

**CERES PGE Description Table  
and  
CERES Data/PGE Flow Chart**

**at the**

**Langley TRMM and Terra Information System (LATIS)**

**CERES Data Management Team**

## CERES PGE Description Table

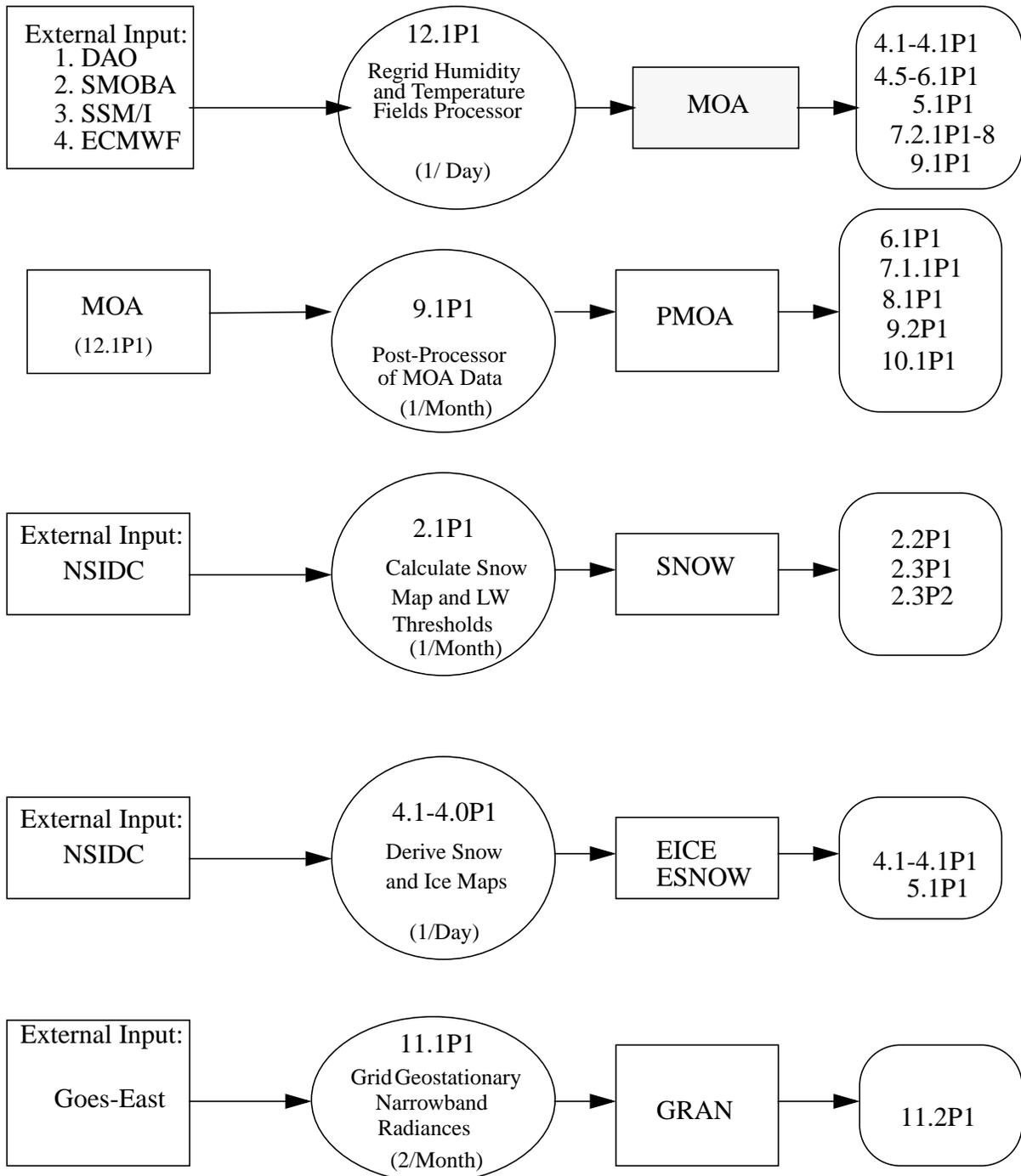
Subsystem	PGEName	PGE Description
DAAC	CER0.1P1	TRMM DPREP Process
1.	CER1.1P1	TRMM Level 0 Data Processor
1.	CER1.1P2	TRMM Quick Look Data Processor
1.	CER1.1P3	Terra Level 0 Data Processor
1.	CER1.1P4	Terra Quick Look Data Processor
1.	CER1.1P5	Aqua Level 0 Data Processor
1.	CER1.1P6	Aqua Quick Look Data Processor
1.	CER1.2P1	Convert BDS to PRES8
1	CER1.3P1	Collect Daily Internal Calibration Data
1	CER1.3P2	Create Monthly Internal Calibration Results
1	CER1.3P3	Create BDS from New Gains and Baseline BDS
2.	CER2.1P1	ERBE-Like Monthly Geo-Scene & Snow Map, and Longwave Flux and Albedo Thresholds
2	CER2.2P1	ERBE-like Inversion for FAPS + RAPS Data
2.	CER2.3P1	ERBE-like Monthly Overlap Processor for FAPS+RAPS Data from the First Day of the Next Month
2.	CER2.3P2	ERBE-like Monthly Overlap Processor for FAPS+RAPS Data from the Last Day of the Previous Month
2.	CER2.4P1	Calculate Final Spectral Correction Coefficients
3.	CER3.1P1	ERBE-like Averaging to Monthly TOA Flux Processor for the FAPS+RAPS Data from a Single Instrument
3	CER3.2P1	ERBE-like Averaging to Monthly TOA Flux Processor for the FAPS+RAPS Data from Multiple Instruments
4.1-4.4	CER4.1-4.0P1	Derive Snow and Ice Maps
4.1-4.4	CER4.1-4.1P1	Cloud Property Retrieval and Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function (TRMM)
4.1-4.4	CER4.1-4.1P2	Cloud Property Retrieval and Convolution of Imager Cloud Properties with CERES Footprint Point Spread Function (Terra)
4.1-4.4	CER4.1-4.2P1	Process Clearsky Update File
4.1-4.4	CER4.1-4.3P1	Clouds Monthly QC Processor
4.5-4.6	CER4.5-6.1P1	Inversion to Instantaneous TOA Fluxes and Surface Fluxes

