 4-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

4.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 4-1.

4.1.3 Parent PGE(s)

Table 4-2. Parent PGEs for CER4.5-6.1P4

PGEName	Description
CER2.4P1	CERES ERBE-like Spectral Response Functions and Correction Coefficients
CER4.1-4.1P6	Cloud Property Retrieval and Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

4.1.4 Target PGE(s)

Table 4-3. Target PGEs after CER4.5-6.1P4

PGEName	Description
CER4.5-6.2P3	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

4.2 Operating Environment

4.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 4-4. Runtime Parameters for CER4.5-6.1P4

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

4.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following environment variables must be set:

SS4_1 - Sampling Strategy for Clouds (Cookiecutter), see Production Request
SS4_5 - Sampling Strategy for Inversion Output, see Production Request
SS2 - Sampling Strategy for CER2.4P1 input, see CM Database
SS12 - Sampling Strategy for RegridMOA, see Production Request
PS2_4 - Production Strategy for CER2.4P1 input, see CM Database
PS4_5 - Production Strategy for Inversion, see Production Request
PS4_7 - Production Strategy (normally set to "Null") set to "DefaultSCC" when default Spectral correction Coefficients are to be used
PS12out - Production Strategy for RegridMOA, see Production Request
PS4_1 - Production Strategy for Clouds input, see Production Request
CC4_1P6 - Configuration Code for Clouds, see CM Database
CC2_4 - Configuration Code for CER2.4P1 input, see CM Database

CC4_5 - Configuration Code for CER4.5-6.1P4, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

4.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when input is available.

4.2.4 Memory/Disk Space/Time Requirements

Memory:	298143 K
Disk Space:	679 Megabytes
Total Run Time:	4:20 minutes

4.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 4.3).

4.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

4.3.1 Input Dataset Name (#1): SSFI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/clouds/data/out_comp/data/SSF_Int/
   CER_SSFI_$SS4_1_$PS4_1_$CC4_1P6.YYYYMMDDHH

   1. Mandatory/Optional: **This file is Mandatory.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P6

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **203**

4.3.2 Input Dataset Name (#2): SSFAI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/clouds/data/out_comp/data/SSF_Int/
   CER_SSFAI_$SS4_1_$PS4_1_$CC4_1P6.YYYYMMDDHH

   1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P6

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

4.3.3 Input Dataset Name (#3): FQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/clouds/data/out_comp/QA_Reports/
   CER_FQCI_$SS4_1_$PS4_1_$CC4_1P6.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P6

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

4.3.4 Input Dataset Name (#4): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/sarb/data/out_comp/data/regridmoa/
   CER_MOA_$SS12_$PS12out_$CC12.YYYYMMDDHH
   CER_MOA_$SS12_$PS12out_$CC12.YYYYMMDDHH.met

or

   CER_MOA_$SS12_$PS12out_$CC12.H1
   CER_MOA_$SS12_$PS12out_$CC12.H1.met
   CER_MOA_$SS12_$PS12out_$CC12.H2
   CER_MOA_$SS12_$PS12out_$CC12.H2.met

   Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6**

hours earlier than YYYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

4.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

4.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CEREslib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

4.4 Operating Procedures (Procedure for each part of the processor's elements)

The Main Processor and Postprocessor production script, **run_4.5-6.1P4.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.1P4.csh**.

4.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.1P4.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.1P4/rcf
> $CERESHOME/inversion/CER4.5-6.1P4/rcf/pcfgen_4.5-6.1P4.csh
    YYYYMMDDHH
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.1P4/rcf/pcf/**:

CER4.5-6.1P4_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH
CER4.5-6.1P4_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

4.4.2 How to Execute PGE CER4.5-6.1P4

Execute the production script by typing the script name, **run_4.5-6.1P4.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 4-4.

At the command line (>) type:

>cd $CERESHOME/inversion/CER4.5-6.1P4/rcf
>$CERESHOME/inversion/CER4.5-6.1P4/rcf/run_4.5-6.1P4.csh
$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

4.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

4.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P4.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

4.5 Execution Evaluation

4.5.1 Exit Codes

The processor CER4.5-6.1P4 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 4-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 4-1) for assistance.

Table 4-5. Exit Codes for CER4.5-6.1P4

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

4.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.1P4.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

4.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. **Report Log File: CER4.5-6.1P4_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.1P4_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.1P4_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

4.5.4 Solutions to Possible Problems

As mentioned in Section 4.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P4.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

4.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

4.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 4-6. Expected Output File Listing for CER4.5-6.1P4

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P3 CER5.1P1 CER9.2P1	Archive
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P3 CER5.1P1 CER9.2P1	Archive
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, rm

Table 4-6. Expected Output File Listing for CER4.5-6.1P4

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_GQCA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.02	1/hr	N/A	rm
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm, meta
CER4.5-6.1P4_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P4/rcf/pcf)	m	.01	1/hr	N/A	rm
CER4.5-6.1P4_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P4/rcf/pcf)	m	.005	1/hr	N/A	rm
CER4.5-6.1P4_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.05	1/hr	N/A	rm
CER4.5-6.1P4_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.005	1/hr	N/A	rm
CER4.5-6.1P4_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.03	1/hr	N/A	rm
CER4.5-6.1P4_QC_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH.tar @($CERESHOME/inversion/data/out_comp/QC)	m	.16	1/hr	N/A	Archive, rm
CER4.5-6.1P4_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH.tar @($CERESHOME/inversion/runlogs)	m	.04	1/hr	N/A	Archive, rm

a. See Section 4.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b.
VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

4.7 Expected Temporary Files/Directories

Table 4-7. Temporary Files Listing for CER4.5-6.1P4

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy - $SS4_5
PS - Production Strategy - $PS4_5
CC - Configuration Code - $CC4_5

5.0 PGEName: CER4.5-6.1P5

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor for Aqua Edition3 Processing

5.1 PGE Details

5.1.1 Responsible Persons

Table 5-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

5.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 5-1.

5.1.3 Parent PGE(s)

Table 5-2. Parent PGEs for CER4.5-6.1P5

PGEName	Description
CER4.1-4.1P6	Cloud Property Retrieval and Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function
CER2.4P1	CERES ERBE-like Spectral Response Functions and Correction Coefficients
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

5.1.4 Target PGE(s)

Table 5-3. Target PGEs after CER4.5-6.1P5

PGEName	Description
CER4.5-6.2P3	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

5.2 Operating Environment

5.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 5-4. Runtime Parameters for CER4.5-6.1P5

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

5.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following parameters are used by this PGE:

SS4_1 - Sampling Strategy for Clouds (Cookiecutter), see Production Request
SS4_5 - Sampling Strategy for Inversion Output, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
SS2 - Sampling Strategy for CER2.4P1 input, see CM Database
PS2_4 - Production Strategy for CER2.4P1 input, see CM Database
PS4_5 - Production Strategy for CER4.5-6.1P3, see Production Request
PS4_7 - Production Strategy (normally set to "Null") set to "DefaultSCC" when default Spectral correction Coefficients are to be used
PS4_1 - Production Strategy for Clouds input, see Production Request
PS12out - Production Strategy for RegridMOA, see Production Request
CC2_4 - Configuration Code for CER2.4P1 input, see CM Database
CC4_1P6 - Configuration Code for Clouds, see CM Database

CC4_5 - Configuration Code for CER4.5-6.1P5, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

5.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when input is available.

5.2.4 Memory/Disk Space/Time Requirements

Memory:	296009 K
Disk Space:	679 Megabytes
Total Run Time:	4:20 minutes

5.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 5.3).

5.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

5.3.1 Input Dataset Name (#1): SSFI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

$CERESHOME/clouds/data/out_comp/data/SSF_Int/
CER_SSFI_$SS4_1_$PS4_1_$CC4_1P6.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.1-4.1P6

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **203**

5.3.2 Input Dataset Name (#2): SSFAI

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

$CERESHOME/clouds/data/out_comp/data/SSF_Int/
CER_SSFAI_$SS4_1_$PS4_1_$CC4_1P6.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P6

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

5.3.3 Input Dataset Name (#3): FQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/clouds/data/out_comp/QA_Reports/
   CER_FQCI_$SS4_1_$PS4_1_$CC4_1P6.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER4.1-4.1P6

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

5.3.4 Input Dataset Name (#4): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/sarb/data/out_comp/data/regridmoa/
   CER_MOA_$SS12_$PS12out_$CC12.YYYYMMDDHH
   CER_MOA_$SS12_$PS12out_$CC12.YYYYMMDDHH.met

or

   CER_MOA_$SS12_$PS12out_$CC12.H1
   CER_MOA_$SS12_$PS12out_$CC12.H1.met
   CER_MOA_$SS12_$PS12out_$CC12.H2
   CER_MOA_$SS12_$PS12out_$CC12.H2.met

   Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-**

6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

5.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

5.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

5.4 Operating Procedures (Procedure for each part of the processor's elements)

The Main Processor and Postprocessor production script, **run_4.5-6.1P5.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.1P5.csh**.

5.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.1P5.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.1P5/rcf
> $CERESHOME/inversion/CER4.5-6.1P5/rcf/pcfgen_4.5-6.1P5.csh
    YYYYMMDDHH
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.1P5/rcf/pcf/**:

CER4.5-6.1P5_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH
CER4.5-6.1P5_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

5.4.2 How to Execute PGE CER4.5-6.1P5

Execute the production script by typing the script name, **run_4.5-6.1P5.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 5-4.

At the command line (>) type:

>cd $CERESHOME/inversion/CER4.5-6.1P5/rcf
>$CERESHOME/inversion/CER4.5-6.1P5/rcf/run_4.5-6.1P5.csh
$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

5.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

5.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P5.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

5.5 Execution Evaluation

5.5.1 Exit Codes

The processor CER4.5-6.1P5 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 5-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 5-1) for assistance.

Table 5-5. Exit Codes for CER4.5-6.1P5

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

5.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.1P5.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

5.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.1P5_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.1P5_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.1P5_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

5.5.4 Solutions to Possible Problems

As mentioned in Section 5.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.1P5.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

5.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

5.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 5-6. Expected Output File Listing for CER4.5-6.1P5

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P3 CER5.1P1 CER9.2P1	Archive
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P3 CER5.1P1 CER9.2P1	Archive
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, rm
CER_GQCA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.02	1/hr	N/A	Archive, rm

Table 5-6. Expected Output File Listing for CER4.5-6.1P5

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm, meta
CER4.5-6.1P5_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P5/rcf/pcf)	m	.01	1/hr	N/A	rm
CER4.5-6.1P5_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/CER4.5-6.1P5/rcf/pcf)	m	.005	1/hr	N/A	rm
CER4.5-6.1P5_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.05	1/hr	N/A	rm
CER4.5-6.1P5_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.005	1/hr	N/A	rm
CER4.5-6.1P5_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/runlogs)	m	.003	1/hr	N/A	rm
CER4.5-6.1P5_QC_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH.tar @($CERESHOME/inversion/data/out_comp/QC)	m	.16	1/hr	N/A	Archive, rm
CER4.5-6.1P5_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH.tar@($CERESHOME/inversion/runlogs))	m	.04	1/hr	N/A	Archive, rm

a. See Section 5.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

5.7 Expected Temporary Files/Directories

Table 5-7. Temporary Files Listing for CER4.5-6.1P5

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy - $SS4_5
PS - Production Strategy - $PS4_5
CC - Configuration Code - $CC4_5

6.0 PGEName: CER4.5-6.2P1

CERES Subsystems 4.5 and 4.6 SSF Subset Postprocessor for TRMM Processing

6.1 PGE Details

6.1.1 Responsible Persons

Table 6-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

6.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 6-1.

6.1.3 Parent PGE(s)

Table 6-2. Parent PGEs for CER4.5-6.2P1

PGEName	Description
CER4.5-6.1P1	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor and HDF Postprocessor
CER4.5-6.3P1	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor

6.1.4 Target PGE(s):

N/A

6.2 Operating Environment

6.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 6-3. Runtime Parameters for CER4.5-6.2P1

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31

6.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following Parameters are required by this PGE:

SS4_5 - Sampling Strategy for Inversion, see Production Request
PS4_5 - Production Strategy for Inversion, see Production Request
CC4_5 - Configuration Code for PGE CER4.5-6.1P1, see CM Database
CC4_7 - Configuration Code for PGE CER4.5-6.2P1, see CM Database

6.2.3 Execution Frequency (daily,hourly,..)

daily (1/day) - This PGE is to be processed once per data-day, a maximum total of 31 days per month, when input is available.

6.2.4 Memory/Disk Space/Time Requirements

Memory: 6048 K
Disk Space: 5500 Megabytes
Total Run Time: 62 minutes

6.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 6.3).

6.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

6.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (HH = 00 .. 23)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.1P1 or CER4.5-6.3P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **205**

6.4 Operating Procedures (Procedure for each part of the processor's elements)

The Postprocessor production script, **run_4.5-6.2P1.csh**, references a PCF which contains the correct file names and paths for PGE, **CER4.5-6.2P1**. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.2P1.csh**.

6.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.2P1.csh**, requires one command line argument, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 9-3.

At the command line (>) type:

> cd $CERESHOME/inversion/bin
> source $CERESHOME/inversion/bin/ENVinversion_subset-env.csh
> $CERESHOME/inversion/bin/pcfgen_4.5-6.2P1.csh YYYYMMDD

The following files will be generated in **$CERESHOME/inversion/rcf/**:

CER4.5-6.2P1_PCFin_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD
CER4.5-6.2P1_PCF_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD

6.4.2 How to Execute the Main Processor

Execute the production script by typing the script name, **run_4.5-6.2P1.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."Data Date". The date parameter is formatted, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 9-3.

At the command line (>) type:

> cd $CERESHOME/inversion/bin
> $CERESHOME/inversion/bin/run_4.5-6.2P1.csh
$SS4_5_$PS4_5_$CC4_7.YYYYMMDD

6.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

6.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.2P1.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

6.5 Execution Evaluation

6.5.1 Exit Codes

The processor CER4.5-6.2P1 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 9-4. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person for assistance (see Table 9-4).

Table 6-4. Exit Codes for CER4.5-6.2P1

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

6.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.2P1.csh**, the system message, "No match," may be written to the screen. This message occurs when the scripts try to remove an old output file that does not exist. This does not signify a problem.

6.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain any error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/data/runlogs**.

1. Report Log File: CER4.5-6.2P1_LogReport_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.2P1_LogStatus_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for "_F_", fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.2P1_LogUser_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log file and Status Log file.

6.5.4 Solutions to Possible Problems

As mentioned in Section 6.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.2P1.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

6.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one day fails, continue processing the next day.

b. Target PGE Termination - N/A

6.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 31 times, maximum, in a 31 day month.

Table 6-5. Expected Output File Listing for CER4.5-6.2P1

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFS-DAY_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	500	1/day	N/A	Archive, rm
CER_SSFS-NIT_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	500	1/day	N/A	Archive, rm
CER4.5-6.2P1_PCF_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD @($CERESHOME/inversion/rcf)	m	.01	1/day	N/A	Archive, rm
CER4.5-6.2P1_PCFin_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD @($CERESHOME/inversion/rcf)	m	.004	1/day	N/A	Archive, rm
CER4.5-6.2P1_LogReport_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD @($CERESHOME/inversion/data/runlogs)	m	.01	1/day	N/A	Archive, rm
CER4.5-6.2P1_LogStatus_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD @($CERESHOME/inversion/data/runlogs)	m	.004	1/day	N/A	Archive, rm

Table 6-5. Expected Output File Listing for CER4.5-6.2P1

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER4.5-6.2P1_LogUser_$SS4_5_$PS4_5_$CC4_7.YYYYMMDD @($CERESHOME/inversion/data/runlogs)	m	.0004	1/day	N/A	Archive, rm

a. See Section 6.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
m - mandatory output
o - optional output
hr - hour

6.7 Expected Temporary Files/Directories

Table 6-6. Temporary Files Listing for CER4.5-6.2P1

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDD
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDD

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2-digit day {valid values: 01 .. 31}
SS - Sampling Strategy - $SS4_5
PS - Production Strategy - $PS4_5
CC - Configuration Code - $CC4_7

7.0 PGEName: CER4.5-6.2P2

CERES Subsystems 4.5 and 4.6 SSF Subset Postprocessor for Terra and Aqua Processing

7.1 PGE Details

7.1.1 Responsible Persons

Table 7-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

7.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 7-1.

7.1.3 Parent PGE(s)

Table 7-2. Parent PGEs for CER4.5-6.2P2

PGEName	Description
CER4.5-6.1P2 or CER4.5-6.1P3 or CER4.5-6.3P2 or CER4.5-6.3P3 or CER4.5-6.6P2 or CER4.5-6.6P3	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main or Alternate Processor and HDF Postprocessor for Terra and Aqua processing

7.1.4 Target PGE(s)

Table 7-3. Target PGEs after CER4.5-6.2P2

PGEName	Description
CER4.5-6.4P1	Monthly Validation Site SSF Processor for Terra and Aqua

7.2 Operating Environment

7.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 7-4. Runtime Parameters for CER4.5-6.2P2

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31

7.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following Parameters are required:

SS4_5 - Sampling Strategy for Inversion, see Production Request
PS4_5 - Production Strategy for Inversion, see Production Request
CC4_5 - Input Configuration Code for PGE CER4.5-6.2P2, see CM Database
CC4_9 - Output Configuration Code for PGE CER4.5-6.2P2, see CM Database

7.2.3 Execution Frequency (daily,hourly,..)

daily (1/day) - This PGE is to be processed once per data-day, a maximum total of 31 days per month, when input is available.

7.2.4 Memory/Disk Space/Time Requirements

Memory: 36688 K
Disk Space: 5500 Megabytes
Total Run Time: 50 minutes

7.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 7.3).

7.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

7.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (HH = 00 .. 23)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, or CER4.5-6.6P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **205**

7.3.2 Input Dataset Name (#2): SSFA

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (HH = 00 .. 23)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, or CER4.5-6.6P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **26**

7.3.3 Input Dataset Name (#3): SSF_SCOOLRegions

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/ancillary/SCOOL/
CER_SSF_SCOOLRegions_011000.YYYYMM

1. Mandatory/Optional: **Mandatory**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: This is an ancillary file created by the SCOOL Working Group and delivered to the ASDC.

c. Alternate Data Set, if one exists (maximum waiting period): N/A

d. File Disposition after successful execution: **Do not remove**.

e. Typical file size (MB): **.003**

7.4 Operating Procedures (Procedure for each part of the processor's elements)

The Postprocessor production script, **run_4.5-6.2P2.csh**, references a PCF which contains the correct file names and paths for PGE, **CER4.5-6.2P2**. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.2P2.csh**.

7.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.2P2.csh**, requires one command line argument, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 7-4.

At the command line (>) type:

> cd $CERESHOME/inversion/CER4.5-6.2P2/rcf
> source $CERESHOME/inversion/CER4.5-6.2P2/rcf/ENVinversion_subset-env.csh
> $CERESHOME/inversion/CER4.5-6.2P2/rcf/pcfgen_4.5-6.2P2.csh YYYYMMDD

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.2P2/rcf/pcf/**:

CER4.5-6.2P2_PCFin_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD
CER4.5-6.2P2_PCF_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

7.4.2 How to Execute the Main Processor

Execute the production script by typing the script name, **run_4.5-6.2P2.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling

Strategy"_"Production Strategy"_"Configuration Code"."Data Date". The date parameter is formatted, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 7-4.

At the command line (>) type:

> cd $CERESHOME/inversion/CER4.5-6.2P2/rcf
> $CERESHOME/inversion/CER4.5-6.2P2/rcf/run_4.5-6.2P2.csh
$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

7.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

7.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.2P2.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

7.5 Execution Evaluation

7.5.1 Exit Codes

The processor CER4.5-6.2P2 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 7-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person for assistance (see Table 7-1).

Table 7-5. Exit Codes for CER4.5-6.2P2

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

7.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.2P2.csh**, the system message, "No match," may be written to the screen. This message occurs when the scripts try to remove an old output file that does not exist. This does not signify a problem.

7.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain any error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.2P2_LogReport_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.2P2_LogStatus_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for "_F_", fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.2P2_LogUser_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log file and Status Log file.

7.5.4 Solutions to Possible Problems

As mentioned in Section 7.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.2P2.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

7.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one day fails, continue processing the next day.

b. Target PGE Termination - N/A

7.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 31 times, maximum, in a 31 day month.

Table 7-6. Expected Output File Listing for CER4.5-6.2P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFS-DAY_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	500	1/day	N/A	Archive, rm
CER_SSFS-NIT_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	500	1/day	N/A	Archive, rm
CER_SSFAS-DAY_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	100	1/day	N/A	Archive, rm

Table 7-6. Expected Output File Listing for CER4.5-6.2P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB-nadir_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	o	14	1/day	N/A	Archive, rm
CER_SSF-nadir_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	o	7	1/day	N/A	Archive, rm
CER_SSFB-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	21	1/day	CER4.5-6.4P1	Archive
CER_SSFA-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	2	1/day	CER4.5-6.4P1	Archive
CER_SSFS-scool-DAY_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met)@($CERESHOME/inversion/data/out_comp/data)	o	5	1/day	N/A	Archive, rm
CER_SSFS-scool-NIT_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met)@($CERESHOME/inversion/data/out_comp/data)	o	5	1/day	N/A	Archive, rm
CER4.5-6.2P2_PCF_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/CER4.5-6.2P2/rcf/pcf)	m	.01	1/day	N/A	rm
CER4.5-6.2P2_PCFin_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/CER4.5-6.2P2/rcf/pcf)	m	.005	1/day	N/A	rm
CER4.5-6.2P2_LogReport_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/runlogs)	m	.015	1/day	N/A	rm
CER4.5-6.2P2_LogStatus_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/runlogs)	m	.008	1/day	N/A	rm
CER4.5-6.2P2_LogUser_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/runlogs)	m	.001	1/day	N/A	rm
CER4.5-6.2P2_PCF_$SS4_5_$PS4_5_$CC4_9.YYYYMMDDHH.tar @($CERESHOME/inversion/runlogs))	m	.06	1/day	N/A	Archive, rm

a. See Section 7.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
m - mandatory output
o - optional output
hr - hour

7.7 Expected Temporary Files/Directories

Table 7-7. Temporary Files Listing for CER4.5-6.2P2

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDD
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDD

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2-digit day {valid values: 01 .. 31}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_9

8.0 PGEName: CER4.5-6.2P3

CERES Subsystems 4.5 and 4.6 SSF Subset Postprocessor for Terra and Aqua Processing for Edition3

8.1 PGE Details

8.1.1 Responsible Persons

Table 8-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

8.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 11-1.

8.1.3 Parent PGE(s)

Table 8-2. Parent PGEs for CER4.5-6.2P3

PGEName	Description
CER4.5-6.1P4 or CER4.5-6.1P5	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Main Processor for Terra and Aqua Edition3 processing

8.1.4 Target PGE(s)

Table 8-3. Target PGEs after CER4.5-6.2P3

PGEName	Description
CER4.5-6.4P2	Monthly Validation Site SSF Processor for Terra and Aqua for Edition3

8.2 Operating Environment

8.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 8-4. Runtime Parameters for CER4.5-6.2P3

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31

8.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following Parameters are required:

SS4_5 - Sampling Strategy for Inversion, see Production Request
PS4_5 - Production Strategy for Inversion, see Production Request
CC4_5 - Input Configuration Code for PGE CER4.5-6.2P3, see CM Database
CC4_9 - Output Configuration Code for PGE CER4.5-6.2P3, see CM Database

8.2.3 Execution Frequency (daily,hourly,..)

daily (1/day) - This PGE is to be processed once per data-day, a maximum total of 31 days per month, when input is available.

8.2.4 Memory/Disk Space/Time Requirements

Memory: 36688 K
Disk Space: 5500 Megabytes
Total Run Time: 50 minutes

8.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 8.3).

8.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

8.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (HH = 00 .. 23)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.5-6.1P4 or CER4.5-6.1P5

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **205**

8.3.2 Input Dataset Name (#2): SSFA

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (HH = 00 .. 23)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.5-6.1P4 or CER4.5-6.1P5

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **26**

8.3.3 Input Dataset Name (#3): SSF_SCOOLRegions

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

   $CERESHOME/inversion/ancillary/SCOOL/
   CER_SSF_SCOOLRegions_011000.YYYYMM

   1. Mandatory/Optional: **Mandatory**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM

   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: This is an ancillary file created by the SCOOL Working Group and delivered to the ASDC.

c. Alternate Data Set, if one exists (maximum waiting period): N/A

d. File Disposition after successful execution: **Do not remove**.

e. Typical file size (MB): **.003**

8.4 Operating Procedures (Procedure for each part of the processor's elements)

The Postprocessor production script, **run_4.5-6.2P3.csh**, references a PCF which contains the correct file names and paths for PGE, **CER4.5-6.2P3**. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.2P3.csh**.

8.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.2P3.csh**, requires one command line argument, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 8-4.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.2P3/rcf
> source $CERESHOME/inversion/CER4.5-6.2P3/rcf/ENVinversion_subset-env.csh
> $CERESHOME/inversion/CER4.5-6.2P3/rcf/pcfgen_4.5-6.2P3.csh YYYYMMDD
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.2P3/rcf/pcf/**:

CER4.5-6.2P3_PCFin_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD
CER4.5-6.2P3_PCF_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

8.4.2 How to Execute the Main Processor

Execute the production script by typing the script name, **run_4.5-6.2P3.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."Data Date". The date parameter is

formatted, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 11-4.

At the command line (>) type:

> cd $CERESHOME/inversion/CER4.5-6.2P3/rcf
> $CERESHOME/inversion/CER4.5-6.2P3/rcf/run_4.5-6.2P3.csh
$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

8.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

8.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.2P3.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

8.5 Execution Evaluation

8.5.1 Exit Codes

The processor CER4.5-6.2P3 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 11-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person for assistance (see Table 11-1).

Table 8-5. Exit Codes for CER4.5-6.2P3

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

8.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.2P3.csh**, the system message, "No match," may be written to the screen. This message occurs when the scripts try to remove an old output file that does not exist. This does not signify a problem.

8.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain any error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.2P3_LogReport_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.2P3_LogStatus_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for "_F_", fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.2P3_LogUser_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log file and Status Log file.

8.5.4 Solutions to Possible Problems

As mentioned in Section 8.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.2P3.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

8.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

   There are no foreseeable Subsystem terminating conditions at this time. If one day fails, continue processing the next day.

b. Target PGE Termination - N/A

8.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 31 times, maximum, in a 31 day month.

