Earth Observing System

Output Data Products and Input Requirements

Version 2.0

Volume I : Instrument Data Product Characteristics

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

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This document was prepared by the SPSO Team of Hughes STX under the direction of Yun-Chi Lu, EOS System Development Office, GSFC. The SPSO Team Members contributed to this report include: Hyo Duck Chang, Brian Krupp, Ravindra Kumar and Anand Swaroop. Publishing support was provided by Sara Spivey and Ron Bretemps of Hughes STX.

PREFACE

This document presents information on EOS output data products and input data requirements that has been compiled by the Science Processing Support Office (SPSO) at GSFC. Since Version 1.0 of the SPSO Report was released in August 1991, there have been significant changes in the EOS program. In anticipation of a likely budget cut for the EOS Project, NASA HQ restructured the EOS program. An initial program consisting of two large platforms was replaced by plans for multiple, smaller platforms, and some EOS instruments were either deselected or descoped. This report, superseding the August 1991 version of the SPSO Report, contains updated payload information reflecting the restructured EOS program.

This report has been expanded to cover information on non-EOS data products, and consists of three volumes (Volumes I, II, and III). Volume I provides information on instrument outputs and input requirements. Volume II is devoted to Interdisciplinary Science (IDS) outputs and input requirements, including the "best" and "alternative" match analysis. Volume III of this report provides information about retrieval algorithms, non-EOS input requirements of instrument teams and IDS investigators, and availability of non-EOS data products at seven primary Distributed Active Archive Centers (DAACs).

Much of the information presented in this document is also available from *an interactive, user-friendly, on-line database system* developed by the SPSO. The on-line system, known as the Science Processing DataBase (SPDB), offers not only information on data products but also other related information such as retrieval algorithms, investigators, instruments, and platforms. In addition, it provides information on the current and future data holdings of the original seven DAACs, including those from the Earth Probes and the Pathfinder Activities. The Quick Reference Guide for the SPDB is sent to you for your information, along with this report.

The SPSO wishes to emphasize that this document is evolutionary and will be continually updated as new information becomes available. The SPSO would appreciate any suggestions for improvements to this report. If you have comments on this document or need additional information on the on-line system, please contact:

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Since the Science Processing Support Office (SPSO) Report entitled "EOS Output Data Products and Input Requirements - Version 1.0" was released in August 1991, new information has become available and some important updates have been made, the most significant change being the addition of Volume III. The new Volume III provides information on non-EOS input requirements, availability of data holdings of the original seven DAACs, and retrieval algorithms (output/input product relationships). Other important updates in this release of the SPSO Report include the following:

A. PLATFORM INFORMATION

The originally planned configuration of instruments for the EOS platforms has been radically changed by NASA HQ. The initial emphasis on launching two large platforms (EOS - A and B) has been replaced by plans to launch a number of small platforms, each flying a significantly reduced payload and some of instruments being deselected. The revised platform information has been incorporated.

B. OUTPUT DATA PRODUCTS

• AIRS

Revised and expanded data product information has been provided to the SPSO by Barbara Weymann of AIRS Data Processing and Instrument Operations (DPIO) Team. According to the updated information, the final algorithms for some of at-launch standard products (e. g., temperature and humidity profiles) and post-launch research products (e. g., land emissivity, total ozone burden, etc.) have not been decided and algorithm development is proceeding along parallel tracks by different teams using different concepts (the final algorithms will be selected by the AIRS Team Leader in the future). For instance, five different retrieval algorithms are being developed for temperature and moisture profiles, the core AIRS science products. Characteristics of output data products, such as accuracy and spatial resolution, are also dependent upon algorithms. For these reasons, ranges of the attributes (e. g., accuracy and spatial resolution) are given for the AIRS data products for which multiple algorithms are being developed (see Appendices C and E).

• ASTER

Information on ASTER products has been revised based on updated output product lists released by the instrument team in August and December 1991. Several ASTER products listed in Version 1.0 of this report no longer appear in the lists presented by the instrument team, and have been deleted, based upon the information provided by the ASTER Team. These are:

2036	Land_sfc Reflectance, Bi-directional (BRDF)
2257	Radiative Flux, LW, Up
2258	Radiative Flux, SW, Up
2376, 2377	Level-2 Radiance, Land_leaving
3177	Sea_Ice Conc, GCM.

In addition, a number of ASTER sea ice-related products, to be produced by team member Welch, are specifically identified in a recent ASTER algorithm report (January 1992). Since these products involve different physical parameters, they have been added as separate products and are listed in the Appendix C (product numbers 3616-3624). Similarly, four additional Welch cloud products have been incorporated (product numbers 3625-3628). Also, eight level-4 products to be produced by Japanese team members appear in the December 1991 ASTER product list. These have also been included (product numbers 3629-3636).

- **CERES**

Corrections and revisions to the CERES output product information presented in Verson 1.0 have been provided to the SPSO. All these have been incorporated into the SPSO databases and into the appendices of this release.

- **MISR**

The MISR Team has provided revised information on at-launch standard products and post-launch research data products.

- **MODIS**

Twelve members of the MODIS Science Team reviewed their data products and retrieval algorithms and provided updated information. Team Members who provided the information are: Abbott, Barton, Brown, Carder, Clark, Gordon, Hoge, Huete, Kaufman, King, Muller, and Vanderbilt. The updated MODIS data product and algorithm information was incorporated in Appendices C, E, and F of Volume I and and Appendix P of Volume III, respectively.

- **All Instruments**

The EOS Program Level 1 Requirements Document (December 1991) lists "essential" products which have been identified by the instrument teams as being most vital to meeting the scientific goals of the EOS Project. The "essential" data products are distinguished in Appendix E (Instrument Output Products) by *italicised* product names. In addition, several products identified as "essential" in the Level 1 Requirements Document were not contained in Version 1.0 of the SPSO report. These include CO_2, HCl, and HFl concentrations from TES (3637-3639), UV Stellar Comparison Spectra from SOLSTICE (3640), Cloud Cover at 250m resolution from MODIS (3641), Lightning Occurrence and Radiant Energy from LIS (3642-3643), and BRDF from EOSP (3644).

- **GLRS-R, GOS, IPEI, LAWS, MODIS-T, SAR, SWIRLS and XIE**

Appendices C, E, and F do not include the data products proposed for the following instruments: GLRS-R, GOS, IPEI, LAWS, MODIS-T, SAR, SWIRLS, and XIE. The data products for these instruments have been dropped from the Master Data Product List,

because, at this time, they are not being considered for flight on any EOS platform. These products are listed separately in Appendix H of this report. Although funding for LAWS instrument development has not been provided by the EOS project, negotiations are underway with other federal agencies and potential foreign partners in an effort to develop a laser wind sounder for the EOS era.

C. INPUT REQUIREMENTS

- **CERES**

CERES input requirements have been updated by the instrument team. More detailed information was provided to the SPSO and has been incorporated into the relevant databases. The revised input requirements are presented in Appendix G of Volume I and supercede the information in the previous release.

- **All Instruments and IDS Investigators**

A list of non-EOS input requirements (Appendix R of Volume III) was greatly expanded to cover most of the non-EOS data required by all instrument teams and IDS investigators.

- **IDS Investigators**

Analysis of the best and alternative match products was revised to incorporate the restructuring of the EOS platforms and the updated data product information provided by various instrument teams.

D. RETRIEVAL ALGORITHMS

The algorithm database, complementary to the EOS Master Product Database, was developed by the SPSO. The database was designed to provide an overview of retrieval algorithms, output data products and associated input data. In this report, the algorithm database was used to generate algorithm summary tables, showing the relationships between input and output data products for EOS instruments and IDS investigators (Appendices P and Q of Volume III).

E. SIZING ANALYSIS

Volume estimates for 22 EOS instruments were revised to incorporate the latest data product information. The results of the various requirements sizing analyses presented in Appendix I are based on the revised volume estimates. In addition, analysis of IDS investigators' input requirements was further extended to provide information on availability of input data for two time periods, pre- and post-2001 (Appendices N and O).

F. NON-EOS DATA PRODUCTS

This report was expanded to cover information on pre-EOS data products. This new information is presented in Volume III and includes the current and future data holdings of the original seven DAACs and data products expected from Earth Probe Missions and Pathfinder Activities.

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1.0 INTRODUCTION

The Earth Observing System (EOS) is a key element of the Global Change Research Program to study the Earth as a system and to improve our knowledge of global changes resulting from both natural and anthropogenic causes (Ramapriyan 1990). EOS will support interdisciplinary "Earth System Science" (NASA 1988) by establishing long-term, reliable remote sensing measurements of geophysical and biological variables, in order to document global, regional, and local changes over a time period from the present to 15 years after launch . The geophysical and biological data products to be archived and distributed by EOS will extend the usefulness of remote sensing data to a broader range of the scientific community, who will no longer need to possess detailed knowledge of instrument characteristics and electromagnetic interactions at the surface (Dozier 1990).

The EOS Data and Information System (EOSDIS) will provide the ground system for the collection, production, analysis, and distribution of data from EOS, and will support Earth system science by providing easy and rapid access to usable, understandable, and timely data, and by fostering cross-fertilization of scientific disciplines. An analysis of the science data processing requirements is an essential element for the planning, design, and implementation of EOSDIS. The goal of this analysis is to estimate the baseline computational requirements needed to support the generation, archiving, and distribution of science data products. Starting in March 1989, the Science Processing Support Office (SPSO) at the Goddard Space Flight Center (GSFC) has been compiling and synthesizing science user requirements in order to estimate the baseline computational requirements. Characteristics of input and output data products and methodology for requirements analysis were described in Version 1.0 of the SPSO Report, released in August 1991.

The initial EOS program, originally planned as two series of polar-orbiting platforms (EOS - A and -B), has been significantly modified over the past year. In anticipation of a likely reduction in the EOS budget for the decade ending in 2000, NASA has restructured the EOS program. The goal of this restructuring is to develop a resilient program that, despite budget induced cutbacks within the EOS Project, can still make significant contributions to the U. S. Global Change Research Program (GCRP). The restructuring was based mainly on the recommendations of the Payload Advisory Panel for EOS and involves the descoping/deselection of some EOS instruments and launching a larger number of smaller platforms. The recommended EOS instruments and platform configurations were chosen to ensure continutity of the long-term time series of climate measurements, to address high priority science and policy issues identified by the Intergovernmental Panel on Climate Change (IPCC), and to be consistent with technical, budgetary and scheduling constraints.

The purpose of this report is to provide the EOS science community with updated data product information, reflecting the restructured EOS program. This report has been expanded to incorporate new and updated data product information which has become available since August 1991 and consists of three volumes. Volume I contains input/output data products sorted by product number; output data products sorted by instrument,

investigator and product name; and instrument team input requirements. Volume II is devoted to the SPSO analyses of IDS investigators' input requirements, including the information on the best and alternative match EOS data products. It also provides information on IDS investigators' input requirements which cannot be met by EOS instruments for each of the time periods before and after the year 2001. Volume III includes a comprehensive list of non-EOS input data required by all EOS instrument teams and IDS investigators. Also included are the current (FY91) and future (FY94) data holdings of the original seven DAACs, and the data products to be generated from the future missions/projects such as Earth Probes and Pathfinder activities. In addition, Volume III includes two new appendices, algorithm summary tables for EOS instruments and IDS investigators. The algorithm summary tables provide information on investigators, required instruments, and associated input and output data products.

Most of the information in this report is also available from an interactive on-line database system developed by the SPSO. The on-line system, known as the Science Processing DataBase (SPDB), is based on an easy-to-use, menu-driven user interface and offers user-friendly query forms and on-line help. It provides not only data product information but also other related information such as retrieval algorithms, investigators, instruments, and recent platform information. In addition, the on-line system provides information on availability of non-EOS data sets in the Version 0 timeframe. All database files of the on-line system are dynamically linked so that users can access related information at any time without having to go back to previous screens. The SPDB can be accessed easily from computer networks or by direct dial-up. Users who need additional information or would like to have a copy of the SPDB User's Guide should contact Yun-Chi Lu at the address given in the Preface.

2.0 EOS INSTRUMENTS

The platform instrument payloads and launch schedules, based on the restructured EOS program, are summarized in Table 2-1 and a brief description of each instrument is presented in Section 2.1. EOS instrument data products identified as "essential" products in the EOS Level 1 Requirements Document (December 1991) are also listed in Table 2-1. The "essential" data products are those which have been identified by the instrument teams as being most vital to meeting the scientific goals of the EOS Project and the U. S. Global Change Research Program (GCRP). Table 2-1 does not include two instruments, MLS and SAFIRE, which were descoped beyond 2001 and for which essential data products were not identified in the Level 1 Requirements Document.

Table 2-1 Instrument Payload

Platform	Launch Date	Instrument	Essential Products
AM (Morning Satellite)	June 1998	CERES	• Global distribution of reflected solar and emitted radiant fluxes
		MODIS	• Surface temperature • Ocean color data, including chlorophyll a concentration and chlorophyll fluorescence • Vegetation indices, types, and productivities • Cloud cover and cloud radiative properties • Aerosol properties • Fire occurence, size, and temperature
		MISR	• Multi-angle bidirectional reflectances at the surface and for clouds • Spectral hemispherical albedo at the top of the atmosphere and at the surface • Aerosol opacities and scattering properties • Global surface topographic and regional cloud elevations
		ASTER [1]	• Reflected sunlight images of the Earth in the visible and shortwave infrared • High resolution thermal; infrared multispectral images • Cloud height and local surface digital elevation model
		MOPITT [1]	• CO concentration and column abundance • CH_4 column abundance
		HIRIS [2]	• High resolution spectral imagery of selected targets
		EOSP [2]	• Spectral bidirectional reflectance distribution function and polarization in 8 spectral bands (410-950 nm) and 4 bands (1250-2250 nm) • Cloud particle phase, particle size and total optical phase
AERO (Aerosol Satellite)	June 2000	SAGE III	• Atmospheric temperature, pressure, and composition for aerosols, ozone, and other minor gases
PM (Afternoon Satellite)	December 2000	CERES	• Global Distribution of reflected solar and emitted radiant fluxes
		MODIS	• Surface temperature • Ocean color data, including chlorophyll a concentration and chlorophyll fluorescence • Vegetation indices, types, and productivities • Cloud cover and cloud radiative properties • Aerosol properties • Fire occurence, size, and temperature

1. Recommended for flight on AM-1 only.
2. Recommended for flight on AM-2 and -3 (replacing ASTER and MOPITT on AM-1).

Table 2-1 Instrument Payload (Cont'd)

Platform	Launch Date	Instrument	Essential Products
PM (Afternoon Satellite)	December 2000	AIRS	• Atmospheric temperature profile • Surface temperature and emissivities • Land and ocean day/night spectral longwave surface radiant flux • Distribution of minor gas total burdens
		AMSU-A	• Cloud cover, cloud top temperature and pressure • Snow and ice cover
		MHS	• Global water vapor distribution
		MIMR	• Precipitation index • Sea surface temperature, water vapor and cloud water burden over oceans • Snow cover and sea ice parameters • Ocean surface wind stress • Soil moisture index
ALT (Altemetry Satellite)	June 2002	ALT	• Ocean ice sheet topography maps • Along-track sea surface height • Sea surface topography maps
		GGI	• Accurate spacecraft orbital path • Atmospheric temperature sounding • Three-dimensional ionosphere electron tomography
		GLRS-A	• Ice sheet topography profiles and changes • Land surface or vegetation canopy topography profiles and changes • Multiple cloud top and base heights and optical densities
CHEM (Chemistry Satellite)	June 2002	HIRDLS	• Gridded profiles of minor gases • Cloud top height, including stratospheric polar clouds
		TES	• Atmospheric composition for O_3, CO, CH_4, H_2O and NO_y • Local atmospheric concentration distributions of infrared-active species, including CO_2, SO_2, HCl, and HFI
		SAGE III	• Atmospheric temperature, pressure, and composition for aerosols, ozone, and other minor gases
		STIKSCAT	• Ocean surface vector wind maps
Mission of Opportunity	TBD	ACRIM	• Total (bolometric) solar irradiance above atmosphere
		SOLSTICE	• Solar spectral irradiance from 5 to 440 nm with 0.1 nm resolution from 115 to 440 nm • Equivalent comparison spectra from 30 bright stars with known luminosity stability • Solar spectra from 115 to 320 nm with 0.0015 nm resolution

2.1 Instrument Payloads

2.1.1 Morning (AM) Satellite

The recommended NASA morning platform, of which an equator crossing time is 10:30 a. m., includes a suite of sensors focused on cloud and aerosol radiative properties. The instruments selected for flight on the first satellite (NASA AM-1) to be launched in June 1998 are as follows:

- ASTER (Advanced Spaceborne Thermal Emission and Reflection), to be provided by the Japanese Ministry of International Trade and Industry (MITI), will provide high-resolution images (15 to 90 m) of the land surface and clouds for climatological, hydrological, biological, and geological studies.
- CERES (Clouds and the Earth's Radiant Energy System) will provide long-term measurements of the Earth's radiation budget. CERES is also planned to fly on TRMM, NASA afternoon satellite, and one of ESA's polar platforms.
- MISR (Multi-Angle Imaging Spectro-Radiometer) will provide information on the directional characteristics of reflected light for the study of aerosols, clouds, and land surface.
- MODIS (Moderate-Resolution Imaging Spectroradiometer) will provide measurements of biological and physical processes in the study of land, oceanic, and atmospheric phenomena.
- MOPITT (Measurements of Pollution in the Troposphere) will provide global measurements of carbon monoxide and methane in the troposphere.

On the subsequent morning platforms (NASA AM-2 and -3) to be launched in 2003 and 2008, ASTER will be replaced by HIRIS, and MOPITT by EOSP (the selection of EOSP is tentative, pending science review).

- HIRIS (High-Resolution Imaging Spectrometer) will use its high-resolution imaging capabilities to study biological and geophysical processes, as well as interactions along borders of different ecosystems. .
- EOSP (Earth Observing Scanner Polarimeter) will make global observations of polarized light to quantify the effects of aerosols and clouds in heating and cooling the Earth, as well as help characterize cloud feedbacks in global change processes.

2.1.2 Afternoon (PM) Satellite

The instruments on the NASA afternoon platform with a 1:30 p. m. equator crossing time allow study of cloud formation, precipitation and radiative properties. The instruments selected for flight on the first satellite (NASA PM-1) to be launched in December 2000 are as follows:

- AIRS/AMSU-A/MHS (Atmospheric Infrared Sounder/Advanced Microwave Sounding Unit/Microwave Humidity Sounder) will measure atmospheric temperature/humidity profiles and provide data on cloud cover and sea- and land-

surface temperatures. MHS is a planned contribution from EUMETSAT. *On the second satellite (NASA PM-2), AIRS and MHS may be replaced by subsitute instruments.*

- CERES (Clouds and the Earth's Radiant Energy System) will provide long-term measurements of the Earth's radiation budget. CERES is also planned to fly on TRMM, NASA afternoon satellite, and one of ESA's polar platforms.
- MIMR (Multi-frequency Imaging Microwave Radiometer) is to be provided by the ESA and will measure water vapor, liquid water content, rain rate, soil moisture, ice and snow cover, and sea surface temperature.
- MODIS (Moderate Resolution Imaging Spectroradiometer) will provide measurements of biological and physical processes in the study of land, oceanic, and atmospheric phenomena.

2.1.3 Aerosol Satellite

The aerosol platform in an inclined orbit of 57°, designed to measure global coverage of aerosol measurements, includes EOSP and SAGE III (the selection of EOSP is tentative, pending science review).

- SAGE III (Stratospheric Aerosol and Gas Experiment III) will measure profiles of aerosols, trace gases (O_3, NO_2, etc.), temperature and pressure between cloud tops and the upper mesosphere with 1-2 km vertical resolutions. SAGE III is an improved version of Stratospheric Aerosol Measurement II (SAM II), SAGE I, and SAGE II. SAGE III is also planned to fly on the chemistry satellite in 2002.

2.1.4 Altimetry Satellite

The altimetry satellite to be launched in June 2002 includes three EOS instruments:

- ALT (Altimeter) will map the topography of the sea surface and polar ice sheets. Through the mapping of sea surface topography, ALT provides information on the ocean surface current velosity. ALT will provide ocean ice sheet topography maps with 50 cm height accuracy and 15 km resolution.
- GGI (GPS Geoscience Instrument) is a high-performance Global Positioning System (GPS) receiver-processor. GGI will provide measurments of high-precision geodesy, atmospheric temperature profile, and ionospheric gravity wave.
- GLRS-A (Geoscience Laser Ranging System-Altimeter) is an altimeter designed to measure ice sheet heights, slope, and roughness characteristics. GLRS-A will also provide measurements of along-track cloud and aerosol distributions with a vertical resolution of 75 to 100 m from the surface to a height of 30 km.

2.1.5 Chemistry Satellite

The chemistry satellite to be launched in June 2002 includes three EOS instruments:

- HIRDLS (High-Resolution Dynamic Limb Sounder) will measure levels of trace gases that contribute to the greenhouse effect. In addition, measurements from HIRDLS will contribute to understanding the physical and chemical fluxes between the troposphere and stratosphere.

- TES (Tropospheric Emission Spectrometer) will measure global profiles of all infrared active species from the surface to the lower stratosphere, including greenhouse gases, tropospheric ozone, acid rain precursors, and gases which lead to stratospheric ozone depletion.
- SAGE III (Stratospheric Aerosol and Gas Experiment III) will measure profiles of aerosols, trace gases (O_3, NO_2, etc.), temperature and pressure between cloud tops and the upper mesosphere with 1-2 km vertical resolutions. SAGE III is an improved version of Stratospheric Aerosol Measurement II (SAM II), SAGE I, and SAGE II. SAGE III is also planned to fly on the chemistry satellite in 2002.
- STIKSCAT (Stick Scatterometer) will provide information on surface wind speeds and directions over global oceans in all weather conditions.

2.1.6 Mission of Opportunity

Two instruments, ACRIM and SOLSTICE, were recommended for mission of opportunity beyond 2001:

- ACRIM (Active Cavity Radiometer Irradiance Monitor) will provide measurements of the total solar irradiance above the atmosphere.
- SOLSTICE (Solar Stellar Irradiance Comparison Experiment) will determine the absolute solar ultraviolet flux above the atmosphere and flux stability by intercomparison with stellar standard candles.

2.2 Instrument and Data Product Allocation

The EOSDIS DAACs will facilitate global change research by offering improved and "one-stop-shopping" access to NASA's entire Earth science database (NASA, 1990). Eight U.S. institutions have been designated as DAACs on the basis of their existing data system capabilities, infrastructure and institutional scientific expertise. They include four NASA centers: the Goddard Space Flight Center (GSFC), the Jet Propulsion Laboratory (JPL), the Langley Research Center (LaRC), and the Marshall Space Flight Center (MSFC) and four non NASA centers : the Alaska SAR Facility (ASF) at University of Alaska, Earth Resource Observation System (EROS) Data Center (EDC) of U. S. Geological Survey (USGS), the National Snow and Ice Data Center (NSIDC) and the Department of Energy (DOE) Oak Ridge National Laboratory (ORNL). These data centers will serve as the focal points for data services by producing standard products, using algorithms developed by EOS investigators. Table 2.2 shows discipline responsibilites and data product allocation of each DAAC, based on NASA Headquarters program guidance (NASA HQ, 1990).

In addition to the eight DAACs, the Consortium for International Earth Science Information Network (CIESIN) located in Saginaw, Michigan, designated as Socioeconomic Data and Information Center, will archive and distribute social and economic data, and related earth science data to complement the efforts of other DAACs. However, CIESIN will not be responsible for archival and distribution of data products needed for the genaration of other EOS products. For that reason, CIESIN was not included in Table 2-2.

Table 2-2 Instrument and Data Product Allocation

DAAC	Discipline	Data Products
ASF	Sea Ice (SAR)	• L2/3 sea ice products from SAR.
EDC	Land Processes Imagery	• L2/3 products from MODIS-N (L2 products will be generated at GSFC, but will be archived and distributed at EDC). • All data products from ASTER.
JPL	Ocean Circulation, Air-Sea Interaction	• All products from ALT, GGI, and STIKSCAT.
GSFC	Atmospheric Dynamics, Upper Atmosphere, Global Biosphere, Geophysics	• All products from ACRIM, AIRS/AMSU, GOS, HIRDLS, MLS, SAFIRE, and SOLSTICE. • L1 & L2/3 atmospheric and ocean products from MODIS. • L1 & L2/3 atmospheric products from GLRS-A.
LaRC	Radiation Budget, Aerosols, Tropospheric Chemistry	• All products from CERES, EOSP, MISR, MOPITT, SAGE III, and TES.
MSFC	Hydrology	• All products from MIMR.
NSIDC	Snow and Ice (non-SAR), Polar Processes Imagery	• L2/3 snow & ice products from ALT, GLRS-A, and MODIS-N.
ORNL	Trace Gases	• TBD

3.0 EOS DATA PRODUCT DATABASE

Since March 1989, the SPSO at the GSFC has been responsible for collecting and synthesizing the science user requirements to characterize the baseline processing requirements needed to support the generation, archival, and distribution of science data products proposed by EOS investigators. This section describes the EOS Data Product Database based on the SPSO-compiled information. The Master Data Product Database constains descriptions of EOS measurement and science parameters. The various data product attributes (see below) refer to the parameters themselves. This particular database is not a compilation of *data sets* , and does not describe their structures or how they will be stored within EOSDIS. Information on actual data sets is limited at the present time, although such information on data sets and data granules that is available has been compiled by the SPSO into other databases.

3.1 Information Sources

The Master Data Product Database contains information on over 2,400 input and output data products proposed by EOS investigators. The sources of information include the following:

- The 160+ research proposals selected from the Announcement of Opportunity
- The "Silver Bullet" listings for the Facility Instrument, Interdisciplinary Investigators, and Principal Investigators as compiled by V. Salomonson (GSFC), J. Way (JPL), and J. Russell (LaRC), respectively

- The 85 Phase C/D proposals submitted by Facility Instrument Team members and Interdisciplinary Investigators
- The 11 Conceptual Design and Cost Review (CDCR) presentations by the Facility and Principal Investigator Instrument Teams
- The MODIS data study team weekly reports
- EOS Interdisciplinary Science Investigations Objectives and Data Product Requirements (VersionS 4.0 and 6.0) by M. Schier and J. Way
- Comments and revisions received from EOS investigators
- Input data survey for EOS instruments
- Algorithm reports by AIRS and MODIS teams
- Updated data product information from AIRS, ASTER, CERES and MODIS teams

3.2 Compilation and Integration

A complete list of EOS input/output data products is provided in Appendix C (Master Product List). In the EOS data product lists, a common format was adopted to enable cross comparison of Interdisciplinary Science (IDS) input data requirements with proposed Facility Instrument (FI) and Principal Investigator (PI) Instrument measurements. The attributes of the common format are summarized below.

- Attributes describing the measurement: (*Product Name, Units*, and *Category*)
- Attributes describing the source of information: (*Type, Source*, and *Investigator*)
- Attributes quantifying the resolution, location, and accuracy of the measurement: (*Accuracy, Temporal Resolution, Horizontal/Vertical Resolution*, and *Horizontal/Vertical Coverage*)
- Attributes describing the input requirements: (*Channels* and *Required EOS and non-EOS Input Products*)

The *Category* attribute is displayed in this report only for the instrument data products in Appendices E and F. This attribute is useful for sorting data products applicable to the atmospheric (A), ocean (O), land (L), and space sciences (S), as well as for sorting by subcategories such as hydrology and biology (e.g., AH, LH, LB, OB). The categories shown here have been revised so that all products from a particular discipline may be grouped together, solely as a matter of convenience in sorting EOS products (e.g., the original "Land Hydrology" category, GH, and the "Land Biology" category, BT, are displayed as the more natural LH and LB, respectively. The original category designations are still preserved in the databases. Product names were further corrected to eliminate inconsistencies and revised to allow more flexible sorting of data products and linkage to keywords in the Master Directory (MD). Product names used in this report are composites generated from four naming fields in the SPSO databases. A data product group name, such as "Cloud" or "Sea_Ice," describes what geophysical "entity" or "process" is involved, and corresponds in most cases to a related MD keyword. The list of data product group names and matching MD Keywords is presented in Appendix B. In addition, a physical parameter keyword identifies a particular measurement, such as "Temperature",

and two modifiers provide supplemental information on unique qualities of that measurement. The product names listed in the Appendices are of the form "Group Name + Physical Parameter Keyword, Modifier-1, Modifier-2." An alphabetic sort by product name displays similar groups (e.g., all cloud products) together. This approach provides common naming conventions among IDS, FI and PI data products. (In addition, the naming-fields can be combined in various other ways with spreadsheet formulae to yield "English-Language" product names such as "Land_sfc Spectral Emissivity," or names consistent with Global Change parameters, such as "Emissivity, Spectral, Land_sfc." The system is flexible and can be easily modified.)

Detailed descriptions of attributes and acronyms/abbreviations used in this report are given in Tables A-1 through A-5 in Appendix A. The Master Product List presented in Appendix C contains information on characteristics of data products proposed by all EOS instrument teams and the Interdisciplinary Investigators. It also contains information on platform and the DAAC assignment of each data product. The assignment of EOS output products to DAACs was based on the NASA Headquarters guidance (1990) described in Section 2.2. For those interested in data products for a specific instrument or for an IDS investigator, separate output data product lists for instrument teams and IDS investigators are presented in Appendices E and K, respectively.

Data products listed in Appendix C were used to generate so-called "concatenated" product lists for IDS investigators and instrument teams (Appendix D) by grouping similar data products. In grouping data products, the concept of "major" and "minor" groups was introduced. The major group is used to identify a group of independent data product names (which are classified as the minor groups). Each major group, in principle, will have a corresponding Master Directory (MD) keyword. One example for the major group is "cloud". The example for the minor group includes: cloud optical depth, cloud height, cloud top pressure, etc. A product group index list, containing a complete list of major and minor groups and the corresponding MD keywords, is presented in Appendix B. (In Appendix B, three question marks (???) for the MD keyword indicate that no appropriate keyword is available.)

Data products proposed for the instruments selected for flight on EOS platforms are listed in Appendix E. The listing in Appendix E is taken from the Master Product List (Appendix C) and is arranged by instrument name. In Appendix F, the same data product information is presented in alphabetical order by product name. As described earlier, the restructured EOS program involves the deseletion of eight (8) EOS instruments - GLRS-R, GOS, IPEI, LAWS, MODIS-T, SAR, SWIRLS, and XIE. Data products originally proposed for these instruments are presented in Appendix H.

EOS and non-EOS input data products required by instrument teams are listed in Appendix G. There are four types of input data required by EOS investigators: ancillary, correlative, algorithm development, and research. Ancillary data are data other than instrument data required to perform an instrument's data processing. They include orbit data, attitude data, time information, platform engineering data, calibration data, and data

from other instruments. Correlative data are scientific data from other sources used in the interpretation or validation of instrument data products (e.g., ground truth data or data products from other instruments.) It is important to note that correlative data are not used or required in processing instrument data. In Appendix G, there are two other data types; Development data to be used for developing/testing algorithms, and Research data to be used for new or improved products and other research activities. They are indicated by *Dev* and *Res*, respectively.

4.0 ANALYSIS OF SCIENCE PROCESSING REQUIREMENTS

Several tables for storage and processing load requirements are given in Appendix I. They are based on a multilayer model for the sizing analysis of the EOSDIS System. The methodology and assumptions used to develop the model are described in the following sections.

4.1 Approach

A multilayer model was used in the compilation and tabulation of the science data processing requirements. The model uses the Foxbase™* database and the Excel™ spreadsheet systems running on a Macintosh computer. It consists of five logical components that effectively partition the science requirements information into discrete elements. Information dependencies between components are represented by links between spreadsheets and by the database relational commands. The model components are summarized below:

- Assumptions—This spreadsheet contains various constants and assumptions used in the volume and processing load calculations including: platform parameters; instrument characteristics (e.g., average data rates); fractional coverage of the earth's surface (e.g., land, ocean); and estimated number of operations per pixel needed to generate categories of data products.
- Master List—This spreadsheet contains detailed information on the EOS standard data products.
- Product Analysis—This spreadsheet encodes the various numerical expressions that are used to estimate the data volumes and processing loads for each of the EOS standard data products. This spreadsheet references information from the Assumptions and Master List spreadsheets.
- Traffic Analysis—This database program is used to estimate the data distribution volumes from each EOSDIS DAAC. This program references information from the Master List and Product Analysis spreadsheets.
- Baseline Requirements—These spreadsheets are used to generate the tables to summarize the science data processing requirements. These spreadsheets reference information from the Traffic Analysis program results and the Product Analysis spreadsheets.

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* Use of trade names is for informational purposes only and does not constitute endorsement by NASA.

This approach was adopted to maximize flexibility and to reduce the effort needed to perform updates in response to: changes in the proposed operating characteristics and platform assignments of EOS instruments; reallocation of data products to the EOSDIS Archive Centers; and science data product information updates resulting from feedback from the EOS investigator community or from recent SPSO data product review and analysis activity.

4.2 Assumptions

This section describes assumptions used in estimating daily data volume and processing load presented in Appendix I.

4.2.1 Data Volume Estimates

Volume estimates for EOS instruments are given in Appendix I (Tables I-1 and -2). Level 0 data volumes for all instruments are computed from average data rates by multiplying them by the number of seconds in a day and converting to daily data volumes in gigabytes (GB/day). Because the EOSDIS is interested in a long-term projection, average data rates rather than peak data rates were used in computations.

In estimating Level 1A volumes, it was assumed that packed Level 0 data (12 bits) would be unpacked and each sample of data would require 16 bits. In addition, a 10% volume overhead was added for housekeeping data, header, and calibration information. The Level 1A volume estimates for all instruments were made by multiplying the Level 0 volumes by a factor of 1.47 (i.e., 1.1 * [1+4/12]). For Level 1B, the volume estimates by instrument teams, from their proposals and Conceptual Design and Cost Review (CDCR) presentations, were used when specific information was available. If no information was available, it was assumed that the Level 1B volume was the same as the Level 1A volume.

For Level 2, the volume estimates by instrument teams, in their proposals and CDCR presentations, were used when specific information was available. If no information was available, the data volumes were estimated based on the information for standard data products compiled by the SPSO.

A maximum number of pixels per day was determined for a given spatial resolution, spacecraft speed, swath width, and duty cycle of an instrument. For example, the maximum number of 1 x 1 km pixels for MODIS, can be determined as follows:

$$M_{pix} = (V_{speed} * P_{cross} * N_{sec} * F_{dcycle}) / R \qquad [1]$$

M_{pix}	=	Maximum number of pixels per day
V_{speed}	=	Spacecraft speed (6.76 km/sec)
Pcross	=	Number of pixels across track (1582 for MODIS-T)
N_{sec}	=	Number of seconds in a day (86400)
F_{dcycle}	=	Duty cycle expressed as a fraction (1.0 for MODIS)
R	=	Spatial resolution in km

An effective number of pixels per day for each product was computed by multiplying the maximum number of pixels by the fractional coverage according to surface type. This calculation is based on the assumption that each data product is produced only for the corresponding surface type. For example, sea surface temperatures (SST) will be retrieved only over oceans, and normalized difference vegetation indexes (NDVI) will be computed over land areas. For a data product (e.g., temperature profile from AIRS) that is a function of altitude (or pressure), the number of levels was considered in determining the effective number of pixels. Another factor considered was whether each data product is produced for daytime only or subject to cloud filtering.

For example, an effective number of pixels for an ocean data product to be retrieved over cloud-free oceans during daytime is given by the following equation:

$$E_{pix} = M_{pix} * F_{ocean} * F_{day} * F_{cloud} \qquad [2]$$

E_{pix}	=	Effective number of pixels per day
M_{pix}	=	Maximum number of pixels per day
F_{ocean}	=	Fractional coverage of oceans
F_{day}	=	Fraction of the daytime portion of an orbit
F_{cloud}	=	Fraction for cloud covered areas

The Level 2 data volumes were computed by multiplying the effective number of pixels by four bytes (two bytes for retrieved parameter value and 2 bytes for error estimate), with the exception of certain data products such as atmospheric-corrected radiances, which were assumed to be stored as a two-byte word. A 10% overhead was added to the computed volumes to obtain the final Level 2 volume estimates.

For Level 3 data volumes, estimates from the proposals and CDCR presentations by instrument teams were used when available. If no information were available, the data volumes were estimated, as described below, based on the spatial and temporal resolutions of the proposed standard data products compiled by the SPSO.

First, the number of equal-area grid-points for a given data product was determined from the known spatial resolution and Earth's surface area (calculated using a mean radius of 6,371 km). Then the number of equal-area grid-points was adjusted for the surface type of the data product by multiplying by an appropriate fraction from the Assumptions spreadsheet. For certain atmospheric data products, for which horizontal resolution is given in degrees of latitude and longitude, the number of grid-points was determined assuming an equal-angle grid (rather than an equal-area grid). For a data product that is a function of altitude (or pressure), the number of levels was considered in determining the total number of grid-points.

The Level 3 volumes were estimated by assuming that each grid-point would have three associated values (mean, standard deviation, and number of observations), each being a two-byte word, and by considering the temporal resolution of the data product. For

instance, the daily data volume for monthly averaged aerosol concentration at a spatial resolution of 1° x 1° can be computed as follows:

$$\text{Volume} = N_{grid} * N_{parm} * N_{byte} * F_{time} \quad [3]$$

N_{grid} = Number of grid-points (64800=360*180)

N_{parm} = 3 (mean, standard deviation, no. of observations)

N_{byte} = 2 bytes

F_{time} = Time factor (0.033 =1/30), i.e., the daily processing load corresponding to a product produced on monthly basis

The final Level 3 volumes were determined by adding 10% overhead to the volume estimates obtained from this formula.

4.2.2 Processing Load Estimates

Processing load estimates for EOS instruments are presented in Appendix I (Tables I-3 and I-4). The processing loads were estimated by multiplying the appropriate number of operations per pixel times the number of pixels represented by the effective data volumes. The assumptions regarding the number of operations per pixel were made only for the purpose of estimating the baseline processing load requirements. The processing requirements were derived from the AO proposals, CDCR presentations, and instrument data study team reports. The Level 1A processing load estimates were based on an assumption of fifteen operations per pixel. The Level 1B processing load estimates were based on an assumption of thirty operations per pixel. Estimates of the Level 2 processing loads were made according to discipline category (e.g., atmosphere, land, and oceans), and groups of computational similar data products. The Level 3 processing load estimates were based on an assumption of 100 operations per pixel. It should be noted that the processing load cannot, at present, be estimated as reliably as data volumes because of the uncertainty in estimating the number of operations per pixel.

4.2.3. Data Traffic Analysis

Data traffic analysis was performed by first identifying all ancillary data required by each instrument team (Appendix G) and the source data centers for those products, and then estimating daily data transfer among the various data centers. In determining the source data centers for EOS data products, the assignment of data products was made based on NASA Headquarters program guidances (NASA HQ, 1990). Grouping of data products was based primarily on science disciplines considering the experience and expertise of each data center as described in Section 2.2. The results of data traffic analysis are presented in Appendix I (Tables I-5 and I-6).