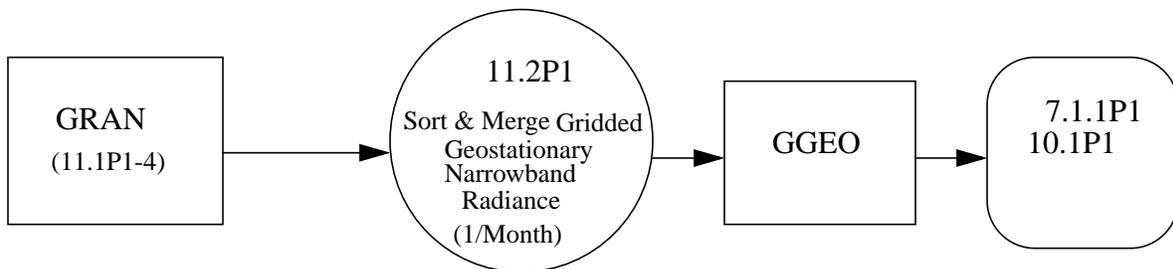
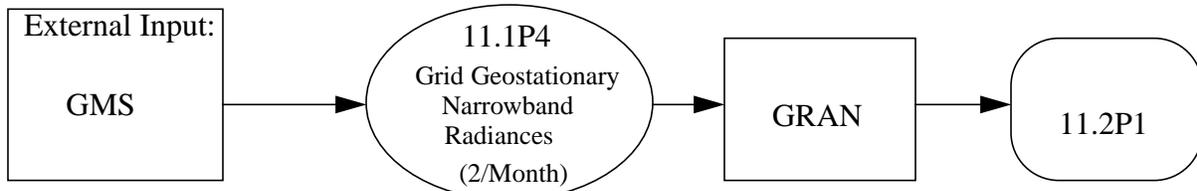
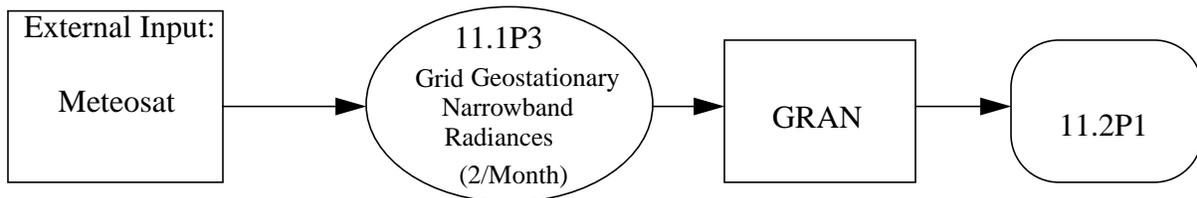
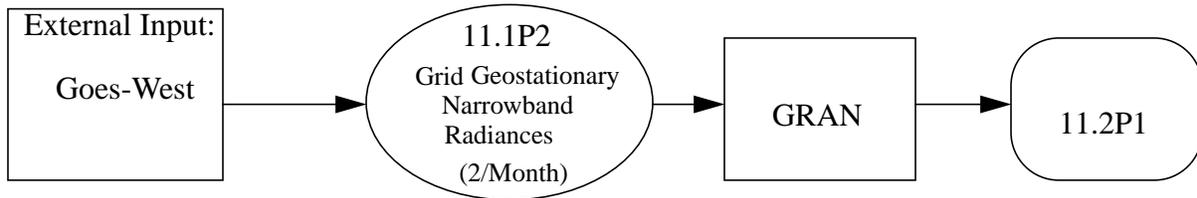
## CERES PGE Description Table