Table 8-6. Expected Output File Listing for CER4.5-6.2P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFS-DAY_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	500	1/day	N/A	Archive, rm
CER_SSFS-NIT_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	500	1/day	N/A	Archive, rm
CER_SSFAS-DAY_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	100	1/day	N/A	Archive, rm

Table 8-6. Expected Output File Listing for CER4.5-6.2P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB-nadir_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	o	14	1/day	N/A	Archive, rm
CER_SSF-nadir_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	o	7	1/day	N/A	Archive, rm
CER_SSFB-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	21	1/day	CER4.5-6.4P2	Archive
CER_SSFA-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met) @($CERESHOME/inversion/data/out_comp/data)	m	2	1/day	CER4.5-6.4P2	Archive
CER_SSFS-scool-DAY_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met)@($CERESHOME/inversion/data/out_comp/data)	o	5	1/day	N/A	Archive, rm
CER_SSFS-scool-NIT_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (.met)@($CERESHOME/inversion/data/out_comp/data)	o	5	1/day	N/A	Archive, rm
CER4.5-6.2P3_PCF_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/CER4.5-6.2P3/rcf/pcf)	m	.01	1/day	N/A	rm
CER4.5-6.2P3_PCFin_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/CER4.5-6.2P3/rcf/pcf)	m	.005	1/day	N/A	rm
CER4.5-6.2P3_LogReport_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/runlogs)	m	.015	1/day	N/A	rm
CER4.5-6.2P3_LogStatus_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/runlogs)	m	.008	1/day	N/A	rm
CER4.5-6.2P3_LogUser_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD @($CERESHOME/inversion/runlogs)	m	.001	1/day	N/A	rm
CER4.5-6.2P3_PCF_$SS4_5_$PS4_5_$CC4_9.YYYYMMDDHH.tar @($CERESHOME/inversion/runlogs))	m	.06	1/day	N/A	Archive, rm

a. See Section 8.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
m - mandatory output
o - optional output
hr - hour

8.7 Expected Temporary Files/Directories

Table 8-7. Temporary Files Listing for CER4.5-6.2P3

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDD
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDD

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2-digit day {valid values: 01 .. 31}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_9

9.0 PGEName: CER4.5-6.3P1

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor

9.1 PGE Details

9.1.1 Responsible Persons

Table 9-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

9.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 12-1.

9.1.3 Parent PGE(s)

Table 9-2. Parent PGEs for CER4.5-6.3P1

PGEName	Description
CER4.5-6.1P1	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget

9.1.4 Target PGE(s)

Table 9-3. Target PGEs after CER4.5-6.3P1

PGEName	Description
CER4.5-6.2P1	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

9.2 Operating Environment

9.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 9-4. Runtime Parameters for CER4.5-6.3P1

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

9.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following parameters are required for this PGE:

SS4_5 - Sampling Strategy for Inversion, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
PS4_5 - Production Strategy for Inversion Output, see Production Request
PS4_6 - Production Strategy for CER4.5-6.3P1 Input, see Production Request
PS12 - Production Strategy for RegridMOA, see Production Request
CC4_5 - Configuration Code for CER4.5-6.1P1, see CM Database
CC4_6 - Configuration Code for CER4.5-6.3P1 Input, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

9.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when requested.

9.2.4 Memory/Disk Space/Time Requirements

Memory:	204506 K
Disk Space:	500 Megabytes
Total Run Time:	7.44 minutes

9.2.5 Restrictions Imposed in Processing Order

This PGE is only run upon special request.

9.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

9.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFB_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00 .. 23)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.5-6.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **205**

9.3.2 Input Dataset Name (#2): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/sarb/data/out_comp/data/regridmoa/

CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

CER_MOA_$SS12_$PS12_$CC12.H1
CER_MOA_$SS12_$PS12_$CC12.H1.met
CER_MOA_$SS12_$PS12_$CC12.H2
CER_MOA_$SS12_$PS12_$CC12.H2.met

Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.**

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: None. Process when all input data are available.

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

9.3.3 Input Dataset Name (#3): GQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/inversion/data/out_comp/QC/ CER_GQCI_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER4.5-6.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

9.4 Operating Procedures (Procedure for each part of the processor's elements)

The Alternate Main Processor and Postprocessor production script, **run_4.5-6.3P1.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by first sourcing the inversion-specific environment script, **ENVinversion3-env.csh**, then executing the PCF generator, **pcfgen_4.5-6.3P1.csh**.

9.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.3P1.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

> cd $CERESHOME/inversion/bin
> $CERESHOME/inversion/bin/pcfgen_4.5-6.3P1.csh YYYYMMDDHH

The following files will be generated in **$CERESHOME/inversion/rcf/**:

CER4.5-6.3P1_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH
CER4.5-6.3P1_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

9.4.2 How to Execute PGE CER4.5-6.3P1

Execute the production script by typing the script name, **run_4.5-6.3P1.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 9-4.

At the command line (>) type:

>cd $CERESHOME/inversion/bin
>$CERESHOME/inversion/bin/run_4.5-6.3P1.csh
$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

9.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

9.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.3P1.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

9.5 Execution Evaluation

9.5.1 Exit Codes

The processor CER4.5-6.3P1 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 9-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 9-1) for assistance.

Table 9-5. Exit Codes for CER4.5-6.3P1

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

9.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.3P1.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

9.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/data/runlogs**.

1. **Report Log File: CER4.5-6.3P1_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. **Status Log File: CER4.5-6.3P1_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. **User Log File: CER4.5-6.3P1_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

9.5.4 Solutions to Possible Problems

As mentioned in Section 9.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.3P1.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

9.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

9.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 9-6. Expected Output File Listing for CER4.5-6.3P1

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P1 CER5.1P1 CER9.2P1	Archive
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, rm
CER4.5-6.3P1_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/rcf)	m	.01	1/hr	N/A	Archive, rm
CER4.5-6.3P1_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMM DDHH@($CERESHOME/inversion/rcf)	m	.004	1/hr	N/A	Archive, rm
CER4.5-6.3P1_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/data/runlogs)	m	.008	1/hr	N/A	Archive, rm
CER4.5-6.3P1_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/data/runlogs)	m	.002	1/hr	N/A	Archive, rm
CER4.5-6.3P1_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYY MMDDHH@($CERESHOME/inversion/data/runlogs)	m	.001	1/hr	N/A	Archive, rm

a. See Section 9.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

9.7 Expected Temporary Files/Directories

Table 9-7. Temporary Files Listing for CER4.5-6.3P1

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_5

10.0 PGEName: CER4.5-6.3P2

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor for Terra

10.1 PGE Details

10.1.1 Responsible Persons

Table 10-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

10.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 14-1.

10.1.3 Parent PGE(s)

Table 10-2. Parent PGEs for CER4.5-6.3P2

PGEName	Description
CER4.5-6.1P2 or CER4.5-6.3P2 or CER4.5-6.6P2	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget for Terra
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

10.1.4 Target PGE(s)

Table 10-3. Target PGEs after CER4.5-6.3P2

PGEName	Description
CER4.5-6.2P2	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

10.2 Operating Environment

10.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 10-4. Runtime Parameters for CER4.5-6.3P2

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

10.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following parameters are required for this PGE:

SS4_5 - Sampling Strategy for Inversion, see Production Request
SS4_6 - Sampling Strategy for CER4.5-6.3P2 Input, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
SS2 - Sampling Strategy for CER2.4P1 input, see CM Database
PS2_4 - Production Strategy for CER2.4P1 input, see CM Database
PS4_5 - Production Strategy for Inversion Output, see Production Request
PS4_6 - Production Strategy for CER4.5-6.3P2 Input, see Production Request
PS12 - Production Strategy for RegridMOA, see Production Request
CC2_4 - Configuration Code for CER2.4P1 input, see CM Database
CC4_5 - Configuration Code for CER4.5-6.3P2 Output, see CM Database
CC4_6 - Configuration Code for CER4.5-6.3P2 Input, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

10.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when requested.

10.2.4 Memory/Disk Space/Time Requirements

Memory:	296050 K
Disk Space:	500 Megabytes
Total Run Time:	1:30 minutes

10.2.5 Restrictions Imposed in Processing Order

This PGE is only run upon special request.

10.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

10.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFB_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00 .. 23)

   1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.1P2 or CER4.5-6.3P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **189.3**

10.3.2 Input Dataset Name (#2): SSFA

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH.met

   1. Mandatory/Optional: **This file is Mandatory.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.5-6.1P2 or CER4.5-6.3P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

10.3.3 Input Dataset Name (#3): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/sarb/data/out_comp/data/regridmoa/

CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

CER_MOA_$SS12_$PS12_$CC12.H1
CER_MOA_$SS12_$PS12_$CC12.H1.met
CER_MOA_$SS12_$PS12_$CC12.H2
CER_MOA_$SS12_$PS12_$CC12.H2.met

Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.**

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

10.3.4 Input Dataset Name (#4): GQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/inversion/data/out_comp/QC/
CER_GQCI_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER4.5-6.1P2 or CER4.5-6.3P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

10.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

10.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

10.4 Operating Procedures (Procedure for each part of the processor's elements)

The Alternate Main Processor and Postprocessor production script, **run_4.5-6.3P2.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.3P2.csh**.

10.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.3P2.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.3P2/rcf
> $CERESHOME/inversion/CER4.5-6.3P2/rcf/pcfgen_4.5-6.3P2.csh
    YYYYMMDDHH
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.3P2/rcf/pcf/**:

CER4.5-6.3P2_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH
CER4.5-6.3P2_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

10.4.2 How to Execute PGE CER4.5-6.3P2

Execute the production script by typing the script name, **run_4.5-6.3P2.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 14-4.

At the command line (>) type:

```
>cd $CERESHOME/inversion/CER4.5-6.3P2/rcf
>$CERESHOME/inversion/CER4.5-6.3P2/rcf/run_4.5-6.3P2.csh
    $SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH
```

10.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

10.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.3P2.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

10.5 Execution Evaluation

10.5.1 Exit Codes

The processor **CER4.5-6.3P2** terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 14-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 14-1) for assistance.

Table 10-5. Exit Codes for CER4.5-6.3P2

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

10.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.3P2.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

10.5.3 Log and Status Files Results (Include <u>ALL</u> Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. **Report Log File: CER4.5-6.3P2_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.3P2_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.3P2_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

10.5.4 Solutions to Possible Problems

As mentioned in Section 10.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.3P2.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

10.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

10.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 10-6. Expected Output File Listing for CER4.5-6.3P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	26	1/hr	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, rm

Table 10-6. Expected Output File Listing for CER4.5-6.3P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER4.5-6.3P2_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/CER4.5-6.3P2/rcf/pcf)	m	.01	1/hr	N/A	rm
CER4.5-6.3P2_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/CER4.5-6.3P2/rcf/pcf)	m	.004	1/hr	N/A	rm
CER4.5-6.3P2_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/runlogs)	m	.008	1/hr	N/A	rm
CER4.5-6.3P2_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/runlogs)	m	.002	1/hr	N/A	rm
CER4.5-6.3P2_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/runlogs)	m	.001	1/hr	N/A	rm
CER4.5-6.3P2_QC_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH.tar @($CERESHOME/inversion/data/out_comp/QC)	m	.16	1/hr	N/A	Archive, rm
CER4.5-6.3P2_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH.tar@($CERESHOME/inversion/runlogs))	m	.04	1/hr	N/A	Archive, rm

a. See Section 10.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

10.7 Expected Temporary Files/Directories

Table 10-7. Temporary Files Listing for CER4.5-6.3P2

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_5

11.0 PGEName: CER4.5-6.3P3

CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor for Aqua

11.1 PGE Details

11.1.1 Responsible Persons

Table 11-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

11.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 11-1.

11.1.3 Parent PGE(s)

Table 11-2. Parent PGEs for CER4.5-6.3P3

PGEName	Description
CER4.5-6.1P3 or CER4.5-6.3P3 or	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget for Terra
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

11.1.4 Target PGE(s)

Table 11-3. Target PGEs after CER4.5-6.3P3

PGEName	Description
CER4.5-6.2P2	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

11.2 Operating Environment

11.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 11-4. Runtime Parameters for CER4.5-6.3P3

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31
HH	CERHrOfDay	I(2)	00 .. 23

11.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following parameters are required for this PGE:

SS4_5 - Sampling Strategy for Inversion, see Production Request
SS4_6 - Sampling Strategy for CER4.5-6.3P3 Input, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
SS2 - Sampling Strategy for CER2.4P1 input, see CM Database
PS2_4 - Production Strategy for CER2.4P1 input, see CM Database
PS4_5 - Production Strategy for Inversion Output, see Production Request
PS4_6 - Production Strategy for CER4.5-6.3P3 Input, see Production Request
PS12 - Production Strategy for RegridMOA, see Production Request
CC2_4 - Configuration Code for CER2.4P1 input, see CM Database
CC4_5 - Configuration Code for CER4.5-6.3P3, see CM Database
CC4_6 - Configuration Code for CER4.5-6.3P3 Input, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

11.2.3 Execution Frequency (daily,hourly,..)

hourly (1/hr) - This PGE is to be processed once per data-hour, a maximum total of 744 hours per month, when requested.

11.2.4 Memory/Disk Space/Time Requirements

Memory:	296008 K
Disk Space:	500 Megabytes
Total Run Time:	2:50 minutes

11.2.5 Restrictions Imposed in Processing Order

This PGE is only run upon special request.

11.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

11.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFB_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00 .. 23)

   1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.1P3 or CER4.5-6.3P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Remove.

e. Typical file size (MB): **189.3**

11.3.2 Input Dataset Name (#2): SSFA

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH.met

   1. Mandatory/Optional: **This file is Mandatory.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

Source PGE: CER4.5-6.1P3 or CER4.5-6.3P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

11.3.3 Input Dataset Name (#3): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/sarb/data/out_comp/data/regridmoa/

CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

CER_MOA_$SS12_$PS12_$CC12.H1
CER_MOA_$SS12_$PS12_$CC12.H1.met
CER_MOA_$SS12_$PS12_$CC12.H2
CER_MOA_$SS12_$PS12_$CC12.H2.met

Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.**

1. Mandatory/Optional: **These files are Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

11.3.4 Input Dataset Name (#4): GQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/inversion/data/out_comp/QC/
CER_GQCI_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH

1. Mandatory/Optional: **This file is Mandatory.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER4.5-6.1P3 or CER4.5-6.3P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

11.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

11.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

11.4 Operating Procedures (Procedure for each part of the processor's elements)

The Alternate Main Processor and Postprocessor production script, **run_4.5-6.3P3.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.3P3.csh**.

11.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.3P3.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.3P3/rcf
> $CERESHOME/inversion/CER4.5-6.3P3/rcf/pcfgen_4.5-6.3P3.csh
    YYYYMMDDHH
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.3P3/rcf/pcf/**:

CER4.5-6.3P2_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH
CER4.5-6.3P2_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

11.4.2 How to Execute PGE CER4.5-6.3P3

Execute the production script by typing the script name, **run_4.5-6.3P2.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDDHH, where YYYY is the data year, MM is the data month, DD is the data day, and HH is the data hour-of-day, see Table 11-4.

At the command line (>) type:

>cd $CERESHOME/inversion/CER4.5-6.3P3/rcf
>$CERESHOME/inversion/CER4.5-6.3P3/rcf/run_4.5-6.3P3.csh
$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

11.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

11.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.3P3.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

11.5 Execution Evaluation

11.5.1 Exit Codes

The processor **CER4.5-6.3P3** terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 11-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 11-1) for assistance.

Table 11-5. Exit Codes for CER4.5-6.3P3

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

11.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.3P3.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

11.5.3 Log and Status Files Results (Include <u>ALL</u> Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. **Report Log File: CER4.5-6.3P3_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH**

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.3P3_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.3P3_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

11.5.4 Solutions to Possible Problems

As mentioned in Section 11.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.3P3.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

11.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

11.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 744 times, maximum, in a 31 day month.

Table 11-6. Expected Output File Listing for CER4.5-6.3P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	189.30	1/hr	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	26	1/hr	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	60	1/hr	N/A	Archive, rm, meta
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.10	1/hr	N/A	Archive, rm

Table 11-6. Expected Output File Listing for CER4.5-6.3P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER4.5-6.3P3_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/CER4.5-6.3P3/rcf/pcf)	m	.01	1/hr	N/A	rm
CER4.5-6.3P3_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/CER4.5-6.3P3/rcf/pcf)	m	.004	1/hr	N/A	rm
CER4.5-6.3P3_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/runlogs)	m	.008	1/hr	N/A	rm
CER4.5-6.3P3_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/runlogs)	m	.002	1/hr	N/A	rm
CER4.5-6.3P3_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH@($CERESHOME/inversion/runlogs)	m	.001	1/hr	N/A	rm
CER4.5-6.3P3_QC_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH.tar @($CERESHOME/inversion/data/out_comp/QC)	m	.16	1/hr	N/A	Archive, rm
CER4.5-6.3P3_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH.tar@($CERESHOME/inversion/runlogs))	m	.04	1/hr	N/A	Archive, rm

a. See Section 11.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

11.7 Expected Temporary Files/Directories

Table 11-7. Temporary Files Listing for CER4.5-6.3P3

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDDHH
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDDHH

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_5

12.0 PGEName: CER4.5-6.4P1

CERES Subsystems 4.5 and 4.6 Monthly Validation Site SSF Processor for Terra

12.1 PGE Details

12.1.1 Responsible Persons

Table 12-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

12.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 12-1.

12.1.3 Parent PGE(s)

Table 12-2. Parent PGEs for CER4.5-6.4P1

PGEName	Description
CER4.5-6.2P2	CERES subsetting post processor.

12.1.4 Target PGE(s):

N/A

12.2 Operating Environment

12.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 12-3. Runtime Parameters for CER4.5-6.4P1

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12

12.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following Parameters are required:

SS4_5 - Sampling Strategy for Inversion, see Production Request
PS4_5 - Production Strategy for Inversion, see Production Request
CC4_5 - Configuration Code for PGE CER4.5-6.1P2, see CM Database
CC4_9 - Configuration Code for PGE CER4.5-6.2P2, see CM Database
CC4_10 - Configuration Code for PGE CER4.5-6.4P1, see CM Database

12.2.3 Execution Frequency (daily,hourly,..)

monthly (1/month) - This PGE is to be processed once per data-month.

12.2.4 Memory/Disk Space/Time Requirements

Memory: 3654 K
Disk Space: 1150 Megabytes
Total Run Time: 8 minutes

12.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 12.3).

12.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

12.3.1 Input Dataset Name (#1): SSFB-val

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFB-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (DD = 00 .. 31)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.2P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Remove.

e. Typical file size (MB): **35**

12.3.2 Input Dataset Name (#2): SSFA-val

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFA-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (DD = 00 .. 31)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: None. Process when all input data are available.

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.2P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Remove.

e. Typical file size (MB): **4.5**

12.4 Operating Procedures (Procedure for each part of the processor's elements)

The Postprocessor production script, **run_4.5-6.4P1.csh**, references a PCF which contains the correct file names and paths for PGE, **CER4.5-6.4P1**. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.4P1.csh**.

12.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.4P1.csh**, requires one command line argument, YYYYMM, where YYYY is the data year, and MM is the data month, see Table 12-3.

At the command line (>) type:

> cd $CERESHOME/inversion/CER4.5-6.4P1/rcf
> source $CERESHOME/inversion/CER4.5-6.4P1/rcf/ENVinversion_subset-env.csh
> $CERESHOME/inversion/CER4.5-6.4P1/rcf/pcfgen_4.5-6.4P1.csh YYYYMM

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.4P1/rcf/pcf/**:

CER4.5-6.4P1_PCFin_$SS4_5_$PS4_5_$CC4_10.YYYYMM
CER4.5-6.4P1_PCF_$SS4_5_$PS4_5_$CC4_10.YYYYMM

12.4.2 How to Execute the Main Processor

Execute the production script by typing the script name, **run_4.5-6.4P1.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."Data Date". The date parameter is formatted, YYYYMM, where YYYY is the data year, and MM is the data month, see Table 12-3.

At the command line (>) type:

> cd $CERESHOME/inversion/CER4.5-6.4P1/rcf
> $CERESHOME/inversion/CER4.5-6.4P1/rcf/run_4.5-6.4P1.csh
$SS4_5_$PS4_5_$CC4_10.YYYYMM

12.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

12.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.4P1.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

12.5 Execution Evaluation

12.5.1 Exit Codes

The processor CER4.5-6.4P1 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in

Table 12-4. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person for assistance (see Table 12-1).

Table 12-4. Exit Codes for CER4.5-6.4P1

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

12.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.4P1.csh**, the system message, "No match," may be written to the screen. This message occurs when the scripts try to remove an old output file that does not exist. This does not signify a problem.

12.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain any error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.4P1_LogReport_$SS4_5_$PS4_5_$CC4_10.YYYYMM

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.4P1_LogStatus_$SS4_5_$PS4_5_$CC4_10.YYYYMM

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for "_F_", fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.4P1_LogUser_$SS4_5_$PS4_5_$CC4_10.YYYYMM

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log file and Status Log file.

12.5.4 Solutions to Possible Problems

As mentioned in Section 12.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.4P1.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

12.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one day fails, continue processing the next day.

b. Target PGE Termination - N/A

12.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 31 times, maximum, in a 31 day month.

Table 12-5. Expected Output File Listing for CER4.5-6.4P1

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB-valmm_$SS4_5_$PS4_5_$CC4_10.YYYYMM (.met) @($CERESHOME/inversion/data/out_comp/data)	m	1100	1/month	N/A	Archive, rm
CER_SSFA-valmm_$SS4_5_$PS4_5_$CC4_10.YYYYMM (.met) @($CERESHOME/inversion/data/out_comp/data)	m	135	1/month	N/A	Archive, rm
CER_GQCA-val_$SS4_5_$PS4_5_$CC4_10.YYYYMM(.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.02	1/month	N/A	Archive, rm
CER4.5-6.4P1_PCF_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/CER4.5-6.4P1/rcf/pcf)	m	.01	1/month	N/A	rm
CER4.5-6.4P1_PCFin_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/CER4.5-6.4P1/rcf/pcf)	m	.005	1/month	N/A	rm
CER4.5-6.4P1_LogReport_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/runlogs)	m	.015	1/month	N/A	rm
CER4.5-6.4P1_LogStatus_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/runlogs)	m	.008	1/month	N/A	rm
CER4.5-6.4P1_LogUser_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/runlogs)	m	.001	1/month	N/A	rm
CER4.5-6.4P1_PCF_$SS4_5_$PS4_5_$CC4_10.YYYYMM.tar @($CERESHOME/inversion/runlogs))	m	.06	1/month	N/A	Archive, rm

a. See Section 12.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
m - mandatory output
o - optional output
hr - hour

12.7 Expected Temporary Files/Directories

Table 12-6. Temporary Files Listing for CER4.5-6.4P1

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMM
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMM

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2-digit day {valid values: 01 .. 31}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_10

13.0 PGEName: CER4.5-6.4P2

CERES Subsystems 4.5 and 4.6 Monthly Validation Site SSF Processor for Terra and Aqua for Edition3

13.1 PGE Details

13.1.1 Responsible Persons

Table 13-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

13.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 13-1.

13.1.3 Parent PGE(s)

Table 13-2. Parent PGEs for CER4.5-6.4P2

PGEName	Description
CER4.5-6.2P3	CERES subsetting post processor.

13.1.4 Target PGE(s):

N/A

13.2 Operating Environment

13.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 13-3. Runtime Parameters for CER4.5-6.4P2

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12

13.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following Parameters are required:

SS4_5 - Sampling Strategy for Inversion, see Production Request
PS4_5 - Production Strategy for Inversion, see Production Request
CC4_5 - Configuration Code for PGE CER4.5-6.1P4/5, see CM Database
CC4_9 - Configuration Code for PGE CER4.5-6.2P3, see CM Database
CC4_10 - Configuration Code for PGE CER4.5-6.4P2, see CM Database

13.2.3 Execution Frequency (daily,hourly,..)

monthly (1/month) - This PGE is to be processed once per data-month.

13.2.4 Memory/Disk Space/Time Requirements

Memory: 3654 K
Disk Space: 1150 Megabytes
Total Run Time: 8 minutes

13.2.5 Restrictions Imposed in Processing Order

None. Process when Input Data are available (see Section 13.3).

13.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

13.3.1 Input Dataset Name (#1): SSFB-val

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

$CERESHOME/inversion/data/out_comp/data/
CER_SSFB-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (DD = 00 .. 31)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.2P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Remove.

e. Typical file size (MB): **35**

13.3.2 Input Dataset Name (#2): SSFA-val

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFA-val_$SS4_5_$PS4_5_$CC4_9.YYYYMMDD (DD = 00 .. 31)

1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: None. Process when all input data are available.

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.2P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Remove.

e. Typical file size (MB): **4.5**

13.4 Operating Procedures (Procedure for each part of the processor's elements)

The Postprocessor production script, **run_4.5-6.4P2.csh**, references a PCF which contains the correct file names and paths for PGE, **CER4.5-6.4P2**. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.4P2.csh**.

13.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.4P2.csh**, requires one command line argument, YYYYMM, where YYYY is the data year, and MM is the data month, see Table 13-3.

At the command line (>) type:

> cd $CERESHOME/inversion/CER4.5-6.4P2/rcf
> source $CERESHOME/inversion/CER4.5-6.4P2/rcf/ENVinversion_subset-env.csh
> $CERESHOME/inversion/CER4.5-6.4P2/rcf/pcfgen_4.5-6.4P2.csh YYYYMM

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.4P2/rcf/pcf/**:

CER4.5-6.4P2_PCFin_$SS4_5_$PS4_5_$CC4_10.YYYYMM
CER4.5-6.4P2_PCF_$SS4_5_$PS4_5_$CC4_10.YYYYMM

13.4.2 How to Execute the Main Processor

Execute the production script by typing the script name, **run_4.5-6.4P2.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."Data Date". The date parameter is formatted, YYYYMM, where YYYY is the data year, and MM is the data month, see Table 13-3.

At the command line (>) type:

> cd $CERESHOME/inversion/CER4.5-6.4P2/rcf
> $CERESHOME/inversion/CER4.5-6.4P2/rcf/run_4.5-6.4P2.csh
$SS4_5_$PS4_5_$CC4_10.YYYYMM

13.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

13.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.4P2.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

13.5 Execution Evaluation

13.5.1 Exit Codes

The processor CER4.5-6.4P2 terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in

Table 13-4. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person for assistance (see Table 13-1).

Table 13-4. Exit Codes for CER4.5-6.4P2

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

13.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.4P2.csh**, the system message, "No match," may be written to the screen. This message occurs when the scripts try to remove an old output file that does not exist. This does not signify a problem.

13.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain any error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.4P2_LogReport_$SS4_5_$PS4_5_$CC4_10.YYYYMM

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.4P2_LogStatus_$SS4_5_$PS4_5_$CC4_10.YYYYMM

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for "_F_", fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.4P2_LogUser_$SS4_5_$PS4_5_$CC4_10.YYYYMM

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log file and Status Log file.