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List of Acronyms/Abbreviations and Keywords

Appendix A

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

(d)	diurnal	(temporal resolution field abbreviation)
(d, n)	diurnal and nocturnal	(temporal resolution field abbreviation)
(n)	nocturnal	(temporal resolution field abbreviation)
Abs	Absolute	(product name abbreviation)
AC	Alternating Current	(product name abbreviation)
AC	Atmospheric Chemistry	(atmospheres product category)
ACRIM	Active Cavity Radiometer Irradiance Monitor	
AD	Atmospheric Dynamics	(atmospheres data product category)
ADEOS	Advanced Earth Observing Satellite	
AE	Atmospheric Electricity	(atmospheres data product category)
AEM	Application Explorer Mission	
AH	Atmospheric Hydrology	(atmospheres data product category)
AIR	Airborne Imaging Radar	
AIRS	Atmospheric Infrared Sounder	
AIS	Airborne Imaging Spectrometer	
ALT	NOAA-provided Facility Altimeter	
AMRIR	Advanced Medium Resolution Imaging Radiometer	
AMSR	Advanced Microwave Scanning Radiometer	
AMSU-A	Advanced Microwave Sounding Unit-A	
Antarctica	Antarctica	(horizontal coverage keyword)
AOL	NASA Airborne Oceanographic Lidar	
APAR	Absorbed PAR	(product name abbreviation)
AR	Atmospheric Radiation	(atmospheres data product category)
arcsec	arc second	(units abbreviation)
ASF	Alaskan SAR Facility	
ASTER	Advanced Spaceborne Thermal Emission and Reflection (formerly known as ITIR)	
Asymm	Asymmetric	(product name abbreviation)
ATMOS	Atmospheric Trace Molecule Spectrometer/Spectroscopy	
Atmos	Atmosphere	(product name abbreviation)
Atmos	Troposphere + stratosphere	(vertical coverage keyword)
AVHRR	Advanced Very High Resolution Radiometer	
AVHRR GAC	AVHRR Global Area Coverage	
AVHRR LAC	AVHRR Local Area Coverage	
AVIRIS	Advanced Visible and Infrared Imaging Spectrometer	
b	bar	(units abbreviation)
b	baseline	(accuracy field abbreviation)
Back	Backscattering	(product name abbreviation)
BC	Biochemistry	(biosphere data product category)
Biochem	Biochemical	(product name abbreviation)
BM	Marine Ecosystem Dynamics	(biosphere data product category)
Bot	Bottom, Base	(product name abbreviation)
BRDF	Bidirectional Reflectance Dist. Function	(product name abbreviation)
BT	Terrestrial Ecosystem Dynamics	(biosphere data product category)
C	Centigrade	(units abbreviation)
Canada	Canadian sites	(horizontal coverage keyword)
CCRS	Canada Centre for Remote Sensing	
CERES	Clouds and Earth's Radiant Energy System	
Char	Characteristics	(product name abbreviation)
Chem	Chemistry	(product name abbreviation)
cld	cloudy	(accuracy field abbreviation)
cloud	Cloud layer, regardless of altitude	(vertical coverage keyword)
clr	clear (sky)	(accuracy field abbreviation)
cm	centimeter	(units abbreviation)

CNES	Centre National D'Etudes Spatial/Scientifique	
Coeff	Coefficient	(product name abbreviation)
Conc	Concentration	(product name abbreviation)
Corr	Correction	(product name abbreviation)
Cryos	Cryosphere	(horizontal coverage keyword)
CSIRO	Commonwealth Scientific and Industrial Research Organization	
Curv	Curvature	(product name abbreviation)
CZCS	Coastal Zone Color Scanner	
dB	decibel	(units abbreviation)
DC	Direct Current	(product name abbreviation)
Deriv	Derivative	(product name abbreviation)
Dev	Developmental data to be used for algorithm development	
dg	degree	(units abbreviation)
Diff	Differences	(product name abbreviation)
DMSP	Defense Meteorological Satellite Program	
DU	Dobson Unit	(units abbreviation)
dy	day	(units abbreviation)
E	irradiance (radiant flux density: W/m^2)	(units abbreviation)
ECMWF	European Center for Medium Range Weather Forecasting	
EDC	EROS Data Center	
ENACEOS	Energetic Neutral Atom Camera for the Earth Observing System	
EOSAT	Earth Observation Satellite Corporation	
EOSP	Earth Observing Scanning Polarimeter	
Equiv	Equivalent	(product name abbreviation)
ERB	Earth Radiation Budget (instrument)	
ERBE	Earth Radiation Budget Experiment	
ERBI	Earth Radiation Budget Instrument	
ERBS	Earth Radiation Budget Satellite	
ERS-1	Earth Resources Satellite-1	
ESA	European Space Agency	
EUMETSAT	European Meteorological Satellite Organization	
Evapotrans	Evapotranspiration	(product name abbreviation)
Ex	Exosphere	(vertical coverage keyword)
FI	Facility Instrument	
FLI	Fluorescence Line Imager	
Fluor	Fluorescence	(product name abbreviation)
Fnc	Function	(product name abbreviation)
FNOC	Fleet Numerical Oceanographic Center	
FP	Facility Instruments and Principal Investigator Instrument	
G	Gauss (cgs unit of magnetic induction)	(units abbreviation)
g	grams	(units abbreviation)
GC	Geochemistry	(solid Earth data product category)
GD	Geodynamics/Geomorphology	(solid Earth data product category)
Geochem	Geochemical	(product name abbreviation)
GEOSAT	Geodesy Satellite	
GeV	giga-electron volts (10^9 eV)	(units abbreviation)
GGI	GPS Geoscience Instrument	
GH	Geo-Hydrology	(solid Earth data product category)
GISS	Goddard Institute for Space Studies	
Glacier	Glacier	(horizontal coverage keyword)
Global or G	Global atmosphere or surface	(horizontal coverage keyword)
GLRS	Geodynamics Laser Ranging System	
GMS	Geostationary Meterological Satellite	

GOES	Geostationary Operational Environmental Satellite (Geosynchronous Weather Satellite System)	
GOS	Geomagnetic Observing System	
GPS	Global Positioning System	
GSFC	Goddard Space Flight Center	
ha	hectare	(units abbreviation)
high_cloud	Upper-level cloud (e.g., Cirrus)	(vertical coverage keyword)
HIRDLS	High-Resolution Dynamics Limb Sounder	
HIRIS	High Resolution Imaging Spectrometer	
HIRS/2	High Resolution Infrared Radiation Sounder - 2nd Generation	
Hor	Horizontal	(product name abbreviation)
hr	hour	(units abbreviation)
Hz	Hertz (1 cycle/s)	(units abbreviation)
IC	Instrument Calibration	(data product category)
IERS	International Earth Rotation Service	
II	Interdisciplinary Investigator	
In_situ	Spacecraft location (EOS platform)	(vertical coverage keyword)
Instr	Instrument	(product name abbreviation)
Ionos	Ionosphere	(vertical coverage keyword)
IOSDL	TBD	
IPAR	Incident PAR, Intercepted PAR	(product name abbreviation)
IPEI	Ionospheric Plasma and Electrodynamics Instrument	
IU	Instrument Utility	(data product category)
JERS-1	Japanese Eath Remote Sensing Satellite - 1	
JPDF	Joint Probability Distribution Function	
JPL	Jet Propulsion Laboratory	
K	Kelvin (degrees of temperature)	(units abbreviation)
keV	kilo-electron volts (1000eV)	(units abbreviation)
kg	kilograms	(units abbreviation)
km	kilometer	(units abbreviation)
kt	kilotonP	(units abbreviation)
l	liter	(units abbreviation)
Land	Global land surface	(horizontal coverage keyword)
LANDSAT	Land Remote Sensing Satellite System	
LaRC	Langley Research Center	
Lat	Latitude	(product name abbreviation)
lat	latitude	(units abbreviation)
LAWS	Laser Atmospheric Wind Sounder	
LB	Land Biology (Terrestrial Biology)	(data product category)
LC	Land Chemistry (Geochemistry)	(data product category)
LD	Land Dynamics (Geodynamics)	(data product category)
LH	Land Hydrology	(data product category)
LR	Land Radiation	(data product category)
Limb	Limb sounding	(horizontal coverage keyword)
LIMS	Limb Infrared Monitor of the Stratosphere	
Liq	Liquid	(product name abbreviation)
LIS	Lightning Imaging Sensor	
Local or L	Local land or Oceanic sites	(horizontal coverage keyword)
Local/6	Six local sites	(horizontal coverage keyword)
lon	longitude	(units abbreviation)
low_cloud	Low-level cloud (e.g., Stratus)	(vertical coverage keyword)
LW	Longwave	(product name abbreviation)
Ly	Langley (insolation: calorie/cm^2)	(units abbreviation)

m	meter	(units abbreviation)
Max	Maximum	(product name abbreviation)
mb	millibar	(units abbreviation)
MeV	mega-electron volts (10^6 eV)	(units abbreviation)
mg	milligrams	(units abbreviation)
mg-X	milligrams of substance X	(units abbreviation)
MHS	Microwave Humidity Sounder	
Mid_atmos	Upper troposphere to mesopause	(vertical coverage keyword)
mid_cloud	Mid-level cloud (e.g., AltoStratus)	(vertical coverage keyword)
MIMR	Multi-Frequency Imaging Microwave Radiometer	
Min	Minimum	(product name abbreviation)
min	minutes	(units abbreviation)
MISR	Multi-angle Imaging Spectro-Radiometer	
mix	mixing (in mixing ratio)	(units abbreviation)
mixed_lyr	ocean mixed layer	(vertical coverage keyword)
MLS	Microwave Limb Sounder/Spectrometer	
mm	millimeter	(units abbreviation)
mmol	millimoles	(units abbreviation)
mo	month	(units abbreviation)
MODIS	Moderate Resolution Imaging Spectroradiometer	
mol-X	moles of substance X	(units abbreviation)
MOPITT	Measurement of Pollution in the Troposphere	
MOS-1	Marine Observation Satellite (Japan)	
MSFC	Marshall Space Flight Center	
MSR	Microwave Scanning Radiometer	
MSS	Multispectral Scanner System	
MST	Mesospheric/Stratospheric/Tropospheric	
MSU	Microwave Sounding Unit	
mW	milliwatts	(units abbreviation)
N	Newtons ($kg/m/s^2$)	(units abbreviation)
NASA	National Aeronautics and Space Administration	
NASDA	National Space Development Agency (Japan)	
NBIOME	Northern Biospere Observation and Modeling Experiment	
NCDC	National Climatic Data Center, formerly NCC	
NCDS	NASA Climate Data System, formerly PCDS	
Near_sfc	Near surface layer (within boundary layer)	(vertical coverage keyword)
NESDIS	National Environmental Satellite Data and Information Service	
NEXRAD	Next Generation Radar	
NHC/JTWC	National Hurricane Center / Joint Thunderstorm Warning Center	
NIR	Near Infrared	(product name abbreviation)
nm	nanometer (10^{-9} m)	(units abbreviation)
NMC	National Meteorological Center	
no	number	(units abbreviation)
NOAA	National Oceanographic and Atmospheric Administration	
NOAA DBC	NOAA Data Buoy Center	
NOAA/WPL	NOAA Wave Propagation Laboratory	
NODC	National Oceanographic Data Center	
NODS	NASA Ocean Data System	
NPP	Net Primary Production	(product name abbreviation)
NSCAT	NASA Scatterometer	
NSF/DPP	National Science Foundation / Polar Projects Division	
NSIDC	National Snow and Ice Data Center	
NSSDC	National Space Science Data Center	

NWS	National Weather Service	
o/oo	thousandths	(units abbreviation)
OC	Ocean Chemistry	(oceans data product category)
Ocean	Global ocean	(horizontal coverage keyword)
Ocean-I	Ocean with Case I sediments	(horizontal coverage keyword)
Ocean-II	Ocean with Case II sediments	(horizontal coverage keyword)
Ocean/Cryos	Regions with sea-ice	(horizontal coverage keyword)
OD	Ocean Dynamics	(oceans data product category)
OH	Ocean Hydrology	(oceans data product category)
OLR	Outgoing Longwave Spectral Radiation	(product name abbreviation)
OR	Oceanic Radiation	(oceans data product category)
PAN	Peroxyacetyl Nitrate	(product name abbreviation)
PAR	Photosynthetically Active Radiation	(product name abbreviation)
PBL	Planetary Boundary Layer	(product name abbreviation)
PBL	planetary boundary layer	(vertical coverage keyword)
PI	Principal Investigator	
PLDS	Pilot Land Data System	
Plume_col	Vertical extent of volcanic eruption plume	(vertical coverage keyword)
Plume_top	Top of volcanic eruption plume	(vertical coverage keyword)
POEMS	Positron Electron Magnet Spectrometer	
Polar	Latitudes > 60°N & S	(horizontal coverage keyword)
ppb	parts per billion	(units abbreviation)
ppm	parts per million	(units abbreviation)
ppt	parts per trillion	(units abbreviation)
Precip	Precipitation	(product name abbreviation)
PSC	Polar Stratospheric Cloud	(product name abbreviation)
RADARSAT	Canadian Synthetic Aperture Radar Satellite	
recog.	recognition (in feature recognition)	(units abbreviation)
Regional or R	Regional Land or Oceanic areas	(horizontal coverage keyword)
Rel	Relative	(product name abbreviation)
Res	Resolution	(product name abbreviation)
Res	Research data to be used for research activities	
s	second	(units abbreviation)
SAFIRE	Spectroscopy of the Atmosphere Using Far Infrared Emission	
SAGE	Stratospheric Aerosol and Gas Experiment	
SAM	Stratospheric Aerosol Measurement	
SAR	Synthetic Aperture Radar	
SASS	Seasat–A Scatterometer System	
SBUV	Solar Backscatter Ultraviolet radiometer	
SCATT	Scatterometer	
SE	Space Electrodynamics	(space data product category)
seas	seasonal	(units abbreviation)
SeaWiFS	Sea-viewing Wide Field of View Sensor	
Sel_basins	Selected Basins	(horizontal coverage keyword)
SESAME-IV	Solid Earth Science and Application Mission for Europe	
Sfc	Surface	(product name abbreviation)
Sfc	Surface of ocean or land, regardless of topography	(vertical coverage keyword)
SIR-C	Spaceborne Imaging Radar-C	
SIR–A, –B	Shuttle Imaging Radar	
SMMR	Scanning Multichannel Microwave Radiometer	
Snow	Snow	(horizontal coverage keyword)
SOLSTICE	SOLar STellar Irradiance Comparison Experiment	
SPOT	System pour l'Observation de la Terre (France)	
sr	steradian (unit solid angle)	(units abbreviation)

SSM/I	Special Sensor for Microwave Imaging	
SST	Sea Surface Temperature	(product name abbreviation)
SSU	Stratospheric Sounding Unit	
STICKSCAT	Stick Scatterometer	
Strat	Stratosphere	(product name abbreviation)
Strat	Stratosphere	(vertical coverage keyword)
Sub_sfc	Layers immediately beneath land surface	(vertical coverage keyword)
SW	Shortwave	(product name abbreviation)
SWIRLS	Stratospheric Wind Infrared Limb Sounder	
t	metric ton	(units abbreviation)
TEC	Total Electron Content	(product name abbreviation)
TES	Tropospheric Emission Spectrometer	
Tesla	mks unit of magnetic flux density (weber/m^2)	(units abbreviation)
THIR	Temperature Humidity Infrared Radiometer	
TIR	Thermal Infrared	(product name abbreviation)
TM	Thematic Mapper	
TOA	Top of Atmosphere	(product name abbreviation)
TOA	Top of atmosphere	(vertical coverage keyword)
TOMS	Total Ozone Mapping Spectrometer	
TOO	Top of ocean (oceanic mixed layer)	(vertical coverage keyword)
TOPEX/POSEIDON	Ocean Topography Experiment	
TOVS	TIROS Operational Vertical Sounder	
TRACER	Tropospheric Radiometer for Atmospheric Chemistry and Environmental Research	
TRMM	Tropical Rainfall Measurement Mission	
Trop	Troposphere	(product name abbreviation)
Trop	troposphere	(vertical coverage keyword)
Tropic	Zonal Band 30°N to 30°S	(horizontal coverage keyword)
UARS	Upper Atmosphere Research Satellite	
UNESCO	United Nations Economic and Social Commission for Asia and the Pacific	
USDA	United States Department of Agriculture	
USGS	United States Geological Survey	
UV	Ultraviolet	(product name abbreviation)
UWA	University of Washington	
UWI	University of Wisconsin	
VAS	VISSR Vertical Atmospheric Sounder	
Ver	Vertical	(product name abbreviation)
VIS	Visible	(product name abbreviation)
VISSR	Visible Infrared Spin-Scan Radiometer	
VLBI	Very Long Baseline Interferometry	
vlc	volcanic eruption	(accuracy field abbreviation)
VO	Volcanic Activity	(solid Earth data product category)
W	Watts ($kg/m^2/s^3$)	(units abbreviation)
Wetlands	Global wet lands	(horizontal coverage keyword)
wk	week	(units abbreviation)
x	volcanic eruption	(accuracy field abbreviation)
XIE	X-ray Imaging Experiment	
yr	year	(units abbreviation)
zm	zonal mean	(temporal resolution field abbreviation)
μg	micrograms	(units abbreviation)
μm	micron (micrometer: 10^{-6} m)	(units abbreviation)

Prod Number	Sequential reference number assigned to each data product for use in cross-referencing input/output data dependencies (i.e., designating the specific input products required to product each output product). The product number followed by asterisk (*) indicates that the data product is a post-launch data product.
Product Name	Data product name based on a common format, allowing the cross reference between data products from instrument teams and IDS investigators.
Type	Type of data product based on investigator (II, FI, PI), and whether the product is input or output (I,O).
Investigator	Name of responsible scientist.
Instrument	Name of instrument providing the measurement capability.
Platform	Name of platform on which an instrument is to fly (e.g., AERO for Aerosol Mission, ALT for Altimetry Satellite, AM for Morining Satellite, CHEM for Chemistry Satellite, MO for Satellite of Opportunity, PM for Afternoon Satellite, and TRM for TRMM).
Source or DAAC	Name of a data center where a data product is generated and archived.
Units	Scientific units of the data product in ISU (e.g. °K). Table A-1 lists units abbreviations.
Accuracy	The database contains both the anticipated absolute (ABS) accuracy of the data product and the relative (Rel) accuracy (or precision).
Temporal Resolution	Time period of measurement (measurement cycle time, or time to complete one global sample), or for resampled data products, the time period between successive values at a given location or the averaging-time used to compute data product means (e.g. 12 hours, daily, weekly, seasonal, annual).
Horizontal Resolution	Horizontal spatial resolution of each data product (e.g. 10 x 10km, 1° x 1° [latitude and longitude], 5° zonal mean).
Horizontal Coverage	Horizontal region over which the measurement is taken or the data product is to be produced (e.g. global, polar, ocean). Table A-4 lists the keyword definitions.
Vertical Resolution	Vertical spatial resolution of each data product or measurement (e.g., 1km, 100mb, column [for vertically integrated quantities], NA if not-applicable [surface, TOA properties]).
Vertical Coverage	Vertical region or zone over which measurements are taken or data products are to be produced (e.g. surface, surface to 10km, stratosphere). Table A-4 lists the keyword definitions.
Data Volume	Estimated daily data volume in GB/day.
Time Frame	Time when a data product is expected to be generated (e.g., AL for at-launch, PL for post-launch).
Required Input Data	EOS input data products needed to produce an output data product.

HORIZONTAL COVERAGE KEYWORD DEFINITIONS AND APPROXIMATE FRACTION OF GLOBAL COVERAGE

Horizontal Coverage Keyword	Description	Global Coverage Fraction (percent)
Canada/R	Regional Canadian sites	—
Cryo	Cryosphere	25%
Global	Global surface	100%
Land	Global land surface	20%
Land/Cryo	Land ice and snow regions	10%
Land/L	Local land sites	—
Land/R	Regional land sites	—
Limb	Limb sounding	100%
Local	Local sites	—
Local/6	Six local sites	—
Ocean	Global ocean surface	80%
Ocean/Cryo	Regions with sea-ice	10%
Ocean/I	Ocean with Case I sediments	—
Ocean/II	Ocean with Case II sediments	—
Ocean/L	Local oceanic sites	—
Ocean/R	Regional oceanic areas	—
Ocean/S	Southern ocean	—
Ocean/S,A	Southern & Eastern North Atlantic	—
Polar	Latitudes > 60°N & S	10%
Regional	Regional areas	—
Tropic	Zonal Band 35°N to 35°S	40%
Wetlands	Global wet lands	—

VERTICAL COVERAGE KEYWORD DEFINITIONS AND APPROXIMATE RANGE FOR VERTICAL COVERAGE

Vertical Coverage Keyword	Descriptions	Vertical Coverage Approx Range
Atmos	Troposphere + stratosphere	Sfc to 30 km
Ex	Exosphere	700 km
In_situ	Spacecraft location (EOS platform)	
Mid_atmos	Upper troposphere to mesopause	10 to 120 km
Near_sfc	Near surface layer (within boundary layer)	Sfc to 1 km
Plume_col	Vertical extent of volcanic eruption plume	
Plume_top	Top of volcanic eruption plume	
Sfc	Surface of ocean or land, regardless of topography	
Strat	Stratosphere	10 to 30 km
Sub_sfc	Layers immediately beneath land surface	
TOA	Top of atmosphere	
TOO	Top of ocean (oceanic mixed layer)	
Trop	troposphere	0 to 10 km

MATCH TYPES FOR IDS INPUT REQUIREMENTS (BY INVESTIGATOR)

Match Type	Description
BM	BM indicates that the specified instrument output data product was identified as a "Best Match" product for a particular IDS input requirement, meaning that the instrument product's accuracy, temporal resolution, horizontal resolution and coverage, and vertical resolution and coverage meets or very nearly meets the IDS requirement, and is a standard output product as opposed to a specialized product.
AM	AM indicates that the specified instrument output data product was identified as an "Alternate Match" product for a particular IDS input requirement, meaning that the instrument product does not sufficiently meet the italicized IDS product in terms of horizontal, vertical or temporal resolutions, horizontal or vertical coverage, or accuracy; and/or is not a standard output product. NOTE: For IDS inputs listed by instrument, the AM designation used without a suffix indicates that another product from that particular EOS instrument is a "Best-Match" to the specified IDS input product.
-	The suffix "-" is used, in general with BM and AM, e.g., "BM-" or "AM-" to indicate that the instrument output product does not precisely satisfy the IDS input product requirement, but might be readily derivable from the given output product. For example, maps of Vegetation "Extent" can be derived from the appropriate maps of Vegetation "Index".
AM $-	The suffix "$-" is used with AM to indicate that the instrument output data product was identified as coming closest to the specified IDS input requirement; however, the match is considered to be relatively poor, or in other words, no real "best-match" or "alternative match" exists.

DATA PRODUCT CATEGORIES

Geophysical Properties and Biosphere

Atmospheres		
AC	Atmospheric Chemistry (& Composition)	Atmospheric Chemistry, Aerosol Properties
AD	Atmospheric Dynamics	Temperature, Winds, Surface Heat Budget
AE	Atmospheric Electricity	Lightning
AH	Atmospheric Hydrology	Precipitation, Water Content (Liquid, Vapor), Cloud Properties
AR	Atmospheric Radiation	Radiation Budget, Atmospheric Opacity, Optical Depth, Optical Thickness
Land		
LB	Land Biology	Terrestrial Ecosystem Dynamics, Canopy, Vegetation Index, Biomass, Productivity, Land Use, Fires
LC	Land Chemistry	Composition, Mineralogy
LD	Land Dynamics	Temperature, Topography, DEM
LH	Land Hydrology	Soil Moisture, Snow/Ice, Lakes/Rivers, Runoff
LR	Land Radiation	Reflectance, BRDF, Albedo, Scattering Properties
Oceans		
OB	Ocean Biology	Phytoplankton, Productivity, Marine Ecosystem
OC	Ocean Chemistry	Salinity, Particulates
OD	Ocean Dynamics	Surface Wind and Wind Stress, Ocean Currents, Waves, Sea Level, Temperature (Bulk Water)
OH	Ocean Hydrology	Sea Ice
OR	Oceanic Radiation	Attenuation, Water Leaving Radiances
Volcanology		
VO	Volcanic Activity	Volcano Properties, Plume Dynamics
Space		
SE	Space Electrodynamics	

Instrument Characterization

IC	Instrument Calibration	Calibration Products
IU	Instrument Utility	Utility Products, Cloud Masks

List of Major and Minor Product Group Names

Appendix B

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Product Group Name	*MD Keyword*
Acceleration	*Winds*
Diffusive_Meridional	
Diffusive_Zonal	
Aerosol	*Aerosol*
Angstrom Exponent	
Backscatter	
Conc	
Stratospheric	
Tropospheric	
Dispersal, Eruption Plume	
Extinction	
Coef	
Layer Boundary Height	
Mass Loading	
Optical Depth	
Spectral	
Phase Function, Asymmetric	
Radiance	
Single_scattering	
Size-distribution	
Albedo	*Albedo*
Aerosol	
Cloud	
Land_sfc	
Planetary Spectral, TOA	
Sea_Ice	
Snow	
Spectral, Land_sfc	
TOA	
Total [SW]	
Vegetation	
Anisotropy	*Heat Flux*
LW_broadband	
Clear-sky	
Cloudy-sky	
Bedrock Lithology	*Lithology*
Bowen Ratio	*Humidity*
Br (Bromine)	*Trace-gases*
Conc	
BrO Conc	
BrO($Br^{81}O$) Conc	
$BrONO_2$ Conc	
BrO_y Conc	
C (Carbon)	*Major Elements*
Budget, Global	
Conc, Dissolved_Organic	
Flux	
Global	
Cycle Diagnostic Data	
C_2H_6	*Trace-gases*
Conc	
Calibration	*???*
Data, MODIS	
Data Characteristics, MODIS	
Camera Model	*???*
Photogrammetric	
$CBrClF_2$	*Trace-gases*
Conc	
CCl_4	*Trace-gases*
Conc	
CFCs	*CFCs*
CFC-11($CFCl_3$) Conc	
CFC-113($C_2Cl_3F_3$) Conc	
CFC-114($C_2Cl_2F_4$) Conc	
CFC-115(C_2ClF_5) Conc	
CFC-12(CF_2Cl_2) Conc	
CFC-XXX (HCFCs) Conc	
CFC-XXX Conc	
CFClO Conc	

Product Group Name	*MD Keyword*
CH_3	*Trace-gases*
Conc	
CH_3Br Conc	
CH_3CCl_3 Conc	
CH_3Cl Conc	
CH_3O Conc	
CH_3O_2 Conc	
CH_3OOH Conc	
CH_4 (Methane)	*Methane*
Budget	
Conc	
Emission	
Flux	
Total Burden	
Uptake	
Uptake Time-derivative	
Chemistry	*Trace-gases*
Diagnostics, Seasonal	
Chlorophyll	*Chlorophyll*
Absorption Line Height	
Conc	
Fluorescence	
Fluorescence Efficiency	
Fluorescence Line Curv	
Fluorescence Line Height	
_a Conc	
Case-I Waters Phytoplankton	
Case-II Waters	
CHO	*Trace-gases*
Conc	
Cl	*Trace-gases*
Conc	
Classification Masks	*???*
Cloud	
Level 2	
Level 3	
Cloud/Land/Snow/Water	
Level 2	
Level 3	
Climatology	*???*
Diagnostic Data	
ClOs	*Trace-gases*
ClO Conc	
$ClONO_2$ Conc	
ClO_y Conc	
Cloud	*Cloud*
Condensation Rate, Total	
Cover	
Cirrus	
Low-level	
Mid-level	
Distribution	
Drop Phase	
Drop Size(Effective Radius)	
Emissivity	
Field Area	
Field Organization scale	
Field Perimeter	
Field Size-distribution	
Field Structure	
Height	
Cirrus	
PSC	
Stratoform	
Base	
Cirrus	
Low-level	
Mid-level	
Top	
Cirrus	

Product Group Name	*MD Keyword*
Low-level	
Mid-level	
PSC	
Ice	
Content	
Index	
JPDF	
Liq_water	
Content	
Total Column (Cloud+Rain)	
Masking-shadowing	
Optical Depth (Thickness)	
Cirrus	
LW	
PSC	
SW	
Phase	
Pressure	
Top	
PSC	
Radiation	
Radiative Forcing	
LW	
Reflectance, Bi-directional (BRDF)	
Reflectivity, Spectral	
Spectral Characteristics	
Structure	
3-D	
Cirrus	
Mesoscale	
Temperature	
Emission	
Top	
Thickness	
Transmissivity	
Spectral	
CO	*Trace-gases*
Conc	
Flux	
Total Burden	
CO_2	*Carbon Dioxide*
Conc	
Exchange	
Exchange Time-deriv	
Flux	
Partial Pressure	
Total Burden (Mixing Ratio)	
Coccolith	*Suspended Solids*
Backscatter Coef	
Conc, Detached	
COF_2	*Trace-gases*
Conc	
Coral Reef Maps	*???*
COS	*Trace-gases*
Conc	
Flux	
Crustal Motion	*???*
CS_2	*Trace-gases*
Conc	
DMS	*Trace-gases*
Conc	
Flux	
Drainage	*Rivers*
Basin Boundary	
Network Structure	
Dust	*Aerosol*
Composition	
Conc	
Size	
Source	
Spatial Distribution	
Electric Field	*Electric Field*
Electric Conductivity	
Potential Difference, DC, Ionosphere	
Potential Drop, DC, High-latitude	
Strength	
AC	
DC	
Electron	*Electron Flux*
Content, Total (TEC)	
Content-Difference, Total (TEC-difference)	
Energy Spectra	
Energy Flux	*Heat Flux*
Net	
Erosion	*Erosion*
Chemical Denudation	
Rock Weathering	
Sediment Yield	
Eruption-Plume	*Volcano*
Characteristics	
Dispersal	
Fallout Rate	
HCl Content (Mass Eruption Rate)	
Height	
SO_2	
Content (Mass Eruption Rate)	
Conc Spike	
Eruption Rate, Mass	
Temperature	
Evaporation	*Evaporation*
Land_sfc	
Fire	*Fires*
Burning Index	
Class	
Count	
Extent	
Temperature	
Fish-stock Abundance	*???*
Forest	*Surface Vegetation*
Deforestration	
Gelbstoff	*Light Tranmission*
Absorption Coef	
@300nm	
@410nm	
Geodetic	*Geodesy*
Baselines	
Carrier Phase, GPS(L1,L2)	
EOS-platform Position	
Geocenter	
Location, Reference	
Orientation	
Pseudorange, GPS(L1,L2)	
Site Position	
Horizontal	
Vertical	
Site Velocity	
Post_seismic	
Relative	
Secular	
Geometric	*???*
Error	
MODIS Level 2	
MODIS Level 3	
Geopotential	*Geopotential/Gravity Field*
Gravity Field	
Height	
Gradient	
RMSE	
Glacier	*Glacier*
Cover	

Product Group Name	*MD Keyword*
Bare_Ice	
Displacement	
Percolation Zone	
Velocity	
Glint	*Albedo*
Field	
Ground Control Points	*???*
Potential	
Ground Water	*GroundWater*
Sum Routing	
H (Hydrogen)	*Trace-gases*
Conc	
H_2	*Trace-gases*
Conc	
H_2CO	*Trace-gases*
Conc	
H_2O	*Water Vapor*
(H_2O^{17}) Conc	
(H_2O^{18}) Conc	
(HDO) Conc	
Conc	
Stratospheric	
Tropospheric	
H_2O_2	*Trace-gases*
Conc	
H_2S	*Trace-gases*
Conc	
Halons	*Trace-gases*
Conc	
HBr	*Trace-gases*
Conc	
HCl	*Trace-gases*
Conc	
(HCl^{35}) Conc	
(HCl^{37}) Conc	
HCN	*Trace-gases*
Conc	
Heat Flux	*Heat Flux*
Convergence, Eddy	
Feedback	
Flux-Change Statistics	
Latent	
Sensible	
Horizontal	
Latent	
Net	
Rate, Latent	
Sensible	
Sfc	
Zonal_mean	
Heat Transport	*Heat Flux*
Heating Rate	*Heat Flux*
Convective	
Diffusive	
Latent	
LW_Radiative	
SW Radiative	
U-horizontal_Diffusive	
V-horizontal_Diffusive	
Heating	*Heat Flux*
Convective	
Diabatic	
Net	
Latent	
Sfc-stress	
North-South	
East-West	
HF	*Trace-gases*
Conc	
HNOx Conc	*Trace-gases/Nitric Acid*
HNO_3 Conc	
HNO_4 Conc	
HO_2	*Trace-gases*
Conc	
HOCl	*Trace-gases*
Conc	
HOy	*Trace-gases*
Conc	
Humidity	*Humidity*
Change, Specific, Convective_Adjusted	
Near_sfc	
Profile	
Microwave	
PBL	
Specific	
Relative, Near_sfc	
RMSE, Specific	
Specific	
Near_sfc	
Tendency	
Hydrological Parameter	*???*
Ice Sheet	*Ice*
Accumulation	
Boundary (Margin)	
Cover	
Index	
Displacement	
Elevation	
Mass balance	
Roughness	
Strain Rate	
Temperature	
Thickness	
Velocity	
Polar (Outflow)	
Industrial_Emissions	*Contaminants*
Conc	
Infiltration	*Infiltration*
Capacity	
Inundation	*Surface Water*
Depth	
Extent	
Irradiance	*Solar Radiation*
Incident, Sfc	
Lunar	
Solar	
Total	
UV	
Visible	
Total	
Lake	*Lakes/Volcano*
Extent	
Water Area	
Water Attenuation Coef	
Water Chemistry	
Water Chlorophyll Conc	
Water Temperature, Volcano Summit	
Land Chemistry	*Geo/bio-chemical Analysis*
Biochemical Analysis, Sfc	
Geochemical Analysis	
Land Heat Capacity	*Geothermal*
Land Thermal inertia	*Thermal Inertia*
Landform	*Landforms*
Distribution	
Face Freshness	
Feature Distribution	
Lineament /Slope Maps	

Product Group Name	*MD Keyword*
Morphology	
Scarp-fault Elevation	
Sfc units, Geologic	
Stratigraphy	
Structures(Relief/Lithology-Change)	
Land Cover	*???*
Material boundaries, Sfc	
Type	
Type-Change	
Land_Crustal	*Seismic*
Strain Rate	
Land_sfc Emissivity	*???*
Relative Spectral	
Spectral	
LW (8-12μm)	
SW (3-16μm)	
Microwave	
Land_sfc Rebound	*Terrain Elevation*
Post-Glacial	
Land_sfc Reflectance	*Albedo*
Bi-directional	
Spectral, (BRDF)	
SW_Broadband, (BRDF)	
BRDF	
AM-PM Asymmetry	
AM-PM Degree of Asymmetry	
Directional	
Reflectance Factor, MODIS	
Relative Spectral	
Land_sfc Roughness	*???*
Aerodynamic	
Geometric	
Land_sfc Temperature	*Temperature*
Anomalies	
Average	
Brightness Temperature	
Difference, Day-Night	
Skin	
Variability (&Extrema)	
Lava-Flow	*Volcano*
Advance Rate	
Areal Change	
Cooling Rate	
Eruption Rate, Mass	
Temperature	
Thickness	
Level-1B Backscatter	*Radiance/Albedo*
Coef	
ALT	
GLRS-A	
HIRIS	
SAR	
SAR_EOS	
STIKSCAT	
Waveforms, ALT	
Level-1B Radiance	*Radiance*
AIRS	
AMSU-A	
MHS	
ASTER	
CERES	
EOSP	
Polarization	
GGI	
HIRDLS	
HIRIS	
LIS	
MIMR	
MISR	
Mixture-Model, MODIS Spectral-spatial	
MLS	
MODIS	
MOPITT	
SAFIRE	
SAGE-III	
SOLSTICE	
TES	
Level-2 Data Comparisons	*???*
EOS Instrument	
Level-2 Radiance	*Radiance*
Atmos_corrected, EOSP	
Land_leaving	
Water-leaving	
Lightning	*???*
Intensity	
Occurrence	
Radiant Energy	
Rate	
Lithosphere	*Gravity Fields*
Gravity Field	
Magnetic Field	*Magnetic Field*
Strength, DC	
Mineral	*Economic Minerals*
Conc, Rock-Soil	
Flux, Geochemical	
Index	
Maps	
Thermal history	
CO_3 Relative Abundance	
Fe Relative Abundance	
OH Relative Abundance	
SO_4 Relative Abundance	
Moistening	*Water Vapor*
Convective	
Diffusive	
Moisture	*Water Vapor*
Budget	
Flux	
Horizontal	
Net	
Sfc	
Flux-Change Statistics , Net	
Transport	
Statistics	
Momentum	*???*
Angular	
Change Statistics	
Flux	
Transport	
N (Nitrogen)	*Nitrogen*
Conc	
N_2O	*Trace-gases*
Budget	
Conc	
Emission	
Time-deriv	
Total Burden	
N_2O_5	*Trace-gases*
Conc	
NH_3	*Trace-gases*
Conc	
NH_4	*Trace-gases*
Exchange	
Time-deriv	
NMHC	*Trace-gases*
Flux	
Time-deriv	
NO	*Trace-gases*
Conc	

Product Group Name	*MD Keyword*
NO_2	*Nitrogen Dioxide*
Conc	
NO_3	*Trace-gases*
Conc	
NO_x	*Trace-gases*
Conc	
Emission	
Time-deriv	
NO_y	*Trace-gases*
Budget	
Conc	
O (Oxygen)	*Oxygen*
O(1D) Conc	
O(3P) Conc	
O_2 Conc	
O_2(NU1) Conc	
O_3 (Ozone)	*Ozone*
Budget	
Conc	
SBUV-2_Corrected	
SBUV-2_Follow-on	
SBUV_Corrected	
$O_3(O^{17}OOO)$ Conc	
$O_3(O^{18}OOO)$ Conc	
O_3(NU2) Conc	
$O_3(O^{17}OO)$ Conc	
$O_3(O^{17}\_O)$ Conc	
$O_3(OO^{18})$ Conc	
$O_3(OO^{18}\_O)$ Conc	
$O_3(O^{18}\_OO)$ Conc	
O_3O_3(NU1,3) Conc	
Total Burden	
TOMS_Follow-on	
TOMS_Version-6	
Ocean Color/Temperature	*Temperature*
Composite Maps	
Ocean Crust Deformation	*Geodesy*
Ocean Current	*Currents*
Angular Momentum	
Circulation, Large-scale	
Model, Eddy-Resolving	
Location	
Velocity	
Boundary	
Geostrophic	
Meridional	
Zonal	
Ocean Eddy Kinetic Energy	*???*
Ocean Productivity	*Biomass*
Primary	
Near sfc	
Total Column	
Variability	
Ocean Tide	*Ocean Tides*
Model	
Ocean Water Attenuation	*Light Transmission*
Coef	
Diffuse	
PAR	
@490nm	
@520nm, Beam	
Ocean Water Backscatter	*Light Transmission*
Coef	
Total	
@565nm	
Particulate	
Ocean Water Salinity	*Salinity*
Salt Flux	
Sub ice	
Ocean Water Temperature	*Temperature*
Internal	
Pattern	
Ocean Water Turbidity	*Light Transmission*
Ocean Wave	*Ocean Waves*
Direction	
Height	
Along-track	
Significant	
Length	
Power Spectrum, 2-D	
OClO	*Trace-gases*
Conc	
OCS	*Trace-gases*
Conc	
OH	*Trace-gases*
Conc	
Oil_Slick	*Pollutants*
Cover	
Optical Depth	*Light Transmission*
Total	
Organic Matter	*Organic Matter*
Conc	
Dissolved	
Particulate	
Degradation Product Absorption Coef@415nm (DOM + Detritus)	
Fluorescence Efficiency, Colored Dissolved	
Particulate	
Oragraphy	*Terrain Elevation*
Model	
Ox	*Oxygen*
Conc	
PAN	*Contaminants*
Conc	
PAR	*Solar Radiation*
Absorbed	
Non-vegetative, (APAR)	
Vegetative, (APAR)	
Incident / Intercepted (IPAR)	
Surface	
Surface Vegetation	
PBL	*Altitude*
Height	
Thickness	
Permafrost	*???*
Distribution	
Sensitivity	
Phytoplankton	*Phytoplankton*
Backscatter	
Coef	
Biomass	
Species Composition	
Type	
Pigment Conc	*Pigment Concentration*
Accessory	
Non-photosynthetic	
Phycoerythrin	
Phytoplankton	
Planetary Wave	*Winds*
Structure	
Precipitable Water	*Water Vapor*
Microwave	
Precipitation	*Precipitation*
Amount	
Average	
Convective	
Large-scale_stable	
Rain	

Product Group Name	*MD Keyword*
Snow	
Convective	
Large-scale_Stable	
Depth	
Drop Phase, Sfc	
Ice Conc	
Index	
Antecedent	
Microwave	
Rate	
Rain	
Snow	
Sampling statistics, Rain	
Storm Depth (Precip-thickness)	
Variability(&Extrema)	
Pressure	*Pressure*
RMSE, Sfc	
Sfc	
Tendency, Sfc	
Tropopause	
Proton	*Proton Flux*
Energy Spectra	
Radar Backscatter	*Light Transmission*
Coef	
Radiance	*Radiance*
At-Satellite, MODIS Level 2	
Cloud Cleared	
Error, MODIS Level 2	
Lunar Reference, MODIS Level 1	
Solar Diffuser, MODIS Level 1	
Total	
Radiation	*Radiance/Solar Radiation*
Budget	
Intensity	
IR	
UV	
Visible	
Radiative Flux	*Heat Flux*
Broadband	
Down	
Change Statistics	
LW	
Solar	
Convergence	
Divergence	
Clear-sky	
Cloudy_sky	
LW	
SW	
LW	
Spectral	
Average_Net	
Clear-sky	
Down	
Net	
Up	
TOA	
Up	
Net	
Down	
Sea_sfc	
Solar	
Ave-absorbed	
Net_Down	
Sfc Clear-sky	
TOA Clear-sky	
SW	
Down	
Net	
Down	
TOA	
Up	
River	*Rivers*
Channel Geometry	
Major-stream	
Channel Patterns	
Discharge	
Extent	
Floodplain Extent	
Ice Cover	
Stage (Flooding)	
Water Attenuation Coef	
Water Chemistry	
Water Chlorophyll Conc	
Runoff	*Runoff*
Soil Moisture	
Chemistry	
Contributing-area	
Sand	*Soil*
Depth	
Sea_Ice	*Sea Ice*
Age	
Albedo	
Area	
Conc	
First-year	
GCM	
Multi-year	
Cover	
Open water	
Duration, Ice-free_Season	
Edge	
Emissivity	
Extent	
Fraction	
Open-water	
New (First Year)	
Meltpond	
Leads	
Max Extent	
Motion	
Regional	
Roughness	
Size Distribution	
Temperature	
Thickness	
Sea Level Height	*Sea Sfc Height*
Along-track	
Change	
Statistics	
Variability, RMSE	
Sea_sfc Feature	*Waves*
Position	
Velocity	
Occurence Statistics	
Gradient-Changes Statistics	
Sea_sfc Height	*Sea Surface Height*
Sea_sfc Reflectance	*Albedo*
Factor, MODIS	
Sea_sfc State	*Waves*
Sea_sfc Temperature (SST)	*Temperature*
Brightness Temperature	
Change Statistics	
Statistics	
Sea_sfc Topographic Height	*Topographic Data*
Sediment	*Sedimentation*
Conc	
C Constituent Flux	
N Constituent Flux	
P Constituent Flux	