Subsystem	PGEName	PGE Description
4.5-4.6	CER4.5-6.2P1	Create SSF Subset Nighttime/Daytime Daily Files
4.5-4.6	CER4.5-6.3P1	Alternate Inversion to Instantaneous TOA Fluxes and Surface Fluxes
5.	CER5.0P1	Instantaneous SARB Surface Albedo Monthly Preprocessor
5.	CER5.1P1	Instantaneous SARB Subsystem Main-Processor
5.	CER5.2P1	Instantaneous SARB Surface Albedo Daily Preprocessor
6.	CER6.1P1	Grid Single Satellite Fluxes and Clouds and Compute Spatial Averages Processor
6.	CER6.2P1	Sort and Merge Gridded Single Satellite Fluxes and Clouds
6.	CER6.3P1	Postprocessor for FSW HDF generation
7.1	CER7.1.1P1	Process Time Interpolation and Synoptic Flux Computation
7.2	CER7.2.1P1	Synoptic SARB Subsystem Main-Processor (Hour 0)
7.2	CER7.2.1P2	Synoptic SARB Subsystem Main-Processor (Hour 3)
7.2	CER7.2.1P3	Synoptic SARB Subsystem Main-Processor (Hour 6)
7.2	CER7.2.1P4	Synoptic SARB Subsystem Main-Processor (Hour 9)
7.2	CER7.2.1P5	Synoptic SARB Subsystem Main-Processor (Hour 12)
7.2	CER7.2.1P6	Synoptic SARB Subsystem Main-Processor (Hour 15)
7.2	CER7.2.1P7	Synoptic SARB Subsystem Main-Processor (Hour 18)
7.2	CER7.2.1P8	Synoptic SARB Subsystem Main-Processor (Hour 21)
7.2	CER7.2.2P1	Synoptic SARB Subsystem HDF Post-Processor
8.	CER8.1P1	Monthly Regional, Zonal and Global Radiation Fluxes and Cloud Properties
9.	CER9.1P1	Post-Processor for MOA Data, create PMOA
9.	CER9.2P1	Grid TOA and Surface Fluxes
9.	CER9.3P1	Sort and Merge Gridded TOA and Surface Fluxes
9.	CER9.4P1	Post-Processor for SFC HDF-EOS Data File
10.	CER10.1P1	Monthly Regional TOA and Surface Radiation Budget
11.	CER11.1P1	Grid GOES-East Geostationary Narrowband Radiance
11.	CER11.1P2	Grid GOES-West Geostationary Narrowband Radiance
11.	CER11.1P3	Grid Meteosat Geostationary Narrowband Radiance
11.	CER11.1P4	Grid GMS Geostationary Narrowband Radiance
11.	CER11.2P1	Sort and Merge Gridded Geostationary Narrowband Radiance
12.	CER12.1P1	Regrid MOA Subsystem

# CERES Satellite-Independent Processors (PGEs)

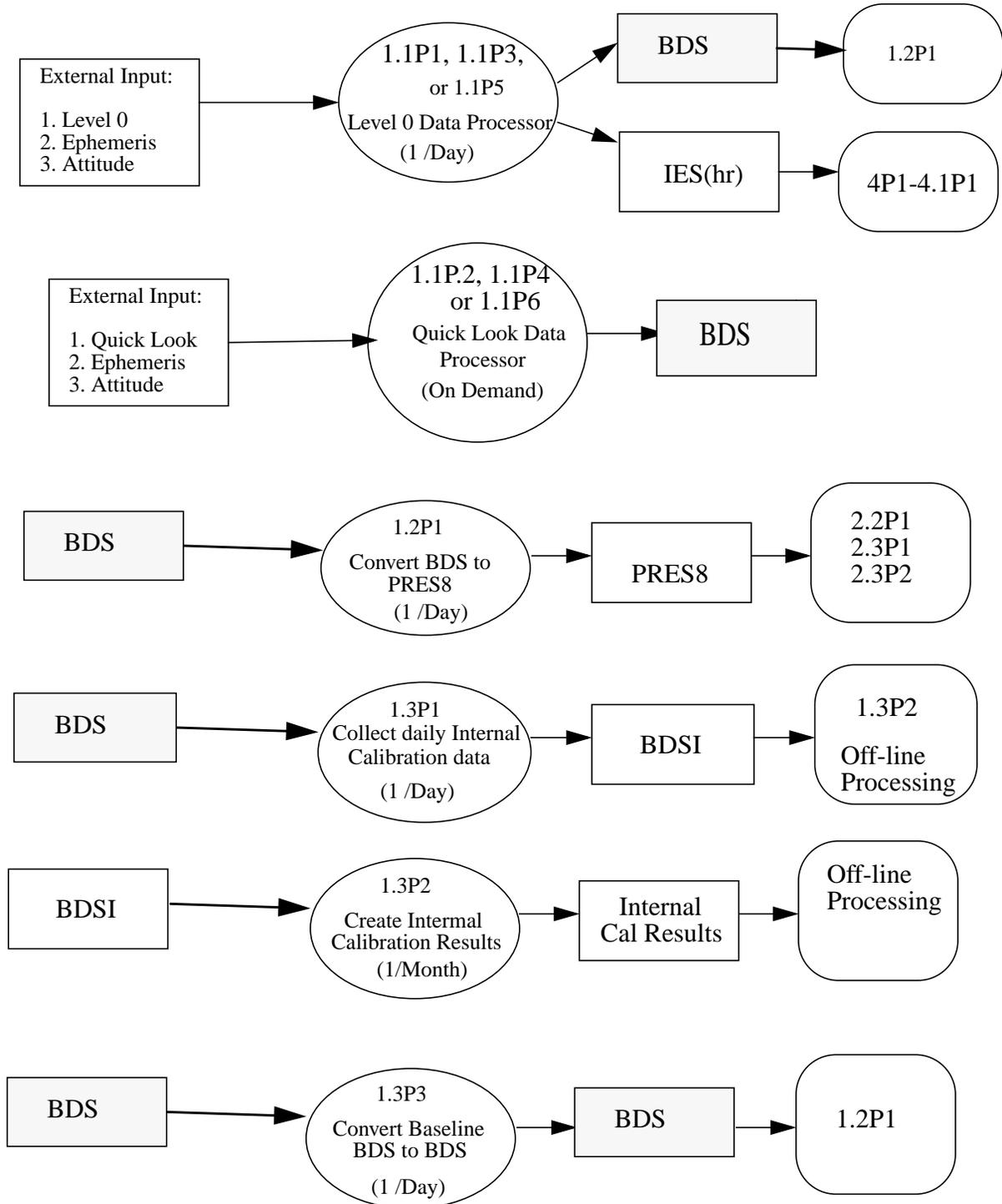
Input Data-->Processor-->Output Data-->Target Processor(s)