13.5.4 Solutions to Possible Problems

As mentioned in Section 13.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.4P2.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

13.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

   There are no foreseeable Subsystem terminating conditions at this time. If one day fails, continue processing the next day.

b. Target PGE Termination - N/A

13.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 31 times, maximum, in a 31 day month.

Table 13-5. Expected Output File Listing for CER4.5-6.4P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB-valmm_$SS4_5_$PS4_5_$CC4_10.YYYYMM (.met) @($CERESHOME/inversion/data/out_comp/data)	m	1100	1/month	N/A	Archive, rm
CER_SSFA-valmm_$SS4_5_$PS4_5_$CC4_10.YYYYMM (.met) @($CERESHOME/inversion/data/out_comp/data)	m	135	1/month	N/A	Archive, rm
CER_GQCA-val_$SS4_5_$PS4_5_$CC4_10.YYYYMM(.met) @($CERESHOME/inversion/data/out_comp/QC)	m	.02	1/month	N/A	Archive, rm
CER4.5-6.4P2_PCF_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/CER4.5-6.4P2/rcf/pcf)	m	.01	1/month	N/A	rm
CER4.5-6.4P2_PCFin_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/CER4.5-6.4P2/rcf/pcf)	m	.005	1/month	N/A	rm
CER4.5-6.4P2_LogReport_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/runlogs)	m	.015	1/month	N/A	rm
CER4.5-6.4P2_LogStatus_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/runlogs)	m	.008	1/month	N/A	rm
CER4.5-6.4P2_LogUser_$SS4_5_$PS4_5_$CC4_10.YYYYMM @($CERESHOME/inversion/runlogs)	m	.001	1/month	N/A	rm
CER4.5-6.4P2_PCF_$SS4_5_$PS4_5_$CC4_10.YYYYMM.tar @($CERESHOME/inversion/runlogs))	m	.06	1/month	N/A	Archive, rm

a. See Section 13.2.2 for information on variable data values
If "**(.met)**" is written next to an expected Output Filename, then the metadata file **must** exist with the identical filename and .met extension.

b. rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
m - mandatory output
o - optional output
hr - hour

13.7 Expected Temporary Files/Directories

Table 13-6. Temporary Files Listing for CER4.5-6.4P2

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMM
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMM

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2-digit day {valid values: 01 .. 31}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_10

14.0 PGEName: CER4.5-6.6P2

Daily CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor for Terra

14.1 PGE Details

14.1.1 Responsible Persons

Table 14-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

14.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 14-1.

14.1.3 Parent PGE(s)

Table 14-2. Parent PGEs for CER4.5-6.6P2

PGEName	Description
CER4.5-6.1P2 or CER4.5-6.3P2 or CER4.5-6.6P2	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget for Terra
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)

14.1.4 Target PGE(s)

Table 14-3. Target PGEs after CER4.5-6.6P2

PGEName	Description
CER4.5-6.2P2	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

14.2 Operating Environment

14.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 14-4. Runtime Parameters for CER4.5-6.6P2

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31

14.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following parameters are required for this PGE:

SS2 - Sampling Strategy for ERBE-like, see Production Request
SS4_5 - Sampling Strategy for Inversion, see Production Request
SS4_6 - Sampling Strategy for CER4.5-6.6P2 Input, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
PS2_4 - Production Strategy for ERBE-like, see Production Request
PS4_5 - Production Strategy for Inversion Output, see Production Request
PS4_6 - Production Strategy for CER4.5-6.6P2 Input, see Production Request
PS12 - Production Strategy for RegridMOA, see Production Request
CC2_4 - Configuration Code for ERBE-like, see Production Request
CC4_5 - Configuration Code for CER4.5-6.6P2, see CM Database
CC4_6 - Configuration Code for CER4.5-6.6P2 Input, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

14.2.3 Execution Frequency (daily,hourly,..)

daily (1/day) - This PGE is to be processed once per data-day, a maximum total of 31 days per month, when input is available.

14.2.4 Memory/Disk Space/Time Requirements

Memory:	296092 K
Disk Space:	12,600 Megabytes
Total Run Time:	40 minutes

14.2.5 Restrictions Imposed in Processing Order

This PGE is only run upon special request.

14.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

14.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFB_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00 .. 23)

   1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD
   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.1P2 or CER4.5-6.3P2 or CER4.5-6.6P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Remove.

e. Typical file size (MB): **189.3**

14.3.2 Input Dataset Name (#2): SSFA

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00..23)
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH.met

   1. Mandatory/Optional: **This file is Mandatory for every data hour when the corresponding SSFB file exists.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.1P2 or CER4.5-6.3P2 or CER4.5-6.6P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

14.3.3 Input Dataset Name (#3): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/sarb/data/out_comp/data/regridmoa/

   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

   CER_MOA_$SS12_$PS12_$CC12.H1
   CER_MOA_$SS12_$PS12_$CC12.H1.met
   CER_MOA_$SS12_$PS12_$CC12.H2
   CER_MOA_$SS12_$PS12_$CC12.H2.met

   Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.**

1. Mandatory/Optional: **These files are Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

14.3.4 Input Dataset Name (#4): GQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/inversion/data/out_comp/QC/
CER_GQCI_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00..23)

1. Mandatory/Optional: **This file is Mandatory for every data hour when the corresponding SSFB file exists.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER4.5-6.1P2 or CER4.5-6.3P2 or CER4.5-6.6P2

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

14.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

14.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/erbelike/data/ancillary/dynamic/
   CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

   1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM
   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

14.4 Operating Procedures (Procedure for each part of the processor's elements)

The Alternate Main Processor and Postprocessor production script, **run_4.5-6.6P2.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.6P2.csh**.

14.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.6P2.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.6P2/rcf
> $CERESHOME/inversion/CER4.5-6.6P2/rcf/pcfgen_4.5-6.6P2.csh YYYYMMDD
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.6P2/rcf/pcf/**:

CER4.5-6.3P2_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD
CER4.5-6.3P2_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

14.4.2 How to Execute PGE CER4.5-6.6P2

Execute the production script by typing the script name, **run_4.5-6.6P2.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 14-4.

At the command line (>) type:

>cd $CERESHOME/inversion/CER4.5-6.6P2/rcf
>$CERESHOME/inversion/CER4.5-6.6P2/rcf/run_4.5-6.6P2.csh
$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

14.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

14.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.6P2.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

14.5 Execution Evaluation

14.5.1 Exit Codes

The processor **CER4.5-6.6P2** terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 14-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 14-1) for assistance.

Table 14-5. Exit Codes for CER4.5-6.6P2

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

14.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.6P2.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

14.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.6P2_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.6P2_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.6P2_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

14.5.4 Solutions to Possible Problems

As mentioned in Section 14.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.6P2.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

14.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

14.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 31 times, maximum, in a 31 day month.

Table 14-6. Expected Output File Listing for CER4.5-6.6P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	4543	24/day	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive

Table 14-6. Expected Output File Listing for CER4.5-6.6P2

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	624	24/day	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	m	1440	24/day	N/A	Archive, rm, meta
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	m	2.4	24/day	N/A	Archive, rm
CER4.5-6.6P2_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMM DD@($CERESHOME/inversion/CER4.5-6.6P2/rcf/pcf)	m	.06	1/day	N/A	Archive, rm
CER4.5-6.6P2_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMM DD@($CERESHOME/inversion/CER4.5-6.6P2/rcf/pcf)	m	.03	1/day	N/A	Archive, rm
CER4.5-6.6P2_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYY MMDD@($CERESHOME/inversion/runlogs)	m	.03	1/day	N/A	Archive, rm
CER4.5-6.6P2_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYY MMDD@($CERESHOME/inversion/runlogs)	m	.002	1/day	N/A	Archive, rm
CER4.5-6.6P2_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYY MMDD@($CERESHOME/inversion/runlogs)	m	.001	1/day	N/A	Archive, rm

a. See Section 14.2 for information on variable data values
If "(.met)" is written next to an expected Output Filename, then the metadata file must exist with the identical filename and .met extension.

b. VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

14.7 Expected Temporary Files/Directories

Table 14-7. Temporary Files Listing for CER4.5-6.6P2

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDD
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDD

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_5

15.0 PGEName: CER4.5-6.6P3

Daily CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget Subsystems 4.5 and 4.6 Alternate Main Processor and HDF Postprocessor for Aqua

15.1 PGE Details

15.1.1 Responsible Persons

Table 15-1. Subsystem Software Analysts Contacts

Item	Primary	Alternate
Contact Name	Victor Sothcott	
Organization	SSAI	
Address	1 Enterprise Parkway	
City	Hampton	
State	VA 23666	
Phone	951-1683	
Fax	951-1900	
LaRC email	victor.e.sothcott@nasa.gov	

15.1.2 E-mail Distribution List

E-mail distribution list can be obtained from the primary contact listed in Table 15-1.

15.1.3 Parent PGE(s)

Table 15-2. Parent PGEs for CER4.5-6.6P3

PGEName	Description
CER4.5-6.1P3 or CER4.5-6.3P3 or CER4.5-6.6P3	CERES Inversion to Instantaneous TOA Fluxes and Empirical Estimates of Surface Radiation Budget for Aqua
CER12.1P1	Regrid Humidity and Temperature Fields Processor (MOA Product)
CER2.4P1	CERES ERBE-like Spectral Response Functions and Correction Coefficients

15.1.4 Target PGE(s)

Table 15-3. Target PGEs after CER4.5-6.6P3

PGEName	Description
CER4.5-6.2P2	Postprocessor for SSF Subset Generation
CER5.1P1	Compute Surface and Atmospheric Radiative Fluxes
CER9.2P1	Grid TOA and Surface Fluxes

15.2 Operating Environment

15.2.1 Runtime Parameters (List all Dynamic Parameters needed at Runtime)

Table 15-4. Runtime Parameters for CER4.5-6.6P3

Parameter	Description	Data Type	Valid Values
YYYY	CERDataDateYear	I(4)	>1996
MM	CERDataDateMonth	I(2)	01 .. 12
DD	CERDataDateDay	I(2)	01 .. 31

15.2.2 Environment Script Requirements

Refer to the CERES internal paper (Reference 1) for a detailed description of the CERES environment parameters.

The following parameters are required for this PGE:

SS2 - Sampling Strategy for ERBE-like, see Production Request
SS4_5 - Sampling Strategy for Inversion, see Production Request
SS4_6 - Sampling Strategy for CER4.5-6.6P3 Input, see Production Request
SS12 - Sampling Strategy for RegridMOA, see Production Request
PS2_4 - Production Strategy for ERBE-like, see Production Request
PS4_5 - Production Strategy for Inversion Output, see Production Request
PS4_6 - Production Strategy for CER4.5-6.6P3 Input, see Production Request
PS12 - Production Strategy for RegridMOA, see Production Request
CC2_4 - Configuration Code for ERBE-like, see Production Request
CC4_5 - Configuration Code for CER4.5-6.6P3, see CM Database
CC4_6 - Configuration Code for CER4.5-6.6P3 Input, see CM Database
CC12 - Configuration Code for RegridMOA, see CM Database

15.2.3 Execution Frequency (daily,hourly,..)

daily (1/day) - This PGE is to be processed once per data-day, a maximum total of 31 days per month, when input is available.

15.2.4 Memory/Disk Space/Time Requirements

Memory:	296092 K
Disk Space:	12,600 Megabytes
Total Run Time:	40 minutes

15.2.5 Restrictions Imposed in Processing Order

This PGE is only run upon special request.

15.3 Processor Dependencies (Previous PGEs, Ingest Data,..)

15.3.1 Input Dataset Name (#1): SSFB

a. Directory Location/Inputs Expected (Including .met files, header files, etc.)

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFB_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00 .. 23)

   1. Mandatory/Optional: **These files are optional if they do not exist, but at least one hour must exist.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM,DD
   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.1P3 or CER4.5-6.3P3 or CER4.5-6.6P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Remove.

e. Typical file size (MB): **189.3**

15.3.2 Input Dataset Name (#2): SSFA

a. Directory Location/Inputs Expected (Including .met files, header files, etc.):

   $CERESHOME/inversion/data/out_comp/data/
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00..23)
   CER_SSFA_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH.met

   1. Mandatory/Optional: **This file is Mandatory for every data hour when the corresponding SSFB file exists.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source is PGE name or Ingest Source):

   Source PGE: CER4.5-6.1P3 or CER4.5-6.3P3 or CER4.5-6.6P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **26**

15.3.3 Input Dataset Name (#3): MOA

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/sarb/data/out_comp/data/regridmoa/

   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH
   CER_MOA_$SS12_$PS12_$CC12.YYYYMMDDHH.met

or

   CER_MOA_$SS12_$PS12_$CC12.H1
   CER_MOA_$SS12_$PS12_$CC12.H1.met
   CER_MOA_$SS12_$PS12_$CC12.H2
   CER_MOA_$SS12_$PS12_$CC12.H2.met

   Where **H1 and H2 are the ECMWF or DAS data dates (YYYYMMDDhh, where hh= 00, 06, 12, 18) that are closest to DataDate, YYYYMMDDHH. H1 must be 0-6 hours earlier than YYYMMDDHH and H2 must be 0-6 hours later than YYYYMMDDHH.**

1. Mandatory/Optional: **These files are Mandatory.**

2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD

3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER12.1P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution:

   Do not remove, will be needed for other PGE(s).

e. Typical file size (MB): **13.31**

15.3.4 Input Dataset Name (#4): GQCI

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/inversion/data/out_comp/QC/
CER_GQCI_$SS4_5_$PS4_6_$CC4_6.YYYYMMDDHH (HH = 00..23)

1. Mandatory/Optional: **This file is Mandatory for every data hour when the corresponding SSFB file exists.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM,DD,HH
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER4.5-6.1P3 or CER4.5-6.3P3 or CER4.5-6.6P3

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Remove.**

e. Typical file size (MB): **.10**

15.3.5 Input Dataset Name (#5): SCCD

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

$CERESHOME/erbelike/data/ancillary/dynamic/
CER_SCCD_$SS2_$PS2_4_$CC2_4.YYYYMM15

1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
2. Time Related Dependency:

   The DataDate must match the Runtime Parameters: YYYY,MM
3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.60**

15.3.6 Input Dataset Name (#6): SCCN

a. Directory Location/Inputs Expected (Including .met files, Header files, etc.)

   $CERESHOME/erbelike/data/ancillary/dynamic/
   CER_SCCN_$SS2_$PS2_4_$CC2_4.YYYYMM15

   1. Mandatory/Optional: **This file is Mandatory, unless $PS4_7 = 'DefaultSCC', and then the default Spectral Correction Coefficients in CERESlib will be used.**
   2. Time Related Dependency:

      The DataDate must match the Runtime Parameters: YYYY,MM
   3. Waiting Period: **None. Process when all input data are available.**

b. Source of Information (Source PGE name or Ingest Source):

   Source PGE: CER2.4P1

c. Alternate Data Set, if one exists (maximum waiting period): **N/A**

d. File Disposition after successful execution: **Do not remove.**

e. Typical file size (MB): **.02**

15.4 Operating Procedures (Procedure for each part of the processor's elements)

The Alternate Main Processor and Postprocessor production script, **run_4.5-6.6P3.csh**, references a Process Control File (PCF) which contains the correct file names and paths for the PGE. This PCF is created by executing the PCF generator, **pcfgen_4.5-6.6P3.csh**.

15.4.1 How to Generate the ASCII File and PCF File

The PCF generator, **pcfgen_4.5-6.6P3.csh**, creates the ASCII input file and the PCF file.

At the command line (>) type:

```
> cd $CERESHOME/inversion/CER4.5-6.6P3/rcf
> $CERESHOME/inversion/CER4.5-6.6P3/rcf/pcfgen_4.5-6.6P3.csh YYYYMMDD
```

The following files will be generated in **$CERESHOME/inversion/CER4.5-6.6P3/rcf/pcf/**:

CER4.5-6.3P2_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD
CER4.5-6.3P2_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

15.4.2 How to Execute PGE CER4.5-6.6P3

Execute the production script by typing the script name, **run_4.5-6.6P3.csh**, followed by a string which designates the instance of the product. The string should be formatted, "Sampling Strategy"_"Production Strategy"_"Configuration Code"."DataDate". The date parameter is formatted, YYYYMMDD, where YYYY is the data year, MM is the data month, and DD is the data day, see Table 15-4.

At the command line (>) type:

>cd $CERESHOME/inversion/CER4.5-6.6P3/rcf
>$CERESHOME/inversion/CER4.5-6.6P3/rcf/run_4.5-6.6P3.csh
$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

15.4.3 Special Case Considerations

N/A, at this time. Special case considerations will be handled on a case-by-case basis, where special instructions will accompany each special request.

15.4.4 Special Reprocessing Instructions

All output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.6P3.csh**, has been designed to check for these files and delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

15.5 Execution Evaluation

15.5.1 Exit Codes

The processor **CER4.5-6.6P3** terminates using the CERES-defined EXIT CODES for the Langley TRMM Information System (LaTIS) as seen in Table 15-5. Other Exit Codes may appear from the program, which may be the result of a system, compiler, or Toolkit related error. In these cases, contact the responsible person (see Table 15-1) for assistance.

Table 15-5. Exit Codes for CER4.5-6.6P3

Exit Code	Definition	Action
0	Normal Exit	Proceed normally
202	Failure	Check the Log Files and take the appropriate action (see Appendix B).

15.5.2 Screen Messages (Use Table format for large number of messages)

When running the production script, **run_4.5-6.6P3.csh**, the system message, "No match," may be written to the screen. This message occurs when the script tries to remove an old output file that does not exist. This does not signify a problem.

15.5.3 Log and Status Files Results (Include ALL Log Files)

The Log files contain all error and/or status messages produced by the PGE. The files are located in directory: **$CERESHOME/inversion/runlogs**.

1. Report Log File: CER4.5-6.6P3_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

The Report Log File contains the Inversion related messages. These messages may be strictly informative (Error Type = Status or Warning) or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). A comprehensive list of these messages, that can be generated during the execution of the PGE, is contained in Appendix B.

2. Status Log File: CER4.5-6.6P3_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

The Status Log File contains all messages created by the Toolkit. If an abnormal exit is encountered by the PGE, this file should be examined for '_F_', fatal message type. The responsible person should be advised.

3. User Log File: CER4.5-6.6P3_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD

The User Log File is not used at this time, but exists to satisfy the Toolkit requirements. Typically the _U_ and _N_ (User information and Notice) will be written to User Log File and Status Log File.

15.5.4 Solutions to Possible Problems

As mentioned in Section 15.4.4, all output files are opened with Status = NEW in Subsystem 4.5 and 4.6 software. The PGE script, **run_4.5-6.6P3.csh**, has been designed to check for these files and to delete them prior to execution, but in the case of a change in the file permission status, the ASDC must take appropriate action. These files must be removed before reprocessing.

15.5.5 Conditions for Subsystem and/or Target PGE(s) Terminal Failure (Halt all further processing)

a. Subsystem Termination

There are no foreseeable Subsystem terminating conditions at this time. If one hour fails, continue processing the next hour.

b. Target PGE Termination

If any of the **.met** files are missing from the expected output, this condition must terminate all further Target PGE processing.

15.6 Expected Output Dataset(s)

The expected Output Datasets are listed below for each instance of the PGE. This PGE is expected to process 31 times, maximum, in a 31 day month.

Table 15-6. Expected Output File Listing for CER4.5-6.6P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER_SSFB_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	M	4543	24/day	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSFA_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	M	624	24/day	CER4.5-6.2P2 CER5.1P1 CER9.2P1	Archive
CER_SSF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/data)	M	1440	24/day	N/A	Archive, rm, meta
CER_GQCI_$SS4_5_$PS4_5_$CC4_5.YYYYMMDDHH (.met) @($CERESHOME/inversion/data/out_comp/QC)	M	2.4	24/day	N/A	Archive, rm

Table 15-6. Expected Output File Listing for CER4.5-6.6P3

File Name[a]/Directory	m/o	File Size (MB)	Freq/ PGE	Target PGE	Destination[b]
CER4.5-6.6P3_PCF_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD@($CERESHOME/inversion/CER4.5-6.6P3/rcf/pcf)	M	.06	1/day	N/A	Archive, rm
CER4.5-6.6P3_PCFin_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD@($CERESHOME/inversion/CER4.5-6.6P3/rcf/pcf)	M	.03	1/day	N/A	Archive, rm
CER4.5-6.6P3_LogReport_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD@($CERESHOME/inversion/runlogs)	M	.03	1/day	N/A	Archive, rm
CER4.5-6.6P3_LogStatus_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD@($CERESHOME/inversion/runlogs)	M	.002	1/day	N/A	Archive, rm
CER4.5-6.6P3_LogUser_$SS4_5_$PS4_5_$CC4_5.YYYYMMDD@($CERESHOME/inversion/runlogs)	M	.001	1/day	N/A	Archive, rm

a. See Section 15.2 for information on variable data values
If "(.met)" is written next to an expected Output Filename, then the metadata file must exist with the identical filename and .met extension.

b. VD - Validation Days in 1998 (Jan./5, 12, 19, 26/, Apr./6, 13, 20, 27/, July/6, 13, 20, 27/, Oct./5, 12, 19, 26/)
rm - remove
YYYY - 4 digit year
MM - 2 digit month {valid values: 01 .. 12}
DD - 2 digit day {valid values: 01 .. 31
HH - 2 digit hour of the day {valid values: 00 .. 23}
m - mandatory output
o - optional output
hr - hour

15.7 Expected Temporary Files/Directories

Table 15-7. Temporary Files Listing for CER4.5-6.6P3

Directory	File Name[a]
$CERESHOME/inversion/data/scr	MCFWrite.temp.SS_PS_CC.YYYYMMDD
$CERESHOME/inversion/data/scr	GetAttr.temp.SS_PS_CC.YYYYMMDD

a. YYYY - 4-digit year
MM - 2-digit month {valid values: 01 .. 12}
DD - 2- digit day {valid values: 01 .. 31}
HH - 2-digit hour of the day {valid values: 00 .. 23}
SS - Sampling Strategy, $SS4_5
PS - Production Strategy, $PS4_5
CC - Configuration Code, $CC4_5

References

1. Reference "Proposal for Semi-Automated Sampling Strategy, Production Strategy, and Configuration Code Implementation" internal paper for detail description of the CERES environment parameters. URL: http://science.larc.nasa.gov/ceres/intern_doc/

Appendix A
Acronyms and Abbreviations

ASDC	Atmospheric Sciences Data Center
CERES	Clouds and the Earth's Radiant Energy System
CM	Configuration Management
DAAC	Distributed Active Archive Center
ECMWF	European Centre for Medium Range Weather Forecasting
EOS	Earth Observing System
EOS-AM	EOS Morning Crossing Mission
EOS-PM	EOS Afternoon Crossing Mission
ERBE	Earth Radiation Budget Experiment
ERBS	Earth Radiation Budget Satellite
HDF	Hierarchical Data Format
K	Kilobytes
LaRC	Langley Research Center
LaTIS	Langley TRMM Information System
LW	Longwave
MB	Megabytes
met	metadata file
μm	microns
MOA	Meteorological, Ozone, and Aerosol
N/A	Not Applicable
NASA	National Aeronautics and Space Administration
NOAA	National Oceanic and Atmospheric Administration
PCF	Process Control File
PGE	Product Generation Executives
PSF	Point Spread Function
PRE_SSF	Preliminary Single Satellite CERES Footprint TOA and Surface Fluxes
QC	Quality Control
SSF	Single Scanner Footprint TOA/Surface Fluxes and Clouds
SW	Shortwave
TOA	Top-of-Atmosphere
TRMM	Tropical Rainfall Measuring Mission
VD	Validation Days

Appendix B
Error Messages for Subsystem 4.5-6

Appendix B contains a list of messages that can be generated during the execution of PGEs CER4.5-6.1P1, CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.2P1, CER4.5-6.2P2, CER4.5-6.2P3, CER4.5-6.3P1, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.4P1, CER4.5-6.4P2, CER4.5-6.6P2, and CER4.5-6.6P3. These messages are used to inform the operator or analyst of specific circumstances encountered during data processing. These messages may be strictly informative (Error Type = Status or Warning), or may indicate a fatal condition that results in premature PGE termination (Error Type = Fatal). All messages are written to the LogReport file of the processing instance.

Section B.1 contains a list of the diagnostic messages for PGE CER4.5-6.1P1, CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.3P1, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, and CER4.5-6.6P3. Each table entry includes a message number, the message content, the source module, the error type and the recommended action that should be taken when the message is encountered. Messages with message numbers between 100 and 199 are generated by the Main Processor. Messages with numbers between 200 and 299 are generated by the HDF conversion software. Messages with numbers between 300 and 399 are generated by the Subsetting Postprocessor. Section B.2 contains a list of the diagnostic messages for PGEs CER4.5-6.2P1, CER4.5-6.2P2 and CER4.5-6.2P3. Messages with numbers between 400 and 499 are generated by the monthly validation Postprocessor. Section B.3 contains a list of the diagnostic messages for PGEs CER4.5-6.4P1 and CER4.5-6.4P2.

Operator Instructions:

If a PGE prematurely terminates, then take the following steps:

1. Look at the last few records on the LogStatus file.
2. Find the error message in the following Error Message listing and follow the appropriate ACTION.
3. If an error message is not in the LogStatus File, then repeat steps 1 and 2 using the LogReport File.
4. If no information is derived, then call the responsible person in Table 1-1.
5. If the appropriate ACTION failed, then call the responsible person in Table 1-1.
6. In all cases, log all steps that were taken after the PGE failure, and send a copy to the responsible person listed in Table 1-1.