Product Group Name	*MD Keyword*
Snow	*Snow*
Area	
Chemistry	
Contaminant Conc	
Cover	
Index	
Cold	
Wet	
Depth	
Extent	
Grain Size	
Ice Content	
Liq-water Content	
Mass	
Melt	
Area, Distributed	
Chemistry	
Reflectance, Spectral	
State	
Temperature, Sfc	
Water Equivalent	
SO_2	*Trace-gases*
Conc	
Soil	*Soil*
Brightness Index	
Bulk Density	
Chemistry	
Class	
Color Index	
Composition	
Extent	
Hydraulic Conditions, Unsaturated	
Hydraulic Properties	
Index	
Maps, Level-4 [Class,Comp,Age,etc.]	
Mineral Type	
Moisture	
N Turnover	
Time-deriv	
Proportion, Bare	
Reflectance, Bi-directional, (BRDF)	
Roughness	
Spectral-characteristics	
Temperature	
Stability	*???*
Lifted Index	
Stratopause	*Altitude*
Height	
Structure-Location, Significant Mappable	
Surface Water	*Surface Water*
Area	
Content (Soil Moisture+Lakes+Rivers)	
Saturated Area	
Suspended-Solid	*Suspended Solids*
Conc	
Lake Water	
Ocean Water	
River Water	
Temperature	*Temperature*
Change, Convective_Adjustment	
Dry-bulb	
Near_sfc	
PBL	
Tropopause	
Near_sfc	
PBL	
Profile	
Microwave	
RMSE	
Stratospheric	
Tendency	
Tropospheric	
Texture	*???*
MODIS Level 2	
MODIS Level 3	
Topographic Elevation	*Topographic Data*
Land_sfc	
DEM	
Change Rate	
Slope (Azimuth)	
Sea_sfc	
Torque	*???*
Friction	
Mountain	
Ocean-Land	
Trace Gas	*Trace-gases*
Conc	
Non-diurnally-varying	
Total Burden	
Greenhouse	
Transfer Coef	
Transport Diagnostics	
Tropopause	*Altitude*
Height	
Aerosol_located	
Cirrus_located	
Vegetation	*Surface Vegetation*
Biomass	
Above_sfc	
Dead	
Green	
Sub_sfc	
Biome Area	
Cellulose Conc	
Change	
Chlorophyll Conc	
Class(Type)	
Condition	
Cover	
Crown	
Height	
Spacing	
Density	
Evapotrans	
Time-deriv, Annual	
Actual, (AET)	
Potential	
Extent	
Growing_Season Duration	
Height	
Index	
Composited, Sfc	
Hemispherical, Sfc	
Integrated Annual	
LAI	
Normalized	
Polarization	
Self_Atmospheric-Correcting	
Temporal Signal	
Index-Directional Reflectances	
Atmosphere Corrected (O3 and mol.scatt.)	
Leaf Water Content	
Leaf-tissue Water Content	
Lignin Conc	
Litter Biomass	
Moisture, Root-zone	
N Conc	
Phenologic State	
Physiography	
Phytomass	
Production	
Net Ecosystem, (NEP)	

Product Group Name	*MD Keyword*
Net Primary, (NPP)	
Net Primary, Time-deriv (dNPP/dt)	
Productivity	
Primary	
Reflectance	
Factor	
Bi-directional, (BRDF)	
Rooting Depth	
Roughness	
Spatial Density	
State	
Stomatal Resistance	
Stress	
Index, Water	
Structure	
Succession	
Temperature	
Type	
Boundaries	
Water Content	
Integrated	
Water Potential	
Vertical Motion	*Winds*
Omega	
Volcano	*Volcano*
Activity	
Extent	
Temperature	
Age	
Cone Deformation	
Deformation	
Elevation	
Change	
Reference	
Emissions, Eruption	
Morphology	
Roughness	
Temperature	
Eruption Spike	
Change	
Volume-Change	
Vorticity	*Winds*
Potential	
Wetland	*Surface Water*
Extent	
Wind	*Winds*
Direction	
Flux (Draw)	
Friction Velocity	
Geostrophic	
Speed	
Along-track	
Land_sfc	
Meridional	
PBL	
RMSE	
Mean_Meridional	
Mean_Zonal	
Sea_sfc	
Zonal	
Stress	
Meridional	
Sea Sfc	
Zonal	
Trajectories	
Tendency	
U (zonal)	
V (meridional)	
Velocity	
3-D	
Divergent Horizontal	
Friction	
Geostrophic	
Land_sfc	
Line of Sight	
Prevailing	
Rotational, Horizontal	
Sea_sfc	
Sea_sfc Glint-Pattern	
Tropospheric 3-D	
X-Ray	*X-ray*
Energy Spectra	
Images	

Output/Input Data Products
Listed by
Product Number
(Master Product List)

Appendix C

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1001	Aerosol Optical Depth	I :: II	Hansen					tau=0.02 ::	1/wk	500 km :: G	:: Trop
1002	Aerosol Optical Depth	I :: II	Hartmann					tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
1003	Aerosol XXX	I :: II	Pyle						2/day	:: G	:: Strat
1004	Aerosol XXX	I :: II	Sellers								
1005	Aerosol XXX	I :: II	Bates				/m/sr		1/(1-3 day) [few day]	100 km :: G	1 km :: Atmos
1006	Aerosol Conc	I :: II	Grose				no/cm^3	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
1007	Aerosol Conc	I :: II	Kerr, Sorooshian				type,amount	5% :: 5%	1/day	25 km :: Land	3 km :: Atmos
1008	Aerosol Conc	I :: II	Moore				mg/cm^3	50% ::	1/(2 day)	1 km :: G	
1009	Aerosol Conc	I :: II	Moore				mg/cm^3	50% ::	1/(2 day)	30 m :: L	
1010	Aerosol Conc	I :: II	Schoeberl				no/cm^3	10% :: 5%	1/day	200 km :: G	1 km :: Strat
1012	*Aerosol Extinction Coef*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/km	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
1013	Aerosol Layer Boundary Height	I :: II	Bates				m	75 m ::		2-200 km :: G	75 m :: Atmos
1014	*Aerosol Layer Boundary Height*	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	m	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
1015	Aerosol Layer Boundary Height	I :: II	Isacks				m	75 m ::	1/event, 1/mo	2 km :: Land/R	75 m :: Atmos
1016	Aerosol Mass Loading	I :: II	Isacks				g/m^2	30% :: 10%	1/wk	1-10 km :: Land/R	N/A :: Atmos
1017	*Aerosol Mass Loading*	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	g/m^2	30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
1019	Aerosol Size-distribution	I :: II	Bates				dimensionless	:: 20%	1/(5-16 day)	15.4 km :: G	Column :: Atmos
1020	Aerosol Size-distribution	I :: II	Hartmann				um	20% :: 20%	1/day	20 km :: G	N/A :: 0-15 km
1021	Aerosol Size-distribution	I :: II	Schoeberl				no/cm^3/um	10% :: 5%	1/day	200 km :: G	1 km :: Strat
1022	*Aerosol Size-distribution (Radius-*	O :: FI	Tanre, Kaufman	MODIS	AM,PM	GSFC	um, dimensionless	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
1024	Aerosol Size-distribution	I :: II	Isacks					:: 20%	1/wk	2-15 km ::	Column :: Atmos
1025	Br Conc	O :: II	Schoeberl				ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1026	BrO Conc	I :: II	Grose				mix ratio	20% :: 15%	1/wk	30 x 4 dg :: G	3 km :: Strat
1027	BrO Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1028	BrO Conc	I :: II	Schoeberl				ppt	20% :: 1	1/wk	8 x 10 dg :: G	2 km :: Strat
1029	BrO Conc	O :: II	Schoeberl				ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1030	BrO(Br^81-O) Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
1031	BrONO2 Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1032	BrONO2 Conc	O :: II	Schoeberl				ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1033	BrOy Conc	O :: II	Pyle								
1034	CFC-114(C2Cl2F4) Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1035	CFC-113(C2Cl3F3) Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1036	CFC-115(C2ClF5) Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1037	C2H6 Conc	I :: II	Schoeberl				ppb	20% :: 0.2	1/wk	8 x 10 dg :: G	3 km :: Strat
1038	CBrClF2 Conc	O :: II	Schoeberl				ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1039	CCl4 Conc	O :: II	Schoeberl				ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1041	CCl4 Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1042	CFC-12(CF2Cl2) Conc	I :: II	Grose				mix ratio	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
1043	CFC-12(CF2Cl2) Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1044	CFC-12(CF2Cl2) Conc	I :: II	Schoeberl				ppb	15% :: 10	1/day	2 x 3 dg :: G	1.5 km :: Strat
1045	CFC-12(CF2Cl2) Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1046	CFC-12(CF2Cl2) Conc	O :: II	Schoeberl				ppb	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1047	*CFC-12(CF2Cl2) Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1050	CFC-11(CFCl3) Conc	I :: II	Grose				mix ratio	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
1051	CFC-11(CFCl3) Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1052	CFC-11(CFCl3) Conc	I :: II	Schoeberl				ppt	15% :: 10	1/day	2 x 3 dg :: G	1.5 km :: Strat
1053	CFC-11(CFCl3) Conc	O :: II	Schoeberl				ppb	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1054	CFC-11(CFCl3) Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1055	*CFC-11(CFCl3) Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1056	CFClO Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1057	CFC-XXX Conc	I :: II	Hansen				mix ratio		1/wk	500 km :: G	:: Trop
1058	CFC-XXX Conc	O :: II	Pyle								
1059	H2CO Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1060	CH3 Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1061	CH3Br Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1062	CH3Br Conc	I :: II	Schoeberl				ppt	20% :: 2	1/wk	8 x 10 dg :: G	3 km :: Strat
1063	CH3Br Conc	O :: II	Schoeberl				ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1064	CH3CCl3 Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1065	CH3Cl Conc	I :: II	Grose				mix ratio	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
1066	CH3Cl Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1067	CH3Cl Conc	I :: II	Schoeberl				ppt	15% :: 20	1/wk	8 x 10 dg :: G	3 km :: Strat
1068	CH3Cl Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1069	CH3Cl Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1070	CH3Cl Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
1071	CH3O Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1072	CH3O2 Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1073	CH3OOH Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1074	CH4 Conc	I :: II	Grose				mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1075	CH4 Conc	I :: II	Hansen				mix ratio	0.10% ::	1/wk	500 km :: Wetlands	:: Trop
1076	CH4 Conc	I :: II	Hansen				mix ratio		1/wk	500 km :: G	:: Trop
1077	CH4 Conc	I :: II	Pyle				mix ratio (-log10)	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1078	CH4 Conc	I :: II	Schoeberl				ppm	15% :: 0.05	1/day	2 x 3 dg :: G	1.5 km :: Strat
1080	CH4 Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1081	CH4 Conc	O :: II	Pyle								
1082	CH4 Conc	O :: II	Schoeberl				ppm	15% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1083	CH4 Conc	O :: II	Schoeberl				ppm	10% :: 10%	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1084	CH4 Conc	O :: II	Schoeberl				ppm	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1085	*CH4 Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
1086	CH4 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppmv	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
1087	*CH4 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1088	*CH4 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1089	*CH4 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1090	CH4 Budget	O :: II	Grose						1/mo	~6 x 6 dg :: G	
1091	CH4 Emission	O :: II	Moore				g/ha/timestep	30%? :: 5-10%?	1/mo	1 km :: Land	:: Sfc
1092	CH4 Emission	O :: II	Moore				g/ha/timestep	30%? :: 5-10%?	1/mo	.030-1 km :: Land/R,L	:: Sfc
1093	CH4 Flux	O :: II	Richey, Batista				g/ha/day	20% :: 20%	1/day	1 km :: Land/R	:: Sfc
1094	CH4 Flux	O :: II	Richey, Batista				g/ha/day	20% :: 20%	1/day	1 km :: Land/R	
1095	*CH4 Total Burden*	O :: FI	Chedin, Revercomb, Strow	AIRS	PM	GSFC	ppb, dimensionless	50 - 175 ppb, 2% :: 30 - 150 ppb, TBD	1/day [n] - 2/day [d,n]	50 - 250 km :: G	Column :: Atmos
1096	*CH4 Total Burden*	O :: PI	Drummond	MOPITT	AM1	LaRC	ppbv	:: 1%	1/(12 s) [?]	120 km :: G	Column :: Atmos
1098	CH4 Uptake	O :: II	Schimel				g/ha/mo	30% :: 5%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1099	CH4 Uptake	O :: II	Schimel				g/ha/mo	30% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1100	CH4 Uptake Time-derivative	O :: II	Schimel				g/ha/mo^2	30% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1101	CHO Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1102	Cl Conc	O :: II	Schoeberl				ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1103	ClO Conc	I :: II	Grose				mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1104	ClO Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1105	ClO Conc	I :: II	Schoeberl				ppb	10% :: 0.02	1/day	8 x 10 dg :: G	3 km :: Strat
1106	ClO Conc	O :: II	Schoeberl				ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1107	ClO Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
1108	ClONO2 Conc	I :: II	Grose				mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
1109	ClONO2 Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1110	ClONO2 Conc	I :: II	Schoeberl				ppb	15% :: 0.05	1/day	8 x 10 dg :: G	3 km :: Strat
1111	ClONO2 Conc	O :: II	Schoeberl				ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1112	ClOy Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1113	ClOy Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1114	ClOy Conc	O :: II	Grose				mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1115	ClOy Conc	O :: II	Pyle								
1116	CO Conc	I :: II	Grose				mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1117	CO Conc	I :: II	Hansen				mix ratio	0.10% ::	1/wk	500 km ::	:: Trop
1118	CO Conc	I :: II	Moore				ppmv	25% :: 10%	1/day	100 km :: G	:: Trop
1119	CO Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	2 km :: Strat
1120	CO Conc	I :: II	Schoeberl				ppb	15% :: 5	1/day	2 x 3 dg :: G	2 km :: Trop
1121	CO Conc	I :: II	Schoeberl				ppb	15% :: 5	1/day	8 x 10 dg :: G	3 km :: Mid-atmos
1123	CO Conc	O :: II	Schoeberl				ppb	20% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1124	CO Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
1125	CO Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
1126	*CO Conc*	O :: PI	Drummond	MOPITT	AM1	LaRC	ppb	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
1127	*CO Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 10 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1128	*CO Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1129	*CO Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1134	CO Flux	O :: II	Brewer				mol-CO/m^2/s	30% :: 20%	1/day	20 km :: Ocean	N/A :: Sfc
1135	CO Flux	O :: II	Brewer				mol-CO/m^2/s	30% :: 20%	1/day	30 m :: Ocean/L	N/A :: Sfc
1136	*CO Total Burden*	O :: FI	Revercomb, Strow	AIRS	PM	GSFC	ppb	10 - 20 :: 6 - 15	2/day [d,n]	50 - 250 km :: G	Column :: Atmos
1137	*CO Total Burden*	O :: PI	Drummond	MOPITT	AM1	LaRC	ppb	:: 10%	1/(4 s) [?]	66 km :: G [dy]	Column :: Atmos
1138	CO2 Conc	I :: II	Grose				mix ratio	1% :: 0.5%	1/mo	ZM :: G	10 km :: Mid-atmos
1139	CO2 Conc	I :: II	Hansen				mix ratio	0.2 ppm ::	1/wk	500 km :: G	:: Trop
1140	CO2 Conc	I :: II	Kerr, Sorooshian				ppm	15% :: 15%	1/day	50 km :: G	1 km :: Atmos
1141	CO2 Conc	I :: II	Sellers								
1143	CO2 Exchange	O :: II	Moore				various			Mult :: Land/R	
1144	CO2 Exchange	O :: II	Moore				various			Mult :: Land	
1145	CO2 Exchange	O :: II	Schimel				g/ha/hr	25% :: 1%	1/day	Mult :: 6 sites/L	:: Sfc
1146	CO2 Exchange Time-deriv	O :: II	Schimel				g/ha/hr^2	25% :: 1%	1/day	Mult :: 6 sites/L	:: Sfc
1147	CO2 Flux	O :: II	Richey, Batista				kg/ha/hr	20% :: 20%	1/day	1 km :: Land/R	:: Sfc
1148	CO2 Flux	O :: II	Brewer				mol-CO2/m^2/s		1/day	30 m :: Ocean/L	N/A :: TOO
1149	CO2 Flux	O :: II	Brewer				mol-CO2/m^2/s		1/day	20 km :: Ocean	N/A :: TOO
1150	CO2 Flux	O :: II	Sellers				mmol/m^2/s		1/hr	1 dg ::	
1151	CO2 Total Burden (Mixing Ratio)	O :: FI	Revercomb	AIRS	PM	GSFC	ppm	25 :: 20	2/day [d,n]	50 km :: G	Column :: Atmos
1152	COF2 Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1153	COF2 Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: L	:: PBL
1154	COS Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: G	:: PBL

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1155	COS Flux	O :: II	Richey, Batista				kg/ha/hr	20% :: 20%	1/day	1 km :: Land/R	
1156	CS2 Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: G	:: PBL
1157	CS2 Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: L	:: PBL
1158	DMS Conc	I :: II	Schoeberl				ppb	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Trop
1159	DMS Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: L	:: PBL
1160	DMS Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: G	:: PBL
1161	DMS Flux	O :: II	Brewer				mol/m^2/s	30% :: 20%	1/day	20 km :: Ocean	N/A :: Sfc
1162	DMS Flux	O :: II	Brewer				mol/m^2/s	30% :: 20%	1/day	30 m :: Ocean/L	N/A :: Sfc
1163	H Conc	O :: II	Schoeberl				ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1164	H2 Conc	O :: II	Schoeberl				ppm	15% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1165	H2CO Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 2x10-11	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-50 km
1166	H2O2 Conc	I :: II	Grose				mix ratio	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Strat
1167	H2O2 Conc	I :: II	Pyle				mix ratio (-log10)	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1168	H2O2 Conc	I :: II	Schoeberl				ppb	20% :: .1t,.05s	1/wk	8 x 10 dg :: G	2 km :: Strat
1169	H2O2 Conc	O :: II	Schoeberl				ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1170	H2O2 Conc	O :: II	Schoeberl				ppb	30% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1171	H2O2 Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
1172	H2O2 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1173	H2S Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: L	:: PBL
1174	H2S Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: G	:: PBL
1175	Halons Conc	O :: II	Pyle								
1176	HBr Conc	I :: II	Grose				mix ratio	25% :: 10%	1/day	30 x 4 dg :: G	3 km :: Strat
1177	HBr Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1178	HBr Conc	I :: II	Schoeberl				ppt	20% :: 1	1/wk	8 x 10 dg :: G	3 km :: Strat
1179	HBr Conc	O :: II	Schoeberl				ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1180	HBr Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
1181	CFC-XXX (HCFCs) Conc	O :: II	Pyle								
1182	HCl Conc	I :: II	Grose				mix ratio	15% :: 10%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
1183	HCl Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1184	HCl Conc	I :: II	Schoeberl				ppb	15% :: 0.1	1/day	4 x 5 dg :: G	2 km :: Strat
1185	HCl Conc	O :: II	Grose				mix ratio		1/seas	~6 x 6 dg :: G	24 lvl :: 0-90 km
1186	HCl Conc	O :: II	Schoeberl				ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1187	HCl Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
1188	HCl(H_Cl^35) Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
1189	HCl(H_Cl^37) Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
1190	HCN Conc	I :: II	Schoeberl				ppb	20% :: 0.01	1/wk	8 x 10 dg :: G	3 km :: Strat
1191	HCN Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 4x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 20-65 km
1192	HCN Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 35% (25-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 25-35 km
1193	HF Conc	I :: II	Grose				mix ratio	25% :: 10%	1/day	30 x 4 dg :: G	3 km :: Strat
1194	HF Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1195	HF Conc	I :: II	Schoeberl				ppb	15% :: 0.05	1/day	4 x 5 dg :: G	2 km :: Strat
1196	HF Conc	O :: II	Schoeberl				ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1197	HF Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
1198	HNO3 Conc	I :: II	Grose				mix ratio	20% :: 5%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
1199	HNO3 Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1200	HNO3 Conc	I :: II	Schoeberl				ppb	15% :: 0.1	1/day	2 x 3 dg :: G	2 km :: Strat
1201	HNO3 Conc	O :: II	Schoeberl				ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1202	*HNO3 Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
1203	HNO3 Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
1204	HNO3 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
1205	HNO3 Conc	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2.3 km :: 4-12 km
1206	HNO3 Conc	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1207	HNO4 Conc	I :: II	Grose				mix ratio	50% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1208	HNO4 Conc	I :: II	Schoeberl				ppb	20% :: 0.02	1/wk	8 x 10 dg :: G	3 km :: Strat
1209	HNO4 Conc	O :: II	Schoeberl				ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1210	HNOx Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1211	OH Conc	I :: II	Pyle				mix ratio (-log10)	20% :: 10%	2/day	15 x 4 km :: G	2 km :: Strat
1212	HO2 Conc	I :: II	Grose				mix ratio	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
1213	HO2 Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1214	HO2 Conc	I :: II	Schoeberl				ppb	15% :: 0.02	1/day [d]	6 x 8 dg :: G	2 km :: Strat
1215	HO2 Conc	O :: II	Schoeberl				ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1216	HO2 Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
1217	HO2 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km
1218	HOCl Conc	I :: II	Grose				mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
1219	HOCl Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1220	HOCl Conc	I :: II	Schoeberl				ppb	20% :: 0.02	1/wk	8 x 10 dg :: G	3 km :: Strat
1221	HOCl Conc	O :: II	Schoeberl				ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1222	HOCl Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
1223	HOCl Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
1224	HOy Conc	O :: II	Grose						1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1225	HOy Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1226	HOy Conc	O :: II	Grose				mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1227	HOy Conc	O :: II	Pyle								
1228	N Conc	O :: II	Schoeberl				ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1229	N2O Conc	I :: II	Grose				mix ratio	15% :: 5%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
1230	N2O Conc	I :: II	Hansen				mix ratio		1/wk	500 km :: G	:: Trop
1231	N2O Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1232	N2O Conc	I :: II	Schoeberl				ppb	15% :: 10	1/day	2 x 3 dg :: G	2 km :: Strat
1234	N2O Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1235	N2O Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1236	N2O Conc	O :: II	Pyle								
1237	N2O Conc	O :: II	Schoeberl				ppb	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1238	N2O Conc	O :: II	Schoeberl				ppb	25% :: 10%	1/mo	10 dgZM :: G	2 km :: 0-90 km
1239	*N2O Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
1240	N2O Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	.5 km [1.2] :: TPSE, 65 km
1241	N2O Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppmv	:: 15% (20-35 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 20-40 km
1243	N2O Conc	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 10 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1244	N2O Budget	O :: II	Grose						1/mo	~6 x 6 dg :: G	
1245	N2O Emission	O :: II	Moore				g/ha/mo	30% :: 5-10%	1/mo, 1/yr	.030-1 km :: Land/L,R	
1246	N2O Emission	O :: II	Moore				g/ha/mo	30% :: 5-10%	1/mo, 1/yr	1 km :: Land	
1247	N2O Emission	O :: II	Schimel				g/ha/mo	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1248	N2O Emission Time-deriv	O :: II	Schimel				g/ha/mo^2	50% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1249	*N2O Total Burden*	O :: FI	Revercomb, Strow	AIRS	PM	GSFC	ppb	20 - 40 :: 15 - 30	2/day [d,n]	Zonal_ave :: G	Column :: Atmos
1250	N2O5 Conc	I :: II	Grose				mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1251	N2O5 Conc	I :: II	Pyle				mix ratio (-log10)	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1252	N2O5 Conc	I :: II	Schoeberl				ppb	15% :: 20%	1/day	8 x 10 dg :: G	3 km :: Strat
1253	N2O5 Conc	O :: II	Schoeberl				ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1254	*N2O5 Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
1255	N2O5 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
1256	*NH3 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 300 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1257	NH4 Exchange	O :: II	Schimel				g/ha/mo	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1258	NH4 Exchange Time-deriv	O :: II	Schimel				g/ha/mo^2	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1259	NMHC Flux	O :: II	Schimel				g/ha/mo	50% :: 5%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1260	NMHC Flux	O :: II	Schimel				g/ha/mo	50% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1261	NMHC Flux Time-deriv	O :: II	Schimel				g/ha/mo^2	50% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1262	NO Conc	I :: II	Grose				mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1263	NO Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1264	NO Conc	I :: II	Schoeberl				ppb	15% :: .2s,1.0m	1/day [d]	4 x 5 dg :: G	2 km :: Mid-atmos
1265	NO Conc	O :: II	Schoeberl				ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1266	NO Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
1267	*NO Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 15 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1268	*NO Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1269	NO2 Conc	I :: II	Grose				mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1270	NO2 Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1271	NO2 Conc	I :: II	Schoeberl				ppb	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
1272	NO2 Conc	O :: II	Schoeberl				ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1273	*NO2 Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
1274	NO2 Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
1275	NO2 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
1276	*NO2 Conc*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3&ppbv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 10-50 km
1277	*NO2 Conc*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3&ppbv	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-50 km
1278	*NO2 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1279	NO3 Conc	I :: II	Grose				mix ratio	20% :: 10%	1/day [n]	30 x 4 dg :: G	3 km :: Mid-atmos
1280	NO3 Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	1/day [n]	15 x 4 km :: G	3 km :: Strat
1281	NO3 Conc	O :: II	Schoeberl				ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1282	NO3 Conc	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3&ppbv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-55 km
1283	NOx Conc	O :: II	Schoeberl				ppt	30% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1284	NOx Emission	O :: II	Schimel				g/ha/mo	25% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1285	NOx Emission	O :: II	Schimel				g/ha/mo	25% :: 5%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1286	NOx Emission Time-deriv	O :: II	Schimel				g/ha/mo^2	25% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1287	NOy Conc	O :: II	Grose						1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1288	NOy Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1289	NOy Conc	O :: II	Grose				mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1290	NOy Conc	O :: II	Pyle								
1291	NOy Budget	O :: II	Grose						1/mo	~6 x 6 dg :: G	
1292	NOy Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1293	O(1D) Conc	O :: II	Schoeberl				ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1294	O(3P) Conc	I :: II	Grose				mix ratio	30% :: 10%	1/wk	30 x 4 dg :: G	3 km :: Mid-atmos
1295	O(3P) Conc	I :: II	Pyle				mix ratio (-log10)	15% :: 5%	1/wk	15 x 4 km :: G	2 km :: Strat
1296	O(3P) Conc	I :: II	Schoeberl				ppb	15% :: 10%	1/wk [d]	8 x 10 dg :: G	3 km :: Strat
1297	O(3P) Conc	O :: II	Schoeberl				ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1298	O(3P) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	%	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
1299	O2 Conc	O :: PI	Waters	MLS	MO	GSFC		<=5% :: 1%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	5 km [6.5] :: TPSE, 120 k
1300	O2 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	%	:: <2%(10-65 km)	1/(36-72 s) [?]	25 x 1-5 dg :: 86S-86N	3 km :: 10-80 km
1301	*Pressure*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3	2% :: 2%	1/(2 min), 30/day (Lun.)	<2 x <1 dg :: G	1 km :: 6-55 km
1302	*Pressure*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3	2% :: 2%	1/(2 min), 30/day (Sol.)	<2 x <1 dg :: G	1 km :: 6-70 km
1303	O2(NU1) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [6.5] :: 20-80 km
1304	O3(OO^18) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-80 km
1305	O3 Conc	I :: II	Bates					5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
1306	O3 Conc	I :: II	Grose				mix ratio	2%,5% :: 2%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1307	O3 Conc	I :: II	Hansen				mix ratio	3% ::	1/wk	500 km :: G	:: Atmos
1308	O3 Total Burden	I :: II	Kerr, Sorooshian				ppm	5% :: 5%	1/day	25 km :: G	Column :: Atmos
1309	O3 Conc	I :: II	Moore				ppmv	25% :: 10%	1/day	100 km :: G	:: Atmos
1310	O3 Conc	I :: II	Murakami				ppmv (mix ratio)	10% ::			N/A :: TOA
1311	O3 Conc	I :: II	Pyle				mix ratio (-log10)	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
1312	O3 Conc	I :: II	Schoeberl				ppm	10% :: 10%	1/day	4 x 5 dg :: G	2.5 km :: Trop
1313	O3 Conc	I :: II	Schoeberl				ppm	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
1315	O3 Conc	O :: II	Schoeberl				ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1316	O3 Conc	O :: II	Schoeberl				ppm	10% :: 10%	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1317	O3 Conc	O :: II	Schoeberl				ppb	20% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1318	*O3 Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1319	O3 Conc	O :: PI	Waters	MLS	MO	GSFC		<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	5 km [1.2] :: TPSE, 110 k
1320	O3 Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppmv	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
1321	*O3 Conc*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3&ppmv	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
1323	*O3 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1324	*O3 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1325	*O3 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1326	O3O3(NU1,3) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1327	O3O3(NU1,3) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1328	O3 Conc	O :: PI	Waters	MLS	MO	GSFC		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	.5 km [1.2] :: TPSE, 70 k
1329	O3(NU2) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1330	O3 Budget	O :: II	Grose						1/mo	~6 x 6 dg :: G	
1331	O3 Conc	I :: II	Murakami				/m^3	5-10% :: 2-10%			
1332	*O3 Total Burden*	O :: FI	Chedin, Revercomb, Smith, Susskind	AIRS	PM	GSFC	Dobson unit	5 - 15% :: 3 - 10%	2/day [d,n]	50 km :: G	Column :: Atmos
1333	O3 Total Burden	O :: FI	Menzel	MODIS	AM,PM	GSFC	DU	15-20DU :: 10DU	2/day, 1/day	5 km :: G	Column :: Atmos
1334	O3 Total Burden	O :: FI	Menzel	MODIS	AM,PM	GSFC	DU	15-20DU :: 10DU	1/day, 1/mo	0.5 dg :: G	Column :: Atmos
1335	O3 Total Burden, TOMS_Follow-on	O :: II	Schoeberl				DU	5 :: 2	1/day	1 x 1 dg :: G	Column :: Atmos
1336	O3 Total Burden, TOMS_Version-6	O :: II	Schoeberl				DU	5 DU :: 2	1/day	1 x 1 dg :: R	Column :: Atmos
1337	O3(OO^17_O) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 100%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 25-45 km
1338	O3(OO^18_O) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1339	O3(17^OOO) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-50 km
1340	O3(O17^OO) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 40% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1341	O3(17^OOO) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km
1342	O3(18^OOO) Conc	I :: II	Schoeberl				ratio to ^ (48)O3	10% :: 10%	1/wk	8 x 10 dg :: G	5 km :: Strat
1343	O3(^18OOO) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 20%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1344	O3(O^18_OO) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1345	O3(^18OOO) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1346	O3 Conc, SBUV-2_Corrected	O :: II	Schoeberl				ppm	0.5 :: 0.2	1/day	8 x 10 dg :: G	5 km :: Atmos
1347	O3 Conc, SBUV-2_Follow-on	O :: II	Schoeberl				ppm	0.5 :: 0.2	1/day	8 x 10 dg :: G	5 km :: Atmos
1348	O3 Conc, SBUV_Corrected	O :: II	Schoeberl				ppm	0.5 :: 0.2	1/day	8 x 10 dg :: R	5 km :: Atmos
1349	OClO Conc	I :: II	Grose				mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
1350	OClO Conc	I :: II	Pyle				mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1351	OClO Conc	I :: II	Schoeberl				ppb	20% :: 0.01	1/wk [n]	8 x 10 dg :: G	3 km :: Strat
1352	OClO Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	.5 km [1.2] :: TPSE, 25 km
1353	*OClO Conc*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3&ppbv	20% :: 20%	1/(2 min), 30/day	<2 x <1 dg :: G	2 km :: 15-25 km
1354	OCS Conc	I :: II	Schoeberl				ppb	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Strat
1355	OH Conc	I :: II	Grose				mix ratio	25% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1356	OH Conc	I :: II	Schoeberl				ppb	10% :: .02s,.05m	1/day [d]	6 x 8 dg :: G	2 km :: Mid-atmos
1357	OH Conc	O :: II	Schoeberl				no/cm^3	30% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1358	OH Conc	O :: II	Schoeberl				no/cm^3	15% :: 10%	1/mo	2 x 3 dg :: G	2 km :: Trop
1359	OH Conc	O :: II	Schoeberl				ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1360	OH Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
1361	Ox Conc	O :: II	Grose				mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1362	Ox Conc	O :: II	Grose						1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1363	Ox Conc	O :: II	Grose				mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1364	Ox Conc	O :: II	Pyle								
1365	PAN Conc	I :: II	Schoeberl				ppb	20% :: 0.01	1/day	8 x 10 dg :: G	3 km :: Strat
1366	SO2 Conc	I :: II	Schoeberl				ppb	20% ::	1/wk	8 x 10 dg :: G	3 km :: Strat
1367	SO2 Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: L	:: PBL
1368	SO2 Conc	O :: II	Brewer				mix ratio	30% :: 20%	1/day	:: G	:: PBL
1369	SO2 Conc	O :: PI	Waters	MLS	MO	GSFC	mix ratio	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	.5 km [1.2] :: TPSE, 30 km
1370	*SO2 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppt	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1371	Chemistry Diagnostics, Seasonal	O :: II	Grose						1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1372	Industrial_Emissions Conc	I :: II	Hansen				mix ratio	2% ::	1/wk	500 km :: G	:: Trop
1373	Trace Gas Total Burden	O :: II	Schoeberl				column density	25% :: 15%	[irreg]	N/A :: R	Column :: Atmos
1374	Trace Gas Conc	I :: II	Murakami				mix ratio	20% ::			N/A :: TOA
1375	Trace Gas Conc, Non-diurnally-varying	O :: II	Grose				mix ratio		1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
1376	Acceleration, Diffusive_Zonal	O :: II	Bates				m/s^2		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1377	Acceleration, Diffusive_Meridional	O :: II	Bates				m/s^2		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1378	Angular Momentum	I :: II	Bates				kg m^2/s	1% ::		:: G	:: Atmos
1379	Angular Momentum	O :: II	Tapley				kg m^2/s	1% ::	4/day	:: G	:: Atmos
1380	Cloud Height, Base	I :: II	Barron				m	100 m :: 50 m	1/day	100 km :: G	100 m :: Cloud
1381	Cloud Height, Base	I :: II	Barron				m	100 m :: 50 m	1/day	10 km :: R	100 m :: Cloud
1382	Cloud Height, Base	I :: II	Barron				m	100 m :: 50 m	1/day	30 m :: L	100 m :: Cloud
1383	Cloud Height, Base	I :: II	Bates				mb	:: 100 mb		25 km :: G	100 mb :: Cloud
1384	Cloud Height, Base	I :: II	Bates				mb	:: 100 mb	1/(6 hr)	1 x 1 dg :: G	100 mb :: Cloud
1385	Cloud Height, Base	I :: II	Kerr, Sorooshian				km or mb	200m :: 200m	1/hr	1 km :: Land	100 mb :: Trop
1386	Cloud Height, Base	I :: II	Wielicki				km	1 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
1387	Cloud Height, Base	I :: II	Wielicki				km	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
1388	Cloud Height, Base	I :: II	Wielicki				km	0.1 km :: 0.1 km	2/day [d,n]	50 km :: R	0.1 km :: Atmos
1389	*Cloud Height, Base*	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	m	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
1390	Cloud Height, Base	O :: FI	Welch	HIRIS	AM2	EDC	m	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
1391	Cloud Height, Base	O :: FI	Welch	ASTER	AM1	EDC	m	100 m :: 100 m	1/(16 day)	100 m :: L	N/A :: Cloud
1392	Cloud Height, Base	O :: II	Wielicki				km	1.0 km :: 0.1 km	18/day [d,n]	25 km :: R	0.1 km :: Atmos

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1393	Cloud Height, Base	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	km	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
1394	Cloud Height, Base	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	km	1.0 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1395	Cloud Height, Base	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	km	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1396	Cloud Height, Base, Cirrus	O :: II	Bates				mb		1/(20 min)	50 km :: G	N/A :: High_cloud
1397	Cloud Height, Base, Low-level	O :: II	Bates				mb		1/(20 min)	50 km :: G	N/A :: Low_Cloud
1398	Cloud Height, Base, Mid-level	O :: II	Bates				mb		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
1399	Cloud Height	I :: II	Hansen				km (m)	50 m ::	1/wk	500 km :: G	:: Cloud
1400	*Cloud Height*	O :: FI	Spinhirne	GLRS-A	ALT	GSFC	m	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
1401	Cloud Height, Cirrus	I :: II	Bates				m	500 m ::	2/day	50 km :: G	N/A :: Cloud
1402	Cloud Height, Cirrus	I :: II	Lau				m	100 m ::	2/day	50 km :: G	N/A :: Atmos
1404	Cloud Height, PSC	I :: II	Pyle						2/day	:: G	:: Strat
1405	*Cloud Height, PSC*	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	m	150 m ::	1/(2-16 day)	2-200 km :: Polar	75 m :: Strat
1406	Cloud Height, Stratoform	I :: II	Bates				m	50 m ::	2/day	50 km :: G	N/A :: Cloud
1408	*Cloud Height, PSC*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	km	0.4 km :: 0.4 km	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Strat
1409	Cloud Structure, 3-D	O :: FI	Welch	ASTER	AM1	EDC			1/(16 day)	90 m :: L	:: Cloud
1410	Cloud Structure, Cirrus	O :: FI	Spinhirne	GLRS-A	ALT	GSFC	/m	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
1411	Cloud Structure, Mesoscale	O :: II	Hartmann						1/day	100 km :: Sites	
1412	Cloud Height, Top	I :: II	Barron				m	100 m :: 25 m	1/day	100 km :: G	100 m :: Cloud
1413	Cloud Height, Top	I :: II	Barron				m	100 m :: 25 m	1/day	10 km :: R	100 m :: Cloud
1414	Cloud Height, Top	I :: II	Barron				m	100 m :: 25 m	1/day	30 m :: L	100 m :: Cloud
1415	Cloud Height, Top	I :: II	Bates				mb	:: 100 mb	1/(6 hr)	1 x 1 dg :: G	100 mb :: Cloud
1416	Cloud Height, Top	I :: II	Bates				km	0.5 km :: 0.25 km	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
1417	Cloud Height, Top	I :: II	Kerr, Sorooshian				km	:: 0.5 km	1/hr	1 km :: Land/R	:: Cloud
1418	Cloud Height, Top	I :: II	Murakami				km	1 km ::			:: Cloud
1419	Cloud Height, Top	I :: II	Rothrock				km	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
1420	Cloud Height, Top	I :: II	Wielicki				km	0.1 km :: 0.1 km	2/day [d,n]	50 km :: R	0.1 km :: Atmos
1421	Cloud Height, Top	I :: II	Wielicki				km	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
1422	Cloud Height, Top	I :: II	Wielicki				km	0.5 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
1423	*Cloud Height, Top*	O :: FI	Chahine, Chedin, Smith	AIRS	PM	GSFC	km	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
1425	*Cloud Height, Top*	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	m	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
1426	Cloud Height, Top	O :: FI	Welch, Goetz	HIRIS	AM2	EDC	m	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
1427	Cloud Height, Top	O :: FI	Welch	ASTER	AM1	EDC	m	300 m :: 300 m	1/(16 day)	90 m :: L	N/A :: Cloud
1428	Cloud Height, Top	O :: II	Wielicki				km	0.5 km :: 0.1 km	18/day [d,n]	25 km :: R	0.1 km :: Atmos
1429	Cloud Height, Top	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	km	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
1430	Cloud Height, Top	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	km	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1431	Cloud Height, Top	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	km	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1432	Cloud Height, Top	O :: PI	Diner	MISR	AM	LaRC	m	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
1433	*Cloud Height, Top*	O :: PI	Diner	MISR	AM	LaRC	m	100 m :: 100 m	1/(5-16 day) [d]	500 m :: R	N/A :: Trop
1434	Cloud Height, Top, Cirrus	O :: II	Bates				mb		1/(20 min)	50 km :: G	N/A :: High_cloud
1435	Cloud Height, Top, Low-level	O :: II	Bates				mb		1/(20 min)	50 km :: G	N/A :: Low_Cloud
1436	Cloud Height, Top, Mid-level	O :: II	Bates				mb		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
1437	Cloud Height, Top, PSC	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	km	0.2 km :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: Strat/Trop
1439	Humidity, Specific	O :: II	Barron				g/kg		1/(5 min)	30 km :: [East. U.S.]	
1440	Humidity, Specific	O :: II	Barron				g/kg		1/(5 min)	500 m :: [East. U.S.]	
1441	Heating Rate, Convective	O :: II	Bates				K/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1442	Heating Rate, Diffusive	O :: II	Bates				K/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1443	Heating, Convective	O :: II	Barron				W/m^3		1/hr	20-100 km :: R	