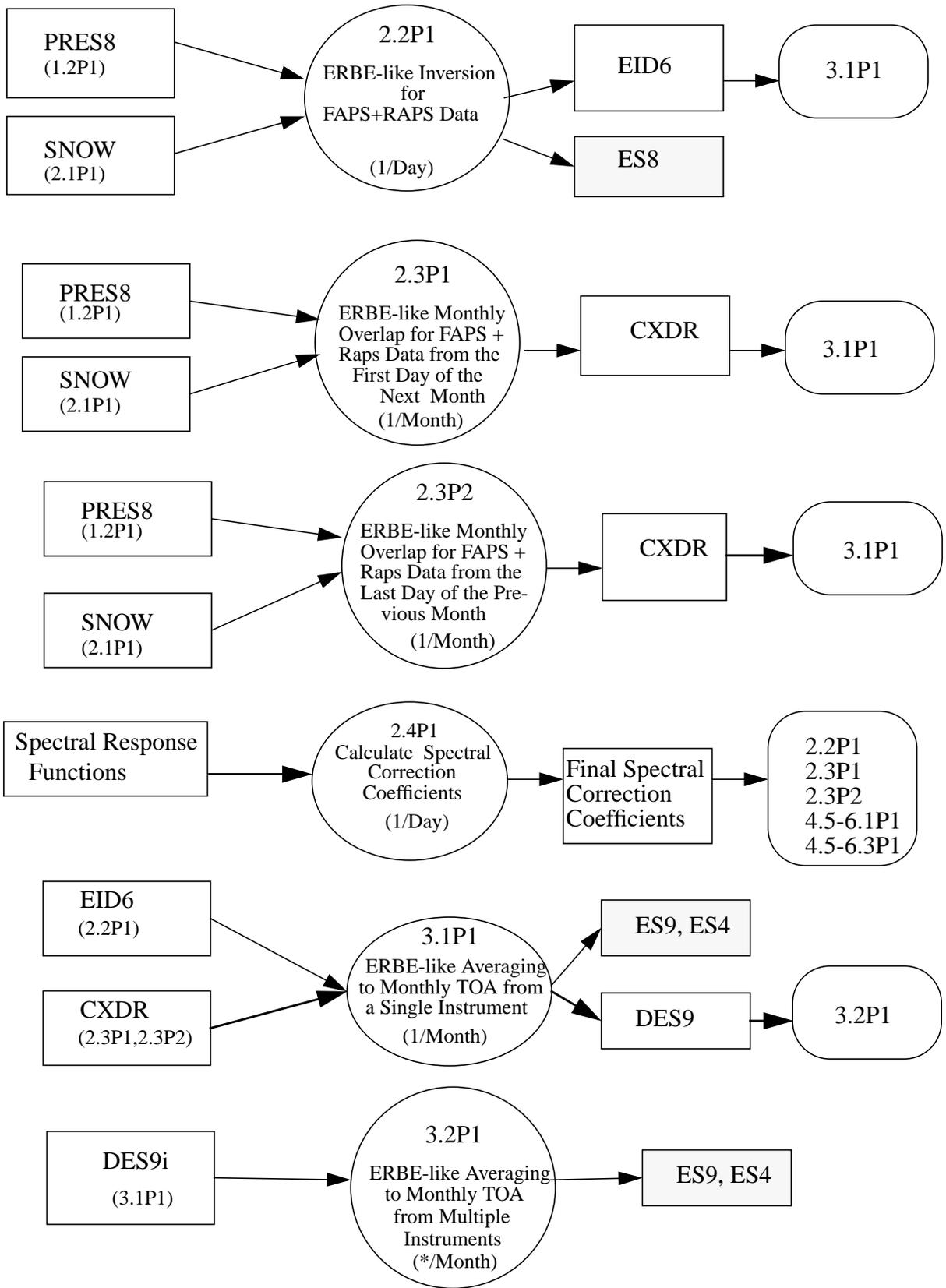




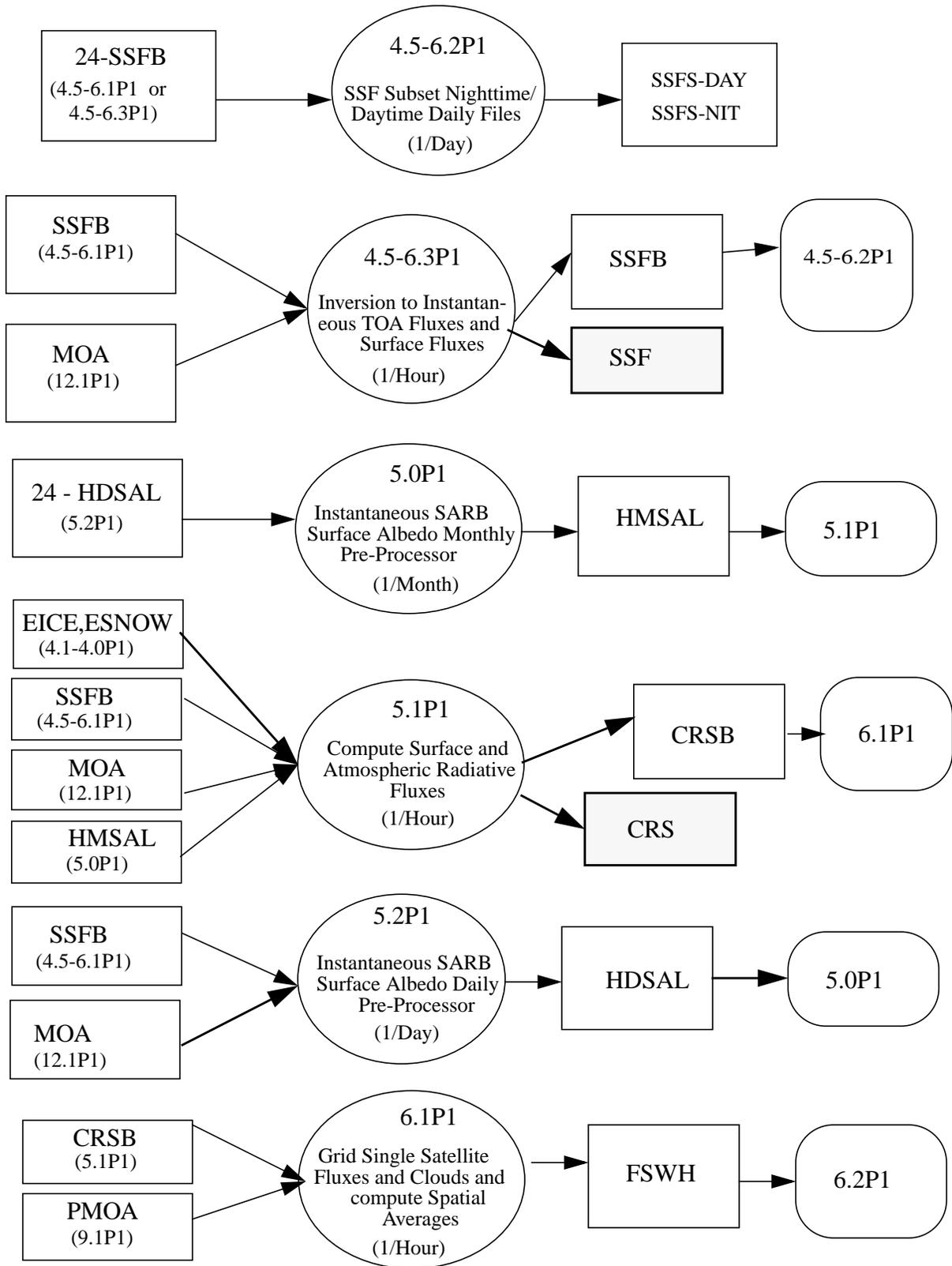
# CERES Satellite-Dependent Processors (PGEs)