B.1 Error Messages for CER4.5-6.1P1, CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.3P1, CER4.5-6.3P2, CER4.5-6.3P3 and CER4.5-6.6P2

Table B-1. PGEs CER4.5-6.1P1, CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.3P1, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, and CER4.5-6.6P3 Error Messages

Message	Module Name	Error Type	Action
100: ERROR opening PRE_SSF file.	start_mod	Fatal	Check PCF file for request name and location of SSFI file. Verify file exists in that location.
101: PRE-SSF QA Flag set to QA_FAIL.	start_mod	Fatal	This hour should not be run while SSFI QA flag is set to FAIL.
102: ERROR in PRE_SSF header.	start_mod	Fatal	Verify MOA file is valid
103: ERROR opening PRE_SSF QC file.	start_mod	Fatal	Check PCF file for request name and location of FQCI file. Verify file exists in that location.
104: ERROR reading in PRE_SSF QC record.	start_mod	Fatal	Verify FQCI file is valid.
105: ERROR in EARTH-SUN DISTANCE.	start_mod	Fatal	Verify SSFI file is valid.
106: ERROR opening SSF file.	start_mod	Fatal	Check PCF file for request name and location of SSFB file. Verify old file with the same name does not exist.
107: Unable to determine CERES instrument.	start_mod	Warning	None
108: MOA file open.	start_mod	Status	None
109: Unable to determine data month from SSF header.	start_mod	Warning	None
110: Unable to obtain Spcor model number from PCfile.	start_mod	Fatal	Check PCF file.
111: Unable to obtain Surface algorithm flag from PCfile.	start_mod	Fatal	Check PCF file.
112: ERROR opening MOA file.	access_anc	Fatal	Check PCF file for request name and location of MOA file. Verify file exists in that location.
113: ERROR READING MOA.	access_anc	Fatal	Verify MOA file is valid.
114: MOA production date, YYYYMMDDHH not equal to MOA date on interim SSF - YYYYMMDDHH.	access_anc	Warning	None: QA flag of SSFB will be marked SUSPECT.
115: ERROR in reading TOOLKIT file earthfigure.dat.	access_anc	Fatal	Verify Toolkit file, earthfigure.dat, exists.
116: Reported surface area for FOV XX is YY percent (YY. > 100%).	scene_id_mod	Warning	None
117: Reported surface area for FOV XX is 0 percent.	scene_id_mod	Warning	None
118: ERROR opening SCCOEF file.	spcor_mod	Fatal	Check PCF file for request name and location of SCC file. Verify file exists in that location.
119: ERROR reading SCCOEF file.	spcor_mod	Fatal	Verify IISC** file is valid.
120: Invalid Spectral Correction Algorithm Selected.	spcor_mod	Fatal	Check PCF file for valid Spectral Correction model number.
121: ERROR reading from PRE-SSF file.	process_fov_mod	Fatal	Verify SSFI file is valid.
122: ERROR writing to SSF file.	process_fov_mod	Fatal	Check for system problem.
123: END of FILE read on PRE-SSF file.	process_fov_mod	Status	None

Table B-1. PGEs CER4.5-6.1P1, CER4.5-6.1P2, CER4.5-6.1P3, CER4.5-6.1P4, CER4.5-6.1P5, CER4.5-6.3P1, CER4.5-6.3P2, CER4.5-6.3P3, CER4.5-6.6P2, and CER4.5-6.6P3 Error Messages

Message	Module Name	Error Type	Action
124: NUMBER OF FOOTPRINTS READ, XX, NOT EQUAL TO NUMBER OF SSF FOOTPRINTS REPORTED ON INPUT SSF HEADER, YY.	final_mod	Warning	None: QA flag of SSFB will be marked SUSPECT.
125: ERROR closing SSF file - no metadata written.	final_mod	Fatal	Check for system problem.
126: ERROR writing the SSF QC record.	final_mod	Fatal	Check for system problem.
127: ERROR closing SSF Bin QC file - no metadata written.	final_mod	Fatal	Check for system problem.
128: ERROR closing SSF ASCII QC file - no metadata written.	final_mod	Fatal	Check for system problem.
129: Unable to obtain CERHRofDay from PCfile.	start_mod	Fatal	Check PCF file.
200: SSF QA Flag set to QA_FAIL. HDF file will not be created.	ssf2hdf	Fatal	This hour should not be run while SSFB QA flag is set to FAIL.
201: Subroutine XXX could not open SSF YYY file (where XXX = ssf_tk_open or ssfa_tk_open and YYY = 'binary' or 'aerosol').	ssf2hdf	Fatal	Check PCF file for request name and location of SSFB or SSFA file. Verify file exists in that location.
202: Could not close SSF XXX file (where XXX = 'binary' or 'aerosol').	ssf2hdf	Fatal	Check for system problem.
203: Could not open HDF file, XXX.	ssf2hdf	Fatal	Check PCF file for request name and location of SSF file.
204: Error initializing HDF file, XXX.	ssf2hdf	Fatal	Check for system problem.
205: Unable to write SSF_header Vdata to HDF file, XXX.	ssf2hdf	Fatal	Check for system problem.
206: Could not close HDF file, XXX.	ssf2hdf_params	Fatal	Check for system problem.
207: Invalid SDS number.	ssf2hdf_params	Fatal	Contact Analyst
208: Unable to write SDS : ZZZ for record NNN.	ssf2hdf_params	Fatal	Check for system problem.
209: Error getting reference number for SDS number NNN.	ssf2hdf_params	Fatal	Check for system problem.
210: SDS NNN was not created : ZZZ.	ssf2hdf_params	Fatal	Check for system problem.
211: Error in naming dimension MMM on SDS number NNN.	ssf2hdf_params	Fatal	Check for system problem.
212: Error compressing SDS ZZZ.	ssf2hdf_params	Fatal	Check for system problem.
213: Unable to obtain value of runtime parameter, XXX,, from PCfile (where XXX = 'WrFlux' or 'Aerosol_flag').	ssf2hdf	Fatal	Check PCF file.
214: Binary SSF header does not match SSFA header.	ssf2hdf	Fatal	Check PCF file.

B.2 Error Messages for CER4.5-6.2P1, CER4.5-6.2P2 and CER4.5-6.2P3

Table B-2. PGEs CER4.5-6.2P1, CER4.5-6.2P2 and PGE CER4.5-6.2P3 Error Messages

Message	Module Name	Error Type	Action
301: ERROR opening subsetted SSF nighttime file.	subset_ssf	Fatal	Check PCF file for request name and location of SSFS-NIT file. Verify file exists in that location.
302: ERROR opening subsetted SSF nighttime file.	subset_ssf	Fatal	Check PCF file for request name and location of SSFS-DAY file. Verify file exists in that location.
303: ERROR closing Binary SSF file.	subset_ssf	Fatal	Check for system problem.
304: ERROR opening Binary SSF file.	subset_ssf	Fatal	Check PCF file for request name and location of FQCI file. Verify file exists in that location.
305: ERROR closing Subsetted SSF nighttime file.	subset_ssf	Fatal	Check for system problem.
306: ERROR closing Subsetted SSF daytime file.	subset_ssf	Fatal	Check for system problem.
307: ERROR reading from Binary file.	process_fov_mod	Fatal	Verify SSFB file is valid.
308: ERROR writing to Subsetted SSF file.	process_fov_mod	Fatal	Check for system problem.
309: END of FILE read on Binary file.	process_fov_mod	Status	None
310: ERROR in FOV date.	process_fov_mod	Fatal	Verify SSFB file is valid.
311: ERROR reading from Binary file.	sort_ssf_mod	Fatal	Verify SSFB file is valid.
312: ERROR - illegal record number. WRITE IGNORED.	ssf2_write_mod	Warning	None
313: IO STATUS = xxxxxx ERROR WRITING SSFS RECORD xxxxxx.	ssf2_write_mod	Warning	None
314: COULD NOT READ SSF SUBSET HEADER FOR FILE: xxxxxx.	ssf2_typdef	Fatal	Verify SSFS file is valid.
315:EXPECTED SSFS ID = xxxxxx READ PRODUCT ID= xxxxxx ASSUME INCORRECT INPUT FILE.	ssf2_typdef	Fatal	Verify SSFS file is valid.
316: EXPECTED TO READ HEADER RECORD FOR FILE: xxxxx , BUT NO FORMAL PARAMETER FOR IT PASSED IN.	ssf2_typdef	Fatal	Verify SSFS file is valid.
317: COULD NOT OPEN FILE: xxxxx , IO STATUS ERROR = .	ssf2_typdef	Fatal	Verify SSFS file is valid.
318: UNABLE TO WRITE HEADER TO SSFS.	ssf2_typdef	Fatal	Verify SSFS file is valid.
319: RECORD = xxxxxx IS ILLEGAL. READ IGNORED.	ssf2_typdef	Warning	None
320: Error in User Defined Runtime Parameter flag setting combination.	subset_ssf	Fatal	Check PCF file for User Defined Runtime Parameter flag settings. Verify DayNight is set if Aerosol is set, Validation is set if Validation Aerosol is set, and that at least one flag is set.
321: ERROR occurred opening SCool Regions file, Unit= xxxxx	validation_scool_subset_mod	Fatal	Check PCF file for request name and location of ESCF_SCOOLRegions file. Verify file exists in that location.

Table B-2. PGEs CER4.5-6.2P1, CER4.5-6.2P2 and PGE CER4.5-6.2P3 Error Messages

Message	Module Name	Error Type	Action
322: ERROR occurred reading SCoolegions file, Unit= xxxxx	validation_scool_ subset_mod	Fatal	Check for system problem.
323: ERROR occurred closing Cool Regions file, Unit= xxxxx	validation_scool_ subset_mod	Fatal	Check for system problem.
324: ERROR opening subsetted SSF SCOOL nite file	daynight_subset_ mod	Fatal	Check PCF file for request name and location of SSFS-scool-NIT file. Verify file exists in that location.
325: ERROR opening subsetted SSF SCOOL day file	daynight_subset_ mod	Fatal	Check PCF file for request name and location of SSFS-scool-DAY Regions file. Verify file exists in that location.
326: ERROR closing nighttime Subsetted SSF SCOOL file	daynight_subset_ mod	Fatal	Check for system problem.
327: ERROR closing daytime subsetted SSF SCOOL file	daynight_subset_ mod	Fatal	Check for system problem.
328: ERROR writing to subsetted SSF SCOOL file	daynight_subset_ mod	Fatal	Check for system problem.

B.3 Error Messages for CER4.5-6.4P1 and CER4.5-6.4P2

Table B-3. PGEs CER4.5-6.4P1 and CER4.5-6.4P2 Error Messages

Message	Module Name	Error Type	Action
401: Unable to obtain value of runtime parameter, XXX,, from PCfile (where XXX = 'WrFlux' or 'Aerosol_flag').	ssf_monthly_val	Fatal	Check PCF file.
402: Both PCF production flags turned off.	ssf_monthly_val	Fatal	Check PCF file. Turn on production of at least one product.
403: ERROR opening SSF monthly validation output file.	ssf_monthly_val	Fatal	Check PCF file for request name and location of SSFB file. Verify old file with the same name does not exist.
404: ERROR opening monthly aerosol validation output file.	ssf_monthly_val	Fatal	Check PCF file for request name and location of SSFB file. Verify old file with the same name does not exist.
405: ERROR opening daily SSF input file.	ssf_monthly_val	Fatal	Check PCF file for request name and location of SSFB-val file. Verify file exists in that location.
406: ERROR opening daily SSF aerosol input file.	ssf_monthly_val	Fatal	Check PCF file for request name and location of SSFA-val file. Verify file exists in that location.
407: END of FILE read on daily SSF validation input file.	ssf_monthly_val	Fatal	Check for system problem.
408: ERROR reading from daily SSF validation input file.	ssf_monthly_val	Fatal	Verify SSFB-val file is valid.
409: END of FILE read on validation aerosol input file.	ssf_monthly_val	Fatal	None
410: ERROR reading from validation aerosol input file.	ssf_monthly_val	Fatal	Verify SSFA-val file is valid.
411: ERROR writing SSF monthly validation file.	ssf_monthly_val	Fatal	Check for system problem.
412: ERROR writing monthly aerosol validation file.	ssf_monthly_val	Fatal	Check for system problem.
413: ERROR closing daily SSF validation file.	ssf_monthly_val	Status	Check for system problem.
414: ERROR closing daily SSF validation file.	ssf_monthly_val	Status	Check for system problem.
415: ERROR opening a daily SSF validation file.	ssf_monthly_val	Status	None
416: ERROR closing monthly SSF validation file.	ssf_monthly_val	Status	Check for system problem.
417: ERROR closing monthly SSF validation aerosol file.	ssf_monthly_val	Status	Check for system problem.
418: ERROR closing SSF ASCII station data file - no metadata written.	ssf_monthly_val	Status	Check for system problem.

Appendix C
Sample ASCII (PCFin) File Listings for Subsystem 4.5-6

C.1 Sample ASCII (PCFin) File Listing for CER4.5-6.1P1

Sample Filename: CER4.5-6.1P1_PCFin_TRMM-PFM-VIRS_SSIT_000000.1998010110

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.1P1
SamplingStrategy     = TRMM-PFM-VIRS
ProductionStrategy   = SSIT
CERDataDateYear      = 1998
CERDataDateMonth     = 01
CERDataDateDay       = 01
CERHrOfMonth         = 11
CERHrOfDay           = 10
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = TRMM
Inst_name            = PFM
Imag_name            = VIRS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument = TRMM/PFM
Ancillary_Data_Set   = VIRS12b_CLR
SP_MODEL_NUM         = 1
RUN_SURF_ALG         = 1
RUN_WrFlux           = 2

##################################
# PCF required directories
##################################
SS4.5_InputDir.1     = /home/nolan/clouds/data/out_comp/data/SSF_Int
SS4.5_InputDir.2     = /home/nolan/clouds/data/out_comp/QA_Reports
SS4.5_InputDir.3     = /home/nolan/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4     = /home/nolan/inversion/data/ancillary/static
SS4.5_InputDir.5     = /home/nolan/shared_data
SS4.5_InputDir.6     = /home/nolan/inversion/data/out_comp/data
SS4.5_OutputDir.1    = /home/nolan/inversion/data/out_comp/data
SS4.5_OutputDir.2    = /home/nolan/inversion/data/out_comp/QC
```

```
SS4.5_LogsDir       = /home/nolan/inversion/data/runlogs
SS4.5_MCFDir        = /home/nolan/inversion/rcf
SS4.5_TempDir       = /home/nolan/inversion/data/scr

#####################################
# Input file names
#####################################
SS4.5_Inputfile.1     = CER_SSFI_TRMM-PFM-VIRS_SSIT_000000.1998010110
SS4.5_Inputfile.2     = CER_FQCI_TRMM-PFM-VIRS_SSIT_000000.1998010110
SS4.5_Inputfile.3_1  = CER_MOA_CERES_ECMWF-GEOS2_010012.1998010110
SS4.5_Inputfile.3_2  = CER_MOA_CERES_ECMWF-GEOS2_010012.1998010106
SS4.5_Inputfile.3_3  = CER_MOA_CERES_ECMWF-GEOS2_010012.1998010112
SS4.5_Inputfile.4_1  = IISCOLD.19990525
SS4.5_Inputfile.4_2  = ceres_SI_PFM_day.20000217
SS4.5_Inputfile.4_3  = ceres_SI_PFM_night.20000217
SS4.5_Inputfile.5_1  = CADM_SW_CLR_20000413
SS4.5_Inputfile.5_2  = CADM_LW_CLR_20000413
SS4.5_Inputfile.5_3  = CADM_WN_CLR_20000418
SS4.5_Inputfile.6     = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.1998010110

#####################################
# Output file names
#####################################
SS4.5_Outputfile.1              = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.1998010110
SS4.5_Outputfile.2               = CER_GQCA_TRMM-PFM-VIRS_SSIT_000000.1998010110
SS4.5_Outputfile.3               = CER_GQCI_TRMM-PFM-VIRS_SSIT_000000.1998010110
SS4.5_Outputfile.4              = CER_SSF_TRMM-PFM-VIRS_SSIT_000000.1998010110

#################################
# Log file names
#################################
SS4.5_Logsfile.1 = CER4.5-6.1P1_LogStatus_TRMM-PFM-VIRS_SSIT_000000.1998010110
SS4.5_Logsfile.2 = CER4.5-6.1P1_LogReport_TRMM-PFM-VIRS_SSIT_000000.1998010110
SS4.5_Logsfile.3 = CER4.5-6.1P1_LogUser_TRMM-PFM-VIRS_SSIT_000000.1998010110

#################################
# Temporary file names
#################################
Get_tempfile   =  GetAttr.temp.TRMM-PFM-VIRS_SSIT_000000.1998010110
MCF_tempfile=  MCFWrite.temp.TRMM-PFM-VIRS_SSIT_000000.1998010110
```

C.2 Sample ASCII (PCFin) File Listing for CER4.5-6.1P2

Sample Filename: CER4.5-6.1P2_PCFin_Terra-FM1-MODIS_SSIT_000000.2001041001

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.1P2
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2001
CERDataDateMonth     = 04
CERDataDateDay       = 10
CERHrOfMonth         = 218
CERHrOfDay           = 01
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument   = Terra/FM1
Ancillary_Data_Set     = TRMMEd2B
SP_MODEL_NUM           = 1
RUN_SURF_ALG           = 1
RUN_WrFlux             = 3
RUN_Aerosol_flag       = yes

##################################
# PCF required directories
##################################
SS4.5_InputDir.1    = /CERES/clouds/data/out_comp/data/SSF_Int
SS4.5_InputDir.2    = /CERES/clouds/data/out_comp/QA_Reports
SS4.5_InputDir.3    = /CERES/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4    = /CERES/inversion/ancillary
SS4.5_InputDir.5    = /CERES/inversion/shared_data
SS4.5_InputDir.6    = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.1   = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2   = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir       = /CERES/inversion/runlogs
```

```
SS4.5_MCFDir       = /CERES/inversion/rcf
SS4.5_PCFDir       = /CERES/inversion/CER4.5-6.1P2/rcf/pcf
SS4.5_TempDir      = /CERES/inversion/data/scr

####################################
# Input file names
####################################
SS4.5_Inputfile.1_1 = CER_SSFI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.1_2 = CER_SSFAI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.2     = CER_FQCI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.3_1 = CER_MOA_CERES_ECMWF-GEOS3_015019.2001041001
SS4.5_Inputfile.3_2 = CER_MOA_CERES_ECMWF-GEOS3_015019.2001041000
SS4.5_Inputfile.3_3 = CER_MOA_CERES_ECMWF-GEOS3_015019.2001041006
SS4.5_Inputfile.4_1 = IISCOLD.19990525
SS4.5_Inputfile.4_2 = ceres_SI_FM1_day.20000804
SS4.5_Inputfile.4_3 = ceres_SI_FM1_night.20000804
SS4.5_Inputfile.5_4 = IGBP_mod_all2b.20020315
SS4.5_Inputfile.5_5 = clear_snow_radiance2b.20020416
SS4.5_Inputfile.5_6 = adm_groups2b.20020315
SS4.5_Inputfile.5_7 = adm_land_cld2b.20020315
SS4.5_Inputfile.5_8 = adm_ocecld2b.20020315
SS4.5_Inputfile.5_9 = admws2b.20020315
SS4.5_Inputfile.5_10 = albmn_groups2b.20020315
SS4.5_Inputfile.5_11 = albmn_land_cld2b.20020315
SS4.5_Inputfile.5_12 = albmn_ocecld2b.20020315
SS4.5_Inputfile.5_13 = albmnws_th2b.20020315
SS4.5_Inputfile.5_14 = bbalbbrdf_aer_atm_allws2b.20020315
SS4.5_Inputfile.5_15 = cloudy_snow_radiance2b.20020416
SS4.5_Inputfile.5_16 = clr_oce_key2b.20020315
SS4.5_Inputfile.5_17 = lwwndy_bcflnd_admed2b.20020315
SS4.5_Inputfile.5_18 = lwwndy_bcfocn_admed2b.20020315
SS4.5_Inputfile.5_19 = lwwndy_cskydes_admed2b.20020315
SS4.5_Inputfile.5_20 = lwwndy_cskylnd_admed2b.20020315
SS4.5_Inputfile.5_21 = lwwndy_cskyocn_admed2b.20020315
SS4.5_Inputfile.5_22 = lwwndy_ovc_admed2b.20020315
SS4.5_Inputfile.5_23 = SS5_GFDLAerClim_200006
SS4.5_Inputfile.5_24 = gfdl_aerj.20020322
SS4.5_Inputfile.5_25 = gfdl_aerk.20020322
SS4.5_Inputfile.5_26 = gfdl_taod.20020322
SS4.5_Inputfile.5_30 = lwwnnt_bcflnd_admed2b.20020315
SS4.5_Inputfile.5_31 = lwwnnt_bcfocn_admed2b.20020315
SS4.5_Inputfile.5_32 = lwwnnt_cskydes_admed2b.20020315
SS4.5_Inputfile.5_33 = lwwnnt_cskylnd_admed2b.20020315
SS4.5_Inputfile.5_34 = lwwnnt_cskyocn_admed2b.20020315
SS4.5_Inputfile.5_35 = lwwnnt_ovc_admed2b.20020315
SS4.5_Inputfile.5_36 = lwwndy_bcfdes_admed2b.20020315
```

```
SS4.5_Inputfile.5_37 = lwwnnt_bcfdes_admed2b.20020315
SS4.5_Inputfile.5_28 = ws_pctil2b.20020315
SS4.5_Inputfile.5_29 = erbetoa_csalb_clim.20010419

SS4.5_Inputfile.6 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.7 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2001041001

####################################
# Output file names
####################################
SS4.5_Outputfile.1 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.2 = CER_GQCA_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.3 = CER_GQCI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.4 = CER_SSF_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.5 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2001041001

###################################
# Log file names
###################################
SS4.5_Logsfile.1 = CER4.5-6.1P2_LogStatus_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Logsfile.2 = CER4.5-6.1P2_LogReport_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Logsfile.3 = CER4.5-6.1P2_LogUser_Terra-FM1-MODIS_SSIT_000000.2001041001

##################################
# Temporary file names
##################################
Get_tempfile   =  GetAttr.temp.Terra-FM1-MODIS_SSIT_000000.2001041001
MCF_tempfile =  MCFWrite.temp.Terra-FM1-MODIS_SSIT_000000.2001041001
```

C.3 Sample ASCII (PCFin) File Listing for CER4.5-6.1P3

Sample Filename: CER4.5-6.1P3_PCFin_Aqua-FM3-MODIS_SSIT_000000.2001041001

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.1P3
SamplingStrategy     = Aqua-FM3-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2002
CERDataDateMonth     = 08
CERDataDateDay       = 07
CERHrOfMonth         = 145
CERHrOfDay           = 00
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Aqua
Inst_name            = FM3
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument = Aqua/FM3
Ancillary_Data_Set   = AquaEd2
SP_MODEL_NUM         = 1
RUN_SURF_ALG         = 1
RUN_WrFlux           = 3
RUN_Aerosol_flag     = yes

#################################
# PCF required directories
#################################
SS4.5_InputDir.1  = /CERES/clouds/data/out_comp/data/SSF_Int
SS4.5_InputDir.2  = /CERES/clouds/data/out_comp/QA_Reports
SS4.5_InputDir.3  = /CERES/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4  = /CERES/inversion/ancillary
SS4.5_InputDir.5  = /CERES/shared_data
SS4.5_InputDir.6  = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.7  = /CERES/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1 = /CERES/inversion/data/out_comp/data
```

```
SS4.5_OutputDir.2 = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir     = /CERES/inversion/runlogs
SS4.5_MCFDir      = /CERES/inversion/rcf
SS4.5_PCFDir= /CERES/inversion/CER4.5-6.1P3/rcf/pcf
SS4.5_TempDir     = /CERES/inversion/data/scr

####################################
# Input file names
####################################
SS4.5_Inputfile.1_1 = CER_SSFI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.1_2 = CER_SSFAI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.2   = CER_FQCI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.3_1 = CER_MOA_CERES_DAO-GEOS4_016023.2002080700
SS4.5_Inputfile.3_2 = CER_MOA_CERES_DAO-GEOS4_016023.2002080700
SS4.5_Inputfile.3_3 = CER_MOA_CERES_DAO-GEOS4_016023.2002080700
SS4.5_Inputfile.4_01 = IISCOLD.19990525
SS4.5_Inputfile.4_02 = CER_SCCD_Aqua-FM3_Edition2_026023.20020815
SS4.5_Inputfile.4_03 = CER_SCCN_Aqua-FM3_Edition2_026023.20020815
SS4.5_Inputfile.5_01 = fits_08.dat.20050830
SS4.5_Inputfile.5_02 = ann-sw-aqua-ed2-all.par.20050830
SS4.5_Inputfile.5_03 = ann-sw-aqua-ed2-all.offset.20050830
SS4.5_Inputfile.5_04 = match_taod_550.20050815
SS4.5_Inputfile.5_05 = match_aerj.20050815
SS4.5_Inputfile.5_06 = match_aerk.20050815
SS4.5_Inputfile.5_07 = match_taod.20050815
SS4.5_Inputfile.5_08 = terra_csalb.20050815
SS4.5_Inputfile.5_09 = ann-lw-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_10 = ann-lw-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_11 = ann-wn-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_12 = ann-wn-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20050830
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20050830
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20050830
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20050830
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20050830
SS4.5_Inputfile.5_18 = fuliou.dat.20050830
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20050830
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20050830
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20050830
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20050830
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20050830
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20050830
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20050830
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20050830
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20050830
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20050830
```

SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20050830
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20050830
SS4.5_Inputfile.5_31 = oceclr_adm_trmmaqua.dat_nak.20050830
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20050830
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20050830
SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20050830
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20050830
SS4.5_Inputfile.5_36 = seaice_adm.dat.20050830
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20050830
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_62 = admcsky_aqua_lwwndy_ed1b.dat.20050830
SS4.5_Inputfile.5_63 = admcsky_aqua_lwwnnt_ed1b.dat.20050830
SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20050830
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20051104
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20050830
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20051104
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20050830

```
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20050830
SS4.5_Inputfile.5_76 = microwave_snow_gaps.map.20050830
SS4.5_Inputfile.5_77 = ann-lw-aqua-ed2-all-nt.par.20050830
SS4.5_Inputfile.5_78 = ann-lw-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_79 = ann-wn-aqua-ed2-all-nt.par.20050830
SS4.5_Inputfile.5_80 = ann-wn-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_81 = lndcld_di_flx.dat.20050830
SS4.5_Inputfile.5_82 = ocecld_di_flx.dat.20050830

SS4.5_Inputfile.6 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.7 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000000.2002080700

####################################
# Output file names
####################################
SS4.5_Outputfile.1 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.2 = CER_GQCA_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.3 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.4 = CER_SSF_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.5 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000000.2002080700

####################################
# Support file names
####################################
SS4.5_Outputfile.6 = CER4.5-6.1P3_PCF_Aqua-FM3-MODIS_SSIT_000000.2002080700.tar
SS4.5_Outputfile.7 = CER4.5-6.1P3_QC_Aqua-FM3-MODIS_SSIT_000000.2002080700.tar

####################################
# Log file names
####################################
SS4.5_Logsfile.1 = CER4.5-6.1P3_LogStatus_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Logsfile.2 = CER4.5-6.1P3_LogReport_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Logsfile.3 = CER4.5-6.1P3_LogUser_Aqua-FM3-MODIS_SSIT_000000.2002080700