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1444	Heating, Convective	O :: II	Barron				W/m^3		1/hr	1 km :: R	
1445	Heating, East-West Sfc-stress	O :: II	Barron				J/m^2/s		2/day	4.5 x 7.5 dg :: G	
1446	Heating, East-West Sfc-stress	O :: II	Barron				J/m^2/s		2/day	2.8 x 2.8 dg :: G	
1447	Heating, North-South Sfc-stress	O :: II	Barron				J/m^2/s		2/day	4.5 x 7.5 dg :: G	
1448	Heating, North-South Sfc-stress	O :: II	Barron				J/m^2/s		2/day	2.8 x 2.8 dg :: G	
1449	Heating, Net_Diabatic	O :: II	Barron				W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1450	Heating Rate, LW_Radiative	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	
1451	Heating Rate, LW_Radiative	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	
1452	Heating Rate, LW_Radiative	O :: II	Bates				K/s		1/(4-6 hr)	50 km :: G	N/A :: 1000-0.1 mb
1453	Heating Rate, SW Radiative	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	:: Sfc
1454	Heating Rate, SW Radiative	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	:: Sfc
1455	Heating Rate, U-horizontal_Diffusive	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	
1456	Heating Rate, U-horizontal_Diffusive	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	
1457	Heating Rate, U-horizontal_Diffusive	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	
1458	Heating Rate, U-horizontal_Diffusive	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	
1459	Heating Rate, V-horizontal_Diffusive	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	
1460	Heating Rate, V-horizontal_Diffusive	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	
1461	Heating Rate, V-horizontal_Diffusive	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	
1462	Heating Rate, V-horizontal_Diffusive	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	
1463	Heating, Latent	I :: II	Bates							25 km :: G	10 lvl :: Trop
1464	Heat Flux, Latent	I :: II	Bates				W/m^2 or mm/day	10 :: 10	1/day	100 km :: Ocean	N/A :: Sfc
1465	Heat Flux, Latent	I :: II	Bates				W/m^2	:: 20%	1/(3 day)	100 km :: >60 dgLAT	
1467	Heat Flux, Latent	I :: II	Brewer				W/m^2		1/day, 1/seas	:: Ocean	N/A :: Sfc
1468	Heat Flux, Latent	I :: II	Lau				W/m^2	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
1469	Heat Flux, Latent	O :: II	Abbott				W/m^2	40 W/m^2 :: TBD	1/wk	50 km :: Ocean [Southern]	:: Sfc
1470	Heat Flux, Latent	O :: II	Barron				W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1471	Heat Flux, Latent	O :: II	Bates				W/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1472	Heat Flux, Latent	O :: II	Hartmann				W/m^2	10 :: 10	1/day	100 km :: Ocean	Sfc ::
1473	Heat Flux, Latent	O :: II	Kerr, Sorooshian				W/m^2	10% :: 10%	1/day	500 m :: Land	N/A :: Sfc
1474	Heat Flux, Latent	O :: II	Rothrock				W/m^2	20% :: 20%	1/(3 day)	100 km :: > 60 dgLAT	
1475	Heat Flux, Net	I :: II	Murakami				W/m^2	5% ::			
1476	Heat Flux, Sensible	I :: II	Bates				W/m^2	:: 20%	1/day	100 km :: > 60 dgLAT	
1477	Heat Flux, Sensible	I :: II	Brewer				W/m^2		1/day, 1/seas	:: Ocean	N/A :: Sfc
1479	Heat Flux, Sensible	I :: II	Lau				W/m^2	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
1480	Heat Flux, Sensible	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	
1481	Heat Flux, Sensible	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	
1482	Heat Flux, Sensible	O :: II	Barron				W/m^2		1/day	10 km :: R	:: Sfc
1483	Heat Flux, Sensible	O :: II	Bates				W/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1484	Heat Flux, Sensible	O :: II	Kerr, Sorooshian				W/m^2	10% :: 10%	1/hr	500 km :: Land/R	N/A :: Sfc
1485	Heat Flux, Sensible	O :: II	Kerr, Sorooshian				W/m^2	10% :: 10%	1/hr	500 m :: Land/R	N/A :: Sfc
1486	Heat Flux, Sensible	O :: II	Rothrock				W/m^2	20% :: 20%	1/day, 1/wk	100 km :: > 60 dgLAT	
1487	Heat Flux, Sensible	O :: II	Sellers				W/m^2		4/day	1 dg ::	
1488	Heat Flux, Sfc	O :: II	Barron				W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1489	Heat Flux, Sfc	O :: II	Barron				W/m^2		1/(5 min)	30 km :: [East. U.S.]	:: Afc
1490	Heat Flux, Sfc	O :: II	Barron				W/m^2		1/hr	20-100 km :: R	:: Sfc
1491	Heat Flux, Sfc	O :: II	Barron				W/m^2		1/(5 min)	500 m :: [East. U.S.]	:: Afc
1492	Radiative Flux, SW	I :: II	Brewer				W/m^2		1/day, 1/seas	:: Ocean	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1493	Radiative Flux, SW	I :: II	Brewer				W/m^2		1/day, 1/seas	:: Ocean/L	
1494	Heat Flux Convergence, Eddy	O :: II	Barron				W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1495	Heat Flux Rate, Latent	O :: II	Barron				m/s ?		2/day	4.5 x 7.5 dg :: G	
1496	Heat Flux Rate, Latent	O :: II	Barron				m/s ?		2/day	2.8 x 2.8 dg :: G	
1498	Geopotential Height	O :: II	Bates				m		1/(20 min)	50 km :: G	50 lvl :: 1000-0.1 mb
1499	Geopotential Height Gradient	I :: II	Bates				m/km	0.04m/km ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
1500	Geopotential Height-Gradient	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	m/km	0.04m/km :: 0.04m/km	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-80 km
1501	Heating Rate, Latent	I :: II	Lau				C/day	0.5 C/day :: 5%	1/mo	500 km :: G	2 km :: Trop
1502	Heating Rate, Latent	I :: II	Lau				C/day	1 C/day :: 5%	1/day	50 km :: R	1 km :: Trop
1503	Cloud Field Structure	O :: FI	Welch	HIRIS	AM2	EDC				:: L	
1504	Vertical Motion, Omega	O :: II	Barron				Pa/s		2/day	2.8 x 2.8 dg :: G	
1505	Vertical Motion, Omega	O :: II	Barron				Pa/s		2/day	4.5 x 7.5 dg :: G	
1506	Vertical Motion	O :: II	Barron				cm/s		1/hr	1 km :: R	
1507	Vertical Motion	O :: II	Barron				cm/s		1/hr	20-100 km :: R	
1508	Vertical Motion, Omega	O :: II	Barron				Pa/s		1/(6 hr)	1 dg :: G	15-20 lvl ::
1509	Cloud Field Organization scale	O :: FI	Welch	HIRIS	AM2	EDC				:: L	
1510	PBL Height	I :: II	Barron				m	75 m ::	1/day	10 km :: R	100 m :: Mixed_lyr
1511	PBL Height	I :: II	Barron				m	75 m ::	1/day	100 km :: G	100 m :: Mixed_lyr
1512	PBL Height	I :: II	Bates				m	75 m ::		2-200 km :: G	75 m :: Trop
1513	PBL Height	I :: II	Sellers								
1514	PBL Height	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	m	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
1515	Planetary Wave Structure	O :: II	Grose						1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
1516	Pressure	I :: II	Grose				mb	0.05 :: 2%	2/day	15 x 4 dg :: G	3 km :: Mid-atmos
1517	Pressure, Sfc	I :: II	Isacks				mb			:: Land/R	N/A :: Sfc
1518	Pressure	I :: II	Kerr, Sorooshian				mb	5% :: 5%	1/hr	25 km :: Land	3 km :: Trop
1519	Pressure, Sfc	I :: II	Rothrock				mb	1 mb :: 1 mb	1/day	500 km :: Polar	N/A :: Sfc
1520	Pressure, Sfc	I :: II	Tapley				mb	1-5 mb ::	4/day	50 km :: G	N/A :: Sfc
1521	Pressure	O :: II	Barron				mb		1/hr	20-100 km :: R	
1522	Pressure	O :: II	Barron				mb		1/hr	1 km :: R	
1523	Pressure, Sfc	O :: II	Rothrock				mb		1/(3 day)	100 km :: > 60 dgLAT	N/A :: Sfc
1524	Pressure	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mb	0.1% :: 0.1%	2/day [d,n]	4 x 4 dg :: G	0.2 km :: 7-80 km
1525	Pressure	O :: PI	Waters	MLS	MO	GSFC	mb	:: 1%(30-50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	.5 km [1.2] :: TPSE, 70 km
1526	Pressure	O :: PI	Russell	SAFIRE	MO	GSFC	mb	:: <2% (16-70 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
1527	Cloud Pressure, Top	I :: II	Bates				mb	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
1528	Cloud Pressure, Top	O :: FI	Menzel	MODIS	AM,PM	GSFC	mb	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
1529	Cloud Pressure, Top	O :: FI	Menzel	MODIS	AM,PM	GSFC	mb	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1530	Cloud Pressure, Top	O :: PI	Travis	EOSP	AERO,AM2	LaRC	mb	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
1531	*Cloud Pressure, Top*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mb	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
1532	Pressure, Sfc	O :: II	Bates				mb	1 :: 0.5	1/(20 min)	50 km :: G	N/A :: Sfc [Sea_lvl]
1533	Pressure, Sfc	I :: II	Lau				mb	5% ::	1/day	100 km :: G	N/A :: Sfc
1534	Pressure, Sfc	O :: II	Barron				Pa		2/day	4.5 x 7.5 dg :: G	N/A :: Sfc
1535	Pressure, Sfc	O :: II	Barron				Pa		2/day	2.8 x 2.8 dg :: G	N/A :: Sfc
1536	Pressure, Sfc	O :: II	Bates				mb	1 :: 0.5	1/(20 min)	50 km :: G	N/A :: Sfc
1537	Pressure, Tropopause	O :: II	Bates				mb		1/(20 min)	50 km :: G	N/A :: Tropopause
1538	Pressure-Tendency, Sfc	O :: II	Barron				Pa/s		2/day	4.5 x 7.5 dg :: G	N/A :: Sfc
1539	Pressure-Tendency, Sfc	O :: II	Barron				Pa/s		2/day	2.8 x 2.8 dg :: G	N/A :: Sfc
1540	Geopotential Height RMSE	O :: II	Bates				m		1/(20 min)	100 km :: G	25 lvl :: 1000-0.1 mb

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1541	Pressure-RMSE, Sfc	O :: II	Bates				mb		1/(20 min)	100 km :: G	N/A :: Sfc
1542	Temperature-RMSE	O :: II	Bates				K		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
1543	Wind Speed RMSE, Mean_Meridional	O :: II	Bates				m/s		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
1544	Wind Speed RMSE, Mean_Zonal	O :: II	Bates				m/s		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
1545	Land_sfc Roughness	I :: II	Barron				m	10% :: 0.1	1/mission, 1/yr	10 km :: Land/R	N/A :: Sfc
1546	Land_sfc Roughness	I :: II	Barron				m	10% :: 0.1	1/mission, 1/yr	30 m :: Land/L	N/A :: Sfc
1547	Land_sfc Roughness	I :: II	Barron				m	10% :: 0.1	1/mission, 1/yr	100 km :: Land	N/A :: Sfc
1549	Land_sfc Roughness, Aerodynamic	I :: II	Kerr, Sorooshian				cm	0.1 m :: 0.2 m	1/seas	25 km :: Land	N/A :: Sfc
1550	Land_sfc Roughness, Aerodynamic	I :: II	Lau				cm	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
1551	Land_sfc Roughness, Aerodynamic	I :: II	Lau				cm	10% :: 10%	1/wk	10 km :: Land/R	N/A :: Sfc
1552	Land_sfc Roughness, Geometric,	I :: II	Kerr, Sorooshian				cm	0.1 cm :: 0.2 cm	2/mo	25 km :: Land	N/A :: Sfc
1553	Land_sfc Roughness	I :: II	Isacks				cm	2 cm :: 1 cm	1/mission, 1/mo	30 m :: Land/L	N/A :: Sfc
1554	*Ice_Sheet Roughness*	O :: FI	Bentley	GLRS-A	ALT	NSIDC	mm	100 mm :: 100 mm	1/(3 mo)	75 m :: Cryo	:: Sfc
1555	Sea_Ice Roughness	I :: II	Bates				mm	100 mm ::	1/(3 mo)	:: Polar	N/A :: Sfc
1556	Land_sfc Roughness	O :: FI	Tanre, Muller	MODIS	AM,PM	EDC	dimensionless	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
1557	Land_sfc Roughness	O :: FI	Tanre, Muller	MODIS	AM,PM	EDC	dimensionless	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
1558	Wind Stress, Meridional	O :: II	Barron				N/m^2		2/day	2.8 x 2.8 dg :: G	Sfc ::
1559	Stability (Lifted Index), Atmospheric	O :: FI	Menzel	MODIS	AM,PM	GSFC	C	2 C :: 1 C	2/day	5 km :: G	N/A :: Atmos
1560	Stability (Lifted Index), Atmospheric	O :: FI	Menzel	MODIS	AM,PM	GSFC	C	2 C :: 1 C	2/day, 1/mo	0.5 dg :: G	N/A :: Atmos
1561	Stratopause Height	I :: II	Bates				km	1 km :: 0.5 km	2/day [d,n]	50 km :: G	N/A :: Mid-atmos
1562	Stratopause Height	O :: FI	Smith	AIRS	PM	GSFC	km	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Mid-atmos
1563	Temperature Profile	I :: II	Abbott				C	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
1564	Temperature Profile	I :: II	Barron				K	1 K :: 0.5 K	1/day	100 km :: G	1 km :: Trop
1565	Temperature Profile	I :: II	Barron				K	1 K :: 0.5 K	1/day	10 km :: R	1 km :: Trop
1566	Temperature, Near_sfc	I :: II	Barron				K	0.5 ::	1/day	100 km :: Ocean	N/A :: Sfc
1568	Temperature, Near_sfc	I :: II	Barron				K	0.5 ::	1/day	10 km :: Ocean/R	N/A :: Sfc
1569	Temperature Profile	I :: II	Bates				K	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
1570	Temperature Profile	I :: II	Bates				K	K;2K>50km :: .3;1K>50k	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
1571	Temperature Profile	I :: II	Bates				K	1.0 K :: 0.4 K	2/day [d,n]	50 km :: G	1 km :: Atmos
1572	Temperature Profile	I :: II	Grose				K	2 K :: 0.5 K	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
1573	Temperature Profile	I :: II	Hansen				C [K]	0.3 C ::	1/wk	500 km :: G	:: Strat
1574	Temperature Profile	I :: II	Hansen				K	0.3 C ::	1/wk	500 km :: G	:: Trop
1575	Temperature Profile	I :: II	Hartmann				K	1 :: 1	1/day	10 km :: Ocean	1 km :: 0-15 km
1576	Temperature Profile	I :: II	Isacks				K	1 :: 0.4	1/wk	50 km :: Land/R	1 km :: Trop
1577	Temperature Profile	I :: II	Kerr, Sorooshian				K	1 K :: 1 K	2/day	50 km :: Land	1 km :: Atmos
1578	Temperature Profile	I :: II	Lau				K	1 K ::	1/day	100 km :: G	1 km :: Trop
1579	Temperature Profile	I :: II	Liu				K	0.5 :: 0.5	1/day	25 km :: Ocean	0.5 km :: Trop
1580	Temperature Profile	I :: II	Murakami				K	1% ::			
1581	Temperature Profile	I :: II	Pyle				K	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
1582	Temperature Profile	I :: II	Schoeberl				K	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
1583	Temperature Profile	I :: II	Sellers				K	1 K ::	4/day	100 km ::	0.5 km :: Trop
1584	Temperature Profile	I :: II	Srokosz				K	1 K :: 0.1 K	2/day	0 km :: Ocean [South Atlan]	
1585	Temperature Profile	I :: II	Wielicki				K	1 K :: 1 K	4/day [d,n]	1.25 dg :: G	1 km :: Atmos
1588	*Temperature Profile*	O :: FI	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	K	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
1589	Temperature Profile	O :: II	Barron				K		2/day	4.5 x 7.5 dg :: G	
1590	Temperature Profile	O :: II	Barron				C		1/(5 min)	30 km :: [East. U.S.]	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1591	Temperature Profile	O :: II	Barron				K		1/hr	20-100 km :: R	
1592	Temperature Profile	O :: II	Barron				K		2/day	2.8 x 2.8 dg :: G	
1593	Temperature Profile	O :: II	Barron				C		1/(5 min)	500 m :: [East. U.S.]	
1594	Temperature Profile	O :: II	Barron				K		1/hr	1 km :: R	
1595	Temperature Profile	O :: II	Grose				K		1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
1596	Temperature Profile	O :: II	Grose				K		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1597	Temperature Profile	O :: II	Grose				K		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1598	Temperature Profile	O :: II	Pyle								
1599	Temperature Profile	O :: II	Schoeberl				K	2 K :: 2 K	(1-4)/day	x 3 dg :: 1-3 sites [few site	2 km :: Atmos
1600	Temperature Profile	O :: II	Schoeberl				K	2 K :: 2 K	1/day	4 x 5 dg :: G	3.8 km :: Strat
1601	Temperature Profile	O :: II	Schoeberl				K	2 K :: 2 K	1/day	4 x 5 dg :: G	110 mb :: Trop
1602	Temperature Profile	O :: II	Schoeberl				K	2 K :: 2 K	1/day	4 x 5 dg :: G	3.8 km :: Strat
1603	Temperature Profile	O :: II	Schoeberl				K	2 K :: 2 K	1/day	4 x 5 dg :: G	110 mb :: Trop
1604	Temperature Profile	O :: II	Schoeberl				K	2 K :: 2 K	1/day	2 x 3 dg :: G	2 km ::
1605	*Temperature Profile*	O :: PI	Melbourne	GGI	ALT	JPL	K	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
1606	Temperature Profile	O :: PI	Melbourne	GGI	ALT	JPL	K	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 2-5/50-60 km
1608	Temperature Profile	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	K	;2K>50km :: 0.3K;1K>50	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1609	Temperature Profile	O :: PI	Waters	MLS	MO	GSFC	K	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	5 km [1.2] :: TPSE, 120 k
1610	Temperature Profile	O :: PI	Russell	SAFIRE	MO	GSFC	K	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
1611	*Temperature Profile*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	K	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
1612	*Temperature Profile*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	K	2 K :: 2 K	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-70 km
1614	Temperature Profile	O :: PI	Beer	TES	CHEM	LaRC	K	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
1615	Temperature Profile	O :: PI	Beer	TES	CHEM	LaRC	K	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1616	Temperature Profile	O :: PI	Beer	TES	CHEM	LaRC	K	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1617	Temperature, Dry-bulb, Near_sfc	O :: II	Bates				K		1/(20 min)	25 km :: G	N/A :: 10 m
1618	Temperature, Dry-bulb, PBL	O :: II	Bates				K		1/(20 min)	50 km :: G	N/A :: PBL [top of]
1619	Temperature, Dry-bulb, Near_sfc	O :: II	Bates				K		1/(20 min)	50 km :: G	N/A :: 10 m
1620	Temperature, Dry-bulb, Near_sfc	O :: II	Bates						1/(20 min)	50 km :: G	N/A :: Near_sfc
1621	Temperature, Stratospheric	O :: II	Bates				K		1/(20 min)	25 km :: G	N/A :: PBL [Top of]
1622	Temperature, Tropospheric	O :: II	Bates				K		1/(20 min)	50 km :: G	N/A :: Tropopause
1623	Temperature, Dry-bulb, Near_sfc	O :: II	Bates				K		1/(20 min)	50 km :: G	N/A :: Near_sfc
1624	Temperature Profile	O :: II	Schoeberl				K	2 K :: 1 K	1/day	2 x 2 dg :: R	2 km :: Atmos
1625	Temperature Profile	O :: II	Schoeberl				K	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
1626	Temperature Profile	O :: II	Bates				K	0.8 K :: TBD	1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1627	Temperature, Near_sfc	I :: II	Rothrock				K	2 K :: 2 K	1/day	100 km :: Polar	N/A :: Near_sfc
1628	Temperature, Dry-bulb, PBL	O :: II	Barron				K		1/day	10 km :: R	:: PBL
1629	Temperature, Near_sfc	I :: II	Hansen				K	0.2 C ::	1/wk	500 km :: Land	:: Sfc
1630	Temperature, Near_sfc	I :: II	Hansen				K	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
1631	Temperature, Near_sfc	I :: II	Kerr, Sorooshian				K	1 K :: 1 K	2/day [d,n]	500 m :: Land/R	N/A :: Sfc
1632	Temperature, Near_sfc	I :: II	Schimel				C	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
1633	Temperature, Near_sfc	I :: II	Schimel				C	10% :: 1%	1/day, 1/wk	30 m :: 6 sites/L	N/A :: Sfc
1634	Temperature-Change,	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	
1635	Temperature-Change,	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	
1636	Temperature-Tendency	O :: II	Barron				K/s		2/day	4.5 x 7.5 dg :: G	
1637	Temperature-Tendency	O :: II	Barron				K/s		2/day	2.8 x 2.8 dg :: G	
1638	PBL Thickness	O :: II	Bates				m		1/(20 min)	25 km :: G	N/A :: PBL
1639	PBL Thickness	O :: II	Bates				m		1/(20 min)	50 km :: G	N/A :: PBL

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1640	Torque, Friction	I :: II	Bates				kg m^2/s^2	5% ::		:: G	:: Atmos
1641	Torque, Friction	O :: II	Tapley				kg m^2/s^2	5% ::	4/day	50 km :: G	N/A :: Sfc
1642	Tropopause Height, Aerosol_located	I :: II	Bates				m	75 m ::		200 km :: G	75 m :: Trop
1643	Tropopause Height, Aerosol_located	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	m	300 m ::	1/(2-16 day)	200 km :: G	300 m :: Trop
1644	Tropopause Height, Cirrus_located	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	m	300 m ::	1/(2-16 day)	10 km :: G	300 m :: Trop
1645	Vorticity, Potential	O :: II	Grose						1/day	~6 x 6 dg :: G	1 lvl :: 0-30 km
1646	Vorticity, Potential	O :: II	Pyle								
1647	Wind V Tendency	O :: II	Barron				m/s^2		2/day	4.5 x 7.5 dg :: G	
1648	Wind V Tendency	O :: II	Barron				m/s^2		2/day	2.8 x 2.8 dg :: G	
1649	Wind Stress, Meridional	O :: II	Bates				N/m^2		1/(20 min)	25 km :: G	N/A :: Sfc
1650	Wind Velocity	I :: II	Barron				m/s,dg	1 m/s :: 0.5 m/s	1/day	30 m :: L	1 km :: 0-12 km
1651	Wind Velocity	I :: II	Barron				m/s,dg	1 m/s :: 0.5 m/s	1/day	10 km :: R	1 km :: 0-12 km
1652	Wind Velocity	I :: II	Barron				m/s,dg	1 m/s :: 0.5 m/s	1/day	100 km :: L	1 km :: 0-12 km
1653	Wind Velocity, Sea_sfc	I :: II	Barron				m/s,dg	1 m/s,? :: 1 m/s,?	1/day	10 km :: Ocean/R	N/A :: Sfc
1654	Wind Velocity, Land_sfc	I :: II	Barron				m/s,dg	1 :: 1	1/day	100 km :: Land	N/A :: Sfc
1655	Wind Velocity, Land_sfc	I :: II	Barron				m/s,dg	1 :: 1	1/day	30 m :: Land/L	N/A :: Sfc
1656	Wind Velocity, Land_sfc	I :: II	Barron				m/s,dg	1 :: 1	1/day	10 km :: Land/R	N/A :: Sfc
1657	Wind Velocity, Sea_sfc	I :: II	Barron				m/s,dg	1 m/s,? :: 1 m/s,?	1/day	100 km :: Ocean	N/A :: Sfc
1658	Wind Velocity, Sea_sfc	I :: II	Bates				m/s,dg	:: 10%; 20 dg		25 km :: Ocean	N/A :: Near_sfc
1659	Wind Velocity	I :: II	Bates				m/s,dg	:: <2 m/s	1/(12 min)	3.1 x 1.8 dg :: G	3 km :: 38-60 km
1660	Wind Velocity	I :: II	Bates				m/s,dg	:: <5 m/s	1/(12 min)	1.8 x 3.1 dg :: G	3 km :: 20-38 km
1661	Wind Velocity	I :: II	Bates				m/s,dg	1-5 m/s ::	2/day	100 km :: G	1 km :: Atmos
1662	Wind Velocity	I :: II	Grose				m/s,dg	5m/s,10dg :: 5m/s,5dg	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
1663	Wind Velocity, Sea_sfc	I :: II	Hansen				m/s,dg	10% ::	1/wk	500 km :: Ocean	:: Sfc
1664	Wind Velocity, Sea_sfc	I :: II	Hartmann				m/s,dg	2 m/s :: 2 m/s	1/day	50 km :: Ocean	N/A :: Sfc
1665	Wind Velocity	I :: II	Hartmann				m/s,dg	4 m/s :: 4 m/s	1/day	100 km :: G	:: 0-15 km
1666	Wind Velocity	I :: II	Isacks				m/s,dg	:: 0.4	1/wk	100 km :: Land/R	:: Trop
1667	Wind Velocity	I :: II	Liu				m/s,dg	1 :: 1	1/day	25 km :: Ocean	:: Trop
1668	Wind Velocity	I :: II	Murakami				m/s,dg	10% :: TBD			
1669	Wind Velocity, Sea_sfc	I :: II	Rothrock				m/s,dg	2 m/s :: 2 m/s	1/day	100 km :: Polar	N/A :: Near_sfc
1670	Wind Velocity, Sea_sfc	I :: II	Rothrock				m/s,dg	2 m/s :: 2 m/s	1/day	25 km :: Polar	N/A :: Sfc
1671	Wind Velocity	I :: II	Schoeberl				m/s,dg	2 m/s :: 3 m/s	1/day	200 x 200 km :: G	2 km :: Strat
1672	Wind Velocity	I :: II	Srokosz				m/s,dg	2m/s :: 1m/s	1/day	5 km :: Ocean [South Atla	500 m ::
1673	Wind Velocity	I :: II	Wielicki				m/s,dg	5 m/s :: 2 m/s	4/day [d,n]	1.25 dg :: G	1 km :: Atmos
1676	Wind Velocity	O :: II	Grose				m/s,dg		48/day	~6 x 6 dg :: G	[24 lvl] :: 0-90 km
1677	Wind Velocity	O :: II	Grose				m/s,dg		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1678	Wind Velocity, Sea_sfc	O :: II	Rothrock				m/s,dg		1/(3 day)	100 km :: > 60 dgLAT	
1679	Wind Velocity, Sea_sfc	O :: PI	Freilich	STIKSCAT	CHEM	JPL	m/s,dg	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
1680	*Wind Velocity, Sea_sfc*	O :: PI	Freilich	STIKSCAT	CHEM	JPL	m/s,dg	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
1683	Wind Velocity, 3-D	O :: II	Pyle								
1684	Wind Velocity, Friction	I :: II	Srokosz				m/s,dg	5%,5 dg :: .01m/s,1dg	1/day	5 km :: Ocean [South Atla	N/A :: Sfc
1685	Wind Velocity, Geostrophic	I :: II	Bates				m/s	2 m/s ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
1686	Wind Velocity, Geostrophic	O :: II	Rothrock				m/s		1/(3 day)	100 km :: > 60 dgLAT	
1687	Wind Velocity, Geostrophic	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	m/s	3 m/s :: 3 m/s	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1688	Wind Velocity, Sea_sfc Glint-Pattern	O :: FI	Gordon	MODIS	AM,PM	GSFC	m/s		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc
1691	Wind Speed, Mean Meridional	O :: II	Bates				m/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1692	Vertical Motion	O :: II	Bates				mb/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1693	Wind Speed, Mean Zonal	O :: II	Bates				m/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1694	Wind Speed, Meridional	O :: II	Bates				m/s		1/(20 min)	50 km :: G	N/A :: Near_sfc
1695	Wind Trajectories	O :: II	Bates				dg (lat,lon),mb-pre		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1696	Wind U Tendency	O :: II	Barron				m/s^2		2/day	2.8 x 2.8 dg :: G	
1698	Wind U Tendency	O :: II	Barron				m/s^2		2/day	4.5 x 7.5 dg :: G	
1699	Wind Speed, Zonal	O :: II	Bates				m/s		1/(20 min)	50 km :: G	N/A :: Near_sfc
1700	Wind Speed, Zonal	O :: II	Bates				m/s		1/(20 min)	25 km :: G	N/A :: Near_sfc
1701	Wind Speed, Meridional	O :: II	Bates				m/s		1/(20 min)	25 km :: G	N/A :: Near_sfc
1702	Wind Direction	I :: II	Liu				dg	10 dg :: 10 dg	1/day	25 km :: Ocean	N/A :: Sfc
1703	Wind Direction	I :: II	Srokosz				dg	10 dg :: 1 dg	1/day	5 km :: Ocean [South Atlan]	
1704	Wind Direction	O :: II	Barron				dg		1/(5 min)	30 km :: [East. U.S.]	
1705	Wind Direction	O :: II	Barron				dg		1/(5 min)	500 m :: [East. U.S.]	
1706	Wind Flux(Draw)	I :: II	Kerr, Sorooshian				km/day		1/day	25 km :: Land	10 km :: Trop
1707	Wind Speed, Sea_sfc	I :: II	Abbott				m/s	10% :: 5%	1/(10-20 day)	25 km :: Ocean [Southern]	N/A :: Sfc
1708	Wind Speed, Sea_sfc	I :: II	Abbott				m/s	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
1709	Wind Speed, Sea_sfc	I :: II	Bates				m/s		2/day [d,n]	50 km :: Ocean	N/A :: Sfc
1710	Wind Speed, Sea_sfc	I :: II	Brewer				m/s	15% :: 5%	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
1711	Wind Speed, Land_sfc	I :: II	Kerr, Sorooshian				m/s	5 m/s :: 5 m/s	1/hr	25 km :: Land/R	N/A :: Sfc
1712	Wind Speed	I :: II	Lau				m/s	1 m/s :: 2%	2/day	100 km :: G	1 km :: Trop
1713	Wind Speed, Sea_sfc	I :: II	Liu				m/s	1 :: 1	1/day	25 km :: Ocean	N/A :: Sfc
1714	Wind Speed	I :: II	Pyle				m/s	5 m/s :: 5 m/s	2/day	15 x 4 km :: G	2 km :: Strat
1715	Wind Speed	I :: II	Sellers				m/s	1 m/s ::	4/day	100 km ::	0.5 km :: Trop
1716	Wind Speed, Sea_sfc	I :: II	Srokosz				m/s	1 m/s :: 0.1 m/s	1/day	5 km :: Ocean [South Atlan	N/A :: Sfc
1717	Wind Speed, Sea_sfc	I :: II	Tapley				m/s	1 m/s ::	4/day	50 km :: Ocean	N/A :: Sfc
1718	Wind Speed, Sea_sfc	O :: FI	Aumann	AIRS	PM	GSFC	m/s		1/day	50 km :: Ocean	N/A :: Sfc
1721	Wind Speed	O :: II	Barron				m/s		1/(5 min)	30 km :: [East. U.S.]	
1722	Wind Speed	O :: II	Barron				m/s		1/(5 min)	500 m :: [East. U.S.]	
1723	Wind Speed	O :: II	Barron				m/s		1/hr	20-100 km :: R	
1724	Wind Speed	O :: II	Barron				m/s		1/hr	1 km :: R	
1725	Wind Speed	O :: II	Schoeberl				m/s	2 m/s :: 2 m/s	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1726	Wind Speed	O :: II	Schoeberl				m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	3.8 km :: Strat
1727	Wind Speed	O :: II	Schoeberl				m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	110 mb :: Trop
1728	Wind Speed	O :: II	Schoeberl				m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	3.8 km :: Strat
1729	Wind Speed	O :: II	Schoeberl				m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	110 mb :: Trop
1730	Wind Speed	O :: II	Schoeberl				m/s	2 m/s :: 2 m/s	1/day	2 x 3 dg :: G	2 km ::
1734	Wind Speed	O :: PI	Waters	MLS	MO	GSFC	m/s	:: 10m/s	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 60-110 km
1735	*Wind Speed, Along-track*	O :: FI	Fu	ALT	ALT	JPL	m/s	2 m/s ::		7 km :: Ocean	N/A :: Sfc
1736	Wind Speed, Meridional	O :: II	Barron				m/s		2/day	4.5 x 7.5 dg :: G	
1737	Wind Speed, Meridional	O :: II	Barron				m/s		2/day	2.8 x 2.8 dg :: G	
1738	Wind Speed, PBL	I :: II	Lau				m/s	20% :: 10%	1/hr	30 m :: Land/L	N/A :: PBL
1739	Wind Speed	I :: II	Lau				m/s	0.5 m/s :: 2%	2/day	100 km :: G	N/A :: Sfc
1740	Wind Speed, Zonal	O :: II	Barron				m/s		2/day	4.5 x 7.5 dg :: G	
1741	Wind Speed, Zonal	O :: II	Barron				m/s		2/day	2.8 x 2.8 dg :: G	
1742	Wind Stress	I :: II	Bates							:: Ocean	:: Sfc
1743	Wind Stress	I :: II	Lau				N/m^2	0.01 ::		:: Ocean	N/A :: Sfc
1744	Wind Stress	I :: II	Murakami				N/m^2	0.01 ::		:: Ocean	N/A :: Sfc
1745	Wind Stress	I :: II	Tapley				N/m^2	10% ::	4/day	50 km :: Ocean	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1746	Wind Stress	O :: PI	Freilich	STIKSCAT	CHEM	JPL				:: Ocean	:: Sfc
1747	Wind Stress, Zonal	O :: II	Barron				N/m^2		2/day	4.5 x 7.5 dg :: G	Sfc ::
1748	Wind Stress, Zonal	O :: II	Barron				N/m^2		2/day	2.8 x 2.8 dg :: G	Sfc ::
1749	Wind Stress, Meridional	O :: II	Bates				N/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1750	Wind Stress, Meridional	O :: II	Barron				N/m^2		2/day	4.5 x 7.5 dg :: G	Sfc ::
1751	Wind Stress, Zonal	O :: II	Bates				N/m^2		1/(20 min)	25 km :: G	N/A :: Sfc
1752	Wind Stress, Zonal	O :: II	Bates				N/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1753	Wind Velocity, Sea_sfc	I :: II	Abbott				m/s,dg	10%,<20dg :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
1754	Wind Velocity	I :: II	Abbott				m/s,dg	10%,<20dg :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
1755	Trace Gas Transport Diagnostics	O :: II	Grose						1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1756	Lightning Rate	O :: PI	Christian	LIS	TRM	MSFC		:: 5%		.07 dg :: G	N/A :: Atmos
1757	Lightning Rate	I :: II	Barron				/s	10% :: 10%	1/day	10 km :: G	N/A :: Atmos
1758	Lightning Rate	I :: II	Kerr, Sorooshian				#/hr	1 :: 1	1/(10 min)	1 km :: Land	:: Trop
1759	Cloud Drop Phase	I :: II	Bates				water/ice		1/day, 1/mo	1 dg :: G	N/A :: Cloud
1760	Cloud Drop Phase	I :: II	Wielicki					25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
1761	Cloud Drop Phase	I :: II	Wielicki					90% Conf :: 90% Conf	6/day [d,n]	25-100 km :: G	N/A :: Atmos
1762	Cloud Drop Phase	O :: FI	Welch	HIRIS	AM2	EDC	water/ice		1/(2-16 day)	30 m :: L	N/A :: Cloud
1763	Cloud Drop Phase	O :: FI	Welch	ASTER	AM1	EDC	dimensionless	water/ice ::	1/(16 day)	15-30 m :: L	N/A :: Cloud
1764	Cloud Drop Phase	O :: FI	King, Menzel	MODIS	AM,PM	GSFC	water/ice	90% Conf :: 90% Conf	1/day	5 km :: G	N/A :: Cloud
1765	Cloud Drop Phase	O :: FI	King, Menzel	MODIS	AM,PM	GSFC	water/ice	90% Conf :: 90% Conf	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1766	Cloud Drop Phase	O :: II	Wielicki				water/ice	90% Conf :: 90% Conf	18/day [d,n]	25 km :: R	N/A :: Atmos
1767	Cloud Drop Phase	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	water/ice	90% Conf :: 90% Conf	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
1768	Cloud Drop Phase	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	water/ice	90% Conf :: 90% Conf	6/day [d,n]	25 km :: G	N/A :: Atmos
1769	Cloud Drop Phase	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	water/ice	90% Conf :: 90% Conf	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
1770	*Cloud Drop Phase*	O :: PI	Travis	EOSP	AERO,AM2	LaRC	water/ice	:: 95% Corr	1/day [d]	100 km :: G	N/A :: Cloud
1771	Cloud Drop Size	I :: II	Wielicki				um	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
1772	Cloud Drop Size	I :: II	Wielicki				um	30% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
1773	Cloud Drop Size	O :: II	Wielicki				um	30% :: 10%	18/day [d,n]	25 km :: R	N/A :: Atmos
1774	*Cloud Drop Size*	O :: PI	Travis	EOSP	AERO,AM2	LaRC	um	25% :: 25%	1/day [d]	100 km :: G	N/A :: Cloud
1775	Cloud Drop Size-distribution	I :: II	Hartmann				um	20% :: 20%	1/day	10 km :: G	0-15 km :: Cloud
1776	Cloud Drop Size-distribution	O :: FI	Welch	HIRIS	AM2	EDC	no/cm^2/um	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
1777	Cloud Drop Size(Effective Radius)	I :: II	Bates				um	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1778	Cloud Drop Size(Effective Radius)	O :: FI	Welch	HIRIS	AM2	EDC	um	10 um ::	1/(2-16 day)	30 m :: L	:: Cloud
1779	Cloud Drop Size(Effective Radius)	O :: FI	Welch	ASTER	AM1	EDC	um	10 um ::	1/(16 day)	15-90 m :: L	:: Cloud
1780	Cloud Drop Size(Effective Radius)	O :: FI	King, Menzel	MODIS	AM,PM	GSFC	um	0-40% :: 5%	1/day	5 km :: G	N/A :: Cloud
1781	Cloud Drop Size(Effective Radius)	O :: FI	King, Menzel	MODIS	AM,PM	GSFC	um	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1782	Cloud Drop Size(Effective Radius)	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	um	30% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
1783	Cloud Drop Size(Effective Radius)	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	um	30% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
1784	Cloud Drop Size(Effective Radius)	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	um	30% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
1785	Cloud Ice Content	I :: II	Hartmann				kg/m^2	0.02 :: 0.02	1/day	10 km :: Ocean	N/A :: Cloud
1786	Cloud Condensation Rate, Total	O :: II	Barron				kg/m^2/s		2/day	4.5 x 7.5 dg :: G	
1787	Cloud Condensation Rate, Total	O :: II	Barron				kg/m^2/s		2/day	2.8 x 2.8 dg :: G	
1788	Vegetation Evapotrans	I :: II	Lau				W/m^2 ?	10% :: 10%	1/day	1 km :: Land/L	N/A :: Sfc
1789	Vegetation Evapotrans	I :: II	Simard							:: Canada/R	N/A :: Sfc
1790	Vegetation Evapotrans	I :: II	Schimel				cm ?	20% :: 5%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
1791	Vegetation Evapotranspiration (ET)	O :: FI	Schmugge	ASTER	AM1	EDC	mm/day	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
1792	Vegetation Evapotrans	O :: II	Barron				W/m^2 ?		1/event, 1/mo, 1/yr	30-90 m :: R	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1793	Vegetation Evapotrans	O :: II	Barron				W/m^2 ?		1/event, 1/mo, 1/yr	900 m :: R	
1794	Vegetation Evapotrans	O :: II	Barron				W/m^2 ?		1/event, 1/mo, 1/yr	18 km :: R	
1795	Vegetation Evapotrans	O :: II	Richey, Batista				mm/mo	5% :: 5%	1/mo	1 km :: Land/R	:: Sfc
1796	Vegetation Evapotrans	O :: II	Richey, Batista				mm/mo	5% :: 5%	1/mo	1 km :: Land/R	
1797	Vegetation Evapotrans	O :: II	Moore				mm/day	1 :: 1	1/day, 1/wk	.030-1 km :: Land/R,L	
1798	Vegetation Evapotrans	O :: II	Moore				mm/day	1 :: 1	1/day, 1/wk	1 km :: Land	
1799	Vegetation Evapotrans	O :: II	Schimel				cm/day	20% :: 1%	1/day	[multiple] :: 6 sites/L	:: Sfc
1800	Vegetation Evapotrans, Actual, (AET)	I :: II	Bates				mm/day	0.5 :: 1	1/day	500 m :: Land	N/A :: Sfc
1801	Vegetation Evapotrans, Actual, (AET)	I :: II	Lau				W/m^2 ?	10% :: 10%	1/day	1 km :: Land/L	N/A :: Sfc
1802	Vegetation Evapotrans, Actual, (AET)	I :: II	Lau				W/m^2 ?	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
1803	Vegetation Evapotrans Time-deriv, Annual	O :: II	Schimel				cm ?	20% :: 1%	1/day	[multiple] :: 6 sites/L	:: Sfc
1804	Vegetation Evapotrans, Potential	I :: II	Lau				W/m^2 ?	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
1805	Humidity Profile	I :: II	Abbott				g/kg	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
1806	Humidity Profile	I :: II	Barron				g/kg	10% :: 5%	1/day	10 km :: R	:: Trop
1807	Humidity Profile	I :: II	Barron				g/kg	10% :: 5%	1/day	100 km :: G	:: Trop
1808	H2O Conc	I :: II	Bates				g/m^3	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
1809	Humidity Profile	I :: II	Bates				g/kg	10% :: 5%	2/day [d,n]	50 km :: G	2 km :: Atmos
1810	Precipitable Water	I :: II	Richey, Batista				%	5% :: 5%	1/day	:: R	:: Trop
1811	H2O Conc	I :: II	Grose				mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Trop/meso
1812	Humidity Profile	I :: II	Hansen				mix ratio	3% ::	1/wk	500 km :: G	:: Atmos
1813	Humidity Profile	I :: II	Hansen					3% ::	1/wk	500 km :: G	:: Trop
1814	Humidity Profile	I :: II	Hartmann				g/kg	10% :: 10%	1/day	10 km :: G	1 km :: 0-15 km
1815	Humidity Profile	I :: II	Isacks				g/kg	10% :: 0.05	1/wk	50 km :: Land/R	2 km :: Trop
1816	Humidity Profile	I :: II	Kerr, Sorooshian				g/cm^3	10% :: 10%	2/day	50 km :: Land	1 km :: Atmos
1817	Humidity Profile	I :: II	Liu				g/kg	0.5 :: 0.5	1/day	25 km :: Ocean	0.5 km :: Trop
1818	Humidity	I :: II	Murakami				g/kg	10% ::			
1819	H2O Conc	I :: II	Pyle				mix ratio (-log10)	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1820	Humidity, Near_sfc	I :: II	Rothrock				g/cm^3		1/day	100 km :: Polar	:: Near_sfc
1821	H2O Conc	I :: II	Schoeberl				ppm	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
1822	H2O Conc	I :: II	Schoeberl				ppm	10% :: 0.05	1/day	4 x 5 dg :: G	2.5 km :: Meso
1823	Humidity Profile	I :: II	Sellers				Pa	10% ::	4/day	100 km ::	0.5 km :: Trop
1824	Humidity Profile, Specific	I :: II	Srokosz				g/kg	0.3g/kg :: 0.1g/kg	2/day	0 km :: Ocean [South Atlan]	
1825	Humidity Profile	I :: II	Tapley				g/kg	5% ::	4/day	50 km :: G	1 km :: Atmos
1826	Humidity Profile	I :: II	Wielicki				g/kg	20% :: 10%	4/day [d,n]	1.25 dg :: G	2 km :: Atmos
1828	*Humidity Profile*	O :: FI	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	g/kg	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
1829	Humidity	O :: II	Barron				g/kg		1/hr	20-100 km :: R	
1830	Humidity	O :: II	Barron				g/kg		1/hr	1 km :: R	
1831	Humidity Profile	O :: II	Barron				g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1832	H2O Conc	O :: II	Grose				mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1833	H2O Conc	O :: II	Pyle								
1834	H2O Conc	O :: II	Schoeberl				ppm	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1835	H2O Conc	O :: II	Schoeberl				ppm	15% :: 10%	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1837	*H2O Conc*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1838	H2O Conc	O :: PI	Waters	MLS	MO	GSFC		:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	5 km [1.2] :: TPSE, 100 k
1839	H2O Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppmv	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
1840	*H2O Conc*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3&ppmv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 3-50 km