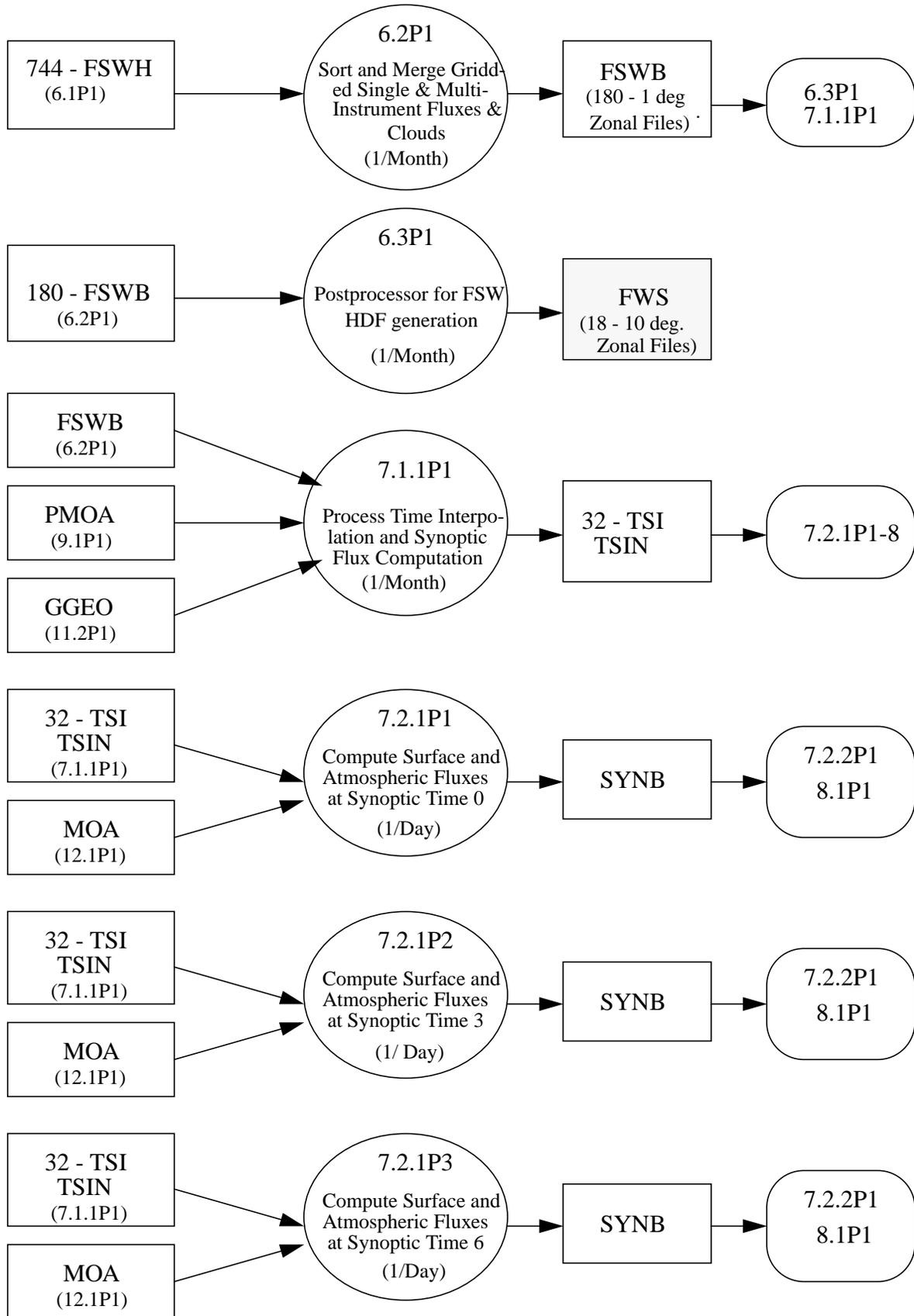
**Input Data-->Processor-->Output Data-->Receiving Processor(s)**