####################################
# Temporary file names
####################################
Get_tempfile =  GetAttr.temp.Aqua-FM3-MODIS_SSIT_000000.2002080700
MCF_tempfile =  MCFWrite.temp.Aqua-FM3-MODIS_SSIT_000000.2002080700
```

C.4 Sample ASCII (PCFin) File Listing for CER4.5-6.1P4

Sample Filename: CER4.5-6.1P4_PCFin_Terra-FM1-MODIS_SSIT_000000.2001041001

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.1P4
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2001
CERDataDateMonth     = 04
CERDataDateDay       = 10
CERHrOfMonth         = 218
CERHrOfDay           = 01
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument   = Terra/FM1
Ancillary_Data_Set     = TRMMEd2B
SP_MODEL_NUM           = 1
RUN_SURF_ALG           = 1
RUN_WrFlux             = 3
RUN_Aerosol_flag       = yes

#################################
# PCF required directories
#################################
SS4.5_InputDir.1     = /CERES/clouds/data/out_comp/data/SSF_Int
SS4.5_InputDir.2     = /CERES/clouds/data/out_comp/QA_Reports
SS4.5_InputDir.3     = /CERES/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4     = /CERES/inversion/ancillary
SS4.5_InputDir.5     = /CERES/inversion/shared_data
SS4.5_InputDir.6     = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.1    = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2    = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir        = /CERES/inversion/runlogs
```

```
SS4.5_MCFDir       = /CERES/inversion/rcf
SS4.5_PCFDir       = /CERES/inversion/CER4.5-6.1P4/rcf/pcf
SS4.5_TempDir      = /CERES/inversion/data/scr

####################################
# Input file names
####################################
SS4.5_Inputfile.1_1 = CER_SSFI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.1_2 = CER_SSFAI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.2     = CER_FQCI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.3_1 = CER_MOA_CERES_ECMWF-GEOS3_015019.2001041001
SS4.5_Inputfile.3_2 = CER_MOA_CERES_ECMWF-GEOS3_015019.2001041000
SS4.5_Inputfile.3_3 = CER_MOA_CERES_ECMWF-GEOS3_015019.2001041006
SS4.5_Inputfile.4_1 = IISCOLD.19990525
SS4.5_Inputfile.4_2 = ceres_SI_FM1_day.20000804
SS4.5_Inputfile.4_3 = ceres_SI_FM1_night.20000804
SS4.5_Inputfile.5_4 = IGBP_mod_all2b.20020315
SS4.5_Inputfile.5_5 = clear_snow_radiance2b.20020416
SS4.5_Inputfile.5_6 = adm_groups2b.20020315
SS4.5_Inputfile.5_7 = adm_land_cld2b.20020315
SS4.5_Inputfile.5_8 = adm_ocecld2b.20020315
SS4.5_Inputfile.5_9 = admws2b.20020315
SS4.5_Inputfile.5_10 = albmn_groups2b.20020315
SS4.5_Inputfile.5_11 = albmn_land_cld2b.20020315
SS4.5_Inputfile.5_12 = albmn_ocecld2b.20020315
SS4.5_Inputfile.5_13 = albmnws_th2b.20020315
SS4.5_Inputfile.5_14 = bbalbbrdf_aer_atm_allws2b.20020315
SS4.5_Inputfile.5_15 = cloudy_snow_radiance2b.20020416
SS4.5_Inputfile.5_16 = clr_oce_key2b.20020315
SS4.5_Inputfile.5_17 = lwwndy_bcflnd_admed2b.20020315
SS4.5_Inputfile.5_18 = lwwndy_bcfocn_admed2b.20020315
SS4.5_Inputfile.5_19 = lwwndy_cskydes_admed2b.20020315
SS4.5_Inputfile.5_20 = lwwndy_cskylnd_admed2b.20020315
SS4.5_Inputfile.5_21 = lwwndy_cskyocn_admed2b.20020315
SS4.5_Inputfile.5_22 = lwwndy_ovc_admed2b.20020315
SS4.5_Inputfile.5_23 = SS5_GFDLAerClim_200006
SS4.5_Inputfile.5_24 = gfdl_aerj.20020322
SS4.5_Inputfile.5_25 = gfdl_aerk.20020322
SS4.5_Inputfile.5_26 = gfdl_taod.20020322
SS4.5_Inputfile.5_30 = lwwnnt_bcflnd_admed2b.20020315
SS4.5_Inputfile.5_31 = lwwnnt_bcfocn_admed2b.20020315
SS4.5_Inputfile.5_32 = lwwnnt_cskydes_admed2b.20020315
SS4.5_Inputfile.5_33 = lwwnnt_cskylnd_admed2b.20020315
SS4.5_Inputfile.5_34 = lwwnnt_cskyocn_admed2b.20020315
SS4.5_Inputfile.5_35 = lwwnnt_ovc_admed2b.20020315
SS4.5_Inputfile.5_36 = lwwndy_bcfdes_admed2b.20020315
```

```
SS4.5_Inputfile.5_37 = lwwnnt_bcfdes_admed2b.20020315
SS4.5_Inputfile.5_28 = ws_pctil2b.20020315
SS4.5_Inputfile.5_29 = erbetoa_csalb_clim.20010419

SS4.5_Inputfile.6 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Inputfile.7 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2001041001

####################################
# Output file names
####################################
SS4.5_Outputfile.1 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.2 = CER_GQCA_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.3 = CER_GQCI_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.4 = CER_SSF_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Outputfile.5 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2001041001

###################################
# Log file names
###################################
SS4.5_Logsfile.1 = CER4.5-6.1P4_LogStatus_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Logsfile.2 = CER4.5-6.1P4_LogReport_Terra-FM1-MODIS_SSIT_000000.2001041001
SS4.5_Logsfile.3 = CER4.5-6.1P4_LogUser_Terra-FM1-MODIS_SSIT_000000.2001041001

##################################
# Temporary file names
##################################
Get_tempfile   =  GetAttr.temp.Terra-FM1-MODIS_SSIT_000000.2001041001
MCF_tempfile =  MCFWrite.temp.Terra-FM1-MODIS_SSIT_000000.2001041001
```

C.5 Sample ASCII (PCFin) File Listing for CER4.5-6.1P5

Sample Filename: CER4.5-6.1P5_PCFin_Aqua-FM3-MODIS_SSIT_000000.2001041001

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.1P5
SamplingStrategy     = Aqua-FM3-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2002
CERDataDateMonth     = 08
CERDataDateDay       = 07
CERHrOfMonth         = 145
CERHrOfDay           = 00
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Aqua
Inst_name            = FM3
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument = Aqua/FM3
Ancillary_Data_Set   = AquaEd2
SP_MODEL_NUM         = 1
RUN_SURF_ALG         = 1
RUN_WrFlux           = 3
RUN_Aerosol_flag     = yes

#################################
# PCF required directories
#################################
SS4.5_InputDir.1  = /CERES/clouds/data/out_comp/data/SSF_Int
SS4.5_InputDir.2  = /CERES/clouds/data/out_comp/QA_Reports
SS4.5_InputDir.3  = /CERES/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4  = /CERES/inversion/ancillary
SS4.5_InputDir.5  = /CERES/shared_data
SS4.5_InputDir.6  = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.7  = /CERES/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1 = /CERES/inversion/data/out_comp/data
```

```
SS4.5_OutputDir.2 = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir     = /CERES/inversion/runlogs
SS4.5_MCFDir      = /CERES/inversion/rcf
SS4.5_PCFDir= /CERES/inversion/CER4.5-6.1P5/rcf/pcf
SS4.5_TempDir     = /CERES/inversion/data/scr

####################################
# Input file names
####################################
SS4.5_Inputfile.1_1 = CER_SSFI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.1_2 = CER_SSFAI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.2   = CER_FQCI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.3_1 = CER_MOA_CERES_DAO-GEOS4_016023.2002080700
SS4.5_Inputfile.3_2 = CER_MOA_CERES_DAO-GEOS4_016023.2002080700
SS4.5_Inputfile.3_3 = CER_MOA_CERES_DAO-GEOS4_016023.2002080700
SS4.5_Inputfile.4_01 = IISCOLD.19990525
SS4.5_Inputfile.4_02 = CER_SCCD_Aqua-FM3_Edition2_026023.20020815
SS4.5_Inputfile.4_03 = CER_SCCN_Aqua-FM3_Edition2_026023.20020815
SS4.5_Inputfile.5_01 = fits_08.dat.20050830
SS4.5_Inputfile.5_02 = ann-sw-aqua-ed2-all.par.20050830
SS4.5_Inputfile.5_03 = ann-sw-aqua-ed2-all.offset.20050830
SS4.5_Inputfile.5_04 = match_taod_550.20050815
SS4.5_Inputfile.5_05 = match_aerj.20050815
SS4.5_Inputfile.5_06 = match_aerk.20050815
SS4.5_Inputfile.5_07 = match_taod.20050815
SS4.5_Inputfile.5_08 = terra_csalb.20050815
SS4.5_Inputfile.5_09 = ann-lw-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_10 = ann-lw-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_11 = ann-wn-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_12 = ann-wn-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20050830
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20050830
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20050830
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20050830
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20050830
SS4.5_Inputfile.5_18 = fuliou.dat.20050830
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20050830
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20050830
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20050830
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20050830
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20050830
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20050830
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20050830
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20050830
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20050830
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20050830
```

SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20050830
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20050830
SS4.5_Inputfile.5_31 = oceclr_adm_trmmaqua.dat_nak.20050830
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20050830
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20050830
SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20050830
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20050830
SS4.5_Inputfile.5_36 = seaice_adm.dat.20050830
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20050830
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_62 = admcsky_aqua_lwwndy_ed1b.dat.20050830
SS4.5_Inputfile.5_63 = admcsky_aqua_lwwnnt_ed1b.dat.20050830
SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20050830
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20051104
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20050830
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20051104
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20050830

```
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20050830
SS4.5_Inputfile.5_76 = microwave_snow_gaps.map.20050830
SS4.5_Inputfile.5_77 = ann-lw-aqua-ed2-all-nt.par.20050830
SS4.5_Inputfile.5_78 = ann-lw-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_79 = ann-wn-aqua-ed2-all-nt.par.20050830
SS4.5_Inputfile.5_80 = ann-wn-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_81 = lndcld_di_flx.dat.20050830
SS4.5_Inputfile.5_82 = ocecld_di_flx.dat.20050830
SS4.5_Inputfile.6 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Inputfile.7 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000000.2002080700

#####################################
# Output file names
#####################################
SS4.5_Outputfile.1 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.2 = CER_GQCA_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.3 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.4 = CER_SSF_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Outputfile.5 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000000.2002080700

#####################################
# Support file names
#####################################
SS4.5_Outputfile.6 = CER4.5-6.1P5_PCF_Aqua-FM3-MODIS_SSIT_000000.2002080700.tar
SS4.5_Outputfile.7 = CER4.5-6.1P5_QC_Aqua-FM3-MODIS_SSIT_000000.2002080700.tar

#####################################
# Log file names
#####################################
SS4.5_Logsfile.1 = CER4.5-6.1P5_LogStatus_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Logsfile.2 = CER4.5-6.1P5_LogReport_Aqua-FM3-MODIS_SSIT_000000.2002080700
SS4.5_Logsfile.3 = CER4.5-6.1P5_LogUser_Aqua-FM3-MODIS_SSIT_000000.2002080700

#####################################
# Temporary file names
#####################################
Get_tempfile =  GetAttr.temp.Aqua-FM3-MODIS_SSIT_000000.2002080700
MCF_tempfile =  MCFWrite.temp.Aqua-FM3-MODIS_SSIT_000000.2002080700
```

C.6 Sample ASCII (PCFin) File Listing for CER4.5-6.2P1

Sample Filename: CER4.5-6.2P1_PCFin_TRMM-PFM-VIRS_SSIT_000001.20000225

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.2P1
SamplingStrategy     = TRMM-PFM-VIRS
ProductionStrategy   = SSIT
CERDataDateYear      = 2000
CERDataDateMonth     = 02
CERDataDateDay       = 25
ConfigurationCode    = 000001
SWsccr               = 000
DATAsccr             = 001
Sat_name             = TRMM
Inst_name            = PFM
Imag_name            = VIRS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument   = TRMM/PFM
Ancillary_Data_Set     = VIRS12b_ADMs

##################################
# PCF required directories
##################################
SS4.5_InputDir.1     = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.5     = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.1    = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2    = /CERES/inversion/data/out_comp/data
SS4.5_LogsDir        = /CERES/inversion/data/runlogs
SS4.5_MCFDir         = /CERES//inversion/rcf
SS4.5_TempDir        = /CERES/inversion/data/scr

#################################
# Input file names
#################################
SS4.5_Inputfile.300 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022500
SS4.5_Inputfile.301 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022501
SS4.5_Inputfile.302 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022502
SS4.5_Inputfile.303 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022503
```

```
SS4.5_Inputfile.304 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022504
SS4.5_Inputfile.305 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022505
SS4.5_Inputfile.306 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022506
SS4.5_Inputfile.307 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022507
SS4.5_Inputfile.308 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022508
SS4.5_Inputfile.309 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022509
SS4.5_Inputfile.310 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022510
SS4.5_Inputfile.311 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022511
SS4.5_Inputfile.312 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022512
SS4.5_Inputfile.313 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022513
SS4.5_Inputfile.314 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022514
SS4.5_Inputfile.315 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022515
SS4.5_Inputfile.316 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022516
SS4.5_Inputfile.317 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022517
SS4.5_Inputfile.318 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022518
SS4.5_Inputfile.319 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022519
SS4.5_Inputfile.320 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022520
SS4.5_Inputfile.321 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022521
SS4.5_Inputfile.322 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022522
SS4.5_Inputfile.323 = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.2000022523

#####################################
# Output file names
#####################################
SS4.5_Outputfile.1 = CER_SSFS-DAY_TRMM-PFM-VIRS_SSIT_000001.20000225
SS4.5_Outputfile.2 = CER_SSFS-NIT_TRMM-PFM-VIRS_SSIT_000001.20000225

####################################
# Log file names
####################################
SS4.5_Logsfile.1 = CER4.5-6.2P1_LogStatus_TRMM-PFM-VIRS_SSIT_000001.20000225
SS4.5_Logsfile.2 = CER4.5-6.2P1_LogReport_TRMM-PFM-VIRS_SSIT_000001.20000225
SS4.5_Logsfile.3 = CER4.5-6.2P1_LogUser_TRMM-PFM-VIRS_SSIT_000001.20000225

###################################
# Temporary file names
###################################
Get_tempfile   =  GetAttr.temp.TRMM-PFM-VIRS_SSIT_000001.20000225
MCF_tempfile=  MCFWrite.temp.TRMM-PFM-VIRS_SSIT_000001.20000225
```

C.7 Sample ASCII (PCFin) File Listing for CER4.5-6.2P2

Sample Filename: CER4.5-6.2P2_PCFin_Terra-FM1-MODIS_Edition2B_026030.20031103

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.2P2
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = Edition2B
CERDataDateYear      = 2003
CERDataDateMonth     = 11
CERDataDateDay       = 03
ConfigurationCode    = 026030
SWsccr               = 000
DATAsccr             = 001
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
RUN_Aerosol_flag            = yes
RUN_Nadir_flag              = yes
RUN_Validation_flag         = yes
RUN_Validation_aero_flag    = yes
RUN_DayNight_flag           = yes
RUN_DayNight_scool_flag     = yes
Satellite_Instrument        = Terra/FM1
Ancillary_Data_Set          = Ed2B_ADMs

##################################
# PCF required directories
##################################
SS4.5_InputDir.1  = /CERES/inversion-5/inversion/data/out_comp/data
SS4.5_InputDir.5  = /CERES/inversion-5/clouds/ancillary/SCOOL
SS4.5_OutputDir.1 = /CERES/inversion-5/inversion/data/out_comp/data
SS4.5_OutputDir.2 = /CERES/inversion-5/inversion/data/out_comp/data
SS4.5_LogsDir     = /CERES/inversion-5/inversion/runlogs
SS4.5_MCFDir      = /CERES/inversion-5/inversion/rcf
SS4.5_PCFDir      = /CERES/inversion-5/inversion/CER4.5-6.2P2/rcf/pcf
SS4.5_TempDir     = /CERES/inversion-5/inversion/data/scr
```

```
#####################################
# Input file names
#####################################
SS4.5_Inputfile.6 = CER_SSFB-nadir_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Inputfile.300 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110300
SS4.5_Inputfile.301 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110301
SS4.5_Inputfile.302 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110302
SS4.5_Inputfile.303 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110303
SS4.5_Inputfile.304 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110304
SS4.5_Inputfile.305 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110305
SS4.5_Inputfile.306 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110306
SS4.5_Inputfile.307 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110307
SS4.5_Inputfile.308 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110308
SS4.5_Inputfile.309 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110309
SS4.5_Inputfile.310 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110310
SS4.5_Inputfile.311 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110311
SS4.5_Inputfile.312 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110312
SS4.5_Inputfile.313 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110313
SS4.5_Inputfile.314 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110314
SS4.5_Inputfile.315 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110315
SS4.5_Inputfile.316 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110316
SS4.5_Inputfile.317 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110317
SS4.5_Inputfile.318 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110318
SS4.5_Inputfile.319 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110319
SS4.5_Inputfile.320 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110320
SS4.5_Inputfile.321 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110321
SS4.5_Inputfile.322 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110322
SS4.5_Inputfile.323 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110323

SS4.5_Inputfile.400 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110300
SS4.5_Inputfile.401 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110301
SS4.5_Inputfile.402 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110302
SS4.5_Inputfile.403 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110303
SS4.5_Inputfile.404 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110304
SS4.5_Inputfile.405 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110305
SS4.5_Inputfile.406 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110306
SS4.5_Inputfile.407 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110307
SS4.5_Inputfile.408 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110308
SS4.5_Inputfile.409 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110309
SS4.5_Inputfile.410 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110310
SS4.5_Inputfile.411 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110311
SS4.5_Inputfile.412 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110312
SS4.5_Inputfile.413 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110313
SS4.5_Inputfile.414 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110314
SS4.5_Inputfile.415 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110315
```

```
SS4.5_Inputfile.416 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110316
SS4.5_Inputfile.417 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110317
SS4.5_Inputfile.418 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110318
SS4.5_Inputfile.419 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110319
SS4.5_Inputfile.420 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110320
SS4.5_Inputfile.421 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110321
SS4.5_Inputfile.422 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110322
SS4.5_Inputfile.423 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110323

SS4.5_Inputfile.500 = CER_ESCF_SCOOLRegions_011000.200311

####################################
# Output file names
####################################
SS4.5_Outputfile.01 = CER_SSFS-DAY_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.02 = CER_SSFS-NIT_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.03 = CER_SSFAS-DAY_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.05 = CER_SSFB-nadir_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.06 = CER_SSF-nadir_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.07 = CER_SSFB-val_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.08 = CER_SSFA-val_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.09 = CER4.5-6.2P2_PCF_Terra-FM1-
MODIS_Edition2B_026030.20031103.tar
SS4.5_Outputfile.10 = CER_SSFS-scool-DAY_Terra-FM1-
MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.11 = CER_SSFS-scool-NIT_Terra-FM1-
MODIS_Edition2B_026030.20031103

####################################
# Log file names
####################################
SS4.5_Logsfile.1 = CER4.5-6.2P2_LogStatus_Terra-FM1-
MODIS_Edition2B_026030.20031103
SS4.5_Logsfile.2 = CER4.5-6.2P2_LogReport_Terra-FM1-
MODIS_Edition2B_026030.20031103
SS4.5_Logsfile.3 = CER4.5-6.2P2_LogUser_Terra-FM1-MODIS_Edition2B_026030.20031103

####################################
# Temporary file names
####################################
Get_tempfile =  GetAttr.temp.Terra-FM1-MODIS_Edition2B_026030.20031103
MCF_tempfile =  MCFWrite.temp.Terra-FM1-MODIS_Edition2B_026030.20031103
```

C.8 Sample ASCII (PCFin) File Listing for CER4.5-6.2P3

Sample Filename: CER4.5-6.2P3_PCFin_Terra-FM1-MODIS_Edition2B_026030.20031103

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.2P3
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = Edition2B
CERDataDateYear      = 2003
CERDataDateMonth     = 11
CERDataDateDay       = 03
ConfigurationCode    = 026030
SWsccr               = 000
DATAsccr             = 001
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
RUN_Aerosol_flag            = yes
RUN_Nadir_flag              = yes
RUN_Validation_flag         = yes
RUN_Validation_aero_flag    = yes
RUN_DayNight_flag           = yes
RUN_DayNight_scool_flag     = yes
Satellite_Instrument        = Terra/FM1
Ancillary_Data_Set          = Ed2B_ADMs

##################################
# PCF required directories
##################################
SS4.5_InputDir.1  = /CERES/inversion-5/inversion/data/out_comp/data
SS4.5_InputDir.5  = /CERES/inversion-5/clouds/ancillary/SCOOL
SS4.5_OutputDir.1 = /CERES/inversion-5/inversion/data/out_comp/data
SS4.5_OutputDir.2 = /CERES/inversion-5/inversion/data/out_comp/data
SS4.5_LogsDir     = /CERES/inversion-5/inversion/runlogs
SS4.5_MCFDir      = /CERES/inversion-5/inversion/rcf
SS4.5_PCFDir      = /CERES/inversion-5/inversion/CER4.5-6.2P3/rcf/pcf
SS4.5_TempDir     = /CERES/inversion-5/inversion/data/scr
```

```
#####################################
# Input file names
#####################################
SS4.5_Inputfile.6 = CER_SSFB-nadir_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Inputfile.300 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110300
SS4.5_Inputfile.301 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110301
SS4.5_Inputfile.302 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110302
SS4.5_Inputfile.303 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110303
SS4.5_Inputfile.304 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110304
SS4.5_Inputfile.305 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110305
SS4.5_Inputfile.306 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110306
SS4.5_Inputfile.307 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110307
SS4.5_Inputfile.308 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110308
SS4.5_Inputfile.309 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110309
SS4.5_Inputfile.310 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110310
SS4.5_Inputfile.311 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110311
SS4.5_Inputfile.312 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110312
SS4.5_Inputfile.313 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110313
SS4.5_Inputfile.314 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110314
SS4.5_Inputfile.315 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110315
SS4.5_Inputfile.316 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110316
SS4.5_Inputfile.317 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110317
SS4.5_Inputfile.318 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110318
SS4.5_Inputfile.319 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110319
SS4.5_Inputfile.320 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110320
SS4.5_Inputfile.321 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110321
SS4.5_Inputfile.322 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110322
SS4.5_Inputfile.323 = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2003110323

SS4.5_Inputfile.400 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110300
SS4.5_Inputfile.401 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110301
SS4.5_Inputfile.402 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110302
SS4.5_Inputfile.403 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110303
SS4.5_Inputfile.404 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110304
SS4.5_Inputfile.405 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110305
SS4.5_Inputfile.406 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110306
SS4.5_Inputfile.407 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110307
SS4.5_Inputfile.408 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110308
SS4.5_Inputfile.409 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110309
SS4.5_Inputfile.410 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110310
SS4.5_Inputfile.411 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110311
SS4.5_Inputfile.412 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110312
SS4.5_Inputfile.413 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110313
SS4.5_Inputfile.414 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110314
SS4.5_Inputfile.415 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110315
```

```
SS4.5_Inputfile.416 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110316
SS4.5_Inputfile.417 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110317
SS4.5_Inputfile.418 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110318
SS4.5_Inputfile.419 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110319
SS4.5_Inputfile.420 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110320
SS4.5_Inputfile.421 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110321
SS4.5_Inputfile.422 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110322
SS4.5_Inputfile.423 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2003110323

SS4.5_Inputfile.500 = CER_ESCF_SCOOLRegions_011000.200311

####################################
# Output file names
####################################
SS4.5_Outputfile.01 = CER_SSFS-DAY_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.02 = CER_SSFS-NIT_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.03 = CER_SSFAS-DAY_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.05 = CER_SSFB-nadir_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.06 = CER_SSF-nadir_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.07 = CER_SSFB-val_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.08 = CER_SSFA-val_Terra-FM1-MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.09 = CER4.5-6.2P3_PCF_Terra-FM1-
MODIS_Edition2B_026030.20031103.tar
SS4.5_Outputfile.10 = CER_SSFS-scool-DAY_Terra-FM1-
MODIS_Edition2B_026030.20031103
SS4.5_Outputfile.11 = CER_SSFS-scool-NIT_Terra-FM1-
MODIS_Edition2B_026030.20031103

####################################
# Log file names
####################################
SS4.5_Logsfile.1 = CER4.5-6.2P3_LogStatus_Terra-FM1-
MODIS_Edition2B_026030.20031103
SS4.5_Logsfile.2 = CER4.5-6.2P3_LogReport_Terra-FM1-
MODIS_Edition2B_026030.20031103
SS4.5_Logsfile.3 = CER4.5-6.2P3_LogUser_Terra-FM1-MODIS_Edition2B_026030.20031103

####################################
# Temporary file names
####################################
Get_tempfile =  GetAttr.temp.Terra-FM1-MODIS_Edition2B_026030.20031103
MCF_tempfile =  MCFWrite.temp.Terra-FM1-MODIS_Edition2B_026030.20031103
```

C.9 Sample ASCII (PCFin) File Listing for CER4.5-6.3P1

Sample Filename: CER4.5-6.3P1_PCFin_TRMM-PFM-VIRS_SSIT2_000001.1998050101

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.3P1
SamplingStrategy     = TRMM-PFM-VIRS
ProductionStrategy   = SSIT2
CERDataDateYear      = 1998
CERDataDateMonth     = 05
CERDataDateDay       = 01
CERHrOfMonth         = 2
CERHrOfDay           = 01
ConfigurationCode    = 000001
SWsccr               = 001
DATAsccr             = 000
Sat_name             = TRMM
Inst_name            = PFM
Imag_name            = VIRS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument  = TRMM/PFM
Ancillary_Data_Set    = TRMMEd2B
SP_MODEL_NUM          = 1
RUN_SURF_ALG          = 1
RUN_WrFlux            = 3

##################################
# PCF required directories
##################################
SS4.5_InputDir.1     = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.2     = /CERES/inversion/data/out_comp/QC
SS4.5_InputDir.3     = /CERES/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4     = /CERES/inversion/data/ancillary/static
SS4.5_InputDir.5     = /CERES/inversion/shared_data
SS4.5_InputDir.6     = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.1    = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2    = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir        = /CERES/inversion/data/runlogs
```

```
SS4.5_MCFDir       = /CERES/inversion/rcf
SS4.5_TempDir      = /CERES/inversion/data/scr