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1841	*H2O Conc*	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	/cm^3&ppmv	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
1842	*H2O Conc, Tropospheric*	O :: PI	Beer	TES	CHEM	LaRC	ppm	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1843	*H2O Conc, Stratospheric*	O :: PI	Beer	TES	CHEM	LaRC	ppm	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1844	*H2O Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppm	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1845	Moisture Budget	O :: II	Grose						1/mo	~6 x 6 dg :: G	
1846	Moisture Flux	O :: II	Sellers				kg/m^2/s		4/day	1 dg ::	
1847	Moisture Flux	O :: II	Barron				kg (H2O)/m^2		1/mo	10 x 10 km :: N. Atlantic	
1848	Moisture Flux, Sfc	O :: II	Barron				W/m^2		1/day	10 km :: R	N/A :: Sfc
1849	Moisture Flux, Sfc	O :: II	Barron				g/m^2/s		1/(5 min)	30 km :: [East. U.S.]	:: Sfc
1850	Moisture Flux, Sfc	O :: II	Barron				g/m^2/s		1/hr	20-100 km :: R	:: Sfc
1851	Moisture Flux, Sfc	O :: II	Barron				g/m^2/s		1/(5 min)	500 m :: [East. U.S.]	:: Sfc
1852	H2O (H2^17O) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppbv	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1853	H2O (H2^18O) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppmv	:: 10% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-60 km
1854	H2O (H2^17O) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 2%<50km	2/day [d,n]		2.5 km [1.2] :: TPSE, 90 kn
1855	H2O (H2^18O) Conc	O :: PI	Waters	MLS	MO	GSFC		:: 2%<50km	2/day [d,n]		2.5 km [1.2] :: TPSE, 80 kn
1856	H2O (HDO) Conc	I :: II	Schoeberl				ratio to H2O	10% :: 10%	1/day	8 x 10 dg :: G	3 km :: Strat
1857	H2O (HDO) Conc	O :: PI	Russell	SAFIRE	MO	GSFC	ppmv	:: 7% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-60 km
1858	Precipitable Water	I :: II	Abbott				kg/m^2	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
1859	Precipitable Water	I :: II	Barron				mm	3% :: 1%	1/day	30 m :: L	Column :: Trop
1860	Precipitable Water	I :: II	Barron				mm	3% :: 1%	1/day	10 km :: R	Column :: Trop
1861	Precipitable Water	I :: II	Barron				mm	3% :: 1%	1/day	100 km :: G	Column :: Trop
1862	Precipitable Water	I :: II	Bates				mm	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
1863	Precipitable Water	I :: II	Richey, Batista				mm/mo ?		1/wk	1 km :: R	Column :: Trop
1864	H2O Conc, Stratospheric	I :: II	Hansen					3% ::	1/wk	500 km :: G	Column :: Strat
1865	Precipitable Water	I :: II	Kerr, Sorooshian				cm	10% :: 10%	2/day	50 km :: Land	Column :: Atmos
1866	Precipitable Water	I :: II	Liu				g/cm^2	0.5 :: 0.5	1/day	25 km :: Ocean	Column :: Trop
1867	Precipitable Water	I :: II	Murakami				g/cm^2	20% ::			
1868	Precipitable Water	I :: II	Srokosz				kg/m^2	1kg/m^2 :: 0.1kg/m^2	2/day	0 km :: Ocean [South Atla	N/A :: Atmos
1869	*Precipitable Water*	O :: FI	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	mm	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
1872	Precipitable Water	O :: FI	Goetz	HIRIS	AM2	EDC	cm	10% :: 3%	1/(1-3 min), 1(2-16 day)	30 m :: L	Column :: Atmos
1873	Precipitable Water	O :: FI	Goetz	HIRIS	AM2	EDC	cm	10% :: 3%	1/(1-3 min), 1/(2-16 day)	30 m :: L	Column :: Trop
1874	Precipitable Water	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	dimensionless ?	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos
1875	Precipitable Water	O :: FI	Menzel	MODIS	AM,PM	GSFC	mm	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
1876	Precipitable Water	O :: II	Barron				g/kg ?		1/hr	20-100 km :: R	
1877	Precipitable Water	O :: II	Barron				g/kg ?		1/hr	1 km :: R	
1879	Humidity Profile, Specific	O :: II	Bates				g/kg		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1880	Humidity Profile, PBL	O :: II	Barron				g/kg		1/day	10 km :: R	:: PBL
1881	Humidity, Relative, Near_sfc	I :: II	Kerr, Sorooshian				%	10% :: 10%	1/hr	1 km :: Land/R	N/A :: Sfc
1882	Humidity, Specific	O :: II	Barron				kg/kg		2/day	4.5 x 7.5 dg :: G	
1883	Humidity, Specific	O :: II	Barron				kg/kg		2/day	2.8 x 2.8 dg :: G	
1884	Humidity, Specific, Near_sfc	O :: II	Bates				g/kg		1/(20 min)	25 km :: G	N/A :: Near_sfc
1885	Humidity, Specific, Near_sfc	O :: II	Bates				g/kg		1/(20 min)	50 km :: G	N/A :: Near_sfc
1886	Humidity-Change, Specific, Convective_Adjusted	O :: II	Barron				kg/kg/s		2/day	4.5 x 7.5 dg :: G	
1887	Humidity-Change, Specific, Convective_Adjusted	O :: II	Barron				kg/kg/s		2/day	2.8 x 2.8 dg :: G	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1888	Humidity-Tendency, Specific	O :: II	Barron				kg/kg/s		2/day	4.5 x 7.5 dg :: G	
1889	Humidity-Tendency, Specific	O :: II	Barron				kg/kg/s		2/day	2.8 x 2.8 dg :: G	
1890	Cloud Ice Content	I :: II	Bates				kg/m^2	0.02 :: 0.02	1/day	10 km :: G	
1891	Cloud Ice Content	O :: II	Hartmann				kg/m^2	0.02 :: 0.02	1/day	10 km :: G	
1892	Cloud Ice Index	I :: II	Bates				dimensionless		2/day [d,n]	50 km :: G	N/A :: Cloud
1893	Cloud Ice Index	O :: FI	Staelin	AIRS	PM	GSFC	dimensionless	TBD :: TBD	2/day [d,n]	50 km :: G	N/A :: Cloud
1894	Cloud Liq_water Content	I :: II	Bates					:: 75%	1/(6 hr)	1 x 1 dg :: G	1yr :: 0-30 km
1895	Cloud Liq_water Content	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	g/m^3	75% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	1yr :: Atmos
1896	Cloud Liq_water Content	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	g/m^3	75% :: 10%	6/day [d,n]	25 km :: G	1yr :: Atmos
1897	Cloud Liq_water Content	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	g/m^3	75% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	1yr :: Atmos
1898	Cloud Liq_water Content	O :: PI	Waters	MLS	MO	GSFC		:: 5%	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Upper Trop
1899	Cloud Liq_water Total Column	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	kg/m^2	50% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	Column :: Atmos
1900	Cloud Liq_water Total Column	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	kg/m^2	50% :: 10%	6/day [d,n]	25 km :: G	Column :: Atmos
1901	Cloud Liq_water Total Column	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	kg/m^2	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	Column :: Atmos
1902	Cloud Liq_water Content	I :: II	Barron				mm	0.1 :: 0.05	1/day	100 km :: G	1 km :: Cloud
1903	Cloud Liq_water Content	I :: II	Barron				mm	0.1 :: 0.05	1/day	10 km :: R	1 km :: Cloud
1904	Cloud Liq_water Content	I :: II	Bates				mm	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
1905	Cloud Liq_water Content	I :: II	Kerr, Sorooshian							30 m :: Land/R	:: Cloud
1906	Cloud Liq_water Content	I :: II	Wielicki				g/m^2	20% :: 10%	2/day [d,n]	12-25 km :: G	N/A :: Atmos
1907	Cloud Liq_water Content	I :: II	Wielicki				g/m^2	50% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
1908	Cloud Liq_water Content	O :: FI	Rosenkranz	AIRS	PM	GSFC	mm	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
1912	Cloud Liq_water Content	O :: II	Barron				g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1913	Cloud Liq_water Content	O :: II	Barron				g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1914	Cloud Liq_water Content	O :: II	Barron				g/kg		1/hr	20-100 km :: R	
1915	Cloud Liq_water Content	O :: II	Barron				g/kg		1/hr	1 km :: R	
1916	Cloud Liq_water Content	O :: II	Wielicki				g/m^2	30% :: 10%	18/day [d,n]	25 km :: R	N/A :: Atmos
1918	Cloud Liq_water Total Column	I :: II	Abbot				kg/m^2	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
1919	Cloud Liq_water Total Column	I :: II	Hartmann				kg/m^2	0.05 :: 0.05	1/day	10 km :: Ocean	Column :: Trop
1920	Cloud Liq_water Total Column	I :: II	Lau				kg/m^2	0.05 :: 0.05	1/day	100 km :: G	N/A :: Trop
1921	Cloud Liq_water Total Column	I :: II	Sellers								
1922	Cloud Liq_water Total Column	I :: II	Srokosz				kg/m^2	10% :: 0.1kg/m^2	2/day	0 km :: Ocean [South Atla	N/A :: Trop
1923	Cloud Liq_water Total Column	O :: II	Hartmann				kg/m^2	0.05 :: 0.05	1/day	10 km :: G	Column :: Trop
1924	Moistening, Convective	O :: II	Bates				g/kg/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1925	Moistening, Diffusive	O :: II	Bates				g/kg/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1926	Precipitation Amount	I :: II	Barron				mm/day	2 :: 1	1/day	100 km :: G	N/A :: Trop
1927	Precipitation Amount	I :: II	Barron				mm/day	2 :: 1	1/day	10 km :: R	N/A :: Trop
1928	Precipitation Amount	I :: II	Brewer				mm/day	2 :: TBD	1/day, 1/seas	:: Ocean/L	N/A :: Sfc
1929	Precipitation Amount	I :: II	Brewer				mm/day	2 :: TBD	1/day, 1/seas	:: Ocean	N/A :: Sfc
1930	Precipitation Amount	I :: II	Hansen				mm/wk	10% ::	1/wk	500 km :: G	:: Sfc
1931	Precipitation Amount	I :: II	Hartmann				mm/day	10 :: 10	1/day	10 km :: Ocean	N/A :: Trop
1932	Precipitation Amount	I :: II	Isacks				mm		1/wk	5-50 km :: Land/R	N/A :: Sfc
1933	Precipitation Rate	I :: II	Isacks				mm/hr		1/event, 1/mo	5-50 km :: Land/R	N/A :: Sfc
1934	Precipitation Amount, Daily	I :: II	Kerr, Sorooshian				mm	1 mm :: 1 mm	1/day	1 km :: Land/R	N/A :: Sfc
1935	Precipitation Amount	I :: II	Lau				mm/day	2 :: 2	1/mo	500 km :: G	N/A :: Trop
1936	Precipitation Amount	I :: II	Lau				mm/day	2 :: 2	1/day	50 km :: R	N/A :: Sfc
1937	Precipitation Rate	I :: II	Simard					20% ::		:: Canada/R	N/A :: Trop
1938	Precipitation Amount	I :: II	Murakami				mm/day	10% ::			

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1939	Precipitation Amount	I :: II	Sellers				mm		4/day	100 km ::	
1940	Precipitation Amount	I :: II	Wielicki				mm/day	50% :: 25%	4/day [d,n]	25-50 km :: G	N/A :: Trop
1942	Precipitation Amount	O :: II	Bates				mm		1/(4-6 hr)	50 km :: G	N/A :: Sfc
1943	Precipitation Amount	O :: II	Richey, Batista				mm/mo	10% :: 10%	1/wk	1 km :: Land/R	:: Sfc
1944	Precipitation Amount	O :: II	Richey, Batista				mm/mo	10% :: 10%	1/wk	1 km :: R	
1945	Precipitation Amount	O :: II	Hartmann				mm/day	10 :: 10	1/day	10 km :: Ocean	
1946	Precipitation Amount, Convective	O :: II	Barron				m/s ?		2/day	4.5 x 7.5 dg :: G	
1947	Precipitation Amount, Convective	O :: II	Barron				m/s ?		2/day	2.8 x 2.8 dg :: G	
1948	Precipitation Amount, Convective	O :: II	Bates				mm		1/(4-6 hr)	50 km :: G	N/A :: Sfc
1949	Precipitation Conc, Ice	I :: II	Bates				g/m^3			10 km :: G	7 lvl :: Trop
1951	Precipitation Conc, Ice	O :: II	Barron				g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1952	Precipitation Amount, Large-scale_stable	O :: II	Barron				m/s ?		2/day	4.5 x 7.5 dg :: G	
1953	Precipitation Amount, Large-scale_stable	O :: II	Barron				m/s ?		2/day	2.8 x 2.8 dg :: G	
1954	Precipitation Rate, Rain	I :: II	Bates				g/m^3			10 km :: G	7 lvl :: Trop
1956	Precipitation Amount, Rain	O :: II	Barron				g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1957	Precipitation Amount, Rain, Monthly	I :: II	Kerr, Sorooshian				mm	10% :: 10%	1/mo	500 m :: Land/L	N/A :: Sfc
1958	Precipitation Rate	I :: II	Bates				mm/hr			10 km :: G	1 lvl :: Sfc
1959	Precipitation Rate, Rain	I :: II	Kerr, Sorooshian				mm/hr	20% :: 20%	1/day	500 m :: G	N/A :: Trop
1960	Precipitation Rate	I :: II	Lau				mm/hr	25% :: 10%	1/hr	100 m :: Land/L	N/A :: Sfc
1962	Precipitation Rate	O :: II	Barron				cm/hr		1/hr	20-100 km :: R	
1965	Precipitation Storm Depth (Precip-thickness)	I :: II	Lau				mm	10% :: 10%	1/hr	100 m :: Land/L	N/A :: Sfc
1966	Precipitation_Drop Phase, Sfc	I :: II	Bates				type (snow,water)			10 km :: G	N/A :: Sfc
1968	Precipitation Index	I :: II	Bates				mm	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
1969	Precipitation Index	O :: FI	Susskind	AIRS	PM	GSFC	mm	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
1970	Precipitation Index, Antecedent	I :: II	Bates				dimensionless		1/day	26-52 km :: Land	N/A :: Sfc
1972	Precipitation Rate, Rain	I :: II	Abbott				mm/hr	5% :: 1%	(1-2)/day	25 km :: Ocean [Southern]	N/A :: Trop
1973	Precipitation Amount, Rain	I :: II	Liu				mm/day	1 :: 1	2/day	25 km :: Ocean	N/A :: Trop
1974	Precipitation Amount, Rain	I :: II	Moore				mm/wk	10% :: 10%	1/wk	1 km :: G	
1975	Precipitation Rate, Rain	I :: II	Srokosz				mm/hr	10% :: 1mm/hr	2/day	0 km :: Ocean [South Atla	N/A :: Trop
1980	Precipitation Rate, Rain	O :: II	Barron				cm/hr		1/(5 min) [?]	30 km :: [East. U.S.]	
1981	Precipitation Rate, Rain	O :: II	Barron				cm/hr		1/(5 min) [?]	500 m :: [East. U.S.]	
1982	Humidity-RMSE, Specific	O :: II	Bates				g/kg		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
1983	Precipitation Amount, Snow	I :: II	Moore				mm/wk	10% :: 10%	1/wk	1 km :: G	
1984	Precipitation Amount, Snow	I :: II	Sellers								
1985	Precipitation Amount, Snow, Convective	O :: II	Barron				m/s		2/day	4.5 x 7.5 dg :: G	
1986	Precipitation Amount, Snow, Convective	O :: II	Barron				m/s		2/day	2.8 x 2.8 dg :: G	
1987	Precipitation Amount, Snow, Large-scale_Stable	O :: II	Barron				m/s		2/day	4.5 x 7.5 dg :: G	
1988	Precipitation Amount, Snow, Large-scale_Stable	O :: II	Barron				m/s		2/day	2.8 x 2.8 dg :: G	
1989	Vegetation Evapotrans	I :: II	Bates				mm/day	1 :: 1	1/day	500 m :: Land	N/A :: Sfc
1990	Vegetation Evapotrans	I :: II	Bates				m/yr	0.02 ::			
1991	Vegetation Evapotrans	I :: II	Murakami				m/yr	0.02 ::			
1992	*Aerosol Extinction Coef*	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	/km	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1993	Aerosol Size-distribution	O :: PI	Diner	MISR	AM	LaRC	dimensionless	15% :: 10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
1994	Aerosol Size-distribution	O :: PI	Diner	MISR	AM	LaRC	dimensionless	15% :: 10%	1/(5-16 day)	1.9 km :: R	Column :: Atmos
1995	Albedo, Land_sfc	I :: II	Bates				dimensionless		1/day	50 km :: Land	N/A :: Sfc

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1997	Albedo, Land_sfc	I :: II	Hartmann				dimensionless	1% :: 0.5%	1/day	20 km :: G	N/A ::
1998	Albedo, Land_sfc	I :: II	Isacks					:: 3%	1/wk	250 m :: Land/R	N/A :: Sfc
1999	Albedo, Land_sfc	I :: II	Sellers					1% :: 10%	1/(5 day)	100 km :: Land	
2000	Albedo, Land_sfc	O :: FI	Gautier ??	AIRS	PM	GSFC	dimensionless		1/day	50 km :: Land	N/A :: Sfc
2001	Albedo, Spectral, TOA	O :: FI	Muller, Strahler	MODIS	AM,PM	GSFC	fraction	10% :: 5%	1/(3-8 day)	1 km :: Land/R	N/A :: TOA
2002	Albedo, Land_sfc	O :: II	Schimel				%	10% :: 1%	1/day, 1/wk	[multiple] :: 6 sites/L	
2003	*Albedo, Aerosol*	O :: FI	Tanre, Kaufman	MODIS	AM,PM	GSFC	dimensionless	0.06 :: 0.03	1/day, 1/mo	0.5 dg :: G,R	N/A :: Atmos
2004	Albedo, Planetary Spectral, TOA	O :: II	Barron				fraction		2/day	4.5 x 7.5 dg :: G	:: TOA
2005	Albedo, Planetary Spectral, TOA	O :: II	Barron				fraction		2/day	2.8 x 2.8 dg :: G	:: TOA
2006	Albedo, Cloud	I :: II	Kerr, Sorooshian				%	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
2007	Albedo, Cloud	I :: II	Sellers								
2008	Albedo, Cloud	O :: FI	Welch	HIRIS	AM2	EDC	%	5% :: 5%		90 m :: R	:: Cloud
2009	Albedo, Planetary Spectral, TOA	I :: II	Kerr, Sorooshian				%	10% :: 10%	1/day	25 km :: Land/R	:: TOA
2010	Albedo, Planetary Spectral, TOA	O :: PI	Diner	MISR	AM	LaRC	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: TOA
2011	*Albedo, Planetary Spectral, TOA*	O :: PI	Diner	MISR	AM	LaRC	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
2012	Albedo, Sea_Ice	I :: II	Rothrock				fraction	0.05 :: 0.05	1/(3 day)	25 km :: Polar	N/A :: Sfc
2013	Albedo, Land_sfc	I :: II	Barron				%	1% :: 1%	1/wk	10 km :: G	N/A :: Sfc
2014	Albedo, Land_sfc	I :: II	Kerr, Sorooshian				%	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
2015	Albedo, Land_sfc	O :: FI	Tanre, Muller	MODIS	AM,PM	EDC	dimensionless	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2016	Albedo, Land_sfc	O :: FI	Tanre, Muller	MODIS	AM,PM	EDC	dimensionless	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
2017	Albedo, Snow	I :: II	Hansen					0.02 ::	1/wk	500 km :: Land	:: Sfc
2018	Albedo, Snow	I :: II	Lau				%	10% :: 10%	1/wk	100 m :: Land/R	N/A :: Sfc
2019	Albedo, Snow	I :: II	Simard					2% ::		:: Canada/R	N/A :: Sfc
2020	Albedo, Spectral, Land_sfc	I :: II	Dozier				dimensionless	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	
2021	Albedo, Spectral, Land_sfc	O :: PI	Diner	MISR	AM	LaRC	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
2022	*Albedo, Spectral, Land_sfc*	O :: PI	Diner	MISR	AM	LaRC	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
2023	Albedo, TOA	I :: II	Barron				%	3 ::	1/day	100 km :: G	N/A :: TOA
2024	Albedo, Vegetation	I :: II	Hansen					0.02 ::	1/wk	500 km :: Land	:: Sfc
2025	Anisotropy, LW_broadband, Clear-sky	I :: II	Wielicki				fraction	2% :: 1%		10 dg [Angle] :: G/clr	N/A :: Sfc, Atmos
2026	Anisotropy, LW_broadband, Cloudy-sky	I :: II	Wielicki				fraction	2% :: 1%		10 dg [Angle] :: G/cld	N/A :: Sfc, Atmos
2027	*Anisotropy, LW_broadband*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	fraction	2% :: 0.5%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
2029	PAR, Absorbed, Non-vegetative, (APAR)	O :: FI	Ustin, Wessman	HIRIS	AM2	EDC	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2030	PAR, Absorbed, Vegetative, (APAR)	O :: FI	Ustin, Wessman	HIRIS	AM2	EDC	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2031	Ocean Water Attenuation Coef, PAR	O :: FI	Clark	MODIS	AM,PM	GSFC	/m	35% :: 10%	1/day, 1/wk	1 km :: Ocean-I/L	N/A :: TOO
2032	Ocean Water Attenuation Coef, PAR	O :: FI	Clark	MODIS	AM,PM	GSFC	/m	35% :: 10%	1/day, 1/wk	20 km :: Ocean-I	N/A :: TOO
2034	Land_sfc Reflectance, Bi-directional, (BRDF)	I :: II	Sellers								
2035	Land_sfc Reflectance, Bi-directional, (BRDF)	O :: FI	Gerstl	HIRIS	AM2	EDC	dimensionless	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
2037	Cloud Reflectance, Bi-directional, (BRDF)	O :: FI	Welch	HIRIS	AM2	EDC		:: 1%		30 m :: R	:: Cloud
2038	Cloud Reflectance, Bi-directional, (BRDF)	O :: PI	Diner	MISR	AM	LaRC	/sr	3% :: 1%	[variable] [d]	240 m :: R	N/A :: Trop
2039	*Cloud Reflectance, Bi-directional, (BRDF)*	O :: PI	Diner	MISR	AM	LaRC	/sr	3% :: 1%	[variable] [d]	1.92 km :: G	N/A :: Trop
2041	Land_sfc Reflectance, Bi-directional Spectral, (BRDF)	I :: II	Sellers							250-500 m :: Land	
2042	Soil Reflectance, Bi-directional, (BRDF)	I :: II	Kerr, Sorooshian				dimensionless	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
2043	Land_sfc Reflectance, Bi-directional, SW_Broadband, (BRDF)	I :: II	Wielicki				fraction	5% :: 2%	1/day [d]	0.2-2km :: R	N/A :: Sfc, Atmos
2044	Land_sfc Reflectance, Bi-directional, SW_Broadband, (BRDF)	I :: II	Wielicki				fraction	5% :: 2%		10 dg [Angle] :: G	N/A :: Sfc, Atmos

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2045	Land_sfc Reflectance, Bi-directional, SW_Broadband, (BRDF)	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	fraction	5% :: 1%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
2046	Vegetation Reflectance, Bi-directional, (BRDF)	I :: II	Kerr, Sorooshian				N/A	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
2047	Soil Brightness Index	O :: FI	Huete	MODIS	AM,PM	EDC	dimensionless	5% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
2048	Soil Brightness Index	O :: II	Kerr, Sorooshian				%	5% :: 10%	1/(2 mo)	30 m :: Land/R	
2049	Cloud Cover	I :: II	Barron				%	5 :: 5	1/day	100 km :: G	N/A :: Cloud
2050	Cloud Cover	I :: II	Barron				%	5 :: 5	1/day	10 km :: R	N/A :: Cloud
2051	Cloud Cover	I :: II	Barron				%	5 :: 5	1/day	30 m :: L	N/A :: Cloud
2052	Cloud Cover	I :: II	Hansen					3% ::	1/wk	500 km :: G	:: Cloud
2053	Cloud Cover	I :: II	Isacks				%		1/wk	5 km :: Land/R	N/A :: Cloud
2054	Cloud Cover	I :: II	Lau				%	5% :: 5%	2/day	50 km :: R	N/A :: Atmos
2055	Cloud Cover	I :: II	Liu							:: Ocean	N/A :: Cloud
2056	Cloud Cover	I :: II	Simard					5% ::		:: Canada/R	N/A :: Cloud
2057	Cloud Cover	I :: II	Moore				% cover	10% :: 10%	1/wk	1 km :: G	
2058	Cloud Cover	I :: II	Murakami				% cover	10% ::			N/A :: Cloud
2059	Cloud Cover	I :: II	Sellers						4/day	100 km ::	0.5 km :: Trop
2060	Cloud Cover	I :: II	Srokosz				%	5% :: 1%	2/day	0 km :: Ocean [South Atla	N/A :: Cloud
2061	Cloud Cover	I :: II	Wielicki					5% :: 2%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
2062	*Cloud Cover*	O :: FI	Chahine, Chedin, Smith	AIRS	PM	GSFC	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
2064	Cloud Cover	O :: II	Barron				%		1/day	10 km :: R	
2065	Cloud Cover	O :: II	Barron				%		1/(5 min)	30 km :: [East. U.S.]	
2066	Cloud Cover	O :: II	Barron				%		1/(5 min)	2 km :: [East. U.S.]	
2067	Cloud Cover	O :: II	Wielicki				fraction	5% :: 1%	18/day [d,n]	25 km :: R	N/A :: Atmos
2068	Cloud Field Area	O :: FI	Kaufman	MODIS	AM,PM	GSFC	km^2		1/mo	1 dg :: G	N/A :: Sfc
2069	Cloud Cover, Cirrus	I :: II	Bates				/m/sr		1/day	100 km :: G	0.5 km :: Trop
2070	Cloud Cover, Cirrus	I :: II	Lau				%	5% :: 5%	1/day	100 km :: G	N/A ::
2072	Cloud Cover, Cirrus	I :: II	Bates				dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
2073	Cloud Cover	I :: II	Bates					:: 10%	1/(6 hr)	1 x 1 dg :: G	N/A :: Cloud
2074	Cloud Cover	I :: II	Bates				%	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2075	Cloud Cover	I :: II	Kerr, Sorooshian				%	5% :: 5%	1/day	10 km :: Land/R	N/A :: Cloud
2076	Cloud Cover	I :: II	Rothrock				dimensionless	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
2077	Cloud Cover	I :: II	Wielicki					2% :: 2%	1/(16 day)	30 m :: R	N/A :: Atmos
2078	Cloud Cover	O :: FI	Spinhirne	GLRS-A	ALT	GSFC	%	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
2079	Cloud Cover	O :: FI	Welch	HIRIS	AM2	EDC	dimensionless	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
2080	Cloud Cover	O :: FI	Welch	ASTER	AM1	EDC	fractional area	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
2081	Cloud Cover	O :: FI	King	MODIS	AM,PM	GSFC	%	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
2082	Cloud Cover	O :: FI	King	MODIS	AM,PM	GSFC	%	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2083	Cloud Cover, Cirrus	O :: II	Bates				dimensionless		1/(20 min)	50 km :: G	N/A :: High_cloud
2084	Cloud Cover, Mid-level	O :: II	Bates				dimensionless		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
2085	Cloud Cover, Low-level	O :: II	Bates				dimensionless		1/(20 min)	50 km :: G	N/A :: Low_Cloud
2086	Cloud Cover	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
2087	Cloud Cover	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
2088	Cloud Cover	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
2089	Cloud Cover	O :: II	Barron				fraction		2/day	4.5 x 7.5 dg :: G	
2090	Cloud Cover	O :: II	Barron				fraction		2/day	2.8 x 2.8 dg :: G	
2092	Cloud Field Perimeter	O :: FI	Kaufman	MODIS	AM,PM	GSFC	km		1/mo	1 dg :: G	N/A :: Sfc

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2093	Cloud Field Size-distribution	O :: FI	Welch	ASTER	AM1	EDC	dimensionless		1/(16 day)	90 m :: L	N/A :: Cloud
2094	Cloud JPDF	O :: FI	King, Menzel	MODIS	AM,PM	GSFC	dimensionless		1/day, 1/mo	1 dg :: G	N/A :: N/A
2095	Soil Color Index	O :: FI	Huete	MODIS	AM,PM	EDC	class	10% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
2096	Level-1B Backscatter Coef, ALT	I :: II	Srokosz				dB	0.2dB :: 0.1dB	1/(10 day)	0 km :: Ocean [South Atla	N/A :: Sfc
2097	Level-1B Backscatter, STIKSCAT	I :: II	Brewer				dB	10% :: TBD	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
2102	Level-1B Backscatter Coef, SAR_EOS	I :: II	Cihlar					2 dB :: 1 dB	1/(3 mo)	25 m :: Canada/R	N/A :: Sfc
2104	Level-1B Backscatter Coef, GLRS	O :: FI	Spinhirne	GLRS-A	ALT	GSFC	/m	10% ::	1/(2-16 day)	1-100 km :: G	75 m ::
2105	Aerosol Backscatter	I :: II	Murakami				/km/sr	10-50% ::			
2106	Level-1B Backscatter, SAR	I :: II	Srokosz				dB	0.2 dB :: TBD	[occasional]	25 m :: Ocean [South Atlan	N/A :: Sfc
2108	Level-1B Backscatter Coef	O :: PI	Freilich	STIKSCAT	CHEM	JPL	dB	:: 0.25 dB		25 km :: G	N/A :: Sfc
2109	Level-1B Backscatter Coef, STIKSCAT	I :: II	Srokosz				dB	0.3 dB :: 0.1 dB	1/day	5 km :: Ocean [South Atla	N/A :: Sfc
2110	Land_sfc Emissivity	O :: FI	Barton	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.01	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2111	Land_sfc Emissivity	O :: FI	Barton	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.01	1/day, 1/wk	50 km :: G,R	N/A :: Sfc
2112	Land_sfc Emissivity	I :: II	Bates				dimensionless	0.05 :: 0.025	2/day [d,n]	50 km :: Land	N/A :: Sfc
2113	*Land_sfc Emissivity, Spectral*	O :: FI	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: Land	N/A :: Sfc
2114	Cloud Emissivity	O :: FI	Spinhirne	GLRS-A	ALT	GSFC		10% ::	1/(2-16 day)	1-100 km :: G	150 m ::
2115	Cloud Emissivity	O :: FI	Welch	ASTER	AM1	EDC	dimensionless	5% ::	1/(16 day)	90 m :: L	N/A :: Cloud
2116	Cloud Emissivity	O :: FI	Menzel	MODIS	AM,PM	GSFC	dimensionless				N/A :: Cloud
2117	Cloud Emissivity	O :: II	Barron				fraction		2/day	4.5 x 7.5 dg :: G	
2118	Cloud Emissivity	O :: II	Barron				fraction		2/day	2.8 x 2.8 dg :: G	
2120	Land_sfc Emissivity	I :: II	Wielicki				fraction	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc
2121	Sea_Ice Emissivity	I :: II	Bates				dimensionless		1/day	10 km :: Polar	N/A :: Sfc
2123	Land_sfc Emissivity	I :: II	Kerr, Sorooshian				%	0.05 :: 0.05	1/yr	90 m :: Land/R	N/A :: Sfc
2124	Land_sfc Emissivity [1]	O :: FI	Kahle, Becker, Christensen	ASTER	AM1	EDC	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
2125	Land_sfc Emissivity, Spectral	I :: II	Isacks						1/yr	15-90 m :: Land/L	N/A :: Sfc
2126	*Cloud Emissivity*	O :: FI	Menzel	MODIS	AM,PM	GSFC	dimensionless	0.10 :: 0.05	2/day	5 km :: G	N/A :: Cloud
2127	*Cloud Emissivity*	O :: FI	Menzel	MODIS	AM,PM	GSFC	dimensionless	0.10 :: 0.05	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2128	Cloud Emissivity, IR Spectral (3-14um)	O :: FI	Chahine, Smith	AIRS	PM	GSFC	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
2129	Land_sfc Emissivity, Relative Spectral	O :: FI	Kahle, Becker, Schmugge	ASTER	AM1	EDC	arbitrary units	N/A :: N/A	1/(0.5-16 day)	90 m :: Land/R,L	N/A :: Sfc
2130	Heat Flux	O :: II	Barron				W/m^2		1/day	200 km :: R	
2131	Heat Flux, Sfc	I :: II	Dozier				W/m^2	10% :: 10%	1/wk	50 m :: Land/L	N/A :: Sfc
2132	Heat Flux, Sfc	O :: II	Barron				W/m^2		1/day	200 km :: R	:: Sfc
2133	Radiative Flux, Solar, Net_Down	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	:: Sfc
2134	Radiative Flux, Solar, Net_Down	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	:: Sfc
2135	Heat Flux, Feedback,	O :: II	Hansen				W/m^2		1/wk	500 km :: G	:: Atmos
2136	Heat Flux, Horizontal	O :: II	Kerr, Sorooshian				W/m^2/um			10 km :: Land/R	:: Trop
2137	Radiative Flux, Net	I :: II	Simard					10% ::		:: Canada/R	
2138	Radiative Flux, Net	O :: II	Kerr, Sorooshian				W/m^2	15% :: 15%	[diurnal]	1 km :: Land/R	N/A :: Sfc
2139	Radiative Flux, Net_Down	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	
2140	Radiative Flux, Net_Down	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	
2141	Radiative Flux, Broadband	I :: II	Richey, Batista				W/m^2		2/day	:: Land/R	
2142	Radiative Flux, Broadband, Down	I :: II	Kerr, Sorooshian				W/m^2	1 W/m^2 :: 1 W/m^2	1/hr	8 km :: Land/R	N/A :: TOA
2143	Radiative Flux Convergence	O :: II	Barron				W/m^2/km		1/(5 day)	2.5 dg :: G	10 lvl ::