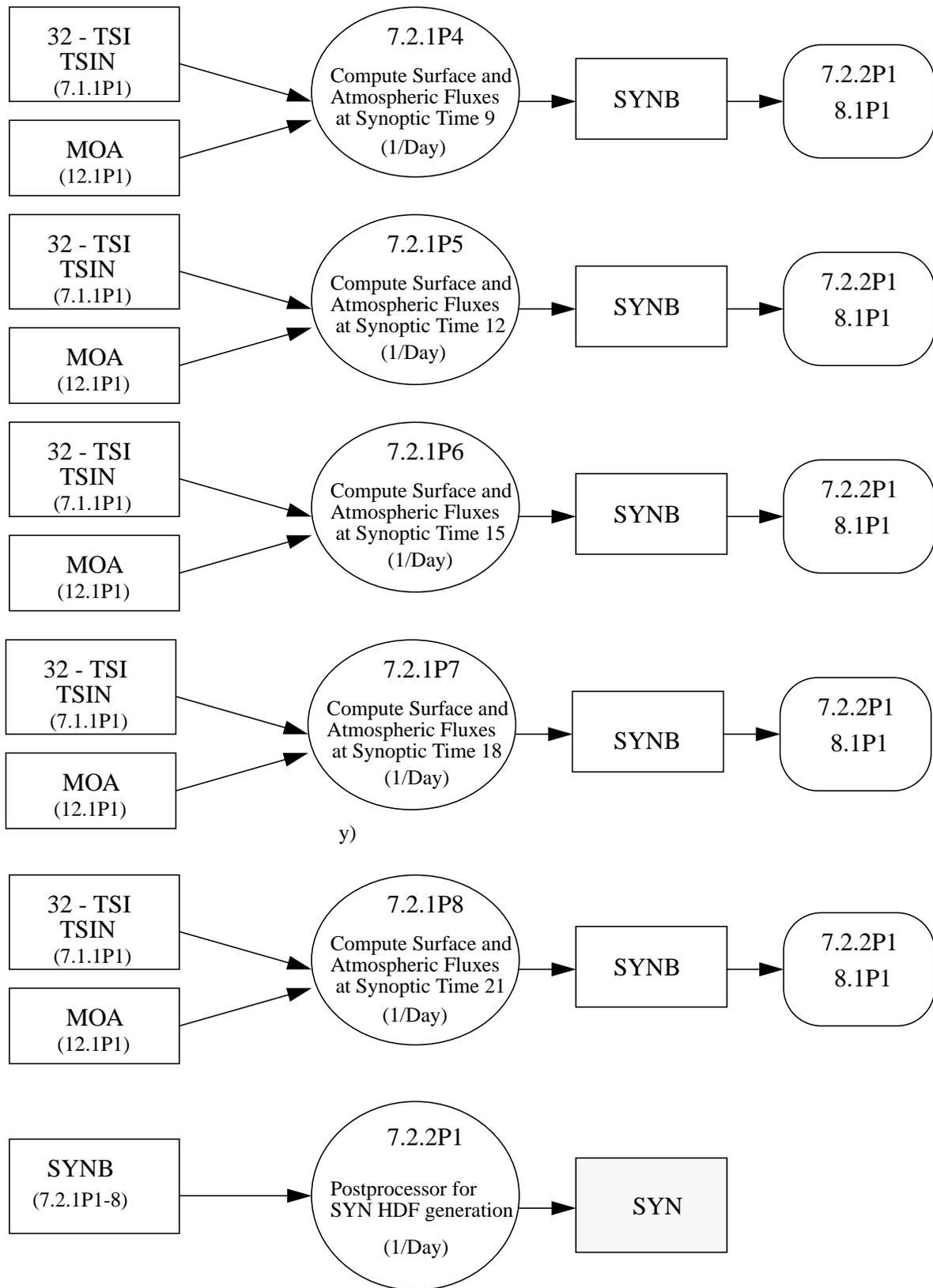


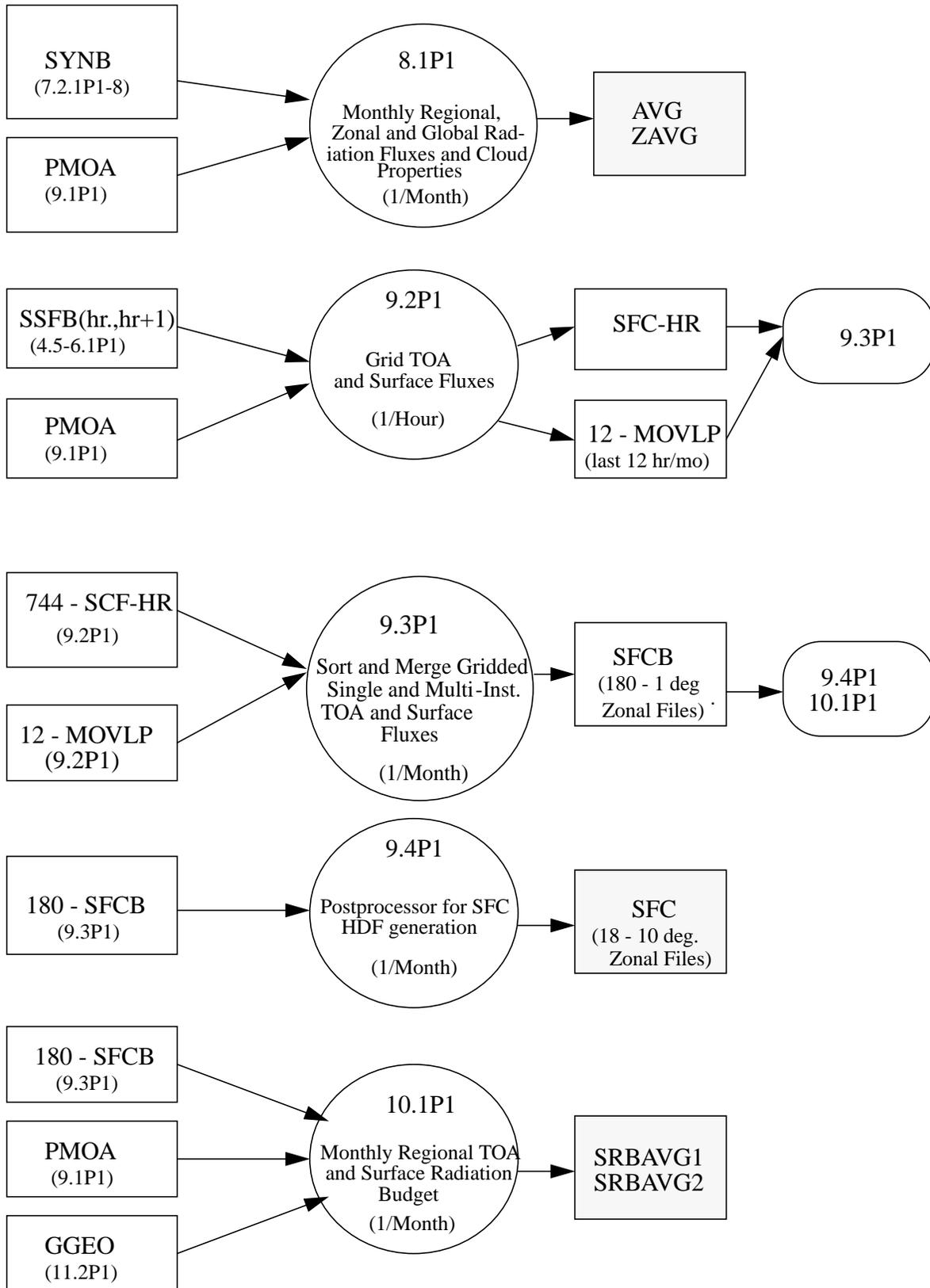












CERES Archival Products -



## APPENDIX A

### CERES File Naming Convention

May 12, 1997

TO: CERES Science and Data Management Teams

FROM: CERES Instrument Principal Investigator

SUBJECT: CERES File Naming Conventions

During the past several weeks, we have had extensive discussions regarding possible approaches to naming conventions for the CERES data products and other files. The discussion has been vigorous and far reaching. I appreciate your willingness to enter into the conversation with a substantial amount of energy. However, it is also clear to me that the discussion might never converge, even though we must get on with the business of producing ERBE and CERES data. Accordingly, the following conventions will be used on all CERES files until such time as we have to make a revision to accommodate the migration to the ECS or ESDIS delivered software for EOSDIS.

All files will contain an identifier constructed as follows:

[Investigation]\_[Product ID]\_[SamplingStrategy]\_[ProductionStrategy]\_[Configuration].[Instance]

The components of this identifier are as follows:

Investigation: the 3 characters 'CER' for CERES.

Product\_ID: a variable-length name, chosen by each Working Group to make sense of their files. Archival product files should match the Data Products Catalog abbreviations, e.g., IES, FSW, SSF, SRBAVG.

SamplingStrategy: a variable-length description of the data source, which typically uses the satellite or instrument combination that contributes to the product, such as TRMM or AM1. Where the instrument calibration dominates, we recommend using the

TRW serial number, such as PFM or FM1. The Working Groups are responsible for these names. Examples of sampling strategies include TRMM, AM1, PFM+FM1, etc. I can provide additional examples or the theoretical basis for this component if you are interested.

Production Strategy: a variable-length description of the file version (sometimes identified as Version) Versions come in the following flavors:

Edition, a continuous, consistent series of an archival data product or source file. There are likely to be very few Editions of a data product over the life of CERES. We suggest using either 'Ed1' or 'AtLaunched' for the edition we construct as the first Edition we publish after TRMM. We expect the second major edition to occur about the year 2000, when we will include new ADM's based on TRMM data.

Campaign, a homogeneous series of an archival data product or file. Typically, a file in a Campaign Version of a series will have homogeneous data sources and source code. The most likely kind of Campaigns for CERES will be those involving Validation such as FIRE campaigns or field work involving INDOEX, CAGEX, ARM, or similar scientific activities. We suggest Working Groups consider very short abbreviations of the campaigns for the Version identifier, such as FIREV or INDOEX.