####################################
# Input file names
####################################
SS4.5_Inputfile.1   = CER_SSFB_TRMM-PFM-VIRS_SSIT_000000.1998050101
SS4.5_Inputfile.2   = CER_GQCI_TRMM-PFM-VIRS_SSIT_000000.1998050101
SS4.5_Inputfile.3_1 = CER_MOA_CERES_ECMWF-GEOS2_010012.1998050101
SS4.5_Inputfile.3_2 = CER_MOA_CERES_ECMWF-GEOS2_010012.1998050100
SS4.5_Inputfile.3_3 = CER_MOA_CERES_ECMWF-GEOS2_010012.1998050106
SS4.5_Inputfile.4_1 = IISCOLD.19990525
SS4.5_Inputfile.4_2 = ceres_SI_PFM_day.20000217
SS4.5_Inputfile.4_3 = ceres_SI_PFM_night.20000217
SS4.5_Inputfile.5_4 = IGBP_mod_all2b.20020315
SS4.5_Inputfile.5_5 = clear_snow_radiance2b.20020416
SS4.5_Inputfile.5_6 = adm_groups2b.20020315
SS4.5_Inputfile.5_7 = adm_land_cld2b.20020315
SS4.5_Inputfile.5_8 = adm_ocecld2b.20020315
SS4.5_Inputfile.5_9 = admws2b.20020315
SS4.5_Inputfile.5_10 = albmn_groups2b.20020315
SS4.5_Inputfile.5_11 = albmn_land_cld2b.20020315
SS4.5_Inputfile.5_12 = albmn_ocecld2b.20020315
SS4.5_Inputfile.5_13 = albmnws_th2b.20020315
SS4.5_Inputfile.5_14 = bbalbbrdf_aer_atm_allws2b.20020315
SS4.5_Inputfile.5_15 = cloudy_snow_radiance2b.20020416
SS4.5_Inputfile.5_16 = clr_oce_key2b.20020315
SS4.5_Inputfile.5_17 = lwwndy_bcflnd_admed2b.20020315
SS4.5_Inputfile.5_18 = lwwndy_bcfocn_admed2b.20020315
SS4.5_Inputfile.5_19 = lwwndy_cskydes_admed2b.20020315
SS4.5_Inputfile.5_20 = lwwndy_cskylnd_admed2b.20020315
SS4.5_Inputfile.5_21 = lwwndy_cskyocn_admed2b.20020315
SS4.5_Inputfile.5_22 = lwwndy_ovc_admed2b.20020315
SS4.5_Inputfile.5_23 = SS5_GFDLAerClim_200006
SS4.5_Inputfile.5_24 = gfdl_aerj.20020322
SS4.5_Inputfile.5_25 = gfdl_aerk.20020322
SS4.5_Inputfile.5_26 = gfdl_taod.20020322
SS4.5_Inputfile.5_30 = lwwnnt_bcflnd_admed2b.20020315
SS4.5_Inputfile.5_31 = lwwnnt_bcfocn_admed2b.20020315
SS4.5_Inputfile.5_32 = lwwnnt_cskydes_admed2b.20020315
SS4.5_Inputfile.5_33 = lwwnnt_cskylnd_admed2b.20020315
SS4.5_Inputfile.5_34 = lwwnnt_cskyocn_admed2b.20020315
SS4.5_Inputfile.5_35 = lwwnnt_ovc_admed2b.20020315
SS4.5_Inputfile.5_36 = lwwndy_bcfdes_admed2b.20020315
SS4.5_Inputfile.5_37 = lwwnnt_bcfdes_admed2b.20020315
SS4.5_Inputfile.5_28 = ws_pctil2b.20020315
```

```
SS4.5_Inputfile.5_29 = erbetoa_csalb_clim.20010419
SS4.5_Inputfile.5_38 = VIRS-Ch1F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.5_39 = VIRS-Ch2F-Lut-MLS-Ws_01.00-Wa_000-ang15

SS4.5_Inputfile.6 = CER_SSFB_TRMM-PFM-VIRS_SSIT2_000001.1998050101

#####################################
# Output file names
#####################################
SS4.5_Outputfile.1 = CER_SSFB_TRMM-PFM-VIRS_SSIT2_000001.1998050101
SS4.5_Outputfile.3 = CER_GQCI_TRMM-PFM-VIRS_SSIT2_000001.1998050101
SS4.5_Outputfile.4 = CER_SSF_TRMM-PFM-VIRS_SSIT2_000001.1998050101

####################################
# Log file names
####################################
SS4.5_Logsfile.1 = CER4.5-6.3P1_LogStatus_TRMM-PFM-VIRS_SSIT2_000001.1998050101
SS4.5_Logsfile.2 = CER4.5-6.3P1_LogReport_TRMM-PFM-VIRS_SSIT2_000001.1998050101
SS4.5_Logsfile.3 = CER4.5-6.3P1_LogUser_TRMM-PFM-VIRS_SSIT2_000001.1998050101

###################################
# Temporary file names
###################################
Get_tempfile   =  GetAttr.temp.TRMM-PFM-VIRS_SSIT2_000001.1998050101
MCF_tempfile =  MCFWrite.temp.TRMM-PFM-VIRS_SSIT2_000001.1998050101
```

C.10 Sample ASCII (PCFin) File Listing for CER4.5-6.3P2

Sample Filename: CER4.5-6.3P2_PCFin_Terra-FM1-MODIS_SSIT_000000.2000030100

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.3P2
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2000
CERDataDateMonth     = 03
CERDataDateDay       = 01
CERHrOfMonth         = 1
CERHrOfDay           = 00
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument = Terra/FM1
Ancillary_Data_Set   = TerraBeta5
SP_MODEL_NUM         = 1
RUN_SURF_ALG         = 1
RUN_WrFlux           = 3
RUN_Aerosol_flag     = yes

#################################
# PCF required directories
#################################
SS4.5_InputDir.1   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_InputDir.2   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/QC
SS4.5_InputDir.3   = /CERES/inversion-5/Aug2003-461-test/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4   = /CERES/inversion-5/Aug2003-461-test/inversion/ancillary
SS4.5_InputDir.5   = /CERES/inversion-5/Aug2003-461-test/shared_data
SS4.5_InputDir.6   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_InputDir.7   = /CERES/inversion-5/Aug2003-461-test/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1 = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
```

```
SS4.5_OutputDir.2 = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/QC
SS4.5_LogsDir     = /CERES/inversion-5/Aug2003-461-test/inversion/runlogs
SS4.5_MCFDir      = /CERES/inversion-5/Aug2003-461-test/inversion/rcf
SS4.5_PCFDir      = /CERES/inversion-5/Aug2003-461-test/inversion/CER4.5-6.3P2/rcf/pcf
SS4.5_TempDir     = /CERES/inversion-5/Aug2003-461-test/inversion/data/scr

####################################
# Input file names
####################################
SS4.5_Inputfile.1   = CER_SSFB_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.9   = CER_SSFA_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.2   = CER_GQCI_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.3_1   = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.3_2   = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.3_3   = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.4_01 = IISCOLD.19990525
SS4.5_Inputfile.4_02 = CER_SCCD_Terra-FM1_Test_000024.20000315
SS4.5_Inputfile.4_03 = CER_SCCN_Terra-FM1_Test_000024.20000315
SS4.5_Inputfile.5_01 = fits_03.dat.20030724
SS4.5_Inputfile.5_02 = ann-sw-terra-beta5-all.par.20030724
SS4.5_Inputfile.5_03 = ann-sw-terra-beta5-all.offset.20030724
SS4.5_Inputfile.5_04 = SS5_GFDLAerClim_200006
SS4.5_Inputfile.5_05 = gfdl_aerj.20020322
SS4.5_Inputfile.5_06 = gfdl_aerk.20020322
SS4.5_Inputfile.5_07 = gfdl_taod.20020322
SS4.5_Inputfile.5_08 = erbetoa_csalb_clim.20010419
SS4.5_Inputfile.5_09 = ann-lw-terra-beta5-all-day.par.20030724
SS4.5_Inputfile.5_10 = ann-lw-terra-beta5-all-day.offset.20030724
SS4.5_Inputfile.5_11 = ann-wn-terra-beta5-all-day.par.20030724
SS4.5_Inputfile.5_12 = ann-wn-terra-beta5-all-day.offset.20030724
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20030724
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20030724
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20030724
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20030724
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20030724
SS4.5_Inputfile.5_18 = fuliou.dat.20030724
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20030724
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20030724
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20030724
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20030724
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20030724
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20030724
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20030724
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20030724
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20030724
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20030724
```

SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20030724
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20030724
SS4.5_Inputfile.5_31 = oceclr_adm_trmmterra.dat_nak.20030724
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20030724
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20030724
SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20030724
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20030724
SS4.5_Inputfile.5_36 = seaice_adm.dat.20030724
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20030724
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_62 = admcsky_terra_lwwn.dat.20030724
SS4.5_Inputfile.5_63 = admcsky_terra_lwwn_nt.dat.20030724
SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20030724
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20030724
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20030724
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20030724
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20030724
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20030724
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20030724
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20030724

```
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20030724
SS4.5_Inputfile.4_38 = VIRS-Ch1F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.4_39 = VIRS-Ch2F-Lut-MLS-Ws_01.00-Wa_000-ang15

SS4.5_Inputfile.6 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Inputfile.7 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2000030100

#####################################
# Output file names
#####################################
SS4.5_Outputfile.1 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.3 = CER_GQCI_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.4 = CER_SSF_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.5 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2000030100

##################################
# Support file names
##################################
SS4.5_Outputfile.6 = CER4.5-6.3P2_PCF_Terra-FM1-MODIS_SSIT_000000.2000030100.tar
SS4.5_Outputfile.7 = CER4.5-6.3P2_QC_Terra-FM1-MODIS_SSIT_000000.2000030100.tar

##################################
# Log file names
##################################
SS4.5_Logsfile.1 = CER4.5-6.3P2_LogStatus_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Logsfile.2 = CER4.5-6.3P2_LogReport_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Logsfile.3 = CER4.5-6.3P2_LogUser_Terra-FM1-MODIS_SSIT_000000.2000030100

##################################
# Temporary file names
##################################
Get_tempfile     =  GetAttr.temp.Terra-FM1-MODIS_SSIT_000000.2000030100
MCF_tempfile     =  MCFWrite.temp.Terra-FM1-MODIS_SSIT_000000.2000030100

###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.3P2
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2000
CERDataDateMonth     = 03
CERDataDateDay       = 01
CERHrOfMonth         = 1
CERHrOfDay           = 00
ConfigurationCode    = 000000
```

```
SWsccr              = 000
DATAsccr            = 000
Sat_name            = Terra

Inst_name           = FM1
Imag_name           = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument   = Terra/FM1
Ancillary_Data_Set     = TerraBeta5
SP_MODEL_NUM           = 1
RUN_SURF_ALG           = 1
RUN_WrFlux             = 3
RUN_Aerosol_flag       = yes

#################################
# PCF required directories
#################################
SS4.5_InputDir.1   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_InputDir.2   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/QC
SS4.5_InputDir.3   = /CERES/inversion-5/Aug2003-461-test/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4   = /CERES/inversion-5/Aug2003-461-test/inversion/data/ancillary/static
SS4.5_InputDir.5   = /CERES/inversion-5/Aug2003-461-test/shared_data
SS4.5_InputDir.6   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_InputDir.7   = /CERES/inversion-5/Aug2003-461-test/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1= /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_OutputDir.2= /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/QC
SS4.5_LogsDir      = /CERES/inversion-5/Aug2003-461-test/inversion/runlogs
SS4.5_MCFDir       = /CERES/inversion-5/Aug2003-461-test/inversion/rcf
SS4.5_PCFDir       = /CERES/inversion-5/Aug2003-461-test/inversion/CER4.5-6.3P2/rcf/pcf
SS4.5_TempDir      = /CERES/inversion-5/Aug2003-461-test/inversion/data/scr

#################################
# Input file names
#################################
SS4.5_Inputfile.1    = CER_SSFB_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.9    = CER_SSFA_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.2    = CER_GQCI_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.3_1    = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.3_2    = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.3_3    = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.4_01 = IISCOLD.19990525
SS4.5_Inputfile.4_02 = CER_SCCD_Terra-FM1_Test_000024.20000315
SS4.5_Inputfile.4_03 = CER_SCCN_Terra-FM1_Test_000024.20000315
```

SS4.5_Inputfile.5_01 = fits_03.dat.20030724
SS4.5_Inputfile.5_02 = ann-sw-terra-beta5-all.par.20030724
SS4.5_Inputfile.5_03 = ann-sw-terra-beta5-all.offset.20030724
SS4.5_Inputfile.5_04 = SS5_GFDLAerClim_200006
SS4.5_Inputfile.5_05 = gfdl_aerj.20020322
SS4.5_Inputfile.5_06 = gfdl_aerk.20020322
SS4.5_Inputfile.5_07 = gfdl_taod.20020322
SS4.5_Inputfile.5_08 = erbetoa_csalb_clim.20010419
SS4.5_Inputfile.5_09 = ann-lw-terra-beta5-all-day.par.20030724
SS4.5_Inputfile.5_10 = ann-lw-terra-beta5-all-day.offset.20030724
SS4.5_Inputfile.5_11 = ann-wn-terra-beta5-all-day.par.20030724
SS4.5_Inputfile.5_12 = ann-wn-terra-beta5-all-day.offset.20030724
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20030724
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20030724
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20030724
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20030724
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20030724
SS4.5_Inputfile.5_18 = fuliou.dat.20030724
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20030724
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20030724
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20030724
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20030724
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20030724
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20030724
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20030724
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20030724
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20030724
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20030724
SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20030724
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20030724
SS4.5_Inputfile.5_31 = oceclr_adm_trmmterra.dat_nak.20030724
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20030724
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20030724
SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20030724
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20030724
SS4.5_Inputfile.5_36 = seaice_adm.dat.20030724
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20030724
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20030724

```
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_62 = admcsky_terra_lwwn.dat.20030724
SS4.5_Inputfile.5_63 = admcsky_terra_lwwn_nt.dat.20030724
SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20030724
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20030724
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20030724
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20030724
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20030724
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20030724
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20030724
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20030724
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20030724
SS4.5_Inputfile.4_38 = VIRS-Ch1F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.4_39 = VIRS-Ch2F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.6 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Inputfile.7 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2000030100

####################################
# Output file names
####################################
SS4.5_Outputfile.1 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.3 = CER_GQCI_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.4 = CER_SSF_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.5 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2000030100
```

```
##################################
# Support file names
##################################
SS4.5_Outputfile.6 = CER4.5-6.3P2_PCF_Terra-FM1-MODIS_SSIT_000000.2000030100.tar
SS4.5_Outputfile.7 = CER4.5-6.3P2_QC_Terra-FM1-MODIS_SSIT_000000.2000030100.tar

##################################
# Log file names
##################################
SS4.5_Logsfile.1 = CER4.5-6.3P2_LogStatus_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Logsfile.2 = CER4.5-6.3P2_LogReport_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Logsfile.3 = CER4.5-6.3P2_LogUser_Terra-FM1-MODIS_SSIT_000000.2000030100

##################################
# Temporary file names
##################################
Get_tempfile     =  GetAttr.temp.Terra-FM1-MODIS_SSIT_000000.2000030100
MCF_tempfile     =  MCFWrite.temp.Terra-FM1-MODIS_SSIT_000000.2000030100

###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.3P2
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2000
CERDataDateMonth     = 03
CERDataDateDay       = 01
CERHrOfMonth         = 1
CERHrOfDay           = 00
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument   = Terra/FM1
Ancillary_Data_Set     = TerraBeta5
SP_MODEL_NUM           = 1
RUN_SURF_ALG           = 1
RUN_WrFlux             = 3
RUN_Aerosol_flag       = yes
```

```
#################################
# PCF required directories
#################################
SS4.5_InputDir.1   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_InputDir.2   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/QC
SS4.5_InputDir.3   = /CERES/inversion-5/Aug2003-461-test/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4   = /CERES/inversion-5/Aug2003-461-test/inversion/ancillary
SS4.5_InputDir.5   = /CERES/inversion-5/Aug2003-461-test/shared_data
SS4.5_InputDir.6   = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_InputDir.7   = /CERES/inversion-5/Aug2003-461-test/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1 = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/data
SS4.5_OutputDir.2 = /CERES/inversion-5/Aug2003-461-test/inversion/data/out_comp/QC
SS4.5_LogsDir      = /CERES/inversion-5/Aug2003-461-test/inversion/runlogs
SS4.5_MCFDir       = /CERES/inversion-5/Aug2003-461-test/inversion/rcf
SS4.5_PCFDir       = /CERES/inversion-5/Aug2003-461-test/inversion/CER4.5-6.3P2/rcf/pcf
SS4.5_TempDir      = /CERES/inversion-5/Aug2003-461-test/inversion/data/scr

#################################
# Input file names
#################################
SS4.5_Inputfile.1      = CER_SSFB_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.9      = CER_SSFA_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.2      = CER_GQCI_Terra-FM1-MODIS_Edition1A_024025.2000030100
SS4.5_Inputfile.3_1  = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.3_2  = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.3_3  = CER_MOA_CERES_ECMWF-GEOS3_015019.2000030100
SS4.5_Inputfile.4_01 = IISCOLD.19990525
SS4.5_Inputfile.4_02 = CER_SCCD_Terra-FM1_Test_000024.20000315
SS4.5_Inputfile.4_03 = CER_SCCN_Terra-FM1_Test_000024.20000315
SS4.5_Inputfile.5_01 = fits_03.dat.20030724
SS4.5_Inputfile.5_02 = ann-sw-terra-beta5-all.par.20030724
SS4.5_Inputfile.5_03 = ann-sw-terra-beta5-all.offset.20030724
SS4.5_Inputfile.5_04 = SS5_GFDLAerClim_200006
SS4.5_Inputfile.5_05 = gfdl_aerj.20020322
SS4.5_Inputfile.5_06 = gfdl_aerk.20020322
SS4.5_Inputfile.5_07 = gfdl_taod.20020322
SS4.5_Inputfile.5_08 = erbetoa_csalb_clim.20010419
SS4.5_Inputfile.5_09 = ann-lw-terra-beta5-all-day.par.20030724
SS4.5_Inputfile.5_10 = ann-lw-terra-beta5-all-day.offset.20030724
SS4.5_Inputfile.5_11 = ann-wn-terra-beta5-all-day.par.20030724
SS4.5_Inputfile.5_12 = ann-wn-terra-beta5-all-day.offset.20030724
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20030724
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20030724
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20030724
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20030724
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20030724
```

SS4.5_Inputfile.5_18 = fuliou.dat.20030724
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20030724
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20030724
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20030724
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20030724
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20030724
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20030724
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20030724
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20030724
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20030724
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20030724
SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20030724
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20030724
SS4.5_Inputfile.5_31 = oceclr_adm_trmmterra.dat_nak.20030724
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20030724
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20030724
SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20030724
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20030724
SS4.5_Inputfile.5_36 = seaice_adm.dat.20030724
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20030724
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20030724
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20030724
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20030724
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20030724
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20030724
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20030724
SS4.5_Inputfile.5_62 = admcsky_terra_lwwn.dat.20030724
SS4.5_Inputfile.5_63 = admcsky_terra_lwwn_nt.dat.20030724

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SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20030724
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20030724
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20030724
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20030724
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20030724
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20030724
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20030724
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20030724
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20030724
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20030724
SS4.5_Inputfile.4_38 = VIRS-Ch1F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.4_39 = VIRS-Ch2F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.6     = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Inputfile.7     = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2000030100

#####################################
# Output file names
#####################################
SS4.5_Outputfile.1 = CER_SSFB_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.3 = CER_GQCI_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.4 = CER_SSF_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Outputfile.5 = CER_SSFA_Terra-FM1-MODIS_SSIT_000000.2000030100

#####################################
# Support file names
#####################################
SS4.5_Outputfile.6 = CER4.5-6.3P2_PCF_Terra-FM1-MODIS_SSIT_000000.2000030100.tar
SS4.5_Outputfile.7 = CER4.5-6.3P2_QC_Terra-FM1-MODIS_SSIT_000000.2000030100.tar

#####################################
# Log file names
#####################################
SS4.5_Logsfile.1 = CER4.5-6.3P2_LogStatus_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Logsfile.2 = CER4.5-6.3P2_LogReport_Terra-FM1-MODIS_SSIT_000000.2000030100
SS4.5_Logsfile.3 = CER4.5-6.3P2_LogUser_Terra-FM1-MODIS_SSIT_000000.2000030100

#####################################
# Temporary file names
#####################################
Get_tempfile    =  GetAttr.temp.Terra-FM1-MODIS_SSIT_000000.2000030100
MCF_tempfile =  MCFWrite.temp.Terra-FM1-MODIS_SSIT_000000.2000030100
MCF_tempfile =  MCFWrite.temp.Terra-FM1-MODIS_SSIT_000000.2000030100
```

C.11 Sample ASCII (PCFin) File Listing for CER4.5-6.3P3

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.3P3
SamplingStrategy     = Aqua-FM3-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2004
CERDataDateMonth     = 06
CERDataDateDay       = 01
CERHrOfMonth         = 1
CERHrOfDay           = 00
ConfigurationCode    = 000000
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Aqua
Inst_name            = FM3
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument  = Aqua/FM3
Ancillary_Data_Set    = AquaEd2
SP_MODEL_NUM          = 1
RUN_SURF_ALG          = 1
RUN_WrFlux            = 3
RUN_Aerosol_flag      = yes

##################################
# PCF required directories
##################################
SS4.5_InputDir.1  = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.2  = /CERES/inversion/data/out_comp/QC
SS4.5_InputDir.3  = /CERES/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4  = /CERES/inversion/ancillary
SS4.5_InputDir.5  = /CERES/shared_data
SS4.5_InputDir.6  = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.7  = /CERES/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1 = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2 = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir     = /CERES/inversion/runlogs
```

```
SS4.5_MCFDir      = /CERES/inversion/rcf
SS4.5_PCFDir      = /CERES/inversion/CER4.5-6.3P3/rcf/pcf

SS4.5_TempDir     = /CERES/inversion/data/scr

####################################
# Input file names
####################################
SS4.5_Inputfile.1_1 = CER_SSFB_Aqua-FM3-MODIS_Edition1B_029033.2004060100
SS4.5_Inputfile.1_2 = CER_SSFA_Aqua-FM3-MODIS_Edition1B_029033.2004060100
SS4.5_Inputfile.2   = CER_GQCI_Aqua-FM3-MODIS_Edition1B_029033.2004060100
SS4.5_Inputfile.3_1 = CER_MOA_CERES_DAO-GEOS4_016025.2004060100
SS4.5_Inputfile.3_2 = CER_MOA_CERES_DAO-GEOS4_016025.2004060100
SS4.5_Inputfile.3_3 = CER_MOA_CERES_DAO-GEOS4_016025.2004060100
SS4.5_Inputfile.4_02 = CER_SCCD_Aqua-FM3_Edition2_026024.20040615
SS4.5_Inputfile.4_03 = CER_SCCN_Aqua-FM3_Edition2_026024.20040615
SS4.5_Inputfile.5_01 = fits_06.dat.20050830
SS4.5_Inputfile.5_02 = ann-sw-aqua-ed2-all.par.20050830
SS4.5_Inputfile.5_03 = ann-sw-aqua-ed2-all.offset.20050830
SS4.5_Inputfile.5_04 = match_taod_550.20050815
SS4.5_Inputfile.5_05 = match_aerj.20050815
SS4.5_Inputfile.5_06 = match_aerk.20050815
SS4.5_Inputfile.5_07 = match_taod.20050815
SS4.5_Inputfile.5_08 = terra_csalb.20050815
SS4.5_Inputfile.5_09 = ann-lw-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_10 = ann-lw-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_11 = ann-wn-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_12 = ann-wn-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20050830
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20050830
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20050830
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20050830
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20050830
SS4.5_Inputfile.5_18 = fuliou.dat.20050830
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20050830
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20050830
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20050830
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20050830
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20050830
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20050830
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20050830
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20050830
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20050830
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20050830
SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20050830
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20050830
```

SS4.5_Inputfile.5_31 = oceclr_adm_trmmaqua.dat_nak.20050830
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20050830
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20050830
SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20050830
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20050830
SS4.5_Inputfile.5_36 = seaice_adm.dat.20050830
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20050830
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_62 = admcsky_aqua_lwwndy_ed1b.dat.20050830
SS4.5_Inputfile.5_63 = admcsky_aqua_lwwnnt_ed1b.dat.20050830
SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20050830
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20051104
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20050830
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20051104
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20050830
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20050830
SS4.5_Inputfile.5_76 = microwave_snow_gaps.map.20050830

```
SS4.5_Inputfile.5_77 = ann-lw-aqua-ed2-all-nt.par.20050830
SS4.5_Inputfile.5_78 = ann-lw-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_79 = ann-wn-aqua-ed2-all-nt.par.20050830
SS4.5_Inputfile.5_80 = ann-wn-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_81 = lndcld_di_flx.dat.20050830
SS4.5_Inputfile.5_82 = ocecld_di_flx.dat.20050830

SS4.5_Inputfile.6 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000000.2004060100
SS4.5_Inputfile.7 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000000.2004060100

####################################
# Output file names
####################################
SS4.5_Outputfile.1 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000000.2004060100
SS4.5_Outputfile.3 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000000.2004060100
SS4.5_Outputfile.4 = CER_SSF_Aqua-FM3-MODIS_SSIT_000000.2004060100
SS4.5_Outputfile.5 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000000.2004060100

###################################
# Support file names
###################################
SS4.5_Outputfile.6 = CER4.5-6.3P2_PCF_Aqua-FM3-MODIS_SSIT_000000.2004060100.tar
SS4.5_Outputfile.7 = CER4.5-6.3P2_QC_Aqua-FM3-MODIS_SSIT_000000.2004060100.tar

##################################
# Log file names
##################################
SS4.5_Logsfile.1 = CER4.5-6.3P3_LogStatus_Aqua-FM3-MODIS_SSIT_000000.2004060100
SS4.5_Logsfile.2 = CER4.5-6.3P3_LogReport_Aqua-FM3-MODIS_SSIT_000000.2004060100
SS4.5_Logsfile.3 = CER4.5-6.3P3_LogUser_Aqua-FM3-MODIS_SSIT_000000.2004060100

##################################
# Temporary file names
##################################
Get_tempfile =  GetAttr.temp.Aqua-FM3-MODIS_SSIT_000000.2004060100
MCF_tempfile =  MCFWrite.temp.Aqua-FM3-MODIS_SSIT_000000.2004060100
```

C.12 Sample ASCII (PCFin) File Listing for CER4.5-6.4P1

Sample Filename: CER4.5-6.4P1_PCFin_Terra-FM1-MODIS_Edition1A_020021.200011

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.4P1
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = Edition1A
CERDataDateYear      = 2000
CERDataDateMonth     = 11
ConfigurationCode    = 020021
SWsccr               = 000
DATAsccr             = 001
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
RUN_Aerosol_flag            = no
RUN_Validation_flag         = yes
RUN_Validation_aero_flag    = yes
Satellite_Instrument        = Terra/FM1
Ancillary_Data_Set          = Ed2B_ADMs