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2144	*Radiative Flux Divergence, Clear-sky*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2/km	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
2145	*Radiative Flux Divergence, Clear-sky*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2/km	10% :: 5%	6/day [d,n]	1.25 dg :: G	lyr :: Atmos
2146	*Radiative Flux Divergence, Clear-sky*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2/km	10% :: 5%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
2147	*Radiative Flux Divergence, Cloudy_sky*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2/km	25% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
2148	*Radiative Flux Divergence, Cloudy_sky*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2/km	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
2149	*Radiative Flux Divergence, Cloudy_sky*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2/km	50% :: 10%	6/day [d,n]	1.25 dg :: G	lyr :: Atmos
2150	Radiative Flux Divergence, LW	I :: II	Wielicki				W/m^2/km	%clr/25%cld :: 5%clr/10%	6/day [d,n]	1.25 dg :: G	:: Atmos
2151	Radiative Flux Divergence, LW	O :: II	Wielicki				W/m^2/km	%clr,25%cld :: 5%clr,10%	18/day [d,n]	25 km :: R	N/A :: Atmos
2152	Radiative Flux Divergence, SW	I :: II	Wielicki				W/m^2/km	%clr/25%cld :: 5%clr/10%	3/day [d]	1.25 dg :: G	:: Atmos
2153	Radiative Flux Divergence, SW	O :: II	Wielicki				W/m^2/km	%clr,25%cld :: 5%clr,10%	9/day [d]	25 km :: R	:: Atmos
2154	Radiative Flux, LW	I :: II	Lau				W/m^2	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
2155	Radiative Flux, LW, Average_Net	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	:: TOA
2156	Radiative Flux, LW, Average_Net	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	:: TOA
2159	Radiative Flux, LW, Clear-sky	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	:: Sfc
2160	Radiative Flux, LW, Clear-sky	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	:: Sfc
2161	Radiative Flux, LW, Clear-sky	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	:: TOA
2162	Radiative Flux, LW, Clear-sky	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	:: TOA
2163	Radiative Flux, LW, Down	I :: II	Kerr, Sorooshian				W/m^2	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
2164	Radiative Flux, LW, Down	I :: II	Sellers				W/m^2	20% :: 20%	4/day	100 km :: Land	0.5 km ::
2165	Radiative Flux, LW, Down	I :: II	Wielicki				W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
2166	Radiative Flux, LW, Down	O :: II	Bates				W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
2167	Radiative Flux, LW, Down	O :: II	Wielicki				W/m^2	7 W/m^2 :: 2 W/m^2	18/day [d,n]	25 km :: R	N/A :: Sfc
2168	*Radiative Flux, LW, Down*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2169	*Radiative Flux, LW, Down*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2170	*Radiative Flux, LW, Down*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2173	Radiative Flux, LW, Net	I :: II	Bates				W/m^2		2/day [d,n]	50 km :: Land	N/A ::
2174	Radiative Flux, LW, Net	I :: II	Bates				W/m^2		2/day [d,n]	50 km :: Ocean	N/A ::
2175	Radiative Flux, LW, Net	I :: II	Wielicki				W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
2176	Radiative Flux, LW, Net	O :: FI	Gautier	AIRS	PM	GSFC	W/m^2	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
2177	Radiative Flux, LW, Net	O :: FI	Gautier	AIRS	PM	GSFC	W/m^2	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
2178	Radiative Flux, LW, Net	O :: II	Rothrock				W/m^2	10% :: 10%	1/day	100 km :: > 60 dgLAT	
2179	Radiative Flux, LW, Net	O :: II	Wielicki				W/m^2	7 W/m^2 :: 2 W/m^2	18/day [d,n]	25 km :: R	N/A :: Sfc
2180	*Radiative Flux, LW, Net*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2181	*Radiative Flux, LW, Net*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2182	*Radiative Flux, LW, Net*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2183	Radiative Flux, LW, Net Up	I :: II	Murakami				W/m^2	2% ::			N/A :: Atmos
2184	Radiative Flux, LW, Up	O :: II	Bates				W/m^2		1/(20 min)	50 km :: Land	N/A :: TOA
2185	Radiative Flux, LW	I :: II	Barron				W/m^2	10 :: 5	1/day	100 km :: G	N/A :: Sfc
2186	Radiative Flux, LW	I :: II	Barron				W/m^2	10 :: 5	1/day	30 m :: L	N/A :: Sfc
2187	Radiative Flux, LW	I :: II	Barron				W/m^2	10 :: 5	1/day	10 km :: R	N/A :: Sfc
2188	Radiative Flux, LW	I :: II	Hartmann				W/m^2	5% :: 2%	1/day	<30 km :: Ocean	N/A :: Sfc
2189	Radiative Flux, LW	I :: II	Barron				W/m^2	10 :: 5	1/day	100 km :: G	N/A :: TOA
2190	Radiative Flux, LW	I :: II	Hartmann				W/m^2	5% :: 2%	1/day	<30 km :: Ocean	N/A :: TOA
2191	Radiative Flux, LW, Up	I :: II	Bates				W/m^2		2/day [d,n]	50 km :: G	N/A :: TOA
2192	Radiative Flux, LW, Up	I :: II	Kerr, Sorooshian				W/m^2	15% :: 15%	[diurnal]	500 m :: Land/R	:: TOA
2193	Radiative Flux, LW, Up	I :: II	Sellers				W/m^2	20% :: 20%	4/day	100 km :: Land	0.5 km ::
2194	Radiative Flux, LW, Up	I :: II	Wielicki				W/m^2	5 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: TOA

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2195	Radiative Flux, LW, Up	I :: II	Wielicki				W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
2197	Radiative Flux, LW, Up	O :: II	Bates				W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
2198	Radiative Flux, LW, Up	O :: II	Wielicki				W/m^2	5 W/m^2 :: 2 W/m^2	18/day [d,n]	25 km :: R	N/A :: TOA
2199	Radiative Flux, LW, Up	O :: II	Wielicki				W/m^2	7 W/m^2 :: 2 W/m^2	18/day [d,n]	25 km :: R	N/A :: Sfc
2200	*Radiative Flux, LW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	3 W/m^2 :: 1 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
2201	*Radiative Flux, LW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	7 W/m^2 :: <7 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2202	*Radiative Flux, LW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	7 W/m^2 :: <7 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2203	*Radiative Flux, LW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	5 W/m^2 :: <5 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2204	*Radiative Flux, LW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	5 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
2205	*Radiative Flux, LW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	5 W/m^2 :: 2 W/m^2	6/day [d,n]	25 km :: G	N/A :: TOA
2209	*Radiative Flux, LW Spectral*	O :: FI	Gautier ??, Susskind	AIRS	PM	GSFC	W/m^2	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Land	N/A :: Sfc
2210	*Radiative Flux, LW Spectral*	O :: FI	Gautier ??, Susskind	AIRS	PM	GSFC	W/m^2	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
2213	Radiative Flux, SW	I :: II	Hartmann				W/m^2	0.5% :: 0.5%	1/day	20 km :: G	N/A :: TOA
2214	Radiative Flux, SW	I :: II	Hartmann				W/m^2	0.5% :: 0.5%	1/day	20 km :: G	N/A :: Sfc
2215	Radiative Flux, SW	I :: II	Lau				W/m^2	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
2216	Radiative Flux, SW, Down	I :: II	Kerr, Sorooshian				W/m^2	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
2217	Radiative Flux, SW, Down	I :: II	Sellers				W/m^2	20% :: 20%	1/hr	100 km :: Land	
2218	Radiative Flux, SW, Down	I :: II	Wielicki				W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2219	Radiative Flux, SW, Down	O :: II	Bates				W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
2220	Radiative Flux, SW, Down	O :: II	Wielicki				W/m^2	15 W/m^2 :: 2 W/m^2	9/day [d]	25 km :: R	N/A :: Sfc
2221	*Radiative Flux, SW, Down*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2222	*Radiative Flux, SW, Down*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2223	*Radiative Flux, SW, Down*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2226	Radiative Flux, SW, Net	I :: II	Wielicki				W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2227	Radiative Flux, SW, Net	O :: II	Rothrock				W/m^2	15% :: 15%	1/day, 1/wk	100 km :: > 60 dgLAT	
2228	Radiative Flux, SW, Net	O :: II	Wielicki				W/m^2	15 W/m^2 :: 2 W/m^2	9/day [d]	25 km :: R	N/A :: Sfc
2229	*Radiative Flux, SW, Net*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: Sfc
2230	*Radiative Flux, SW, Net*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2231	*Radiative Flux, SW, Net*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2232	Radiative Flux, SW, Net	O :: FI	Gautier	AIRS	PM	GSFC	W/m^2	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
2233	Radiative Flux, SW, Net	O :: FI	Gautier	AIRS	PM	GSFC	W/m^2	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
2234	Radiative Flux, SW, Net_Down	I :: II	Murakami				W/m^2	2% ::			N/A :: Atmos
2235	Radiative Flux, SW, Up	O :: II	Bates						1/(20 min)	50 km :: Land	N/A :: TOA
2236	Radiative Flux, SW	I :: II	Barron				W/m^2	10 :: 5	1/day	30 m :: L	N/A :: Sfc
2237	Radiative Flux, SW	I :: II	Barron				W/m^2	10 :: 5	1/day	100 km :: G	N/A :: Sfc
2238	Radiative Flux, SW	I :: II	Barron				W/m^2	10 :: 5	1/day	10 km :: R	N/A :: Sfc
2239	Radiative Flux, SW	I :: II	Barron				W/m^2	10 :: 5	1/day	100 km :: G	N/A :: TOA
2240	Radiative Flux, SW, Up	I :: II	Kerr, Sorooshian				W/m^2	15% :: 15%	[diurnal]	500 m :: Land/R	N/A :: Sfc
2241	Radiative Flux, SW, Up	I :: II	Wielicki				W/m^2	10 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: TOA
2242	Radiative Flux, SW, Up	I :: II	Wielicki				W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2243	Radiative Flux, SW, Up	O :: II	Bates				W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
2244	Radiative Flux, SW, Up	O :: II	Wielicki				W/m^2	15 W/m^2 :: 2 W/m^2	9/day [d]	25 km :: R	N/A :: Sfc
2245	Radiative Flux, SW, Up	O :: II	Wielicki				W/m^2	10 W/m^2 :: 2 W/m^2	9/day [d]	25 km :: R	N/A :: TOA
2246	*Radiative Flux, SW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	12 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: TOA
2247	*Radiative Flux, SW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2248	*Radiative Flux, SW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2249	*Radiative Flux, SW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	12 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2250	*Radiative Flux, SW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2251	*Radiative Flux, SW, Up*	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2	7 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
2254	Glint Field	O :: FI	Gordon	MODIS	AM,PM	GSFC	dimensionless		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc
2255	Radiative Flux, LW	I :: II	Brewer				W/m^2		1/day, 1/seas	:: Ocean/L	
2256	Radiative Flux, LW	I :: II	Brewer				W/m^2		1/day, 1/seas	:: Ocean	
2263	PAR, Intercepted, (IPAR)	I :: II	Schimel				5E, % ::	10% :: 1%	1/day	500 m :: 6 sites/L	N/A :: Sfc
2264	PAR, Intercepted, (IPAR)	I :: II	Schimel				5E, % ::	10% :: 1%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
2265	PAR, Intercepted, (IPAR)	I :: II	Schimel				5E, % ::	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2266	PAR, Sfc (IPAR)	O :: FI	Gordon	MODIS	AM,PM	GSFC	quanta/m^2/s	10% :: 5%	1/day [d]	1 km :: Ocean/L	N/A :: Sfc
2267	PAR, Sfc (IPAR)	O :: FI	Gordon	MODIS	AM,PM	GSFC	quanta/m^2/s	10% :: 5%	1/day [d]	1 km :: Ocean	N/A :: Sfc
2268	PAR, Incident, (IPAR)	O :: FI	Tanre	MODIS	AM,PM	EDC	MJ/m^2	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
2269	Irradiance, Solar	I :: II	Abbott				W/m^2	5% :: 1%	1/(1-2 day)	1-4 km :: Ocean [Southern	N/A :: Sfc
2270	Irradiance, Total	O :: II	Kerr, Sorooshian				W/m^2	50 :: 25		500 m :: Land/R	N/A :: Sfc
2271	Irradiance, Solar	I :: II	Grose				W/m ^2/nm	5% :: 1%	2/day	15 x 4 dg :: G	:: TOA
2272	Irradiance, Solar	I :: II	Hansen					0.05% ::	1/wk	500 km :: G	:: TOA
2273	Irradiance, Solar	I :: II	Pyle				W/m ^2/nm	:: 1%	2/day	15 x 4 km :: G	3 km :: Strat
2274	*Irradiance, Solar, Total*	O :: PI	Willson	ACRIM	MO	GSFC	W/m^2	0.1% :: 0.0005%	1/(2 min)	N/A :: N/A	N/A :: TOA
2275	Irradiance, UV Solar	I :: II	Brewer				E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	30 m :: Ocean/L	
2276	Irradiance, UV Solar	I :: II	Brewer				E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
2277	*Irradiance, UV Solar [0.0015 nm res.]*	O :: PI	Rottman	SOLSTICE	MO	GSFC	photons/cm^2/s/nr	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
2278	*Irradiance, UV Solar [0.1 nm res.]*	O :: PI	Rottman	SOLSTICE	MO	GSFC	photons/cm^2/s/nr	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
2279	Irradiance, Visible Solar	I :: II	Brewer				E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
2280	Irradiance, Visible Solar	I :: II	Brewer				E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	30 m :: Ocean/L	
2281	Cloud Liq_water Content	O :: FI	Welch	HIRIS	AM2	EDC	g/m^2	30% :: 10%		90 m :: R	:: Cloud
2282	Cloud Masking-shadowing	O :: FI	Salomonson	MODIS	AM,PM	GSFC	dimensionless	5% ::	1/day	.25 km :: G	N/A :: Sfc
2283	Cloud Masking-shadowing	O :: FI	Salomonson	MODIS	AM,PM	GSFC	dimensionless	30% ::	1/day	1 km :: G	N/A :: Sfc
2284	Cloud Masking-shadowing	O :: FI	Salomonson	MODIS	AM,PM	GSFC	dimensionless	15% ::	1/day	0.5 km :: G	N/A :: Sfc
2286	Level-1B Radiance Mixture-Model, MODIS Spectral-spatial	O :: FI	Huete	MODIS	AM,PM	GSFC	dimensionless	5-10% :: 0.05	1/day	pixel_size :: G	N/A :: Sfc
2287	Aerosol Optical Depth	I :: II	Hansen					tau=0.02 ::	1/wk	500 km :: G	:: Strat
2288	Aerosol Optical Depth	I :: II	Sellers					::			
2289	Aerosol Optical Depth	I :: II	Wielicki				dimensionless	0.10 :: 0.10	1/day	1.25 dg :: G	N/A :: Atmos
2291	*Aerosol Optical Depth*	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	dimensionless	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
2292	Aerosol Optical Depth	O :: FI	Gerstl	HIRIS	AM2	EDC	dimensionless	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
2293	*Aerosol Optical Depth, Spectral*	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	dimensionless	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
2294	*Aerosol Optical Depth, Spectral*	O :: FI	Tanre, Kaufman	MODIS	AM,PM	GSFC	dimensionless	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
2295	*Aerosol Angstrom Exponent*	O :: FI	Gordon	MODIS	AM,PM	GSFC	dimensionless	15% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Atmos
2296	*Aerosol Angstrom Exponent*	O :: FI	Gordon	MODIS	AM,PM	GSFC	dimensionless	15% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: Atmos
2297	*Aerosol Optical Depth*	O :: PI	Travis	EOSP	AERO,AM2	LaRC	dimensionless	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
2298	Aerosol Optical Depth	O :: PI	Diner	MISR	AM	LaRC	dimensionless	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
2299	*Aerosol Optical Depth*	O :: PI	Diner	MISR	AM	LaRC	dimensionless	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
2300	*Cloud Optical Depth, Cirrus*	O :: FI	Spinhirne	GLRS-A	ALT	GSFC		20% ::	1/(2-16 day)	1-100 km :: G	
2301	Cloud Optical Depth	I :: II	Barron					3% :: 3%	1/day	100 km :: Ocean	N/A :: Cloud
2302	Cloud Optical Depth	I :: II	Barron					3% :: 3%	1/day	10 km :: Ocean/R	N/A :: Cloud
2303	Cloud Optical Depth	I :: II	Barron					3% :: 3%	1/day	30 m :: Ocean/L	N/A :: Cloud
2304	Cloud Optical Depth	I :: II	Bates				dimensionless		1/day	15 x 45 km :: G	N/A :: Cloud
2305	Cloud Optical Depth	I :: II	Bates				dimensionless	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2306	Cloud Optical Depth	I :: II	Hartmann				dimensionless	25% :: 0.25	1/day	10 km :: Ocean	N/A :: Cloud
2308	*Cloud Optical Depth*	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	dimensionless	0.1 ::		2-200 km :: G	N/A :: Cloud
2309	Cloud Optical Depth	O :: FI	Welch	HIRIS	AM2	EDC	dimensionless	3% :: 1.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	N/A :: Cloud
2310	Cloud Optical Depth	O :: FI	Welch	ASTER	AM1	EDC	dimensionless	3% :: 3%	1/(16 day)	15-30 m :: L	N/A :: Cloud
2311	*Cloud Optical Depth*	O :: FI	King	MODIS	AM,PM	GSFC	dimensionless	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
2312	*Cloud Optical Depth*	O :: FI	King	MODIS	AM,PM	GSFC	dimensionless	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2313	*Cloud Optical Depth*	O :: PI	Travis	EOSP	AERO,AM2	LaRC	dimensionless	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
2314	Cloud Optical Depth, LW	I :: II	Wielicki				dimensionless	25% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
2315	Cloud Optical Depth, LW	O :: II	Wielicki				dimensionless	25% :: 10%	18/day [d,n]	25 km :: R	N/A :: Atmos
2316	Cloud Optical Depth, LW	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
2317	Cloud Optical Depth, LW	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
2318	Cloud Optical Depth, LW	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
2319	Cloud Optical Depth, SW	I :: II	Wielicki				dimensionless	25% :: 10%	3/day [d]	25-100 km :: G	N/A :: Atmos
2320	Cloud Optical Depth, SW	O :: II	Wielicki				dimensionless	25% :: 10%	9/day [d]	25 km :: R	N/A :: Atmos
2321	Cloud Optical Depth, SW	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
2322	Cloud Optical Depth, SW	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
2323	Cloud Optical Depth, SW	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	dimensionless	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
2324	*Cloud Optical Depth, PSC*	O :: FI	Spinhirne et al	GLRS-A	ALT	GSFC	dimensionless	0.1 ::		200 m :: Polar	N/A :: Strat
2325	Optical Depth, Total	I :: II	Kerr, Sorooshian				eq.atm	10% :: 10%	1/(5-16 day)	10 km :: Land/R	:: Atmos
2326	Optical Depth, Total	I :: II	Isacks					5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
2327	Aerosol Extinction Coef	I :: II	Murakami				/km	5-10% ::		:: G	N/A :: Atmos
2328	PAR	I :: II	Moore				W/m^2/sr	20% :: 10%	1/day, 1/wk	30 m :: Land/L	
2329	PAR	I :: II	Moore				W/m^2/sr	20% :: 10%	1/day, 1/wk	500 m :: Land/R	
2330	PAR	O :: FI	Esaias	MODIS	AM,PM	GSFC	quanta/m^2/s	TBD :: TBD	1/day	N/A :: G	N/A :: Atmos
2331	PAR	O :: II	Kerr, Sorooshian				W/m^2	100 :: 100	1/day	500 m :: Land/R	N/A :: Sfc
2332	PAR	O :: II	Moore				W/m^2	100 :: 100	1/day	.030-1 km :: Land/R,L	
2333	PAR	O :: II	Moore				W/m^2	100 :: 100	1/day	1 km :: Land	
2334	Aerosol Phase Function, Asymmetric	O :: PI	Diner	MISR	AM	LaRC	dimensionless	0.05 :: 0.05	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
2335	Aerosol Phase Function, Asymmetric	O :: PI	Diner	MISR	AM	LaRC	dimensionless	0.05 :: 0.05	1/(5-16 day) [d]	1.9 km :: R	Column :: Atmos
2336	*Level-1B Polarization, EOSP*	O :: PI	Travis	EOSP	AERO,AM2	LaRC	dimensionless	0.2% :: 0.1%	1/day [d]	10-70 km :: G	N/A :: N/A
2337	*Vegetation Index, Polarization*	O :: FI	Vanderbilt	MODIS	AM,PM	EDC	dimensionless		1/day	pixel_size :: Land	N/A :: Sfc
2338	Level-1B Radiance, MODIS<3um	O :: FI	Salomonson	MODIS	AM,PM	GSFC	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	0.5 km :: G	N/A :: N/A
2339	Level-1B Radiance, MODIS<3um	O :: FI	Salomonson	MODIS	AM,PM	GSFC	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
2340	Level-1B Radiance, MODIS>3um	O :: FI	Salomonson	MODIS	AM,PM	GSFC	W/m^2/sr/um	1%(1Σ) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
2344	*Aerosol Radiance*	O :: FI	Gordon	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	10% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/G,R,L	N/A :: Atmos
2345	*Aerosol Radiance*	O :: FI	Gordon	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	10% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R,L	N/A :: Atmos
2346	Level-1B Radiance, AIRS	I :: II	Bates					::			
2347	Level-1B Radiance, AIRS	O :: FI	Chahine	AIRS[AIRS]	PM	GSFC	W/m^2/sr/um	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
2349	Level-1B Radiance, AMSU-A	I :: II	Bates				K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
2350	Level-1B Radiance, AMSU-A	O :: FI	Chahine	AIRS[AMSU-A]	PM	GSFC	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
2351	Level-1B Radiance, MHS	I :: II	Bates				K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
2352	Level-1B Radiance, MHS	O :: FI	Chahine	AIRS [MHS]	PM	GSFC	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
2353	Level-2 Radiance, Atmos_corrected, EOSP	O :: PI	Travis	EOSP	AERO,AM2	LaRC	W/m^2/sr/um	25% :: 15%	1/day [d]	40 km :: G	N/A :: N/A
2355	Level-1B Radiance, AVHRR(ESA?)	I :: II	Wielicki				W/m^2/sr/um	5%,LW.2K :: SW2%,LW	2/day [d,n]	1 km :: R	N/A :: Atmos
2357	Radiation Budget	I :: II	Hansen						1/wk	500 km :: G	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2358	Level-1B Radiance, CERES	I :: II	Wielicki				W/m^2/sr/um	2%,LW1% :: SW2%,LW	6/day [d,n]	25 km :: R	N/A :: Atmos
2359	Level-1B Radiance, CERES	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	W/m^2/sr/um	SW 2%,LW 1% :: 0.005	6/day [d,n]	25 km :: G	N/A :: N/A
2360	Cloud Radiation	I :: II	Moore				cal/cm^2/day	10% :: 10%	1/wk	1 km :: G	:: Cloud
2362	Level-1B Radiance, EOSP	O :: PI	Travis	EOSP	AERO,AM2	LaRC	W/m^2/sr/um	5% :: 2%	1/day [d]	10-70 km :: G	N/A :: N/A
2364	Level-1B Radiance, GGI	O :: PI	Melbourne	GGI	ALT	JPL					
2369	Level-1B Radiance, HIRDLS	O :: PI	Barnett, Gille	HIRDLS	CHEM	GSFC	W/m^2/sr/um				
2370	*Level-1B Radiance, HIRIS*	O :: FI	Goetz	HIRIS	AM2	EDC	W/m^2/sr/um				
2374	Radiation Intensity, IR	I :: II	Schoeberl				photons/cm^2/s/cr	1%(~1K) :: 0.5%	1/day	100 km :: G	1.5 km :: Strat
2375	Level-1B Radiance, ASTER	O :: FI	Tsu	ASTER	AM1	EDC	W/m^2/sr/um	2-4% :: 1%	1/16 day	15,30,90m :: G	N/A :: at sensor
2378	Level-2 Radiance, Land_leaving	O :: FI	Palluconi et al	ASTER	AM1	EDC	W/m^2/sr/um	TBD :: 0.065-0.085	1/(2-16 day)	90 m :: Land/R,L	N/A :: Sfc
2379	Level-2 Radiance, Land_leaving	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	W/m^2/sr/um	10% :: 5%	1/day	1 km :: Land/R	N/A :: Sfc
2380	Level-2 Radiance, Land_leaving	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	W/m^2/sr/um	10% :: 5%	1/day, 1/mo	10 km :: Land	N/A :: Sfc
2381	Level-2 Radiance, Land_leaving	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	W/m^2/sr/um	10% :: 5%	1/day	0.5 km :: Land/R	N/A :: Sfc
2382	Wind Velocity, LAWS Line-of-sight (Level-1B)	I :: II	Bates								
2384	Level-1B Radiance, LIS	O :: PI	Christian	LIS	TRM	MSFC	W/m^2/sr/um				
2385	Radiative Flux, LW	I :: II	Srokosz				W/m^2	10W/m^2 :: 1W/m^2	2/day	0 km :: Ocean [South Atlan]	
2386	Level-1B Radiance, MISR	O :: PI	Diner	MISR	AM	LaRC	W/m^2/sr/um	3% :: 1%	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
2387	Level-1B Radiance, MISR	O :: PI	Diner	MISR	AM	LaRC	W/m^2/sr/um	3% :: 1%	1/(5-16 day) [d]	240 m :: R,L	N/A :: TOA
2388	Level-1B Radiance, MLS	O :: PI	Waters	MLS	MO	GSFC	K		2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	.5 km [1.2] :: Trop-150 km
2389	Level-1B Radiance, MODIS	I :: II	Sellers				W/m^2/sr/um				
2390	Level-1B Radiance, MODIS	I :: II	Wielicki				W/m^2/sr/um	5%,LW.1K :: SW2%,LW	2/day [d,n]	0.25-1 km :: R	N/A :: Atmos
2392	Level-1B Radiance, MODIS<3um	O :: FI	Salomonson	MODIS	AM,PM	GSFC	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	0.25 km :: G	N/A :: N/A
2394	Level-1B Radiance, MOPITT	O :: PI	Drummond	MOPITT	AM1	LaRC	W/m^2/sr/um	2% ::	1/(0.4 s) [?]	22 km :: G	Column :: Atmos
2395	Radiative Flux, LW, Up	I :: II	Murakami				mW/m^2/sr/cm	10% ::			N/A :: TOA
2396	Level-1B Radiance, SAFIRE	O :: PI	Russell	SAFIRE	MO	GSFC					
2398	Level-1B Irradiance, SOLSTICE	O :: PI	Rottman	SOLSTICE	MO	GSFC	W/m^2		1/hr	2 dg :: G	1 km :: Mid_atm
2400	Radiative Flux, SW	I :: II	Srokosz				W/m^2	10W/m^2 :: 1W/m^2	2/day	0 km :: Ocean [South Atlan]	
2402	Level-1B Radiance, TES	O :: PI	Beer	TES	CHEM	LaRC					
2404	Land_sfc Radiance-Correction, Topographic	O :: FI	Muller	MODIS	AM,PM	EDC		1 km :: 0.3 km	1/day	1 km :: Land/R	N/A :: Sfc
2405	Land_sfc Radiance-Correction, Topographic	O :: FI	Muller	MODIS	AM,PM	EDC		1 km :: 0.3 km	1/day	10 km :: Land	N/A :: Sfc
2406	Radiance, Total	O :: II	Rothrock				mW/m^2		1/(3 day)	100 km :: > 60 dgLAT	
2411	Radiation Intensity, UV	I :: II	Schoeberl				photons/cm^2/s/nr	5% :: 2%	1/day	:: G	:: Strat
2412	Radiation Intensity, UV	O :: II	Schoeberl				photons/cm^2/s/nr	20% :: 15%	1/day	2 x 3 dg :: G	2 km :: Trop
2413	Radiation Intensity, Visible	I :: II	Schoeberl				photons/cm^2/s/nr	5% :: 2%	1/day	:: G	:: Strat
2414	Level-2 Radiance, Water-leaving	I :: II	Brewer				E/m^2/s/Hz	10% :: TBD	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
2415	Level-2 Radiance, Water-leaving	I :: II	Brewer				E/m^2/s/Hz	10% :: TBD	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
2416	*Level-2 Radiance, Water-leaving*	O :: FI	Gordon et al	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	5% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Sfc
2417	*Level-2 Radiance, Water-leaving*	O :: FI	Gordon et al	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	5% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2421	Cloud Radiative Forcing	I :: II	Bates				W/m^2		1/wk	500 km :: G	:: Atmos
2422	Cloud Radiative Forcing	O :: II	Hansen				W/m^2		1/wk	500 km :: G	:: Atmos
2423	Cloud Reflectance, Bi-directional, (BRDF)	I :: II	Wielicki				fraction	5% :: 2%	1/day	0.2-2 km :: R	N/A :: Cloud
2424	Land_sfc Reflectance, Bi-directional, (BRDF)	O :: FI	Tanre, Muller	MODIS	AM,PM	EDC	%	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2425	Land_sfc Reflectance, Bi-directional, (BRDF)	O :: FI	Tanre, Muller	MODIS	AM,PM	EDC	%	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
2426	Land_sfc Reflectance, Directional	I :: II	Brewer					3% :: 1%	1/day, 1/seas	1.7 km :: Ocean	N/A :: Sfc
2427	Land_sfc Reflectance, Directional	I :: II	Brewer					3% :: 1%	1/day, 1/seas	.22 km :: Ocean/L	N/A :: Sfc
2428	Land_sfc Reflectance, Directional	I :: II	Kerr, Sorooshian				%	3% :: 5%	1/(2 mo)	30 m :: Land/R	:: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2429	Land_sfc Reflectance, Directional	O :: FI	Kaufman et al	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.005	1/day	1 km :: G	N/A :: Sfc
2430	Land_sfc Reflectance, Directional	O :: FI	Kaufman et al	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.005	1/day	0.5 km :: G	N/A :: Sfc
2431	Land_sfc Reflectance, Directional	O :: FI	Kaufman et al	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.005	1/day	0.25 km :: G	N/A :: Sfc
2432	Land_sfc Reflectance, Directional	O :: FI	Slater	HIRIS	AM2	EDC	dimensionless	3% :: 1%	1/mo	30 m :: Land/R,L	N/A :: Sfc
2433	Land_sfc Reflectance, Directional	O :: FI	Slater	ASTER	AM1	EDC	dimensionless	4% :: 0.5-1.3	3/yr	15,30 m :: Land/R,L	N/A :: Sfc
2434	Land_sfc Reflectance, Directional	O :: FI	Muller, Strahler	MODIS	AM,PM	EDC	fraction	5% :: 3%	1/day	1 km :: R	N/A :: Sfc
2435	Land_sfc Reflectance, Relative Spectral	O :: FI	Kahle, Becker	ASTER	AM1	EDC	arbitrary units	N/A :: N/A	1/(2-16 day)	15,30 m :: Land/R,L	N/A :: Sfc
2437	Land_sfc Reflectance Factor, MODIS	I :: II	Cihlar					0.05 :: 0.001	1/(3 mo)	0.25 km :: Canada/R	N/A :: Atmos
2438	Sea_sfc Reflectance Factor, MODIS-T	I :: II	Cihlar					0.05 :: 0.001	1/(3 mo)	0.5 km :: Canada/R	
2440	Snow Reflectance, Spectral	O :: FI	Dozier	HIRIS	AM2	NSIDC	dimensionless	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
2441	Radiative Flux, Solar, Ave-absorbed	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	
2442	Radiative Flux, Solar, Ave-absorbed	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	
2443	Radiative Flux, Solar, TOA Clear-sky	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	:: TOA
2444	Radiative Flux, Solar, Sfc Clear-sky	O :: II	Barron				W/m^2		2/day	4.5 x 7.5 dg :: G	:: Sfc
2445	Radiative Flux, Solar, TOA Clear-sky	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	:: TOA
2446	Radiative Flux, Solar, Sfc Clear-sky	O :: II	Barron				W/m^2		2/day	2.8 x 2.8 dg :: G	:: Sfc
2447	Land_sfc Thermal Change	O :: FI	Kieffer, Christensen, Pieri, Schmugge	ASTER	AM1	EDC	dimensionless	1-2 K :: 0.5 K		90 m :: Land/R,L	N/A :: Sfc
2452	*Brightness Temperature (at Sensor)*	O :: FI	Kahle	ASTER	AM1	EDC	K	.5NEdT :: .2NEdT	1/(2-16 day)	90 m :: G	N/A :: at sensor
2453	Land_sfc Brightness Temperature (Radiance)	O :: FI	Kahle, Palluconi, Christensen	ASTER	AM1	EDC	K	1-2 K :: 0.3	1/(2-16 day)	90 m :: G	N/A :: Sfc
2454	Sea_sfc Brightness Temperature (Radiance)	O :: II	Barron				K		1/(5 day)	2.5 dg :: G	
2455	Land_sfc Brightness Temperature (Radiance)	O :: PI	Beer	TES	CHEM	LaRC	K	:: 1 K	1/(16 day)	16 x 5 km :: G	N/A :: Sfc
2456	Vegetation Temperature	I :: II	Kerr, Sorooshian				K	0.5 K :: 0.5 K	2/day [d,n]	500 m :: Land/R	:: Sfc
2457	Cloud Temperature	I :: II	Sellers								
2458	Cloud Temperature, Emission	I :: II	Barron				K	2 :: 1	1/day	100 km :: G	N/A :: Cloud
2459	Cloud Temperature, Emission	I :: II	Barron				K	2 :: 1	1/day	10 km :: R	N/A :: Cloud
2460	Cloud Temperature, Top	I :: II	Bates				K	1 K :: 0.5 K	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
2461	Cloud Temperature, Top	I :: II	Hansen				K	5% ::	1/wk	500 km :: G	:: Cloud
2462	Cloud Temperature, Top	I :: II	Kerr, Sorooshian				K	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
2463	*Cloud Temperature, Top*	O :: FI	Chahine, Chedin, Smith	AIRS	PM	GSFC	K	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
2465	Cloud Temperature, Top	O :: FI	Welch	ASTER	AM1	EDC	K	2 K :: 2 K	1/(16 day)	90 m :: L	N/A :: Cloud
2466	*Cloud Temperature, Top*	O :: FI	Menzel	MODIS	AM,PM	GSFC	C	2 C :: 1 C	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2467	*Cloud Temperature, Top*	O :: FI	Menzel	MODIS	AM,PM	GSFC	C	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
2468	Cloud Temperature, Top	O :: II	Bates				K		1/(20 min)	50 km :: G	N/A :: Low_Cloud
2469	Cloud Temperature, Top	O :: II	Bates				K		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
2470	Cloud Temperature, Top	O :: II	Bates				K		1/(20 min)	50 km :: G	N/A :: High_cloud
2471	*Fire Temperature*	O :: FI	Kaufman, Justice	MODIS	AM,PM	EDC	C	10 C :: 5 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2472	Land_sfc Temperature, Skin	I :: II	Barron				K	1 :: 0.5	1/day	30 m :: Land/L	N/A :: Sfc
2473	Land_sfc Temperature, Skin	I :: II	Barron				K	1 :: 0.5	1/day	10 km :: Land/R	N/A :: Sfc
2474	Land_sfc Temperature, Skin	I :: II	Barron				K	1 :: 0.5	1/day	100 km :: G	N/A :: Sfc
2475	Land_sfc Temperature, Skin	I :: II	Bates				K	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
2476	Land_sfc Temperature	I :: II	Richey, Batista				K		1/day	:: Land/R	N/A :: Sfc
2477	Land_sfc Temperature	I :: II	Hansen				K	0.2 C ::	1/wk	500 km :: Land	:: Sfc
2478	Land_sfc Temperature	I :: II	Sellers					::		500 m ::	
2479	Land_sfc Temperature, Skin	I :: II	Wielicki				K	1 K :: 0.5 K	4/day [d,n]	1.25 dg :: Land	N/A :: Sfc