Diagnostic Case, a homogeneous series of files. Diagnostic Case files will typically be produced in response to

anomaly reports or in search of improvements. The number of files in a diagnostic case is highly variable, but is often small. The files we produced trying to find, understand, and correct the burn problem on ERBE provides a useful example of this kind of version. Working Groups are responsible for identifiers. The intent is to use the identifier for providing an identifier for the kind of problem being diagnosed. Examples might include TRMMBurn or AM1RTAdj (for an investigation of problems with the Radiative Transfer adjustments on AM-1).

Configuration: a 6-digit key into a database table controlled by Configuration Management to track all items which affect the content of this instance of a particular product. The state of these items must be replicated in the product header metadata. We will likely strip this code then the product is distributed to an investigator. Examples include 024091, 004010, etc.

Instance: a variable length identifier chosen by the working group to uniquely identify the instance in the sampling strategy. If the identifier includes a data date, it must be of the form YYYY[MM][DD][HH], such as 1997111501 or 20000312. Less commonly, the Instance may include spatial identifiers, such as Zone numbers or latitude bands. Thus, we might have 199903zone180.

We cannot avoid delimiters in this identifier scheme. Do not include spaces, '\', '/', '|', '[', ']', '\*', '\$', etc. An underscore, '\_', is the only delimiter to be used between fields and must not appear within the individual fields in the file names. Where identifiers are concatenated, use only '+'. Violation of these rules will make the file identifiers unusable on some operating systems.

Examples:

[Investigation]\_[Product ID]\_[SamplingStrategy]\_[ProductionStrategy]\_[Configuration].[Instance]

CER\_IES\_TRMM\_Ed1\_00001.1997111501  
CER\_SRBAVG\_PFM+FM1+FM4\_AM1ADMEd\_003023.200201

Finally, be brief. Many of the differences of opinion about identifiers hinge on the aesthetics of short, encoded meanings, on individual preferences regarding readability, and on the appearance of file names in directories. We will continually face the balance between legibility and brevity. It is a breach of etiquette to have file names that cannot be printed on a single line of 10 pt., fixed pitch font of the type used to deliver a list of files on 8mm tape. Working Groups violating this principle will receive due punishment at appropriate gatherings of the CERES Team.

Bruce R. Barkstrom  
CERES Instrument Principal Investigator  
(February, 1998, revised by Maria V. Mitchum)