##################################
# PCF required directories
##################################
SS4.5_InputDir.1    = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.5    = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.1   = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2   = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir       = /CERES/inversion/runlogs
SS4.5_MCFDir        = /CERES/inversion/rcf
SS4.5_PCFDir        = /CERES/inversion/CER4.5-6.4P1/rcf/pcf
SS4.5_TempDir       = /CERES/inversion/data/scr
```

```
#####################################
# Input file names
#####################################
SS4.5_Inputfile.300 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001100
SS4.5_Inputfile.301 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001101
SS4.5_Inputfile.302 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001102
SS4.5_Inputfile.303 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001103
SS4.5_Inputfile.304 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001104
SS4.5_Inputfile.305 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001105
SS4.5_Inputfile.306 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001106
SS4.5_Inputfile.307 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001107
SS4.5_Inputfile.308 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001108
SS4.5_Inputfile.309 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001109
SS4.5_Inputfile.310 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001110
SS4.5_Inputfile.311 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001111
SS4.5_Inputfile.312 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001112
SS4.5_Inputfile.313 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001113
SS4.5_Inputfile.314 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001114
SS4.5_Inputfile.315 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001115
SS4.5_Inputfile.316 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001116
SS4.5_Inputfile.317 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001117
SS4.5_Inputfile.318 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001118
SS4.5_Inputfile.319 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001119
SS4.5_Inputfile.320 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001120
SS4.5_Inputfile.321 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001121
SS4.5_Inputfile.322 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001122
SS4.5_Inputfile.323 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001123
SS4.5_Inputfile.324 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001124
SS4.5_Inputfile.325 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001125
SS4.5_Inputfile.326 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001126
SS4.5_Inputfile.327 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001127
SS4.5_Inputfile.328 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001128
SS4.5_Inputfile.329 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001129
SS4.5_Inputfile.330 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001130
SS4.5_Inputfile.331 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001131

SS4.5_Inputfile.400 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001100
SS4.5_Inputfile.401 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001101
SS4.5_Inputfile.402 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001102
SS4.5_Inputfile.403 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001103
SS4.5_Inputfile.404 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001104
SS4.5_Inputfile.405 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001105
SS4.5_Inputfile.406 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001106
SS4.5_Inputfile.407 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001107
SS4.5_Inputfile.408 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001108
SS4.5_Inputfile.409 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001109
```

```
SS4.5_Inputfile.410 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001110
SS4.5_Inputfile.411 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001111
SS4.5_Inputfile.412 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001112
SS4.5_Inputfile.413 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001113
SS4.5_Inputfile.414 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001114
SS4.5_Inputfile.415 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001115
SS4.5_Inputfile.416 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001116
SS4.5_Inputfile.417 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001117
SS4.5_Inputfile.418 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001118
SS4.5_Inputfile.419 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001119
SS4.5_Inputfile.420 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001120
SS4.5_Inputfile.421 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001121
SS4.5_Inputfile.422 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001122
SS4.5_Inputfile.423 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001123
SS4.5_Inputfile.424 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001124
SS4.5_Inputfile.425 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001125
SS4.5_Inputfile.426 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001126
SS4.5_Inputfile.427 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001127
SS4.5_Inputfile.428 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001128
SS4.5_Inputfile.429 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001129
SS4.5_Inputfile.430 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001130
SS4.5_Inputfile.431 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001131

####################################
# Output file names
####################################
SS4.5_Outputfile.1 = CER_SSFB-valmm_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Outputfile.2 = CER_SSFA-valmm_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Outputfile.3 = CER_GQCA-val_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Outputfile.4 = CER4.5-6.4P1_PCF_Terra-FM1-MODIS_Edition1A_020021.200011.tar

###################################
# Log file names
###################################
SS4.5_Logsfile.1 = CER4.5-6.4P1_LogStatus_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Logsfile.2 = CER4.5-6.4P1_LogReport_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Logsfile.3 = CER4.5-6.4P1_LogUser_Terra-FM1-MODIS_Edition1A_020021.200011

###################################
# Temporary file names
###################################
Get_tempfile    =  GetAttr.temp.Terra-FM1-MODIS_Edition1A_020021.200011
MCF_tempfile  =  MCFWrite.temp.Terra-FM1-MODIS_Edition1A_020021.200011
```

C.13 Sample ASCII (PCFin) File Listing for CER4.5-6.4P2

Sample Filename: CER4.5-6.4P2_PCFin_Terra-FM1-MODIS_Edition1A_020021.200011

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.4P2
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = Edition1A
CERDataDateYear      = 2000
CERDataDateMonth     = 11
ConfigurationCode    = 020021
SWsccr               = 000
DATAsccr             = 001
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
RUN_Aerosol_flag            = no
RUN_Validation_flag         = yes
RUN_Validation_aero_flag    = yes
Satellite_Instrument        = Terra/FM1
Ancillary_Data_Set          = Ed2B_ADMs

##################################
# PCF required directories
##################################
SS4.5_InputDir.1    = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.5    = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.1   = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2   = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir       = /CERES/inversion/runlogs
SS4.5_MCFDir        = /CERES/inversion/rcf
SS4.5_PCFDir        = /CERES/inversion/CER4.5-6.4P2/rcf/pcf
SS4.5_TempDir       = /CERES/inversion/data/scr
```

```
#####################################
# Input file names
#####################################
SS4.5_Inputfile.300 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001100
SS4.5_Inputfile.301 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001101
SS4.5_Inputfile.302 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001102
SS4.5_Inputfile.303 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001103
SS4.5_Inputfile.304 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001104
SS4.5_Inputfile.305 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001105
SS4.5_Inputfile.306 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001106
SS4.5_Inputfile.307 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001107
SS4.5_Inputfile.308 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001108
SS4.5_Inputfile.309 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001109
SS4.5_Inputfile.310 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001110
SS4.5_Inputfile.311 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001111
SS4.5_Inputfile.312 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001112
SS4.5_Inputfile.313 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001113
SS4.5_Inputfile.314 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001114
SS4.5_Inputfile.315 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001115
SS4.5_Inputfile.316 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001116
SS4.5_Inputfile.317 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001117
SS4.5_Inputfile.318 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001118
SS4.5_Inputfile.319 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001119
SS4.5_Inputfile.320 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001120
SS4.5_Inputfile.321 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001121
SS4.5_Inputfile.322 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001122
SS4.5_Inputfile.323 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001123
SS4.5_Inputfile.324 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001124
SS4.5_Inputfile.325 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001125
SS4.5_Inputfile.326 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001126
SS4.5_Inputfile.327 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001127
SS4.5_Inputfile.328 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001128
SS4.5_Inputfile.329 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001129
SS4.5_Inputfile.330 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001130
SS4.5_Inputfile.331 = CER_SSFB-val_Terra-FM1-MODIS_Edition1A_020021.20001131

SS4.5_Inputfile.400 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001100
SS4.5_Inputfile.401 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001101
SS4.5_Inputfile.402 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001102
SS4.5_Inputfile.403 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001103
SS4.5_Inputfile.404 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001104
SS4.5_Inputfile.405 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001105
SS4.5_Inputfile.406 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001106
SS4.5_Inputfile.407 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001107
SS4.5_Inputfile.408 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001108
SS4.5_Inputfile.409 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001109
```

```
SS4.5_Inputfile.410 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001110
SS4.5_Inputfile.411 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001111
SS4.5_Inputfile.412 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001112
SS4.5_Inputfile.413 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001113
SS4.5_Inputfile.414 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001114
SS4.5_Inputfile.415 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001115
SS4.5_Inputfile.416 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001116
SS4.5_Inputfile.417 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001117
SS4.5_Inputfile.418 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001118
SS4.5_Inputfile.419 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001119
SS4.5_Inputfile.420 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001120
SS4.5_Inputfile.421 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001121
SS4.5_Inputfile.422 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001122
SS4.5_Inputfile.423 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001123
SS4.5_Inputfile.424 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001124
SS4.5_Inputfile.425 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001125
SS4.5_Inputfile.426 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001126
SS4.5_Inputfile.427 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001127
SS4.5_Inputfile.428 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001128
SS4.5_Inputfile.429 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001129
SS4.5_Inputfile.430 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001130
SS4.5_Inputfile.431 = CER_SSFA-val_Terra-FM1-MODIS_Edition1A_020021.20001131

####################################
# Output file names
####################################
SS4.5_Outputfile.1 = CER_SSFB-valmm_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Outputfile.2 = CER_SSFA-valmm_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Outputfile.3 = CER_GQCA-val_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Outputfile.4 = CER4.5-6.4P2_PCF_Terra-FM1-MODIS_Edition1A_020021.200011.tar

###################################
# Log file names
###################################
SS4.5_Logsfile.1 = CER4.5-6.4P2_LogStatus_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Logsfile.2 = CER4.5-6.4P2_LogReport_Terra-FM1-MODIS_Edition1A_020021.200011
SS4.5_Logsfile.3 = CER4.5-6.4P2_LogUser_Terra-FM1-MODIS_Edition1A_020021.200011

###################################
# Temporary file names
###################################
Get_tempfile    =  GetAttr.temp.Terra-FM1-MODIS_Edition1A_020021.200011
MCF_tempfile  =  MCFWrite.temp.Terra-FM1-MODIS_Edition1A_020021.200011
```

C.14 Sample ASCII (PCFin) File Listing for CER4.5-6.6P2

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.6P2
SamplingStrategy     = Terra-FM1-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2002
CERDataDateMonth     = 09
CERDataDateDay       = 01
ConfigurationCode    = 000002
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Terra
Inst_name            = FM1
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument   = Aqua/FM1
Ancillary_Data_Set     = TerraBeta5
SP_MODEL_NUM           = 1
RUN_SURF_ALG           = 1
RUN_WrFlux             = 3
RUN_Aerosol_flag       = yes

#################################
# PCF required directories
#################################
SS4.5_InputDir.1  = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.2  = /ENG/CERES/inversion/6P2Nov04-test/inversion/data/out_comp/QC
SS4.5_InputDir.3  = /ENG/CERES/inversion/6P2Nov04-test/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4  = /ENG/CERES/inversion/6P2Nov04-test/inversion/ancillary
SS4.5_InputDir.5  = /ENG/CERES/inversion/6P2Nov04-test/shared_data
SS4.5_InputDir.6  = /ENG/CERES/inversion/6P2Nov04-test/inversion/data/out_comp/data
SS4.5_InputDir.7  = /ENG/CERES/inversion/6P2Nov04-test/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1 = /ENG/CERES/inversion/6P2Nov04-test/inversion/data/out_comp/data
SS4.5_OutputDir.2 = /ENG/CERES/inversion/6P2Nov04-test/inversion/data/out_comp/QC
SS4.5_LogsDir     = /ENG/CERES/inversion/6P2Nov04-test/inversion/runlogs
SS4.5_MCFDir      = /ENG/CERES/inversion/6P2Nov04-test/inversion/rcf
SS4.5_PCFDir      = /ENG/CERES/inversion/6P2Nov04-test/inversion/CER4.5-6.6P2/rcf/pcf
SS4.5_TempDir     = /ENG/CERES/inversion/6P2Nov04-test/inversion/data/scr
```

```
#####################################
# Input file names
#####################################
SS4.5_Inputfile.1_01   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090100
SS4.5_Inputfile.1_02   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090101
SS4.5_Inputfile.1_03   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090102
SS4.5_Inputfile.1_04   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090103
SS4.5_Inputfile.1_05   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090104
SS4.5_Inputfile.1_06   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090105
SS4.5_Inputfile.1_07   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090106
SS4.5_Inputfile.1_08   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090107
SS4.5_Inputfile.1_09   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090108
SS4.5_Inputfile.1_10   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090109
SS4.5_Inputfile.1_11   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090110
SS4.5_Inputfile.1_12   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090111
SS4.5_Inputfile.1_13   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090112
SS4.5_Inputfile.1_14   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090113
SS4.5_Inputfile.1_15   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090114
SS4.5_Inputfile.1_16   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090115
SS4.5_Inputfile.1_17   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090116
SS4.5_Inputfile.1_18   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090117
SS4.5_Inputfile.1_19   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090118
SS4.5_Inputfile.1_20   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090119
SS4.5_Inputfile.1_21   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090120
SS4.5_Inputfile.1_22   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090121
SS4.5_Inputfile.1_23   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090122
SS4.5_Inputfile.1_24   = CER_SSFB_Terra-FM1-MODIS_Edition2B_026030.2002090123
SS4.5_Inputfile.9_01 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090100
SS4.5_Inputfile.9_02 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090101
SS4.5_Inputfile.9_03 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090102
SS4.5_Inputfile.9_04 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090103
SS4.5_Inputfile.9_05 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090104
SS4.5_Inputfile.9_06 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090105
SS4.5_Inputfile.9_07 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090106
SS4.5_Inputfile.9_08 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090107
SS4.5_Inputfile.9_09 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090108
SS4.5_Inputfile.9_10 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090109
SS4.5_Inputfile.9_11 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090110
SS4.5_Inputfile.9_12 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090111
SS4.5_Inputfile.9_13 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090112
SS4.5_Inputfile.9_14 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090113
SS4.5_Inputfile.9_15 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090114
SS4.5_Inputfile.9_16 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090115
SS4.5_Inputfile.9_17 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090116
SS4.5_Inputfile.9_18 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090117
```

```
SS4.5_Inputfile.9_19 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090118
SS4.5_Inputfile.9_20 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090119
SS4.5_Inputfile.9_21 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090120
SS4.5_Inputfile.9_22 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090121
SS4.5_Inputfile.9_23 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090122
SS4.5_Inputfile.9_24 = CER_SSFA_Terra-FM1-MODIS_Edition2B_026030.2002090123
SS4.5_Inputfile.2_01  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090100
SS4.5_Inputfile.2_02  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090101
SS4.5_Inputfile.2_03  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090102
SS4.5_Inputfile.2_04  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090103
SS4.5_Inputfile.2_05  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090104
SS4.5_Inputfile.2_06  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090105
SS4.5_Inputfile.2_07  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090106
SS4.5_Inputfile.2_08  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090107
SS4.5_Inputfile.2_09  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090108
SS4.5_Inputfile.2_10  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090109
SS4.5_Inputfile.2_11  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090110
SS4.5_Inputfile.2_12  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090111
SS4.5_Inputfile.2_13  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090112
SS4.5_Inputfile.2_14  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090113
SS4.5_Inputfile.2_15  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090114
SS4.5_Inputfile.2_16  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090115
SS4.5_Inputfile.2_17  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090116
SS4.5_Inputfile.2_18  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090117
SS4.5_Inputfile.2_19  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090118
SS4.5_Inputfile.2_20  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090119
SS4.5_Inputfile.2_21  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090120
SS4.5_Inputfile.2_22  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090121
SS4.5_Inputfile.2_23  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090122
SS4.5_Inputfile.2_24  = CER_GQCI_Terra-FM1-MODIS_Edition2B_026030.2002090123
SS4.5_Inputfile.3_01  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_02  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_03  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_04  = CER_MOA_CERES_DAO-GEOS4_016023.2002090101
SS4.5_Inputfile.3_05  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_06  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_07  = CER_MOA_CERES_DAO-GEOS4_016023.2002090102
SS4.5_Inputfile.3_08  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_09  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_10  = CER_MOA_CERES_DAO-GEOS4_016023.2002090103
SS4.5_Inputfile.3_11  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_12  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_13  = CER_MOA_CERES_DAO-GEOS4_016023.2002090104
SS4.5_Inputfile.3_14  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_15  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_16  = CER_MOA_CERES_DAO-GEOS4_016023.2002090105
```

```
SS4.5_Inputfile.3_17  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_18  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_19  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_20  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_21  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_22  = CER_MOA_CERES_DAO-GEOS4_016023.2002090107
SS4.5_Inputfile.3_23  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_24  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_25  = CER_MOA_CERES_DAO-GEOS4_016023.2002090108
SS4.5_Inputfile.3_26  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_27  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_28  = CER_MOA_CERES_DAO-GEOS4_016023.2002090109
SS4.5_Inputfile.3_29  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_30  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_31  = CER_MOA_CERES_DAO-GEOS4_016023.2002090110
SS4.5_Inputfile.3_32  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_33  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_34  = CER_MOA_CERES_DAO-GEOS4_016023.2002090111
SS4.5_Inputfile.3_35  = CER_MOA_CERES_DAO-GEOS4_016023.2002090106
SS4.5_Inputfile.3_36  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_37  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_38  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_39  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_40  = CER_MOA_CERES_DAO-GEOS4_016023.2002090113
SS4.5_Inputfile.3_41  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_42  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_43  = CER_MOA_CERES_DAO-GEOS4_016023.2002090114
SS4.5_Inputfile.3_44  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_45  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_46  = CER_MOA_CERES_DAO-GEOS4_016023.2002090115
SS4.5_Inputfile.3_47  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_48  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_49  = CER_MOA_CERES_DAO-GEOS4_016023.2002090116
SS4.5_Inputfile.3_50  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_51  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_52  = CER_MOA_CERES_DAO-GEOS4_016023.2002090117
SS4.5_Inputfile.3_53  = CER_MOA_CERES_DAO-GEOS4_016023.2002090112
SS4.5_Inputfile.3_54  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_55  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_56  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_57  = CER_MOA_CERES_DAO-GEOS4_016023.2002090100
SS4.5_Inputfile.3_58  = CER_MOA_CERES_DAO-GEOS4_016023.2002090119
SS4.5_Inputfile.3_59  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_60  = CER_MOA_CERES_DAO-GEOS4_016023.2002090200
SS4.5_Inputfile.3_61  = CER_MOA_CERES_DAO-GEOS4_016023.2002090120
SS4.5_Inputfile.3_62  = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
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SS4.5_Inputfile.3_63 = CER_MOA_CERES_DAO-GEOS4_016023.2002090200
SS4.5_Inputfile.3_64 = CER_MOA_CERES_DAO-GEOS4_016023.2002090121
SS4.5_Inputfile.3_65 = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_66 = CER_MOA_CERES_DAO-GEOS4_016023.2002090200
SS4.5_Inputfile.3_67 = CER_MOA_CERES_DAO-GEOS4_016023.2002090122
SS4.5_Inputfile.3_68 = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_69 = CER_MOA_CERES_DAO-GEOS4_016023.2002090200
SS4.5_Inputfile.3_70 = CER_MOA_CERES_DAO-GEOS4_016023.2002090123
SS4.5_Inputfile.3_71 = CER_MOA_CERES_DAO-GEOS4_016023.2002090118
SS4.5_Inputfile.3_72 = CER_MOA_CERES_DAO-GEOS4_016023.2002090200
SS4.5_Inputfile.4_01 = IISCOLD.19990525
SS4.5_Inputfile.4_02 = CER_SCCD_Terra-FM1_Test_000024.20020915
SS4.5_Inputfile.4_03 = CER_SCCN_Terra-FM1_Test_000024.20020915
SS4.5_Inputfile.5_01 = fits_09.dat.20040430
SS4.5_Inputfile.5_02 = ann-sw-terra-ed2-all.par.20040430
SS4.5_Inputfile.5_03 = ann-sw-terra-ed2-all.offset.20040430
SS4.5_Inputfile.5_04 = SS5_GFDLAerClim_200006
SS4.5_Inputfile.5_05 = gfdl_aerj.20020322
SS4.5_Inputfile.5_06 = gfdl_aerk.20020322
SS4.5_Inputfile.5_07 = gfdl_taod.20020322
SS4.5_Inputfile.5_08 = erbetoa_csalb_clim.20010419
SS4.5_Inputfile.5_09 = ann-lw-terra-ed2-all-day.par.20040430
SS4.5_Inputfile.5_10 = ann-lw-terra-ed2-all-day.offset.20040430
SS4.5_Inputfile.5_11 = ann-wn-terra-ed2-all-day.par.20040430
SS4.5_Inputfile.5_12 = ann-wn-terra-ed2-all-day.offset.20040430
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20040430
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20040430
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20040430
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20040430
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20040430
SS4.5_Inputfile.5_18 = fuliou.dat.20040430
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20040430
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20040430
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20040430
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20040430
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20040430
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20040430
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20040430
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20040430
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20040430
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20040430
SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20040430
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20040430
SS4.5_Inputfile.5_31 = oceclr_adm_trmmterra.dat_nak.20040430
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20040430
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20040430

SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20040430
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20040430
SS4.5_Inputfile.5_36 = seaice_adm.dat.20040430
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20040430
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20040430
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20040430
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20040430
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20040430
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20040430
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20040430
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20040430
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20040430
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20040430
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20040430
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20040430
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20040430
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20040430
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20040430
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20040430
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20040430
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20040430
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20040430
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20040430
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20040430
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20040430
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20040430
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20040430
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20040430
SS4.5_Inputfile.5_62 = admcsky_terra_lwwn.dat.20040430
SS4.5_Inputfile.5_63 = admcsky_terra_lwwn_nt.dat.20040430
SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20040430
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20040430
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20040430
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20040430
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20040430
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20040430
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20040430
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20040430
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20040430
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20040430
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20040430
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20040430
SS4.5_Inputfile.5_76 = microwave_snow_gaps.map.20040430
SS4.5_Inputfile.5_77 = ann-lw-terra-ed2-all-nt.par.20040430
SS4.5_Inputfile.5_78 = ann-lw-terra-ed2-all-nt.offset.20040430
SS4.5_Inputfile.5_79 = ann-wn-terra-ed2-all-nt.par.20040430

SS4.5_Inputfile.5_80 = ann-wn-terra-ed2-all-nt.offset.20040430
SS4.5_Inputfile.5_81 = lndcld_di_flx.dat.20040430
SS4.5_Inputfile.5_82 = ocecld_di_flx.dat.20040430
SS4.5_Inputfile.4_38 = VIRS-Ch1F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.4_39 = VIRS-Ch2F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.6_01 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090100
SS4.5_Inputfile.6_02 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090101
SS4.5_Inputfile.6_03 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090102
SS4.5_Inputfile.6_04 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090103
SS4.5_Inputfile.6_05 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090104
SS4.5_Inputfile.6_06 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090105
SS4.5_Inputfile.6_07 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090106
SS4.5_Inputfile.6_08 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090107
SS4.5_Inputfile.6_09 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090108
SS4.5_Inputfile.6_10 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090109
SS4.5_Inputfile.6_11 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090110
SS4.5_Inputfile.6_12 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090111
SS4.5_Inputfile.6_13 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090112
SS4.5_Inputfile.6_14 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090113
SS4.5_Inputfile.6_15 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090114
SS4.5_Inputfile.6_16 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090115
SS4.5_Inputfile.6_17 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090116
SS4.5_Inputfile.6_18 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090117
SS4.5_Inputfile.6_19 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090118
SS4.5_Inputfile.6_20 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090119
SS4.5_Inputfile.6_21 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090120
SS4.5_Inputfile.6_22 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090121
SS4.5_Inputfile.6_23 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090122
SS4.5_Inputfile.6_24 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090123
SS4.5_Inputfile.7_01 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090100
SS4.5_Inputfile.7_02 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090101
SS4.5_Inputfile.7_03 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090102
SS4.5_Inputfile.7_04 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090103
SS4.5_Inputfile.7_05 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090104
SS4.5_Inputfile.7_06 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090105
SS4.5_Inputfile.7_07 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090106
SS4.5_Inputfile.7_08 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090107
SS4.5_Inputfile.7_09 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090108
SS4.5_Inputfile.7_10 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090109
SS4.5_Inputfile.7_11 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090110
SS4.5_Inputfile.7_12 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090111
SS4.5_Inputfile.7_13 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090112
SS4.5_Inputfile.7_14 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090113
SS4.5_Inputfile.7_15 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090114
SS4.5_Inputfile.7_16 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090115
SS4.5_Inputfile.7_17 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090116

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SS4.5_Inputfile.7_18 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090117
SS4.5_Inputfile.7_19 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090118
SS4.5_Inputfile.7_20 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090119
SS4.5_Inputfile.7_21 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090120
SS4.5_Inputfile.7_22 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090121
SS4.5_Inputfile.7_23 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090122
SS4.5_Inputfile.7_24 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090123