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2481	*Land_sfc Temperature, Skin*	O :: FI	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	K	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
2483	Land_sfc Temperature (3-products)	O :: FI	Kahle, Becker, Christensen	ASTER	AM1	EDC	K	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
2484	*Land_sfc Temperature*	O :: FI	Wan	MODIS	AM,PM	EDC	C	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2485	Land_sfc Temperature	O :: FI	Wan	MODIS	AM,PM	EDC	C	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
2486	Land_sfc Temperature	O :: II	Barron				C		1/(5 min)	30 km :: [East. U.S.]	
2487	Land_sfc Temperature	O :: II	Barron				C		1/(5 min)	500 m :: [East. U.S.]	
2489	Sea_Ice Temperature	I :: II	Bates				K		1/day	10 km :: Polar	N/A :: Sfc
2490	Sea_Ice Temperature	I :: II	Rothrock				K	2 K :: 2 K	1/(3 day)	25 km :: Polar	N/A :: Sfc
2494	Land_sfc Temperature	O :: II	Barron				K		2/day	4.5 x 7.5 dg :: G	:: Sfc
2495	Land_sfc Temperature	O :: II	Barron				K		2/day	2.8 x 2.8 dg :: G	:: Sfc
2496	Land_sfc Temperature, Skin	I :: II	Isacks				K	1-3 :: 1	1/wk	1 km :: Land/R	N/A :: Sfc
2497	Land_sfc Temperature, Skin	I :: II	Isacks				K	1-6 :: 0.3	1/wk	90 m :: Land/L	N/A :: Sfc
2499	Land_sfc Temperature, Skin	O :: II	Bates				K		1/(20 min)	50 km :: Land	N/A :: Sfc
2500	Snow Temperature, Sfc	I :: II	Dozier				K	1 K :: 0.3 K	1/wk	500 m :: Snow/L	
2501	Soil Temperature	I :: II	Lau				K	0.5 K :: 0.5 K	1/(3 day)	100 m :: Land/L	N/A :: Sfc
2502	Soil Temperature	I :: II	Lau				K	1 K :: 1 K	1/(3 day)	1 km :: Land/R	N/A :: Sfc
2503	Soil Temperature	O :: II	Kerr, Sorooshian				K	0.5 K :: 0.5 K	2/day [d,n]	500 m :: Land/R	:: Sfc
2504	Sea_sfc Temperature (SST)	I :: II	Abbott				K	0.5 K :: 0.05 K	(1-2)/day	1-4 km :: Ocean [Southern	N/A :: Sfc
2505	Sea_sfc Temperature (SST)	I :: II	Abbott				K	1 K :: 0.1 K	(1-2)/day	50 km :: Ocean [Southern]	N/A :: Sfc
2506	Sea_sfc Temperature (SST)	I :: II	Barron				K	0.5 K ::	1/day	100 km :: Ocean	N/A :: Sfc
2507	Sea_sfc Temperature (SST)	I :: II	Barron				K	0.5 K ::	1/day	10 km :: Ocean/R	N/A :: Sfc
2508	Sea_sfc Temperature (SST)	I :: II	Bates				K	0.3-0.6 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2509	Sea_sfc Temperature (SST)	I :: II	Bates				K	0.5 K :: 0.4 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
2510	Sea_sfc Temperature (SST)	I :: II	Brewer				K	0.5 K :: 0.5 K	1/day, 1/seas	30 m :: Ocean/L	N/A :: Sfc
2511	Sea_sfc Temperature (SST)	I :: II	Brewer				K	0.5 K :: 0.5 K	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
2512	Sea_sfc Temperature (SST)	I :: II	Hansen				K	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
2513	Sea_sfc Temperature (SST)	I :: II	Hartmann				K	0.5 K :: 0.5 K	1/day	10 km :: Ocean	N/A :: Sfc
2514	Sea_sfc Temperature (SST)	I :: II	Lau				K	0.5 K ::	1/wk	100 km :: Ocean	N/A :: Sfc
2515	Sea_sfc Temperature (SST)	I :: II	Lau				K	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
2516	Sea_sfc Temperature (SST)	I :: II	Lau				K	0.5 K ::	1/day	50 km :: R	N/A :: Sfc
2517	Sea_sfc Temperature (SST)	I :: II	Liu				K	0.5 :: 0.5	1/wk	10 km :: G	N/A :: Sfc
2518	Sea_sfc Temperature (SST)	I :: II	Murakami				K	0.2 K ::		:: G	N/A :: Sfc
2519	Sea_sfc Temperature (SST)	I :: II	Rothrock				K	1 K :: 1 K	1/(2 day)	30 km :: G	N/A :: Sfc
2520	Sea_sfc Temperature (SST)	I :: II	Srokosz				K	0.3 K(IR) :: 0.1 K	2/day	0.1-1 km :: Ocean [South Atlan]	N/A :: Sfc
2521	Sea_sfc Temperature (SST)	I :: II	Wielicki				K	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc
2523	*Sea_sfc Temperature (SST), Skin*	O :: FI	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	K	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
2527	*Sea_sfc Temperature (SST)*	O :: FI	Brown	MODIS	AM,PM	GSFC	K	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
2528	Sea_sfc Temperature (SST)	O :: FI	Brown	MODIS	AM,PM	GSFC	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2529	Sea_sfc Temperature (SST)	O :: FI	Brown	MODIS	AM,PM	GSFC	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
2530	Sea_sfc Temperature (SST)	O :: FI	Brown, Barton	MODIS	AM,PM	GSFC	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
2531	Sea_sfc Temperature (SST)	O :: FI	Brown, Barton	MODIS	AM,PM	GSFC	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2532	Sea_sfc Temperature (SST)	O :: FI	Brown, Barton	MODIS	AM,PM	GSFC	K	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2535	Vegetation Temperature	I :: II	Moore				K				:: Sfc
2537	Land_sfc Temperature-Difference, Day-Night	O :: FI	Huete	MODIS	AM,PM	GSFC	K	1 K :: 1 K	1/day	1 km :: Land/R	N/A :: Sfc
2538	Land_sfc Temperature-Difference, Day-Night	I :: II	Bates				K	0.5 K :: 0.25 K	1/day	50 km :: Land	N/A :: Sfc
2539	Land_sfc Temperature-Difference, Day-Night	O :: FI	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	K	0.5 K :: 0.25 K	2/day [d,n]	50 km :: G	N/A :: Sfc
2540	Land_sfc Temperature-Difference, Day-Night	O :: FI	Kieffer et al	ASTER	AM1	EDC	K	1-2 K :: 0.3 K		90 m :: Land/R,L	N/A :: Sfc
2541	Land Thermal Inertia	I :: II	Kerr, Sorooshian				cal/cm^2/K/s	.008 :: .004	1/(16 day)	60 m :: Land/R	N/A :: Sfc
2542	Land Thermal Inertia	O :: FI	Kieffer et al	ASTER	AM1	EDC	joule/m^2/K/s	40% :: 20%		90 m :: Land/R,L	N/A :: Sfc
2543	Level-1B Transmission, SAGE-III	O :: PI	McCormick	SAGE-III	AERO,CHEM	LaRC	dimensionless	0.05% :: 0.05%	1/(2 min), 30/day	200 x 2.5 km :: G	1-2 km :: 0-90 km
2544	Cloud Transmissivity	I :: II	Rothrock					0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
2545	Climatology Diagnostic Data	O :: II	Hansen						1/wk	500 km :: G	:: Atmos
2546	Cloud Spectral Char	I :: II	Liu							:: G	N/A :: Cloud
2547	C Budget, Global	O :: II	Cihlar				kg/ha/yr	:: 0.1	1/yr	1 km :: Land/R	N/A :: Sfc
2548	C Flux, Global	O :: II	Hansen				g-C/m^2/s		1/wk	500 km ::	
2549	Soil N Turnover	O :: II	Moore				kg/ha per t-step	30% :: 1%	1/mo, 1/yr	Mult :: Land/R,L	
2550	Soil N Turnover	O :: II	Moore				kg/ha per t-step	30% :: 1%	1/mo, 1/yr	Mult :: Land	
2551	Soil N Turnover	O :: II	Schimel				kg/ha	25% :: 1%	1/seas	Mult :: 6 sites/L	:: Sfc
2552	Soil N Turnover Time-deriv	O :: II	Schimel				kg/ha	25% :: 1%	1/seas	Mult :: 6 sites/L	:: Sfc
2553	Land_sfc Biochemical Analysis	O :: II	Dozier				N/A		1/day	50 m :: L	
2554	C-Cycle Diagnostic Data	O :: II	Hansen						1/wk	500 km :: G	:: Trop
2555	Phytoplankton Backscatter Coef	O :: FI	Gordon	MODIS	AM,PM	GSFC	soft, med, hard		1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2556	Coccolith Backscatter Coef	O :: FI	Gordon	MODIS	AM,PM	GSFC	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2557	Coccolith Backscatter Coef	O :: FI	Gordon	MODIS	AM,PM	GSFC	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2558	Phytoplankton Backscatter Coef	O :: FI	Gordon	MODIS	AM,PM	GSFC	soft, med, hard		1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2559	Ocean Water Backscatter Coef, Total	O :: FI	Gordon	MODIS	AM,PM	GSFC	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2560	Ocean Water Backscatter Coef, Total	O :: FI	Gordon	MODIS	AM,PM	GSFC	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2561	Organic Carbon Conc, Dissolved	I :: II	Brewer				mol-C/m^3	100% :: 10%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
2562	Organic Carbon Conc, Dissolved	I :: II	Brewer				mol-C/m^3	100% :: 10%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
2563	Chlorophyll Conc	I :: II	Srokosz				ug/l	10% :: 0.1mg	1/day	km :: Ocean [South Atlan	N/A :: Sfc
2564	Chlorophyll_a Conc, Phytoplankton, Case-I Waters	O :: FI	Carder, Davis	HIRIS	AM2	EDC	mg/m^3	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
2565	Chlorophyll_a Conc, Case-II Waters	O :: FI	Carder, Melack	HIRIS	AM2	EDC	mg/m^3	100% :: 50%	1/(2 day) [d]	60-90 m :: Ocean-II/L	N/A :: TOO
2566	Chlorophyll_a Conc (via Fluorescence)	O :: FI	Abbott	MODIS	AM,PM	GSFC	mg/m^3	50-100% :: 35%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
2567	Chlorophyll_a Conc (via Fluorescence)	O :: FI	Abbott	MODIS	AM,PM	GSFC	mg/m^3	50-100% :: 35%	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2569	Chlorophyll_a Conc	O :: FI	Carder	MODIS	AM,PM	GSFC	mg/m^3	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/L	N/A :: TOO
2570	Chlorophyll_a Conc	O :: FI	Carder	MODIS	AM,PM	GSFC	mg/m^3	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/G,R	N/A :: TOO
2571	*Chlorophyll_a Conc*	O :: FI	Clark	MODIS	AM,PM	GSFC	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/L	N/A :: TOO
2572	*Chlorophyll_a Conc*	O :: FI	Clark	MODIS	AM,PM	GSFC	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-I/G,R	N/A :: TOO
2573	Chlorophyll Fluorescence Line Curv	O :: FI	Hoge	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	25% :: 8%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
2574	*Chlorophyll Fluorescence Line Curv*	O :: FI	Hoge	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	25% :: 8%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
2575	*Chlorophyll Fluorescence Line Height*	O :: FI	Abbott	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	.004 :: .001	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2576	Chlorophyll Fluorescence Line Height	O :: FI	Abbott	MODIS	AM,PM	GSFC	mW/cm^2/sr/um	.004 :: .001	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
2577	Coccolith Conc, Detached	O :: FI	Gordon, Clark	MODIS	AM,PM	GSFC	mg-CaCO3/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
2578	Coccolith Conc, Detached	O :: FI	Gordon, Clark	MODIS	AM,PM	GSFC	mg-CaCO3/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: TOO
2579	Organic Matter Conc, Dissolved	I :: II	Abbott				mmol/m^3	50% :: 20%	1/(1-2 day)	1-4 km :: Ocean [Southern	N/A :: TOO
2580	Organic Matter Conc, Dissolved	O :: FI	Carder	MODIS	AM,PM	GSFC	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2581	Organic Matter Conc, Dissolved	O :: FI	Carder	MODIS	AM,PM	GSFC	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
2582	Organic Matter Conc, Dissolved	O :: FI	Parslow et al	MODIS	AM,PM	GSFC	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2583	Organic Matter Conc, Dissolved	O :: FI	Parslow et al	MODIS	AM,PM	GSFC	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean [Southern]R,L	N/A :: TOO
2584	Pigment Conc, Phycoerythrin	I :: II	Abbott				mg/m^3	50% :: 20%	1/(1-2 day)	1-4 km :: Ocean [Southern	N/A :: TOO
2587	Pigment Conc, Phytoplankton	I :: II	Abbott				mg/m^3	35% :: 10%	1/(1-2 day)	1-4 km :: Ocean [Southern	N/A :: TOO
2588	Pigment Conc, Phytoplankton	O :: PI	Diner	MISR	AM	LaRC	mg/m^3	30% :: 30%	1/(1-2 day) [d]	240 m :: Ocean/R	N/A :: TOO
2589	Pigment Conc, Phytoplankton	O :: PI	Diner	MISR	AM	LaRC	mg/m^3	30% :: 30%	1/(1-2 day) [d]	1.92 km :: Ocean/G,R	N/A :: TOO
2590	Pigment Conc, Phytoplankton	I :: II	Rothrock				mg/m^3		1/(2 day)	10 km :: Polar	N/A :: TOO
2591	Pigment Conc	O :: FI	Gordon, Clark	MODIS	AM,PM	GSFC	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
2592	Pigment Conc	O :: FI	Gordon, Clark	MODIS	AM,PM	GSFC	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
2593	Pigment Conc [via Spectral Curv]	O :: FI	Hoge, Esaias	MODIS	AM,PM	GSFC	mg/m^3	50% :: 15%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
2594	Pigment Conc [via Spectral Curv]	O :: FI	Hoge, Esaias	MODIS	AM,PM	GSFC	mg/m^3	50% :: 15%	1/day, 1/wk	20 km :: Ocean/R	N/A :: TOO
2595	Phytoplankton Type	O :: II	Brewer				%		1/day	30 m :: Ocean/L	N/A :: TOO
2596	Phytoplankton Type	O :: II	Brewer				%		1/day	20 km :: Ocean	N/A :: TOO
2597	Ocean Productivity, Primary, Total Column	I :: II	Abbott				mg-C/m^2/day		1/(1-2 day)	1-4 km :: Ocean [Southern	N/A :: TOO
2598	Ocean Productivity, Primary, Near sfc	I :: II	Abbott				mg-C/m^3/day		1/(1-2 day)	1-4 km :: Ocean [Southern	N/A :: Near_sfc
2599	Ocean Productivity, Primary	I :: II	Brewer				mmol-C/m^2/day	50% :: 5%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
2600	Ocean Productivity, Primary	I :: II	Brewer				mmol-C/m^2/day	50% :: 5%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
2601	Ocean Productivity, Primary,	O :: FI	Davis, Melack et al	HIRIS	AM2	EDC	mg-C/m^2/hr	100% :: 50%	1/(>=2 day)	30-90 m :: Ocean/L	N/A :: TOO
2602	Ocean Productivity, Primary, Near_sfc [via Fluorescence]	O :: FI	Abbott	MODIS	AM,PM	GSFC	mg-C/m^3/day	:: 50-100%	1/day, 1/wk	1 km :: Ocean-I/R,L	N/A :: TOO
2603	Ocean Productivity, Primary, Near_sfc [via Fluorescence]	O :: FI	Abbott	MODIS	AM,PM	GSFC	mg-C/m^3/day	:: 50-100%	1/day, 1/wk	4 km :: Ocean-I/G,R	N/A :: TOO
2606	Ocean Productivity, Primary	O :: FI	Esaias	MODIS	AM,PM	GSFC	mg/m^3	<35% :: <20%	1/wk, 1/mo, 1/yr	20 km :: Ocean/G,R	N/A :: TOO
2607	Ocean Productivity, Primary	O :: II	Rothrock				g-C/m^2/day		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
2608	Organic Matter Conc, Particulate	O :: FI	Clark	MODIS	AM,PM	GSFC	mg/m^3	50% :: 30%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
2609	Vegetation Biomass, Above_sfc	O :: II	Kerr, Sorooshian				kg/m^2	20% ::	1/seas	60 m :: Land/R	:: Sfc
2610	Vegetation Biomass, Above_sfc	O :: II	Moore				kg/ha		1/(1-3 yrs) [few yrs]	.030-1 km :: Land/R	
2611	Vegetation Biomass, Above_sfc	O :: II	Moore				kg/ha		1/(1-3 yr) [few yr]	.030-1 km :: Land	
2612	Vegetation Biomass, Dead	I :: II	Barron				kg/ha	25% :: 15%	1/mission	30 m :: L	N/A :: Sfc
2613	Vegetation Biomass, Dead	I :: II	Barron				kg/ha	25% :: 15%	1/mission	10 km :: R	N/A :: Sfc
2614	Vegetation Biomass, Dead	O :: FI	Ustin, Wessman	HIRIS	AM2	EDC	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2615	Vegetation Biomass, Green	I :: II	Barron				kg/ha	25% :: 15%	1/mission	30 m :: L	N/A :: Sfc
2616	Vegetation Biomass, Green	I :: II	Barron				kg/ha	25% :: 15%	1/mission	10 km :: R	N/A :: Sfc
2617	Vegetation Biomass, Green	I :: II	Isacks				kg/ha	40% :: 15%	1/mo	30 m :: Land/L	N/A :: Sfc
2618	Vegetation Biomass, Green	I :: II	Moore				g/ha	40% :: 15%	1/(2-16 day)	500 m :: Land/R	:: Sfc
2619	Vegetation Biomass, Green	I :: II	Moore				g/ha	40% :: 15%	1/(2-16 day)	30 m :: Land/L	:: Sfc
2620	Vegetation Biomass, Green	O :: FI	Ustin, Wessman	HIRIS	AM2	EDC	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2621	Vegetation Litter Biomass	O :: II	Kerr, Sorooshian				kg/km^2			30 m :: Land/R	:: Sfc
2622	Vegetation Litter Biomass	O :: II	Moore				kg/ha		1/(1-3 yr) [few yr]	:: Land/R,L	
2623	Vegetation Litter Biomass	O :: II	Moore				kg/ha		1/(1-3 yr) [few yr]	:: Land	
2624	Vegetation Biomass, Sub_sfc	I :: II	Kerr, Sorooshian				kg/m^2		1/(1-3 yr) [few yr]	1120 m :: Land/R	:: Sub_sfc
2625	Vegetation Biomass, Sub_sfc	O :: II	Moore				kg/ha		1/(1-3 yr) [few yr]	:: Land/R	
2626	Vegetation Biomass, Sub_sfc	O :: II	Moore				kg/ha		1/(1-3 yr) [few yr]	:: Land	
2627	Vegetation Biomass	I :: II	Richey, Batista				t/ha	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
2628	Vegetation Biomass	I :: II	Sellers								

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2630	Vegetation Biome Area	I :: II	Kerr, Sorooshian				km^2	5% :: 5%	1/seas	:: Land/R	N/A :: Sfc
2631	*Land_sfc Reflectance, Bi-directional,*	O :: PI	Diner	MISR	AM	LaRC	/sr	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
2632	Land_sfc Reflectance, Bi-directional, (BRDF)	O :: PI	Diner	MISR	AM	LaRC	/sr	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
2633	Fire Burning Index	O :: II	Moore				ha		1/yr	1 km :: Land	
2634	Vegetation Density	I :: II	Kerr, Sorooshian				%			60 m :: Land/R	:: Sfc
2635	Vegetation Extent	O :: II	Moore				ha	15% :: 15%	1/yr	1 km :: Land	
2636	Vegetation Height	I :: II	Kerr, Sorooshian				m	10% :: 10%	1/seas	30 m :: Land/R	:: Sfc
2637	Vegetation Height	O :: II	Schimel				m	20% :: 5%	1/yr	500 m :: 6 sites/L	:: Sfc
2638	Vegetation Spatial Density	I :: II	Kerr, Sorooshian				#/km^2	20% :: 10%		60 m :: Land/R	:: Sfc
2639	Vegetation Structure	I :: II	Barron						1/seas	30 m :: Land/L	N/A :: Sfc
2640	Vegetation Structure	I :: II	Barron						1/seas	10 km :: Land/R	N/A :: Sfc
2641	Vegetation Structure	I :: II	Schimel				geometric	:: 5%	1/yr	30 m :: 6 sites/L	N/A :: Sfc
2642	Vegetation Structure	I :: II	Schimel				geometric	:: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
2643	Vegetation Structure	I :: II	Schimel				geometric	:: 5%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2644	Vegetation Type	O :: FI	Wessman	HIRIS	AM2	EDC	ha	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2647	Vegetation Cellulose Conc	I :: II	Moore				%	20% :: 20%	1/(16 day)	30 m :: Land/L	
2648	Vegetation Cellulose Conc	O :: FI	Wessman, Aber	HIRIS	AM2	EDC	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2649	Vegetation Chlorophyll Conc	I :: II	Moore				g/ha	20% :: 10%	1/day, 1/wk	30 m :: Land/L	
2650	Vegetation Chlorophyll Conc	I :: II	Moore				g/ha	20% :: 10%	1/day, 1/wk	1 km :: Land/R	:: Sfc
2651	Vegetation Chlorophyll Conc	I :: II	Schimel				kg/ha	10% :: 1%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
2652	Vegetation Chlorophyll Conc	I :: II	Schimel				kg/ha	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2653	Vegetation Chlorophyll Conc	O :: FI	Ustin, Wessman	HIRIS	AM2	EDC	g/ha	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2654	Lake Water Chlorophyll Conc	I :: II	Richey, Batista				g/m^3	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
2655	River Water Chlorophyll Conc	I :: II	Richey, Batista				g/m^3	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
2656	Vegetation Crown Height	O :: FI	Ustin	HIRIS	AM2	EDC	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2657	Vegetation Crown Spacing	O :: FI	Ustin	HIRIS	AM2	EDC	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2658	Forest Deforestation	I :: II	Hansen					10% ::	1/wk	500 km :: Land	:: Sfc
2659	Vegetation Growing_Season Duration	O :: FI	Justice	MODIS	AM,PM	EDC	day	10 day ::	1/yr	1 km :: Land	N/A :: Sfc
2660	Vegetation Growing_Season Duration	O :: FI	Justice	MODIS	AM,PM	EDC	day	10 day ::	1/yr	10 km :: Land	N/A :: Sfc
2661	Vegetation Growing_Season Duration	O :: II	Cihlar				day	10 day :: 1day	1/yr	1 km :: Land/R	N/A :: Sfc
2662	Fires [Count, Extent, etc.]	I :: II	Hansen					10% ::	1/wk	500 km :: Land	:: Sfc
2663	*Fire Count*	O :: FI	Kaufman, Justice	MODIS	AM,PM	EDC			1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2664	*Fire Count*	O :: FI	Kaufman, Justice	MODIS	AM,PM	EDC			1/day, 1/wk	10 km :: Land	N/A :: Sfc
2665	*Fire Extent*	O :: FI	Kaufman, Justice	MODIS	AM,PM	EDC			1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2666	*Fire Extent*	O :: FI	Kaufman, Justice	MODIS	AM,PM	EDC			1/day, 1/wk	1 dg :: Land	N/A :: Sfc
2669	*Land_Cover Type*	O :: FI	Strahler, Huete et al	MODIS	AM,PM	EDC	categorical	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
2670	*Land_Cover Type*	O :: FI	Strahler, Huete et al	MODIS	AM,PM	EDC	categorical	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
2671	*Land_Cover Type-Change*	O :: FI	Strahler, Huete et al	MODIS	AM,PM	EDC	categorical	10% :: 7%	1/seas	1 km :: Land	N/A :: Sfc
2672	*Land_Cover Type-Change*	O :: FI	Strahler, Huete et al	MODIS	AM,PM	EDC	categorical	10% :: 7%	1/seas	5 km :: Land	N/A :: Sfc
2673	Vegetation Index, Leaf Area, (LAI)	I :: II	Barron					0.5 :: 0.2	1/day	100 km :: Land	N/A :: Sfc
2674	Vegetation Index, Leaf Area, (LAI)	I :: II	Barron					0.5 :: 0.2	1/day	10 km :: Land/R	N/A :: Sfc
2675	Vegetation Index, Leaf Area, (LAI)	I :: II	Barron					0.5 :: 0.2	1/day	30 m :: Land/L	N/A :: Sfc
2676	Vegetation Index, Leaf Area, (LAI)	I :: II	Bates				area fraction		1/mo	60 m :: Land	N/A :: Sfc
2677	Vegetation Index, Leaf Area, (LAI)	I :: II	Lau				%	10% :: 10%	1/seas	1 km :: Land/R	N/A :: Sfc
2678	Vegetation Index, Leaf Area, (LAI)	I :: II	Schimel				%	10% :: 1%	1/wk, 1/mo	30 m :: 6 sites/L	N/A :: Sfc
2679	Vegetation Index, Leaf Area, (LAI)	I :: II	Schimel				%	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2680	*Vegetation Index, Leaf Area, (LAI)*	O :: FI	Running	MODIS	AM,PM	EDC	dimensionless	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2682	Vegetation Index, Leaf Area, (LAI)	O :: II	Kerr, Sorooshian				%	10% :: 5%	1/mo	30 m :: Land/R	:: Sfc
2683	Vegetation Index, Leaf Area, (LAI)	O :: II	Moore				%	10 :: 5	1/(1-3 mo) [few mo]	30 m :: Land/L,R	
2684	Vegetation Lignin Conc	I :: II	Moore				%	20% :: 20%	1/(16 day)	30 m :: Land/L	
2685	Vegetation Lignin Conc	I :: II	Schimel				%	20% :: 1%	1/seas	30 m :: 6 sites/L	N/A :: Sfc
2686	Vegetation Lignin Conc	I :: II	Schimel				%	20% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2687	Vegetation Lignin Conc	O :: FI	Wessman, Aber	HIRIS	AM2	EDC	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2688	Vegetation N Conc	I :: II	Moore				%	20% :: 20%	1/(16 day)	1 km :: Land/R	
2689	Vegetation N Conc	I :: II	Moore				%	20% :: 20%	1/(16 day)	30 m :: Land/L	
2690	Vegetation N Conc	I :: II	Schimel				%	20% :: 1%	1/seas	30 m :: 6 sites/L	N/A :: Sfc
2691	Vegetation N Conc	I :: II	Schimel				%	20% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2693	Vegetation Physiography	I :: II	Richey, Batista				m	10% :: 10%	1/mo	1 km :: Land/R	N/A :: Sfc
2694	Vegetation Phytomass	O :: II	Cihlar				kg/ha	:: 10%	1/yr	1 km :: Land/R	N/A :: Sfc
2695	Pigment Conc, Non-photosynthetic	I :: II	Moore				relative	20% :: 20%	1/(16 day)	1 km :: Land/R	:: Sfc
2696	Pigment Conc, Non-photosynthetic	I :: II	Moore				relative	20% :: 20%	1/(16 day)	30 m :: Land/L	:: Sfc
2697	Vegetation Production, Net Ecosystem,	O :: II	Moore				t/yr/km^2	25% :: 10%	1/yr	km [?] :: Land	
2698	Vegetation Production, Net Primary, (NPP)	I :: II	Schimel				kg/ha	20% :: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
2699	Vegetation Production, Net Primary, (NPP)	O :: II	Kerr, Sorooshian				t/yr	20% :: 10%	1/yr	500 m :: Land	N/A :: Sfc
2700	Vegetation Production, Net Primary, (NPP)	O :: II	Moore				t/yr/km^2	25% :: 10%	1/yr	1 km :: Land	
2701	Vegetation Production, Net Primary, (NPP)	O :: II	Schimel				kg/ha	20% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
2702	Vegetation Production Time-deriv, Net Primary, (dNPP/dt)	O :: II	Schimel				kg/ha ?	20% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
2703	*Vegetation Productivity, Primary*	O :: FI	Running	MODIS	AM,PM	EDC	Mg/km^2/yr	100 :: 5-30%	1/wk, 1/mo, 1/yr	1 km :: Land/G,R	N/A :: N/A
2704	Vegetation Productivity	O :: II	Kerr, Sorooshian				annual %			30 m :: Land/R	:: Sfc
2705	Soil Proportion, Bare	O :: II	Moore				%	10% :: 10%	1/mo	1 km :: Land	
2706	Vegetation Index	O :: II	Cihlar				various indices	.05 :: 0.001	1/(10 day)	1 km :: Land/R	N/A :: Sfc
2707	Vegetation Rooting Depth	I :: II	Kerr, Sorooshian				m	20% :: 20%	1/yr	30 m :: Land/R	
2708	Vegetation Moisture, Root-zone	I :: II	Richey, Batista				m	[20%],10% :: [10%],20%	1/seas	1 km :: Land/R	N/A :: Sfc
2709	Vegetation Stomatal Resistance	I :: II	Kerr, Sorooshian						1/seas	30 m :: Land/R	
2710	Ground Water Sum Routing	O :: II	Richey, Batista				g/ha/day	20% :: 20%	1/mo	1 km :: Land/R	
2711	Fire Class	O :: FI	Kaufman, Justice	MODIS	AM,PM	EDC	C	10 C :: 5 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
2712	Vegetation Phenologic State, AVHRR	O :: II	Sellers						1/mo	20 km ::	
2713	Vegetation Change	O :: II	Cihlar				veg change classes	1 class	1/yr	1 km :: Land/R	N/A :: Scf
2714	Vegetation Condition	O :: II	Kerr, Sorooshian				N/A	10% :: 10%	1/wk	500 m :: Land/R	N/A :: Sfc
2715	Vegetation Extent	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
2716	Vegetation Extent	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
2717	Vegetation Extent	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
2718	Vegetation Extent	I :: II	Hansen					5% ::	1/wk	500 km :: Land	:: Sfc
2719	Vegetation Extent	I :: II	Isacks						1/seas	1 km :: Land/R	N/A :: Sfc
2720	Vegetation Extent	I :: II	Simard					10% ::		:: Canada/R	N/A :: Sfc
2721	Vegetation Extent	I :: II	Moore				ha	15% :: 15%	1/yr	1 km :: Land	:: Sfc
2723	Vegetation Stress	O :: FI	Runnng, Huete	MODIS	AM,PM	EDC	s/m	200-1000 :: 5-30%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
2725	Vegetation Stress Index, XXX	O :: II	Moore						1/mo	30 m :: Land/R,L	
2726	Vegetation Structure	I :: II	Richey, Batista				%		1/seas	1 km :: Land/R	N/A :: Sfc
2727	Vegetation Succession	O :: II	Cihlar				vegetation change	:: 1 class	1/(2 yr)	1 km :: Land/R	N/A :: Sfc
2728	Vegetation Type	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
2729	Vegetation Type	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2730	Vegetation Type	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
2731	Vegetation Type	I :: II	Hansen					5% ::	1/wk	500 km :: Land	:: Sfc
2732	Vegetation Type	I :: II	Isacks						1/seas	1 km :: Land/R	N/A :: Sfc
2733	Vegetation Type	I :: II	Kerr, Sorooshian				class		1/seas	30 m :: Land/R	:: Sfc
2734	Vegetation Type	I :: II	Lau				species		1/seas	30 m :: Land/L	N/A :: Sfc
2736	Vegetation Type	I :: II	Moore				ha	15% :: 15%	1/yr	1 km :: Land	:: Sfc
2737	Vegetation Type	O :: II	Cihlar				classes	[1 km] :: 1 class	1/yr	1 km :: Land/R	N/A :: Sfc
2738	Vegetation Type	O :: II	Moore				classes		1/(3 yr)	1 km :: Land	
2739	Vegetation Type Boundaries	I :: II	Barron				m	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
2740	Vegetation Cover	I :: II	Sellers						1/(1-4 day)	100 km ::	:: Sfc
2741	Vegetation Cover	O :: FI	Ustin, Wessman	HIRIS	AM2	EDC	%	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2742	Vegetation Index	I :: II	Hansen					5% ::	1/wk	500 km :: Land	:: Sfc
2743	Vegetation Index	I :: II	Isacks					1 :: 1	1/mo	240-500 m :: Land/R	N/A :: Sfc
2744	Vegetation Index	I :: II	Isacks				%	1 :: 0.5	1/mo	30-60 m :: Land/L	N/A :: Sfc
2745	Vegetation Index	I :: II	Murakami							:: Land	N/A :: Sfc
2746	Vegetation Index	O :: FI	Ustin et al	HIRIS	AM2	EDC	dimensionless	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2747	Vegetation Index (PVI)	O :: FI	Gillespie	ASTER	AM1	EDC	dimensionless			15 m :: Land/R,L	N/A :: Sfc
2749	*Vegetation Index*	O :: FI	Justice, Huete et al	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
2750	*Vegetation Index*	O :: FI	Justice, Huete et al	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	0.5 km :: Land/R	N/A :: Sfc
2751	*Vegetation Index*	O :: FI	Justice, Huete et al	MODIS	AM,PM	EDC	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
2752	Vegetation Index	O :: II	Kerr, Sorooshian				%	.01 :: .01	1/(2 wk)	30 m :: Land/R	:: Sfc
2753	Vegetation Index	O :: II	Moore				dimensionless		1/mo, 1/yr	.030-1 km :: Land/R,L	
2754	Vegetation Index	O :: II	Moore				dimensionless		1/mo, 1/yr	1 km :: Land	
2756	Vegetation Index, Normalized	O :: PI	Diner	MISR	AM	LaRC	dimensionless	2% :: 2%	1/(5-16 day) [d]	1.92 km :: Land	N/A :: Sfc
2757	Vegetation Index, Normalized	O :: PI	Diner	MISR	AM	LaRC	dimensionless	2% :: 2%	1/(5-16 day) [d]	240 m :: Land/R	N/A :: Sfc
2758	Vegetation Water Content, Integrated	I :: II	Kerr, Sorooshian				%	20% :: 20%	2/wk	500 m :: Land/R	N/A :: Sfc
2760	Vegetation Leaf Water Content	I :: II	Moore				g/cm^3	20% :: 20%	1/day, 1/wk	30 m :: Land/L	:: Sfc
2761	Vegetation Leaf-tissue Water Content	O :: FI	Wessman, Goetz	HIRIS	AM2	EDC	g/cm^3	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2762	Vegetation Water Content	I :: II	Moore				g/cm^3	20% :: 20%	1/day, 1/wk	30 m :: Land/L	:: Sfc
2764	Wetlands Extent	I :: II	Hansen					5% ::	1/wk	500 km :: Land	:: Sfc
2766	Mineral(CO3) Relative Abundance	O :: FI	Rowan, Clark	HIRIS	AM2	EDC	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2767	Snow Contaminant Conc	I :: II	Dozier				mg/m^3	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	
2768	Snow Contaminant Conc	O :: FI	Dozier	HIRIS	AM2	NSIDC	mg/m^3	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
2769	Sediment(C) Constituent Flux	O :: II	Moore				kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
2770	Erosion Chemical Denudation	O :: II	Barron				mm/kyr		1/yr	10 km :: Land/R	
2771	Erosion Chemical Denudation	O :: II	Barron				mm/kyr		1/yr	100 km :: Land	
2772	Mineral(Fe) Relative Abundance	O :: FI	Rowan, Clark	HIRIS	AM2	EDC	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2773	Mineral Index	O :: FI	Rowan,Kahle,Gillespie	ASTER	AM1	EDC	dimensionless	10% :: 5%	15 scenes/yr	15,30,90 m :: Land/R,L	N/A :: Sfc
2774	Mineral Thermal history	O :: FI	Rowan	HIRIS	AM2	EDC			1/seas	30 m :: Land/L	N/A :: Sfc
2775	Sediment(N) Constituent Flux	O :: II	Moore				kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
2776	Mineral(OH) Relative Abundance	O :: FI	Rowan, Clark	HIRIS	AM2	EDC	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2777	Sediment(P) Constituent Flux	O :: II	Moore				kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
2778	Mineral Conc, Rock-Soil	I :: II	Isacks				%		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
2779	Bedrock Lithology	O :: II	Barron						? 5000 yrs	5 km :: 2 sites	
2780	Sand Depth	I :: II	Isacks				m	0.5 :: 0.5	1/seas	50 m :: Land/L	N/A :: Sfc
2782	Erosion Sediment Yield	O :: II	Barron				kg/km^2		? 5000 yr	5 km :: 2 sites	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2784	Mineral(SO4) Relative Abundance	O :: FI	Rowan, Clark	HIRIS	AM2	EDC	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2785	Soil Proportion, Bare	I :: II	Barron				%	5 :: 5	1/seas	10 km :: Land/R	N/A :: Sfc
2786	Soil Proportion, Bare	I :: II	Barron				%	5 :: 5	1/seas	100 km :: Land	N/A :: Sfc
2787	Soil Proportion, Bare	I :: II	Barron				%	5 :: 5	1/seas	30 m :: Land/L	N/A :: Sfc
2788	Soil Proportion, Bare	I :: II	Simard					10% ::		:: Canada/R	N/A :: Sfc
2789	Soil Proportion, Bare	O :: II	Kerr, Sorooshian				%	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
2790	Soil Proportion, Bare	O :: II	Schimel				%	15% :: 5%	1/mo	500 m :: 6 sites/L	:: Sfc
2791	Soil Bulk Density	I :: II	Kerr, Sorooshian				g/cm^3	5% :: 5%	1/yr	1 km :: Land	N/A :: Sfc
2792	Soil Class	I :: II	Kerr, Sorooshian				class		1/yr	30 m :: Land/R	:: Sfc
2793	Soil Class	O :: II	Kerr, Sorooshian				class		1/yr	30 m :: Land/R	
2794	Soil Composition	I :: II	Barron					10% :: 5%	1/mission	100 km :: Land	N/A :: Sfc
2795	Soil Composition	I :: II	Barron					10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc
2796	Soil Composition	I :: II	Barron					10% :: 5%	1/mission	10 km :: Land/R	N/A :: Sfc
2797	Soil Extent	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
2798	Soil Extent	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
2799	Soil Extent	I :: II	Barron				N/A	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
2800	Soil Extent	I :: II	Moore				ha	15% :: 15%	1/yr	1 km :: Land	:: Sfc
2801	Soil Index	O :: FI	Gillespie	ASTER	AM1	EDC	dimensionless		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
2802	Soil Mineral Type	I :: II	Kerr, Sorooshian				mineral type		1/yr	30 m :: Land/R	:: Sfc
2803	Soil Maps, Level-4 [Class,Comp,Age,etc.]	O :: FI	Kahle, Gillespie	ASTER	AM1	EDC	varies		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
2804	Suspended-Solids Conc, Lake Water	I :: II	Barron					25% ::		10 km :: Land/R-Lakes	N/A :: Sfc
2805	Suspended-Solids Conc, River Water	I :: II	Barron					25% ::		10 km :: Land/R-Rivers	N/A :: Sfc
2807	Erosion Rock Weathering	I :: II	Barron						1/mission	10 km :: Land/R	N/A :: Sfc
2808	Erosion Rock Weathering	I :: II	Barron						1/mission	100 km :: Land	N/A :: Sfc
2809	River Water Chemistry	I :: II	Richey, Batista				g/m^3	[10%].5% :: [5%].10%	1/wk	1 km :: Land/R	N/A :: Sfc
2810	Soil Chemistry	I :: II	Richey, Batista				kg/ha	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
2811	Land Geochemical Analysis	O :: II	Dozier				N/A		1/day	50 m :: L	
2812	Lake Water Chemistry, XXX	I :: II	Richey, Batista				g/m^3	[10%].5% :: [5%].10%	1/wk	1 km :: Land/R	N/A :: Sfc
2813	Mineral Flux, XXX Geochemical	O :: II	Barron				eq/km^2/yr		1/day	1 km :: Land/R	
2814	Mineral Flux, XXX Geochemical	O :: II	Barron				eq/km^2/yr		1/day	10 km :: Land	
2815	Bedrock Lithology	O :: II	Barron						1/mission	10 km :: Land/R	
2816	Bedrock Lithology	O :: II	Barron						1/mission	100 km :: Land	
2817	Mineral Maps	O :: FI	Gillespie, Rowan, Kahle	ASTER	AM1	EDC	dimensionless	variable :: variable	50/mission	90 m :: Land/R,L	N/A :: Sfc
2818	Geodetic Baselines	O :: PI	Melbourne	GGI	ALT	JPL	km	:: 2:10^9	1/min	:: G	:: Sfc
2819	Geodetic Carrier Phase, GPS(L1,L2),	O :: PI	Melbourne	GGI	ALT	JPL	mm	:: 0.4 mm	1/(0.1 s) [?]	:: G	
2823	Topographic Elevation, Land_sfc	I :: II	Barron				m		1/mission	10 km :: Land/R	30 m :: Sfc
2824	Topographic Elevation, Land_sfc	I :: II	Barron				m		1/mission	30 m :: Land/L	30 m :: Sfc
2825	Topographic Elevation, Land_sfc	I :: II	Dozier				m	10 m :: 1 m		20 m :: Land/L	:: Sfc
2826	Topographic Elevation, Land_sfc	I :: II	Kerr, Sorooshian				m	50 m :: 50 m	1/mission	500 m :: Land	N/A :: Sfc
2827	Topographic Elevation, Land_sfc	I :: II	Moore				m	1m ::			:: Sfc
2828	Topographic Elevation, Land_sfc, (DEM)	O :: FI	Kahle, Tsu	ASTER	AM1	EDC	m	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
2830	Topographic Slope (Azimuth), Land_sfc	I :: II	Kerr, Sorooshian				dg	10 :: 5	1/yr	30 m :: Land/R	:: Sfc
2831	*Topographic Elevation-Change Rate, Land_sfc*	O :: FI	Cohen, Schutz et al	GLRS-A	ALT	GSFC	mm/day -mm/yr	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
2833	Topographic Elevation, Land_sfc, (DEM)	I :: II	Isacks				m	30 :: 10	1/mission	20 m :: Land/L	N/A :: Sfc
2834	Topographic Elevation, Land_sfc, (DEM)	I :: II	Kerr, Sorooshian				m	10 :: 10	1/yr	30 m :: Land/R	:: Sfc
2835	Topographic Elevation, Land_sfc, (DEM)	I :: II	Lau				m	10 m :: 1 m	1/mission	10 m :: Land/L,R	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2837	Topographic Elevation, Land_sfc, Control, (DEM)	I :: II	Isacks				m	1 m :: 1 m	1/mission	point :: Land/L	N/A :: Sfc
2838	Topographic Elevation, Land_sfc, (DEM)	I :: II	Isacks				m	:: 120	1/mission	720 m :: Land/R	N/A :: Sfc
2839	Topographic Elevation, Land_sfc, (DEM)	I :: II	Isacks				m	100 m :: 50 m	1/mission	50 m :: Land/R	N/A :: Sfc
2840	Topographic Elevation, Land_sfc	O :: II	Barron				km		? 5000 yr	5 km :: 2 sites	
2843	Orography, Model	O :: II	Bates				m			50 km :: G	N/A :: Sfc
2844	Topographic Elevation, Land_sfc	I :: II	Isacks				m	0.1 :: 0.1	1/mission, 1/seas	1 m :: Land/L	N/A :: Sfc
2845	Topographic Slope (Azimuth), Land_sfc	I :: II	Kerr, Sorooshian				%	5 :: 5	1/yr	30 m :: Land/R	:: Sfc
2846	*Topographic Elevation, Land_sfc*	O :: PI	Diner	MISR	AM	LaRC	m	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
2847	Topographic Elevation, Land_sfc	I :: II	Wielicki				km	200 m :: 200 m	1/mission	10 km :: Land	N/A :: Sfc
2849	Landform Distribution	I :: II	Barron				m	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
2850	Geodetic Geocenter	O :: PI	Melbourne	GGI	ALT	JPL	cm	:: 2 cm	1/day		
2851	Landform Feature Distribution	I :: II	Isacks				feature recog.		1/mission	15-30 m :: Land/R	N/A :: Sfc
2852	Geopotential Gravity Field	O :: II	Barron				m^2/s^2		2/day	4.5 x 7.5 dg :: G	
2853	Geopotential Gravity Field	O :: II	Barron				m^2/s^2		2/day	2.8 x 2.8 dg :: G	
2854	Lithosphere Gravity Field	O :: II	Tapley				mgal	10% ::		200 km :: Ocean	N/A :: Ocean
2855	Land Heat Capacity	I :: II	Kerr, Sorooshian							30 m :: Land/R	N/A :: Sfc
2856	Landform Lineament / Slope Maps	O :: FI	Rowan	ASTER	AM1	EDC	Orientation/length	variable :: variable	25 scenes/yr	50 m :: Land/R,L	N/A :: Sfc
2857	Geodetic Location, Reference	O :: II	Tapley				cm	< 2 cm :: <1 cm		N/A :: G	N/A :: Sfc
2858	*Landform Morphology*	O :: FI	Schutz et al	GLRS-A	ALT	GSFC	mm	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
2860	Geodetic Orientation	O :: II	Tapley				mas (m-arc_sec),m	1mas,0.1ms ::	1/day	N/A :: G	N/A :: N/A
2861	Geodetic Orientation	O :: PI	Melbourne	GGI	ALT	JPL	arcsec	:: 0.001arc-s	2/day		
2862	*Geodetic EOS-platform Position*	O :: PI	Melbourne	GGI	ALT	JPL	cm	:: <3 cm	? 1/s		:: In_situ
2863	Geodetic Site Position, Horizontal	I :: II	Isacks				mm	3 mm :: 1 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
2865	Geodetic Site Position, Vertical	I :: II	Isacks				mm	5 mm :: 2 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
2867	Geodetic Pseudorange, GPS(L1,L2),	O :: PI	Melbourne	GGI	ALT	JPL	cm	:: 12 cm	? 1/s	:: G	
2868	Land_sfc Rebound, Post-Glacial,	O :: II	Tapley				/yr	5% ::	1/(~10 yr)	N/A :: G	ns [?] :: Global
2869	Landform Scarp-fault Elevation	I :: II	Isacks				cm	10 cm :: 5 cm	1/mission	[2-D sect.] :: Land/L	N/A :: Sfc
2875	Torque, Mountain,	O :: II	Tapley				kg m^2/s^2	5% ::	4/day	50 km :: Land	N/A :: Sfc
2876	Torque, Ocean-Land	O :: II	Tapley				kg m^2/s^2	10% ::	4/day	50 km :: G	N/A :: Sfc
2882	Structure-Location, Significant Mappable	I :: II	Kerr, Sorooshian						1/yr	30 m :: Land/R	:: Sfc
2883	Geologic Unit Maps (Geology Maps)	O :: FI	Gillespie, Rowan, Kieffer, Kahle	ASTER	AM1	EDC	N/A	variable :: variable	50/mission	90 m :: Land/R,L	
2884	Landform Sfc units, Geologic	O :: FI	Kieffer, Clark	HIRIS	AM2	EDC	dimensionless	:: 30%		30 m :: L	N/A :: Sfc
2886	Drainage_Basin Boundary	O :: II	Kerr, Sorooshian				km^2	10000 [?] ::	1/mission	30 m :: Land/R	:: Sfc
2887	Bowen Ratio	O :: II	Schimel				ratio	20% :: 1%	1/day	500 m :: 6 sites/L	:: Sfc
2888	River Channel Geometry	I :: II	Barron				m	10% :: 10%	1/seas	1 m :: Land/L	N/A :: Sfc
2889	River Discharge	I :: II	Moore				m^3/s	5% :: 5%	1/wk, 1/mo	few sites :: Land	:: Sfc
2890	River Discharge	O :: II	Barron				m^3/s		1/event, 1/mo, 1/yr	30-90 m :: R	
2891	River Discharge	O :: II	Barron				m^3/s		1/event, 1/mo, 1/yr	900 m :: R	
2892	River Discharge	O :: II	Barron				m^3/s		1/event, 1/mo, 1/yr	18 km :: R	
2893	River Discharge	O :: II	Moore				m^3/s		1/wk	1 km :: Land	
2894	Glacier Displacement	I :: II	Simard				m	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
2895	Glacier Displacement	O :: FI	Kieffer	HIRIS	AM2	NSIDC	km^2	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
2896	Ice_Sheet Displacement	I :: II	Simard				m	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
2897	*Ice_Sheet Displacement*	O :: FI	Bentley	GLRS-A	ALT	NSIDC	mm/day	10 mm/day :: 10 mm/day	1/mo	N/A :: Land/Cryo	N/A :: Sfc
2899	Ice_Sheet Displacement	O :: II	Simard				cm	10 cm ::	1/yr	:: Canada/R	:: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2901	Runoff_Contributing-area	O :: II	Kerr, Sorooshian				km^2	5 :: 5	1/mission	500 m :: Land/R	N/A :: Sfc
2902	Drainage_Network Structure	I :: II	Isacks				feature recog.		1/mission, 1/yr	15-30 m :: Land/R	N/A :: Sfc
2904	Drainage_Basin Boundary	I :: II	Lau				km^2	100m^2 :: 100m^2	1/mission	10 m :: Land/L	N/A :: Sfc
2905	Drainage_Network Structure	I :: II	Barron				m	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
2906	Ice_Sheet Elevation	I :: II	Barron				mm	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
2907	Ice_Sheet Elevation	I :: II	Barron				mm	100 ::	1/(3 mo)	100 km :: Land/Cryo	:: Sfc
2908	Ice_Sheet Elevation	I :: II	Isacks				m	0.1 ::	2/yr	10 m :: Land/Cyro	N/A :: Sfc
2909	Ice_Sheet Elevation	I :: II	Simard				mm	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
2910	Ice_Sheet Elevation	I :: II	Simard				mm	100 mm ::	1/(3 mo)	100 km :: Land	N/A :: Sfc
2911	*Ice_Sheet Elevation*	O :: FI	Zwally	ALT	ALT	NSIDC	m	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
2912	*Ice_Sheet Elevation*	O :: FI	Bentley	GLRS-A	ALT	NSIDC	mm	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
2913	River Floodplain Extent	I :: II	Richey, Batista				m^2	10% :: 10%	1/seas	1 km :: Land/R	N/A :: Sfc
2914	River Floodplain Extent	I :: II	Lau				m^2	10% :: 5%	1/wk	100 m :: Land/L	N/A :: Sfc
2915	River Floodplain Extent	I :: II	Moore				ha/km^2	20% :: 20%	1/wk	1-25 km :: Land	
2916	Soil Hydraulic Properties	I :: II	Simard					10% ::		:: Canada/R	N/A :: Sfc
2917	Soil Hydraulic Conditions, Unsaturated	I :: II	Kerr, Sorooshian				L/T	0.05 ::		30 m :: Land/R	:: Sfc
2918	Ice_Sheet Cover	I :: II	Bates				dimensionless		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc
2919	Sea_Ice Cover	I :: II	Wielicki				fraction	10% :: 5%	1/day	50 km :: Ocean/Cryo	N/A :: Sfc
2921	*Ice_Sheet Cover Index*	O :: FI	Staelin	AIRS	PM	GSFC	dimensionless		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc
2922	Glacier Cover, Bare_Ice	O :: FI	Dozier	HIRIS	AM2	NSIDC	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
2923	Glacier Cover	I :: II	Isacks				km^2	5% :: 2%	1/seas	10-30 m :: Land/L	N/A :: Sfc
2927	Ice_Sheet Accumulation	O :: II	Simard					20% ::	1/yr	:: Canada/R	:: Sfc
2928	Ice_Sheet Boundary (Margin)	O :: II	Simard					20% ::	1/yr	:: Canada/R	:: Sfc
2929	Ice_Sheet Velocity	I :: II	Barron				m/s	::		:: Land/Cryo	N/A :: Sfc
2930	Glacier Velocity	O :: FI	Kieffer	HIRIS	AM2	NSIDC	m/s	10^-6 :: variable	1/yr	100 m :: Land/Cryo	N/A :: Sfc
2931	Glacier Velocity	O :: FI	Kieffer	ASTER	AM1	EDC	m/yr	20 m/yr :: 10 m/yr	1 yr	15 m :: Land/Cryo	
2932	Ice_Sheet Velocity (Outflow), Polar	O :: FI	Kieffer	HIRIS	AM2	NSIDC	m/s	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
2933	Infiltration	O :: II	Barron				mm/s		1/event, 1/mo, 1/yr	30-90 m :: R	
2934	Infiltration	O :: II	Barron				mm/s		1/event, 1/mo, 1/yr	900 m :: R	
2935	Infiltration	O :: II	Barron				mm/s		1/event, 1/mo, 1/yr	18 km :: R	
2936	Infiltration Capacity	I :: II	Kerr, Sorooshian				L/T		1/yr	30 m :: Land/R	
2937	Inundation Depth	O :: II	Moore				m		1/wk	1 km :: Land	
2938	Inundation Extent	I :: II	Lau				m^2	10% :: 5%	1/wk	100 m :: Land/L	N/A :: Sfc
2939	Inundation Extent	I :: II	Moore				ha/km^2	20% :: 20%	1/wk, 1/mo	1-25 km :: Land	:: Sfc
2941	Inundation Extent	O :: II	Moore				ha/km^2		1/wk	1 km :: Land	
2942	Inundation Extent	I :: II	Moore				ha/km^2	20% :: 20%	1/wk	1-25 km :: Land	
2943	Snow Liq-water Content	O :: FI	Dozier	HIRIS	AM2	NSIDC	mass fraction	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
2945	Ice_Sheet Mass balance	O :: II	Barron				cm/yr		1/yr	100 km :: Antarctica	
2946	Soil Moisture	I :: II	Barron				cm^3/cm^3	0.05 :: 0.02	1/day	10 km :: Land/R	N/A :: Sfc
2947	Soil Moisture	I :: II	Barron				cm^3/cm^3	0.05 :: 0.02	1/day	100 km :: Land	N/A :: Sfc
2948	Soil Moisture	I :: II	Barron				cm^3/cm^3	0.05 :: 0.02	1/day	30 m :: Land/L	N/A :: Sfc
2949	Soil Moisture	I :: II	Simard					10% ::		:: Canada/R	N/A :: Sfc
2950	Vegetation Moisture, Root-zone	I :: II	Barron				cm^3/cm^3	0.1 :: 0.05	1/day	100 km :: Land	N/A :: Sub_sfc
2951	Vegetation Moisture, Root-zone	I :: II	Barron				cm^3/cm^3	0.1 :: 0.05	1/day	10 km :: Land/R	N/A :: Sfc
2952	Vegetation Moisture, Root-zone	I :: II	Barron				cm^3/cm^3	0.1 :: 0.05	1/day	30 m :: Land/L	N/A :: Sub_sfc
2953	Vegetation Moisture, Root-zone	I :: II	Simard					10% ::		:: Canada/R	N/A :: Sfc
2954	Vegetation Moisture, Root-zone	O :: II	Bates				g/cm^2		1/(20 min)	50 km :: Land	N/A ::