####################################
# Output file names
####################################
SS4.5_Outputfile.1_01 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090100
SS4.5_Outputfile.1_02 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090101
SS4.5_Outputfile.1_03 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090102
SS4.5_Outputfile.1_04 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090103
SS4.5_Outputfile.1_05 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090104
SS4.5_Outputfile.1_06 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090105
SS4.5_Outputfile.1_07 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090106
SS4.5_Outputfile.1_08 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090107
SS4.5_Outputfile.1_09 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090108
SS4.5_Outputfile.1_10 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090109
SS4.5_Outputfile.1_11 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090110
SS4.5_Outputfile.1_12 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090111
SS4.5_Outputfile.1_13 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090112
SS4.5_Outputfile.1_14 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090113
SS4.5_Outputfile.1_15 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090114
SS4.5_Outputfile.1_16 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090115
SS4.5_Outputfile.1_17 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090116
SS4.5_Outputfile.1_18 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090117
SS4.5_Outputfile.1_19 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090118
SS4.5_Outputfile.1_20 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090119
SS4.5_Outputfile.1_21 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090120
SS4.5_Outputfile.1_22 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090121
SS4.5_Outputfile.1_23 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090122
SS4.5_Outputfile.1_24 = CER_SSFB_Terra-FM1-MODIS_SSIT_000002.2002090123
SS4.5_Outputfile.3_01 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090100
SS4.5_Outputfile.3_02 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090101
SS4.5_Outputfile.3_03 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090102
SS4.5_Outputfile.3_04 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090103
SS4.5_Outputfile.3_05 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090104
SS4.5_Outputfile.3_06 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090105
SS4.5_Outputfile.3_07 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090106
SS4.5_Outputfile.3_08 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090107
SS4.5_Outputfile.3_09 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090108
SS4.5_Outputfile.3_10 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090109
SS4.5_Outputfile.3_11 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090110
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SS4.5_Outputfile.3_12 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090111
SS4.5_Outputfile.3_13 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090112
SS4.5_Outputfile.3_14 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090113
SS4.5_Outputfile.3_15 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090114
SS4.5_Outputfile.3_16 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090115
SS4.5_Outputfile.3_17 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090116
SS4.5_Outputfile.3_18 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090117
SS4.5_Outputfile.3_19 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090118
SS4.5_Outputfile.3_20 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090119
SS4.5_Outputfile.3_21 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090120
SS4.5_Outputfile.3_22 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090121
SS4.5_Outputfile.3_23 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090122
SS4.5_Outputfile.3_24 = CER_GQCI_Terra-FM1-MODIS_SSIT_000002.2002090123
SS4.5_Outputfile.4_01 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090100
SS4.5_Outputfile.4_02 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090101
SS4.5_Outputfile.4_03 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090102
SS4.5_Outputfile.4_04 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090103
SS4.5_Outputfile.4_05 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090104
SS4.5_Outputfile.4_06 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090105
SS4.5_Outputfile.4_07 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090106
SS4.5_Outputfile.4_08 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090107
SS4.5_Outputfile.4_09 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090108
SS4.5_Outputfile.4_10 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090109
SS4.5_Outputfile.4_11 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090110
SS4.5_Outputfile.4_12 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090111
SS4.5_Outputfile.4_13 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090112
SS4.5_Outputfile.4_14 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090113
SS4.5_Outputfile.4_15 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090114
SS4.5_Outputfile.4_16 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090115
SS4.5_Outputfile.4_17 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090116
SS4.5_Outputfile.4_18 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090117
SS4.5_Outputfile.4_19 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090118
SS4.5_Outputfile.4_20 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090119
SS4.5_Outputfile.4_21 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090120
SS4.5_Outputfile.4_22 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090121
SS4.5_Outputfile.4_23 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090122
SS4.5_Outputfile.4_24 = CER_SSF_Terra-FM1-MODIS_SSIT_000002.2002090123
SS4.5_Outputfile.5_01 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090100
SS4.5_Outputfile.5_02 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090101
SS4.5_Outputfile.5_03 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090102
SS4.5_Outputfile.5_04 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090103
SS4.5_Outputfile.5_05 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090104
SS4.5_Outputfile.5_06 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090105
SS4.5_Outputfile.5_07 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090106
SS4.5_Outputfile.5_08 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090107
SS4.5_Outputfile.5_09 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090108

```
SS4.5_Outputfile.5_10 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090109
SS4.5_Outputfile.5_11 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090110
SS4.5_Outputfile.5_12 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090111
SS4.5_Outputfile.5_13 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090112
SS4.5_Outputfile.5_14 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090113
SS4.5_Outputfile.5_15 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090114
SS4.5_Outputfile.5_16 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090115
SS4.5_Outputfile.5_17 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090116
SS4.5_Outputfile.5_18 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090117
SS4.5_Outputfile.5_19 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090118
SS4.5_Outputfile.5_20 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090119
SS4.5_Outputfile.5_21 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090120
SS4.5_Outputfile.5_22 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090121
SS4.5_Outputfile.5_23 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090122
SS4.5_Outputfile.5_24 = CER_SSFA_Terra-FM1-MODIS_SSIT_000002.2002090123

##################################
# Support file names
##################################
SS4.5_Outputfile.6 = CER4.5-6.6P2_PCF_Terra-FM1-MODIS_SSIT_000002.20020901.tar
SS4.5_Outputfile.7 = CER4.5-6.6P2_QC_Terra-FM1-MODIS_SSIT_000002.20020901.tar

##################################
# Log file names
##################################
SS4.5_Logsfile.1 = CER4.5-6.6P2_LogStatus_Terra-FM1-MODIS_SSIT_000002.20020901
SS4.5_Logsfile.2 = CER4.5-6.6P2_LogReport_Terra-FM1-MODIS_SSIT_000002.20020901
SS4.5_Logsfile.3 = CER4.5-6.6P2_LogUser_Terra-FM1-MODIS_SSIT_000002.20020901

##################################
# Temporary file names
##################################
Get_tempfile =  GetAttr.temp.Terra-FM1-MODIS_SSIT_000002.20020901
MCF_tempfile =  MCFWrite.temp.Terra-FM1-MODIS_SSIT_000002.20020901
```

C.15 Sample ASCII (PCFin) File Listing for CER4.5-6.6P3

```
###########################
# CERES baseline Metadata
###########################
PGEName              = CER4.5-6.6P3
SamplingStrategy     = Aqua-FM3-MODIS
ProductionStrategy   = SSIT
CERDataDateYear      = 2003
CERDataDateMonth     = 06
CERDataDateDay       = 30
ConfigurationCode    = 000002
SWsccr               = 000
DATAsccr             = 000
Sat_name             = Aqua
Inst_name            = FM3
Imag_name            = MODIS

##################################
# PGE specific runtime parameters
##################################
Satellite_Instrument  = Aqua/FM3
Ancillary_Data_Set    = AquaEd2
SP_MODEL_NUM          = 1
RUN_SURF_ALG          = 1
RUN_WrFlux            = 3
RUN_Aerosol_flag      = yes

#################################
# PCF required directories
#################################
SS4.5_InputDir.1  = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.2  = /CERES/inversion/data/out_comp/QC
SS4.5_InputDir.3  = /CERES/sarb/data/out_comp/data/regridmoa
SS4.5_InputDir.4  = /CERES/inversion/ancillary
SS4.5_InputDir.5  = /CERES/shared_data
SS4.5_InputDir.6  = /CERES/inversion/data/out_comp/data
SS4.5_InputDir.7  = /CERES/erbelike/data/ancillary/dynamic
SS4.5_OutputDir.1 = /CERES/inversion/data/out_comp/data
SS4.5_OutputDir.2 = /CERES/inversion/data/out_comp/QC
SS4.5_LogsDir     = /CERES/inversion/runlogs
SS4.5_MCFDir      = /CERES/inversion/rcf
SS4.5_PCFDir      = /CERES/inversion/CER4.5-6.6P3/rcf/pcf
SS4.5_TempDir     = /CERES/inversion/data/scr
```

```
#####################################
# Input file names
#####################################
SS4.5_Inputfile.1_01   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063000
SS4.5_Inputfile.1_02   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063001
SS4.5_Inputfile.1_03   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063002
SS4.5_Inputfile.1_04   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063003
SS4.5_Inputfile.1_05   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063004
SS4.5_Inputfile.1_06   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063005
SS4.5_Inputfile.1_07   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063006
SS4.5_Inputfile.1_08   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063007
SS4.5_Inputfile.1_09   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063008
SS4.5_Inputfile.1_10   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063009
SS4.5_Inputfile.1_11   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063010
SS4.5_Inputfile.1_12   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063011
SS4.5_Inputfile.1_13   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063012
SS4.5_Inputfile.1_14   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063013
SS4.5_Inputfile.1_15   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063014
SS4.5_Inputfile.1_16   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063015
SS4.5_Inputfile.1_17   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063016
SS4.5_Inputfile.1_18   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063017
SS4.5_Inputfile.1_19   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063018
SS4.5_Inputfile.1_20   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063019
SS4.5_Inputfile.1_21   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063020
SS4.5_Inputfile.1_22   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063021
SS4.5_Inputfile.1_23   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063022
SS4.5_Inputfile.1_24   = CER_SSFB_Aqua-FM3-MODIS_ValR2_029033.2003063023
SS4.5_Inputfile.9_01 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063000
SS4.5_Inputfile.9_02 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063001
SS4.5_Inputfile.9_03 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063002
SS4.5_Inputfile.9_04 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063003
SS4.5_Inputfile.9_05 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063004
SS4.5_Inputfile.9_06 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063005
SS4.5_Inputfile.9_07 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063006
SS4.5_Inputfile.9_08 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063007
SS4.5_Inputfile.9_09 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063008
SS4.5_Inputfile.9_10 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063009
SS4.5_Inputfile.9_11 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063010
SS4.5_Inputfile.9_12 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063011
SS4.5_Inputfile.9_13 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063012
SS4.5_Inputfile.9_14 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063013
SS4.5_Inputfile.9_15 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063014
SS4.5_Inputfile.9_16 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063015
SS4.5_Inputfile.9_17 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063016
SS4.5_Inputfile.9_18 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063017
```

```
SS4.5_Inputfile.9_19 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063018
SS4.5_Inputfile.9_20 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063019
SS4.5_Inputfile.9_21 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063020
SS4.5_Inputfile.9_22 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063021
SS4.5_Inputfile.9_23 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063022
SS4.5_Inputfile.9_24 = CER_SSFA_Aqua-FM3-MODIS_ValR2_029033.2003063023
SS4.5_Inputfile.2_01  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063000
SS4.5_Inputfile.2_02  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063001
SS4.5_Inputfile.2_03  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063002
SS4.5_Inputfile.2_04  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063003
SS4.5_Inputfile.2_05  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063004
SS4.5_Inputfile.2_06  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063005
SS4.5_Inputfile.2_07  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063006
SS4.5_Inputfile.2_08  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063007
SS4.5_Inputfile.2_09  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063008
SS4.5_Inputfile.2_10  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063009
SS4.5_Inputfile.2_11  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063010
SS4.5_Inputfile.2_12  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063011
SS4.5_Inputfile.2_13  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063012
SS4.5_Inputfile.2_14  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063013
SS4.5_Inputfile.2_15  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063014
SS4.5_Inputfile.2_16  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063015
SS4.5_Inputfile.2_17  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063016
SS4.5_Inputfile.2_18  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063017
SS4.5_Inputfile.2_19  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063018
SS4.5_Inputfile.2_20  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063019
SS4.5_Inputfile.2_21  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063020
SS4.5_Inputfile.2_22  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063021
SS4.5_Inputfile.2_23  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063022
SS4.5_Inputfile.2_24  = CER_GQCI_Aqua-FM3-MODIS_ValR2_029033.2003063023
SS4.5_Inputfile.3_01  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_02  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_03  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_04  = CER_MOA_CERES_DAO-GEOS4_016023.2003063001
SS4.5_Inputfile.3_05  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_06  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_07  = CER_MOA_CERES_DAO-GEOS4_016023.2003063002
SS4.5_Inputfile.3_08  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_09  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_10  = CER_MOA_CERES_DAO-GEOS4_016023.2003063003
SS4.5_Inputfile.3_11  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_12  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_13  = CER_MOA_CERES_DAO-GEOS4_016023.2003063004
SS4.5_Inputfile.3_14  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_15  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_16  = CER_MOA_CERES_DAO-GEOS4_016023.2003063005
```

```
SS4.5_Inputfile.3_17  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_18  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_19  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_20  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_21  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_22  = CER_MOA_CERES_DAO-GEOS4_016023.2003063007
SS4.5_Inputfile.3_23  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_24  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_25  = CER_MOA_CERES_DAO-GEOS4_016023.2003063008
SS4.5_Inputfile.3_26  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_27  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_28  = CER_MOA_CERES_DAO-GEOS4_016023.2003063009
SS4.5_Inputfile.3_29  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_30  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_31  = CER_MOA_CERES_DAO-GEOS4_016023.2003063010
SS4.5_Inputfile.3_32  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_33  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_34  = CER_MOA_CERES_DAO-GEOS4_016023.2003063011
SS4.5_Inputfile.3_35  = CER_MOA_CERES_DAO-GEOS4_016023.2003063006
SS4.5_Inputfile.3_36  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_37  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_38  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_39  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_40  = CER_MOA_CERES_DAO-GEOS4_016023.2003063013
SS4.5_Inputfile.3_41  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_42  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_43  = CER_MOA_CERES_DAO-GEOS4_016023.2003063014
SS4.5_Inputfile.3_44  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_45  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_46  = CER_MOA_CERES_DAO-GEOS4_016023.2003063015
SS4.5_Inputfile.3_47  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_48  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_49  = CER_MOA_CERES_DAO-GEOS4_016023.2003063016
SS4.5_Inputfile.3_50  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_51  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_52  = CER_MOA_CERES_DAO-GEOS4_016023.2003063017
SS4.5_Inputfile.3_53  = CER_MOA_CERES_DAO-GEOS4_016023.2003063012
SS4.5_Inputfile.3_54  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_55  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_56  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_57  = CER_MOA_CERES_DAO-GEOS4_016023.2003063000
SS4.5_Inputfile.3_58  = CER_MOA_CERES_DAO-GEOS4_016023.2003063019
SS4.5_Inputfile.3_59  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_60  = CER_MOA_CERES_DAO-GEOS4_016023.2003070100
SS4.5_Inputfile.3_61  = CER_MOA_CERES_DAO-GEOS4_016023.2003063020
SS4.5_Inputfile.3_62  = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
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SS4.5_Inputfile.3_63 = CER_MOA_CERES_DAO-GEOS4_016023.2003070100
SS4.5_Inputfile.3_64 = CER_MOA_CERES_DAO-GEOS4_016023.2003063021
SS4.5_Inputfile.3_65 = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_66 = CER_MOA_CERES_DAO-GEOS4_016023.2003070100
SS4.5_Inputfile.3_67 = CER_MOA_CERES_DAO-GEOS4_016023.2003063022
SS4.5_Inputfile.3_68 = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_69 = CER_MOA_CERES_DAO-GEOS4_016023.2003070100
SS4.5_Inputfile.3_70 = CER_MOA_CERES_DAO-GEOS4_016023.2003063023
SS4.5_Inputfile.3_71 = CER_MOA_CERES_DAO-GEOS4_016023.2003063018
SS4.5_Inputfile.3_72 = CER_MOA_CERES_DAO-GEOS4_016023.2003070100
SS4.5_Inputfile.4_01 = IISCOLD.19990525
SS4.5_Inputfile.4_02 = CER_SCCD_Aqua-FM3_Edition2_026023.20030615
SS4.5_Inputfile.4_03 = CER_SCCN_Aqua-FM3_Edition2_026023.20030615
SS4.5_Inputfile.5_01 = fits_06.dat.20050830
SS4.5_Inputfile.5_02 = ann-sw-aqua-ed2-all.par.20050830
SS4.5_Inputfile.5_03 = ann-sw-aqua-ed2-all.offset.20050830
SS4.5_Inputfile.5_04 = match_taod_550.20050815
SS4.5_Inputfile.5_05 = match_aerj.20050815
SS4.5_Inputfile.5_06 = match_aerk.20050815
SS4.5_Inputfile.5_07 = match_taod.20050815
SS4.5_Inputfile.5_08 = terra_csalb.20050815
SS4.5_Inputfile.5_09 = ann-lw-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_10 = ann-lw-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_11 = ann-wn-aqua-ed2-all-day.par.20050830
SS4.5_Inputfile.5_12 = ann-wn-aqua-ed2-all-day.offset.20050830
SS4.5_Inputfile.5_13 = adm_land_cld.dat2b.20050830
SS4.5_Inputfile.5_14 = albmn_land_cld.out2b.20050830
SS4.5_Inputfile.5_15 = IGBP_mod_all.map.20050830
SS4.5_Inputfile.5_16 = adm_groups.dat2b.20050830
SS4.5_Inputfile.5_17 = albmn_groups.out2b.20050830
SS4.5_Inputfile.5_18 = fuliou.dat.20050830
SS4.5_Inputfile.5_19 = lndcld1_swrad.fit.20050830
SS4.5_Inputfile.5_20 = lndcld2_swrad.fit.20050830
SS4.5_Inputfile.5_21 = lndcld3_swrad.fit.20050830
SS4.5_Inputfile.5_22 = lndcld1_swflx.fit.20050830
SS4.5_Inputfile.5_23 = lndcld2_swflx.fit.20050830
SS4.5_Inputfile.5_24 = lndcld3_swflx.fit.20050830
SS4.5_Inputfile.5_25 = ocecld1_swrad.fit.20050830
SS4.5_Inputfile.5_26 = ocecld2_swrad.fit.20050830
SS4.5_Inputfile.5_27 = ocecld3_swrad.fit.20050830
SS4.5_Inputfile.5_28 = ocecld1_swflx.fit.20050830
SS4.5_Inputfile.5_29 = ocecld2_swflx.fit.20050830
SS4.5_Inputfile.5_30 = ocecld3_swflx.fit.20050830
SS4.5_Inputfile.5_31 = oceclr_adm_trmmaqua.dat_nak.20050830
SS4.5_Inputfile.5_32 = rayleigh_lim.dat.20050830
SS4.5_Inputfile.5_33 = oceclrth.dat.nak.20050830

SS4.5_Inputfile.5_34 = permanent_snow_adm.dat.20050830
SS4.5_Inputfile.5_35 = fresh_snow_adm.dat.20050830
SS4.5_Inputfile.5_36 = seaice_adm.dat.20050830
SS4.5_Inputfile.5_37 = snowref1.map.monthly.binary.20050830
SS4.5_Inputfile.5_38 = ocecld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_39 = ocecld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_40 = ocecld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_41 = ocecld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_42 = lndcld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_43 = lndcld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_44 = lndcld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_45 = lndcld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_46 = descld_lwrad_allpw.fit.20050830
SS4.5_Inputfile.5_47 = descld_lwflx_allpw.fit.20050830
SS4.5_Inputfile.5_48 = descld_wnrad_allpw.fit.20050830
SS4.5_Inputfile.5_49 = descld_wnflx_allpw.fit.20050830
SS4.5_Inputfile.5_50 = ocecld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_51 = ocecld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_52 = ocecld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_53 = ocecld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_54 = lndcld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_55 = lndcld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_56 = lndcld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_57 = lndcld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_58 = descld_lwrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_59 = descld_lwflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_60 = descld_wnrad_nit_allpw.fit.20050830
SS4.5_Inputfile.5_61 = descld_wnflx_nit_allpw.fit.20050830
SS4.5_Inputfile.5_62 = admcsky_aqua_lwwndy_ed1b.dat.20050830
SS4.5_Inputfile.5_63 = admcsky_aqua_lwwnnt_ed1b.dat.20050830
SS4.5_Inputfile.5_64 = permanent_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_65 = fresh_snow_adm_lw.dat.20050830
SS4.5_Inputfile.5_66 = seaice_adm_lw.dat.20050830
SS4.5_Inputfile.5_67 = permanent_snow_adm_lw_night.dat.20051104
SS4.5_Inputfile.5_68 = fresh_snow_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_69 = seaice_adm_lw_night.dat.20050830
SS4.5_Inputfile.5_70 = permanent_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_71 = fresh_snow_adm_wn.dat.20050830
SS4.5_Inputfile.5_72 = seaice_adm_wn.dat.20050830
SS4.5_Inputfile.5_73 = permanent_snow_adm_wn_night.dat.20051104
SS4.5_Inputfile.5_74 = fresh_snow_adm_wn_night.dat.20050830
SS4.5_Inputfile.5_75 = seaice_adm_wn_night.dat.20050830
SS4.5_Inputfile.5_76 = microwave_snow_gaps.map.20050830
SS4.5_Inputfile.5_77 = ann-lw-aqua-ed2-all-nt.par.20050830
SS4.5_Inputfile.5_78 = ann-lw-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_79 = ann-wn-aqua-ed2-all-nt.par.20050830

SS4.5_Inputfile.5_80 = ann-wn-aqua-ed2-all-nt.offset.20050830
SS4.5_Inputfile.5_81 = lndcld_di_flx.dat.20050830
SS4.5_Inputfile.5_82 = ocecld_di_flx.dat.20050830
SS4.5_Inputfile.4_38 = VIRS-Ch1F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.4_39 = VIRS-Ch2F-Lut-MLS-Ws_01.00-Wa_000-ang15
SS4.5_Inputfile.6_01 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063000
SS4.5_Inputfile.6_02 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063001
SS4.5_Inputfile.6_03 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063002
SS4.5_Inputfile.6_04 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063003
SS4.5_Inputfile.6_05 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063004
SS4.5_Inputfile.6_06 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063005
SS4.5_Inputfile.6_07 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063006
SS4.5_Inputfile.6_08 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063007
SS4.5_Inputfile.6_09 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063008
SS4.5_Inputfile.6_10 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063009
SS4.5_Inputfile.6_11 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063010
SS4.5_Inputfile.6_12 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063011
SS4.5_Inputfile.6_13 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063012
SS4.5_Inputfile.6_14 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063013
SS4.5_Inputfile.6_15 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063014
SS4.5_Inputfile.6_16 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063015
SS4.5_Inputfile.6_17 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063016
SS4.5_Inputfile.6_18 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063017
SS4.5_Inputfile.6_19 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063018
SS4.5_Inputfile.6_20 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063019
SS4.5_Inputfile.6_21 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063020
SS4.5_Inputfile.6_22 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063021
SS4.5_Inputfile.6_23 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063022
SS4.5_Inputfile.6_24 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063023
SS4.5_Inputfile.7_01 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063000
SS4.5_Inputfile.7_02 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063001
SS4.5_Inputfile.7_03 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063002
SS4.5_Inputfile.7_04 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063003
SS4.5_Inputfile.7_05 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063004
SS4.5_Inputfile.7_06 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063005
SS4.5_Inputfile.7_07 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063006
SS4.5_Inputfile.7_08 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063007
SS4.5_Inputfile.7_09 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063008
SS4.5_Inputfile.7_10 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063009
SS4.5_Inputfile.7_11 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063010
SS4.5_Inputfile.7_12 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063011
SS4.5_Inputfile.7_13 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063012
SS4.5_Inputfile.7_14 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063013
SS4.5_Inputfile.7_15 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063014
SS4.5_Inputfile.7_16 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063015
SS4.5_Inputfile.7_17 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063016

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SS4.5_Inputfile.7_18 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063017
SS4.5_Inputfile.7_19 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063018
SS4.5_Inputfile.7_20 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063019
SS4.5_Inputfile.7_21 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063020
SS4.5_Inputfile.7_22 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063021
SS4.5_Inputfile.7_23 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063022
SS4.5_Inputfile.7_24 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063023

####################################
# Output file names
####################################
SS4.5_Outputfile.1_01 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063000
SS4.5_Outputfile.1_02 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063001
SS4.5_Outputfile.1_03 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063002
SS4.5_Outputfile.1_04 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063003
SS4.5_Outputfile.1_05 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063004
SS4.5_Outputfile.1_06 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063005
SS4.5_Outputfile.1_07 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063006
SS4.5_Outputfile.1_08 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063007
SS4.5_Outputfile.1_09 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063008
SS4.5_Outputfile.1_10 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063009
SS4.5_Outputfile.1_11 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063010
SS4.5_Outputfile.1_12 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063011
SS4.5_Outputfile.1_13 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063012
SS4.5_Outputfile.1_14 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063013
SS4.5_Outputfile.1_15 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063014
SS4.5_Outputfile.1_16 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063015
SS4.5_Outputfile.1_17 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063016
SS4.5_Outputfile.1_18 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063017
SS4.5_Outputfile.1_19 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063018
SS4.5_Outputfile.1_20 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063019
SS4.5_Outputfile.1_21 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063020
SS4.5_Outputfile.1_22 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063021
SS4.5_Outputfile.1_23 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063022
SS4.5_Outputfile.1_24 = CER_SSFB_Aqua-FM3-MODIS_SSIT_000002.2003063023
SS4.5_Outputfile.3_01 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063000
SS4.5_Outputfile.3_02 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063001
SS4.5_Outputfile.3_03 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063002
SS4.5_Outputfile.3_04 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063003
SS4.5_Outputfile.3_05 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063004
SS4.5_Outputfile.3_06 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063005
SS4.5_Outputfile.3_07 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063006
SS4.5_Outputfile.3_08 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063007
SS4.5_Outputfile.3_09 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063008
SS4.5_Outputfile.3_10 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063009
SS4.5_Outputfile.3_11 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063010
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SS4.5_Outputfile.3_12 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063011
SS4.5_Outputfile.3_13 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063012
SS4.5_Outputfile.3_14 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063013
SS4.5_Outputfile.3_15 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063014
SS4.5_Outputfile.3_16 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063015
SS4.5_Outputfile.3_17 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063016
SS4.5_Outputfile.3_18 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063017
SS4.5_Outputfile.3_19 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063018
SS4.5_Outputfile.3_20 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063019
SS4.5_Outputfile.3_21 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063020
SS4.5_Outputfile.3_22 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063021
SS4.5_Outputfile.3_23 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063022
SS4.5_Outputfile.3_24 = CER_GQCI_Aqua-FM3-MODIS_SSIT_000002.2003063023
SS4.5_Outputfile.4_01 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063000
SS4.5_Outputfile.4_02 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063001
SS4.5_Outputfile.4_03 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063002
SS4.5_Outputfile.4_04 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063003
SS4.5_Outputfile.4_05 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063004
SS4.5_Outputfile.4_06 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063005
SS4.5_Outputfile.4_07 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063006
SS4.5_Outputfile.4_08 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063007
SS4.5_Outputfile.4_09 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063008
SS4.5_Outputfile.4_10 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063009
SS4.5_Outputfile.4_11 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063010
SS4.5_Outputfile.4_12 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063011
SS4.5_Outputfile.4_13 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063012
SS4.5_Outputfile.4_14 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063013
SS4.5_Outputfile.4_15 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063014
SS4.5_Outputfile.4_16 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063015
SS4.5_Outputfile.4_17 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063016
SS4.5_Outputfile.4_18 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063017
SS4.5_Outputfile.4_19 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063018
SS4.5_Outputfile.4_20 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063019
SS4.5_Outputfile.4_21 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063020
SS4.5_Outputfile.4_22 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063021
SS4.5_Outputfile.4_23 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063022
SS4.5_Outputfile.4_24 = CER_SSF_Aqua-FM3-MODIS_SSIT_000002.2003063023
SS4.5_Outputfile.5_01 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063000
SS4.5_Outputfile.5_02 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063001
SS4.5_Outputfile.5_03 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063002
SS4.5_Outputfile.5_04 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063003
SS4.5_Outputfile.5_05 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063004
SS4.5_Outputfile.5_06 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063005
SS4.5_Outputfile.5_07 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063006
SS4.5_Outputfile.5_08 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063007
SS4.5_Outputfile.5_09 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063008

```
SS4.5_Outputfile.5_10 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063009
SS4.5_Outputfile.5_11 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063010
SS4.5_Outputfile.5_12 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063011
SS4.5_Outputfile.5_13 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063012
SS4.5_Outputfile.5_14 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063013
SS4.5_Outputfile.5_15 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063014
SS4.5_Outputfile.5_16 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063015
SS4.5_Outputfile.5_17 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063016
SS4.5_Outputfile.5_18 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063017
SS4.5_Outputfile.5_19 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063018
SS4.5_Outputfile.5_20 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063019
SS4.5_Outputfile.5_21 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063020
SS4.5_Outputfile.5_22 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063021
SS4.5_Outputfile.5_23 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063022
SS4.5_Outputfile.5_24 = CER_SSFA_Aqua-FM3-MODIS_SSIT_000002.2003063023

##################################
# Support file names
##################################
SS4.5_Outputfile.6 = CER4.5-6.6P3_PCF_Aqua-FM3-MODIS_SSIT_000002.20030630.tar
SS4.5_Outputfile.7 = CER4.5-6.6P3_QC_Aqua-FM3-MODIS_SSIT_000002.20030630.tar

##################################
# Log file names
##################################
SS4.5_Logsfile.1 = CER4.5-6.6P3_LogStatus_Aqua-FM3-MODIS_SSIT_000002.20030630
SS4.5_Logsfile.2 = CER4.5-6.6P3_LogReport_Aqua-FM3-MODIS_SSIT_000002.20030630
SS4.5_Logsfile.3 = CER4.5-6.6P3_LogUser_Aqua-FM3-MODIS_SSIT_000002.20030630

##################################
# Temporary file names
##################################
Get_tempfile =  GetAttr.temp.Aqua-FM3-MODIS_SSIT_000002.20030630
MCF_tempfile =  MCFWrite.temp.Aqua-FM3-MODIS_SSIT_000002.20030630
```