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2955	Surface Water Saturated Area	O :: II	Barron						1/event, 1/mo, 1/yr	30-90 m :: R	
2956	Surface Water Saturated Area	O :: II	Barron						1/event, 1/mo, 1/yr	900 m :: R	
2957	Surface Water Saturated Area	O :: II	Barron						1/event, 1/mo, 1/yr	18 km :: R	
2958	Soil Moisture	I :: II	Richey, Batista				cm		1/mo	1 km :: Land/R	N/A :: Sfc
2959	Soil Moisture	I :: II	Bates				% vol	10-25% :: 5-10%	1/(3 day), 1/wk	60-100 m :: Land	N/A :: Sfc
2960	Soil Moisture	I :: II	Bates					:: 40%		43 km :: Land	N/A :: Sfc
2962	Soil Moisture	I :: II	Hansen					10% ::	1/wk	500 km :: Land	:: Sfc
2963	Soil Moisture	I :: II	Isacks				% vol	10% :: 5%	1/mo, 1/yr	60-100 m :: Land/L	N/A :: Sfc
2964	Soil Moisture	I :: II	Lau				% vol	10% :: 5%	1/(3 day)	50 m :: Land/L	N/A :: Sfc
2965	Soil Moisture	I :: II	Lau				% vol	10% :: 5%	1/(3 day)	3 km :: Land/R	N/A :: Sfc
2966	Soil Moisture	I :: II	Moore				% saturated	30% :: 30%	1/wk, 1/mo	1-25 km :: Land	:: Sfc
2967	Soil Moisture	I :: II	Sellers						1/(1-4 day)	100 km ::	:: Sfc
2969	Soil Moisture	O :: II	Barron				mm		1/event, 1/mo, 1/yr	30-90 m :: R	
2970	Soil Moisture	O :: II	Barron				mm		1/event, 1/mo, 1/yr	900 m :: R	
2971	Soil Moisture	O :: II	Barron				mm		1/event, 1/mo, 1/yr	18 km :: R	
2972	Soil Moisture	O :: II	Bates				g/cm^2		1/(20 min)	50 km :: Land	N/A ::
2973	Soil Moisture	O :: II	Kerr, Sorooshian				% vol	25% :: 15%	1/day	500 m :: Land/R	:: Sfc
2974	Soil Moisture	O :: II	Moore				kg/m^2	20% :: 20%	1/(1-2 wk)	.030-1 km :: Land/R,L	
2975	Soil Moisture	O :: II	Moore				kg/m^2	20% :: 20%	1/(1-2 wk)	1 km :: Land	
2976	Soil Moisture	O :: II	Schimel				cm	25% :: 5%	1/wk	30 m :: 6 sites/L	:: Sfc
2978	Glacier Percolation Zone	O :: FI	Dozier	HIRIS	AM2	NSIDC	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
2979	Permafrost Distribution	O :: II	Simard				km	1 km ::	1/(3 yr)	:: Canada/R	:: Sfc
2980	Permafrost Sensitivity	O :: II	Simard					1 km ::	1/(3 yr)	:: Canada/R	:: Sfc
2981	Precipitation Depth	I :: II	Lau				mm	10% :: 10%	1/day	1 km :: Land/R	N/A :: Sfc
2982	River Channel Patterns	I :: II	Isacks							15-30 m :: Land/L	N/A :: Sfc
2983	River Stage (Flooding)	I :: II	Richey, Batista				cm	5 cm :: 5%	1/seas	100 m :: Land/R	N/A :: Sfc
2984	River Stage (Flooding)	I :: II	Moore				m		1/wk, 1/mo	point :: Land	:: Sfc
2985	Runoff	I :: II	Lau				m^3/s	5% :: 5%	1/day	:: Land/L,R	N/A :: Sfc
2987	Runoff	O :: II	Richey, Batista				m^3/s	5% :: 5%	1/wk	1 km :: Land/R	:: Sfc
2988	Runoff	O :: II	Richey, Batista				m^3/s	5% :: 5%	1/wk	1 km :: Land/R	
2989	Runoff	O :: II	Dozier				m^3/km^2/s	50% :: 50%	1/day	50 m :: L	
2990	Runoff	O :: II	Moore				mm-H2O/wk		1/wk	1 km :: Land	
2991	Runoff_Contributing-area	O :: II	Kerr, Sorooshian				km^2	5 :: 5	1/mission	500 m :: Land/R	
2992	Runoff, Soil Moisture	O :: II	Barron				m/s		2/day	4.5 x 7.5 dg :: G	
2993	Runoff, Soil Moisture	O :: II	Barron				m/s		2/day	2.8 x 2.8 dg :: G	
2994	Precipitation Amount, Snow	O :: II	Barron				m		2/day	4.5 x 7.5 dg :: G	
2995	Precipitation Amount, Snow	O :: II	Barron				m		2/day	2.8 x 2.8 dg :: G	
2996	Snow Water Equivalent	I :: II	Lau				mm	10 mm :: 10 mm	1/wk	30 m :: Land/L	N/A :: Sfc
2997	Snow Water Equivalent	I :: II	Lau				mm	10 mm :: 10 mm	1/wk	5 km :: Land/R	N/A :: Sfc
2998	Snow Water Equivalent	I :: II	Barron				mm	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
2999	Snow Water Equivalent	I :: II	Barron				mm	10% :: 10%	1/day	30 m :: Land/L	N/A :: Sfc
3000	Snow Water Equivalent	I :: II	Dozier				m	20% :: 20%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
3001	Snow Water Equivalent	O :: II	Simard				mm	10 mm/10% ::	1/wk	10 km :: Canada/R	:: Sfc
3002	Snow Chemistry	O :: II	Dozier				m-eq/m^2	50% :: 50%	1/wk, 1/mo	50 m :: Snow/L	
3003	Snow Cover	I :: II	Barron				m^2	5% :: 5%	1/day	100 km :: Land	N/A :: Sfc
3004	Snow Cover	I :: II	Barron				m^2	5% :: 5%	1/day	30 m :: Land/L	N/A :: Sfc
3005	Snow Cover	I :: II	Barron				m^2	5% :: 5%	1/day	10 km :: Land/R	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3006	Snow Cover	I :: II	Bates				dimensionless		2/day [d,n]	50 km :: Land	N/A :: Sfc
3007	Snow Cover	I :: II	Bates				km^2	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
3008	Snow Cover	I :: II	Dozier				km^2	10% :: 10%	1/wk, 1/mo	50 x 50 m :: Land/L	N/A :: Sfc
3009	Snow Cover	I :: II	Hansen					0.02 ::	1/wk	500 km :: Land	:: Sfc
3010	Snow Cover	I :: II	Isacks				km^2	5% :: 2%	1/mo	1 km :: Land/R	N/A :: Sfc
3011	Snow Cover	I :: II	Isacks				km^2	5% :: 2%	1/seas	15-30 m :: Land/L	N/A :: Sfc
3012	Snow Cover	I :: II	Lau				m^2	50 :: 10	1/wk	100 m :: Land/L	N/A :: Sfc
3013	Snow Cover	I :: II	Lau				m^2	50 :: 10	1/wk	1 km :: Land/L	N/A :: Sfc
3014	Snow Cover	I :: II	Murakami				km^2	10% ::		:: Land	N/A :: Sfc
3015	Snow Cover	I :: II	Sellers						1/(1-4 day)	100 km ::	:: Sfc
3016	Snow Cover	I :: II	Wielicki				fraction	10% :: 5%	1/day	50 km :: Land	N/A :: Sfc
3018	*Snow Cover Index [combined with 2921]*	O :: FI	Staelin	AIRS	PM	GSFC	dimensionless		2/day [d,n]	50 km :: Land	N/A :: Sfc
3019	Snow Cover	O :: FI	Dozier	HIRIS	AM2	NSIDC	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
3020	Snow Cover	O :: FI	Salomonson	MODIS	AM,PM	NSIDC	km^2	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
3021	Snow Cover	O :: FI	Salomonson	MODIS	AM,PM	NSIDC	km^2	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
3023	Snow Cover	O :: II	Simard				km	10 km ::	1/wk	10 km :: Canada/R	:: Sfc
3025	Snow Cover, Cold	O :: FI	Dozier	HIRIS	AM2	NSIDC	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
3026	Snow Cover	I :: II	Simard				km	10km ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3027	Snow Liq-water Content	I :: II	Moore						1/wk	1 km :: Land	:: Sfc
3028	Snow Cover, Wet	I :: II	Dozier				km^2	10% :: 10%	1/wk, 1/mo	50 m :: Snow/L	
3029	Snow Cover, Wet	O :: FI	Dozier	HIRIS	AM2	NSIDC	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
3030	Snow Cover, Wet	O :: FI	Dozier	HIRIS	AM2	NSIDC	km^2	10% :: 10%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
3031	Snow Depth	I :: II	Isacks				cm	20% :: 20%	1/seas	30 m :: Land/L	N/A :: Sfc
3032	Snow Depth	I :: II	Lau				cm	5 cm :: 5 cm	1/wk	5 km :: Land/R	N/A :: Sfc
3033	Snow Depth	I :: II	Lau				cm	5 cm :: 5 cm	1/wk	30 m :: Land/R	N/A :: Sfc
3034	Snow Depth	I :: II	Simard				cm	5 cm/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3035	Snow Depth	O :: II	Bates				m		1/(20 min)	50 km :: Land	N/A :: Sfc
3036	Snow Depth	O :: II	Simard				cm	5 cm/10% ::	1/wk	10 km :: Canada/R	:: Sfc
3037	Snow Grain Size	I :: II	Dozier				mm	200% :: 200%	1/wk, 1/mo	50 m :: Snow/L	
3038	Snow Grain Size	O :: FI	Dozier	HIRIS	AM2	NSIDC	um	200% :: 200%	1/wk, 1/mo	50 [km?] :: Snow/L	N/A :: Sfc
3039	Snow Liq-water Content	I :: II	Dozier				N/A	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	
3040	Snow Mass	I :: II	Murakami				g/cm^2	10% ::		:: Land	N/A :: Sfc
3041	Snow Melt Area, Distributed	O :: II	Dozier				mm/hr	50 :: 50	1/day	50 m :: L	
3042	Snow Melt Chemistry	O :: II	Dozier				m-eq/m^2	100% :: 100%	1/1wk, 1/mo	50 m :: L	
3043	Snow State	I :: II	Simard							:: Canada/R	N/A :: Sfc
3044	Snow State	O :: II	Simard				wet or dry			:: Canada/R	:: Sfc
3045	Snow Water Equivalent	I :: II	Simard				mm	10 mm/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3046	Snow Water Equivalent	I :: II	Moore				mm		1/wk	1 km :: Land	:: Sfc
3048	Ice_Sheet Strain Rate	O :: FI	Bentley	GLRS-A	ALT	NSIDC	u-strain/yr	10^-6/yr :: 10^-6/yr	1/(3 mo)	10-100 km :: Land/Cryo	N/A :: Sfc
3049	River Channel Geometry, Major-stream	I :: II	Lau				m^2	10 :: 10	1/mission	30 m :: Land/R	N/A :: Sfc
3050	River Channel Geometry, Major-stream	O :: II	Kerr, Sorooshian				m^2	10 :: 10	1/seas	30 m :: Land/R	:: Sfc
3051	Ice_Sheet Temperature	I :: II	Barron				K	1 K ::	1/wk	10 km :: Land/Cryo	N/A :: Sfc
3052	Ice_Sheet Temperature	I :: II	Barron				K	1 K ::	1/wk	100 km :: Land/Cryo	N/A :: Sfc
3053	Ice_Sheet Thickness	I :: II	Barron				mm	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
3054	Ice_Sheet Thickness	I :: II	Barron				mm	100 ::	1/(3 mo)	100 km :: Land/Cryo	30 m :: Sfc
3055	Ice_Sheet Thickness	I :: II	Simard				mm	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
3056	Ice_Sheet Thickness	I :: II	Simard				mm	100 mm ::	1/(3 mo)	100 km :: Land	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3057	Vegetation Evapotrans	I :: II	Moore				%	20% :: 20%	1/day, 1/wk	500 m :: R	:: Sfc
3058	Vegetation Evapotrans	I :: II	Moore				%	20% :: 20%	1/day, 1/wk	30 m :: L	:: Sfc
3059	Lake Extent	I :: II	Isacks					::		15-30 m :: Land/L	N/A :: Sfc
3060	Surface Water Area	I :: II	Lau				m^2	100 ::	1/wk	30 m :: Land/L	N/A :: Sfc
3061	Surface Water Area	I :: II	Lau				m^2	100 ::	1/wk	1 km :: Land/R	N/A :: Sfc
3062	Lake Extent	I :: II	Barron				m^2	10% :: 10%	1/day	:: Land/R	N/A :: Sfc
3063	River Extent	I :: II	Barron				m^2	10% :: 10%	1/day	30 m :: Land/L	N/A :: Sfc
3064	River Extent	I :: II	Barron				m^2	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
3065	Vegetation Stress Index, Water	O :: II	Kerr, Sorooshian				%change	5% :: 5%	1/(2 mo)	500 m :: Land/R	
3066	Soil Moisture	I :: II	Murakami				cm			:: Land	N/A :: Sfc
3067	Soil Moisture	O :: II	Barron				m		2/day	4.5 x 7.5 dg :: Land	N/A :: Sfc
3068	Soil Moisture	O :: II	Barron				m		2/day	2.8 x 2.8 dg :: Land	N/A :: Sfc
3069	Hydrological Parameter, XXX	O :: II	Moore				% saturation		1/wk	1 km :: Land	
3070	Runoff_Chemistry	O :: II	Dozier				eq/m^2/s	100% :: 100%	1/day	50 m :: L	
3072	Pigment Conc, Accessory	O :: FI	Davis, Melack	HIRIS	AM2	EDC	mg/m^3	100% :: 50%	1/(>=2 day)	60-90 m :: Ocean-l/L	N/A :: TOO
3073	Oil_Slick Cover	O :: II	Brewer				% surface		1/day	20 km :: Ocean	N/A :: TOO
3074	Oil_Slick Cover	O :: II	Brewer				% surface		1/day	30 m :: Ocean/L	N/A :: TOO
3075	CO2 Partial Pressure	I :: II	Hansen					2% ::	1/wk	500 km :: Ocean	:: TOO
3076	Pigment Conc	O :: II	Rothrock				mg/m^3		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3077	Pigment Conc	I :: II	Hansen					2% ::	1/wk	500 km :: Ocean	:: TOO
3078	Ocean Water Salinity	O :: II	Bates				o/oo			:: Ocean	200 m :: 0-4500 m
3079	Ocean Water Salinity	I :: II	Hansen					0.02% ::	1/wk	500 km :: Ocean	:: TOO
3080	Ocean Water Salinity	I :: II	Bates				o/oo		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3081	Ocean Water Salinity	I :: II	Lau				%	10% :: 10%	1/wk	500 km :: Ocean/Trop	
3082	Ocean Water Salinity	O :: II	Rothrock				o/oo		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3083	Ocean Water Salinity, Sub ice	I :: II	Rothrock				o/oo	0.02 o/oo :: 0.02 o/oo	1/(3 day)	500 km :: Polar	N/A :: TOO
3084	Ocean Water Salt Flux	O :: II	Rothrock				kg/m^2/day	20% :: 20%	1/day	100 km :: > 60 dgLAT	:: TOO
3085	Suspended-Solids Conc, Ocean Water	O :: FI	Clark	MODIS	AM,PM	GSFC	g/m^3	50% :: 35%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3086	Suspended-Solids Conc, Ocean Water	O :: FI	Clark	MODIS	AM,PM	GSFC	g/m^3	50% :: 35%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
3088	Trace Gas Transfer Coef	O :: II	Brewer				m/s		1/day, 1/seas	25 km :: Ocean/G,L	N/A :: TOO
3089	Ocean Angular Momentum	O :: II	Tapley				kg m^2/s^2	10% ::	1/day	:: Ocean	:: Ocean
3090	Ocean Current Circulation, Large-scale,	O :: II	Tapley				m	10% ::	1/(1-3 mo) [few mo]	4000 km :: Ocean	N/A :: Sfc
3092	Ocean Current Velocity	O :: II	Abbott				cm/s		1/day	10 km :: Ocean [Southern]	N/A :: Sfc
3094	Ocean Current Velocity, Geostrophic	O :: II	Abbott				cm/s		1/mo	:: Ocean [Southern]	N/A :: TOO
3096	Ocean Current Velocity, Meridional	O :: II	Bates				cm/s			:: Ocean	200 m :: 0-4500 m
3097	Ocean Current Velocity, Zonal	O :: II	Bates				cm/s			:: Ocean	200 m :: 0-4500 m
3100	Heat Flux, Zonal_mean	O :: II	Barron				W/m^2		1/(5 day)	2.5 dgZM :: G	10 lvl ::
3102	Ocean Eddy Kinetic Energy	O :: II	Abbott				g/cm^2/s^2		1/(3 mo)	:: Ocean [Southern]	:: Sfc
3103	Sea_Ice Motion	I :: II	Rothrock				km/day	0.5 km :: 0.5 km	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3105	Sea_Level Height	I :: II	Abbott				cm	5 cm :: 3 cm	1/(10-20 day)	0-20 km :: Ocean [Southern	N/A :: Sfc
3106	Sea_Level Height	I :: II	Brewer				m	5% :: 1%	1/day, 1/seas	7 km :: Ocean	N/A :: Sfc
3107	Topographic Elevaton, Sea_sfc	I :: II	Srokosz				m	0.02m :: 0.01m	1/(10 day)	10 km :: Ocean/R	N/A :: Sfc
3108	*Topographic Elevaton, Sea_sfc*	O :: FI	Fu	ALT	ALT	JPL	cm	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
3109	Sea_Level Height	O :: II	Bates				cm			:: Ocean	N/A :: Sfc
3110	Sea_Level Height	O :: II	Tapley				cm	1-2 cm ::	1/yr	2 x 2 dg :: Ocean	N/A :: Sfc
3111	Sea_Level Height, Along-track	I :: II	Bates				cm	10 cm ::		7 km :: Ocean	N/A :: Sfc
3112	*Sea_Level Height, Along-track*	O :: FI	Fu	ALT	ALT	JPL	cm	10 cm ::		7 km :: Ocean	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3113	Sea_Level Height-Change	O :: II	Abbott				cm RMS	4-6cm RMS :: TBD		:: Ocean [Southern]	:: Sfc
3114	Sea_Level Height-Change	O :: II	Barron				m		[ice response]	G ave :: G	N/A :: Sfc
3115	Ocean Water Temperature, Internal	I :: II	Bates				K		1/(3 day)	100 km :: > 60 dgLAT	:: lvl [?]
3116	Ocean Water Temperature, Internal	I :: II	Hansen				K		1/wk	500 km :: Ocean	:: Sub_sfc
3117	Ocean Water Temperature, Internal	I :: II	Rothrock				K	0.02 K :: 0.02 K	1/(3 day)	500 km :: Polar	-lvl ::
3118	Ocean Water Temperature, Internal	O :: II	Bates				K			:: Ocean	200 m :: 0-4500 m
3119	Ocean Water Temperature, Internal	O :: II	Rothrock				K		1/(3 day)	100 km :: > 60 dgLAT	lvl :: TOO
3120	Sea_Ice Temperature	I :: II	Simard				K	0.3 K ::		:: Canada/R	N/A :: Sfc
3121	Ocean Tide, Model	O :: FI	Sanchez	ALT	ALT	JPL	cm	2 cm ::	1/mission	100 km :: Ocean	N/A :: Sfc
3122	Topographic Elevaton, Sea_sfc	I :: II	Murakami				m	0.01 ::			N/A :: Sfc
3123	Topographic Elevaton, Sea_sfc	I :: II	Liu				cm	3 cm :: 3 cm		:: Ocean	N/A :: Sfc
3124	Sea_Level Height	O :: II	Tapley				mm	10% ::	1/mo	2 x 2 dg :: Ocean	N/A :: Sfc
3125	Level-1B Backscatter Waveforms, ALT	I :: II	Srokosz				dB	0.02(bin) :: 0.1dB	1/(10 day)	0 km :: Ocean [South Atla	N/A :: Sfc
3126	Ocean Wave Height	I :: II	Bates				m	20% :: 20%	1/day	50-75 m :: Ocean	N/A :: Sfc
3128	Ocean Wave Height, Along-track	I :: II	Bates				cm	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
3129	Ocean Wave Height, Along-track	O :: FI	Fu	ALT	ALT	JPL	cm	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
3130	Ocean Wave Height, Significant	I :: II	Abbott				m	10% :: 5%	1/(10-20 day)	0-20 km :: Ocean [Southern	N/A :: Sfc
3131	Ocean Wave Height, Significant	I :: II	Srokosz				m	>(.5m,5%) :: 0.1m	1/day	10 km :: Ocean/R	N/A :: Sfc
3132	Wind Velocity	O :: II	Rothrock				cm/s,dg		1/(3 day)	100 km :: > 60 dgLAT	:: Trop
3134	Sea_sfc State	O :: II	Bates						1/hr	25 km :: Ocean	N/A :: Sfc
3135	Sea_Ice Duration, Ice-free_Season	O :: II	Simard				day	1 km [?] ::	1/yr [?]	:: Canada/R	:: Sfc
3136	Sea_Ice Conc	I :: II	Barron					5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
3137	Sea_Ice Conc	I :: II	Barron					5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3141	Sea_Ice Conc	I :: II	Simard					10km/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3142	Sea_Ice Conc	I :: II	Srokosz				%	10% :: 1%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3143	Sea_Ice Conc	O :: II	Barron				%		1/day	50 km :: Ocean/Cryo	
3144	Sea_Ice Conc	O :: II	Simard				% cover	10 km/10% ::	1/(2 wk)	10 km :: Canada/R	:: Sfc
3146	Sea_Ice Conc, GCM	O :: II	Barron				%		1/day	4.5 x 7.5 dg :: G	
3147	Sea_Ice Conc, GCM	O :: II	Barron				%		1/day	2.8 x 2.8 dg :: G	
3148	Sea_Ice Cover	I :: II	Bates				fraction	10% :: 10%	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
3149	Sea_Ice Conc	I :: II	Brewer				%	10% :: 1%	1/day, 1/seas	10 km :: Ocean/Cryo	N/A :: Sfc
3150	Sea_Ice Cover	I :: II	Hansen					3% ::	1/wk	500 km :: Ocean/Cryo	:: Sfc
3151	*Sea_Ice Cover*	O :: FI	Chedin, Staelin	AIRS	PM	GSFC	fraction	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
3152	Sea_Ice Fraction	O :: FI	Welch	ASTER	AM1	EDC	fractional area			90 m :: Ocean/Cryo	N/A :: Sfc
3153	Sea_Ice Max Extent	O :: FI	Salomonson	MODIS	AM,PM	NSIDC	km^2	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
3154	Sea_Ice Max Extent	O :: FI	Salomonson	MODIS	AM,PM	NSIDC	km^2	<=5% :: <=5%	1/day, 1/wk, 1/mo	1 km :: Ocean/Cryo,R	N/A :: Sfc
3156	Sea_Ice Edge	I :: II	Abbott				presence/absence		1/day	25 km :: Ocean/Cryo	N/A :: Sfc
3157	Sea_Ice Edge	I :: II	Simard					25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
3158	Sea_Ice Edge	I :: II	Srokosz				dg lat,lon	0.1 dg :: 0.01 dg	1/day	N/A :: Ocean/Cryo	N/A :: Sfc
3159	Sea_Ice Edge	O :: II	Simard				km	500 m ::	1/(2 wk)	500 m :: Canada/R	:: Sfc
3160	Sea_Ice Extent	I :: II	Barron					5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
3161	Sea_Ice Extent	I :: II	Barron					5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3162	Sea_Ice Extent	I :: II	Simard					25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
3163	Wind Velocity	O :: II	Barron				km		[ice response]	[crit feat] :: [modern ice]	N/A :: Sfc
3164	Wind Velocity, Sea_sfc	O :: II	Simard				km	25 km ::	1/wk	25 km :: Canada/R	:: Sfc
3165	Sea_Ice Conc, First-year	I :: II	Rothrock				fraction	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3166	Sea_Ice Leads	I :: II	Barron					5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3167	Sea_Ice Conc	I :: II	Barron					5% :: 5%	1/day	30 m :: Ocean/Cryo	N/A :: Sfc
3168	Sea_Ice Conc	I :: II	Barron					5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3169	Sea_Ice Conc	O :: II	Simard				km	500 m ::	1/(2 wk)	500 m :: Canada/R	:: Sfc
3172	Sea_Ice Conc	O :: II	Simard				km/day	500 m ::	1/wk	500 m :: Canada/R	:: Sfc
3173	Sea_Ice Conc, Multi-year	I :: II	Barron				m^2		1/day	100 km :: Ocean/Cryo	N/A :: Sfc
3174	Sea_Ice Conc, Multi-year	I :: II	Barron				m^2		1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3175	Sea_Ice Conc, Multi-year	I :: II	Rothrock				fraction	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3176	Sea_Ice Conc, Multi-year	O :: II	Barron				%		1/seas	50 km ::	
3178	Sea_Ice Conc, GCM	I :: II	Rothrock				fraction	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3179	Sea_Ice Cover	O :: II	Barron				%		1/day	50 km :: Ocean/Cryo	
3182	Sea_Ice Conc	I :: II	Bates				fractional cov		1/(3 day)	100 km :: > 60 dgLAT	:: Sfc
3183	Sea_Ice Cover	I :: II	Simard				m	50 cm ::		:: Canada/R	N/A :: Sfc
3184	Sea_Ice Fraction, Open-water	O :: II	Barron				m		[ice response]	[crit feat] :: [modern ice]	N/A :: Sfc
3185	Sea_Ice Cover	O :: II	Barron				cm		1/day	4.5 x 7.5 dg :: G	
3186	Sea_Ice Max Extent	O :: II	Barron				cm		1/day	2.8 x 2.8 dg :: G	
3187	Sea_Ice Max Extent	O :: II	Rothrock				fraction		1/(3 day)	100 km :: > 60 dgLAT	:: Sfc
3188	Sea_Ice Cover	I :: II	Rothrock				fraction	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3189	Sea_Ice Edge	I :: II	Rothrock				fraction	0.05 :: 0.05	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3190	Sea_Ice Edge	I :: II	Simard					10km/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3193	Sea_Ice Extent	O :: II	Simard					500 m ::	1/(2 wk)	500 m :: Canada/R	:: Sfc
3194	Sea_Ice Extent	O :: II	Rothrock				fraction	0.05 :: 0.05	1/(3 day)	100 km :: > 60 dgLAT	:: Sfc
3196	Sea_Ice Motion, Regional	I :: II	Simard					500 m ::	1/(7 day)	500 m :: Canada/R	N/A :: Sfc
3198	Ocean Water Attenuation Coef, Diffuse	O :: II	Rothrock				/m		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3199	Ocean Water Attenuation Coef@490nm	O :: FI	Gordon, Clark	MODIS	AM,PM	GSFC	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-I/ R,L	N/A :: TOO
3200	Ocean Water Attenuation Coef@490nm	O :: FI	Gordon, Clark	MODIS	AM,PM	GSFC	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ R,L	N/A :: TOO
3201	Ocean Water Attenuation Coef, Diffuse	I :: II	Brewer				/m	25% :: TBD	1/day, 1/seas	30 m :: Ocean/L	N/A :: Sfc
3202	Ocean Water Attenuation Coef, Diffuse	I :: II	Brewer				/m	25% :: TBD	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
3203	Lake Water Attenuation Coef	I :: II	Richey, Batista				/m	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
3204	Ocean Water Attenuation Coef	I :: II	Abbott				/m	20% :: 5%	1/(1-2 day)	1-4 km :: Ocean [Southern	N/A :: TOO
3205	River Water Attenuation Coef	I :: II	Richey, Batista				/m	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
3206	Ocean Water Attenuation Coef@520nm,	O :: FI	Clark	MODIS	AM,PM	GSFC	/m	35% :: 10%	1/day, 1/wk	1 km :: Ocean	N/A :: TOO
3207	Ocean Water Attenuation Coef@520nm,	O :: FI	Clark	MODIS	AM,PM	GSFC	/m	35% :: 10%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
3209	Phytoplankton Backscatter	I :: II	Abbott				mw/cm^2/sr/um	50% :: 20%	1/day	1-4 km :: Ocean	N/A :: N/A
3210	Ocean Water Backscatter Coef@565nm	O :: FI	Carder, Melack	HIRIS	AM2	EDC	/m	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean/L	N/A :: Sfc
3211	*Chlorophyll Fluorescence Efficiency*	O :: FI	Abbott	MODIS	AM,PM	GSFC	mW/cm^2/sr/um/ mg-Chl/m^3	15% :: 5%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
3212	*Chlorophyll Fluorescence Efficiency*	O :: FI	Abbott	MODIS	AM,PM	GSFC	mW/cm^2/sr/um/ mg-Chl/m^3	15% :: 5%	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
3213	Gelbstoff Absorption Coef@300nm	I :: II	Brewer				/m	50% :: 10%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
3214	Gelbstoff Absorption Coef@300nm	I :: II	Brewer				/m	50% :: 10%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
3215	Gelbstoff Absorption Coef@410nm	O :: FI	Carder, Melack	HIRIS	AM2	EDC	/m	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
3216	Particulate Backscatter Coef	O :: FI	Parslow	MODIS	AM,PM	GSFC	/m	:: 30%	1/day	1 km :: Ocean	N/A :: TOO
3217	Particulate Backscatter Coef	O :: FI	Parslow	MODIS	AM,PM	GSFC	/m	:: 30%	1/day	20 km :: Ocean	N/A :: TOO
3218	Ocean Water Temperature, Internal	I :: II	Lau				K	0.5 K ::	1/day	10 km :: Ocean/R	10 m :: Sub_sfc
3226	Electron Energy Spectra	I :: II	Schoeberl				electrn/cm^2/s/ke	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
3228	*Electron Content-Difference, Total, (TEC-difference)*	O :: PI	Melbourne	GGI	ALT	JPL		:: 0.1%	1/s [?]	various :: G	mult :: 0-20000 km

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3229	*Electron Content, Total, (TEC)*	O :: PI	Melbourne	GGI	ALT	JPL		:: 0.1%	1/s [?]	multiple :: G	mult :: 0-20000 km
3247	Magnetic Field Strength, DC	O :: PI	Waters	MLS	MO	GSFC	G	:: 2x10-3G	2/day [d,n]	2.5 x 0.2 dg :: 82N-82S	2.5 km :: 80-100 km
3255	Proton Energy Spectra	I :: II	Schoeberl				proton/cm^2/s/Me	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
3258	X-Ray Energy Spectra	I :: II	Schoeberl				photon/cm^2/s/A	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 15-110 km
3262	Lava-Flow Advance Rate	I :: II	Mouginis-Mark				m/day	30 m(hor) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3263	Aerosol Conc, Stratospheric	I :: II	Mouginis-Mark						1/wk	:: G	:: Strat
3264	Aerosol Conc, Tropospheric	I :: II	Mouginis-Mark						1/wk	:: G	:: Trop
3265	Aerosol Dispersal, Eruption_Plume	O :: II	Mouginis-Mark				kg-sulfate/day		1/event	1 km :: G	:: Plume_col
3266	Lava-Flow Areal Change	I :: II	Mouginis-Mark				m^2	(30m)^2 ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3267	Eruption-Plume Dispersal	O :: II	Mouginis-Mark				km/day		1/event	1 km :: R	N/A :: Sfc
3268	Lava-Flow Cooling Rate	O :: II	Mouginis-Mark				C/day	5 C/day ::	1/event	30 m :: Land/L	N/A :: Sfc
3269	Volcano Deformation	I :: II	Mouginis-Mark				cm	1 cm(ver) ::	1/day	cm [?] :: [30 km^2/10]	N/A :: Sfc
3270	Volcano Deformation(Inflation-Deflation)	O :: FI	Schutz et al	GLRS-A	ALT	GSFC	mm/day - mm/yr	5 mm/yr ::	1/day, 1/yr	100 km :: Land/R	:: Sfc
3271	*Volcano Deformation(Inflation-Deflation)*	O :: FI	Schutz et al	GLRS-A	ALT	GSFC	mm/day - mm/yr	5/yr-100/d ::	1/day, 1/yr	1 km :: Land/L	:: Sfc
3272	Volcano Cone Deformation	O :: II	Mouginis-Mark				cm/mo	1 cm (ver) ::	(~10)/event	30 m :: Land/L	cm :: Sfc
3273	Eruption-Plume Dispersal	I :: II	Mouginis-Mark				km/day	1 km ::	1/orbit, 1/day	1 km :: Land/L	N/A :: Plume_col
3274	Volcano Elevation Change	I :: II	Mouginis-Mark				cm	1-5 (ver) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3275	Volcano Elevation	O :: II	Mouginis-Mark				cm	10 m (ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
3276	Volcano Elevation, Reference	I :: II	Mouginis-Mark				m	10 m(ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
3277	Volcano Elevation, Reference	O :: II	Mouginis-Mark				cm	10 m (ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
3278	Volcano Elevation Change	I :: II	Mouginis-Mark				m	10 m(ver) ::	1/event	30 m :: Land/L	N/A :: Sfc
3279	Volcano Emissions, Eruption	O :: II	Mouginis-Mark				SO2 rlse in kton		1/yr	20 km :: G	N/A :: Plume_top
3280	Lava-Flow Eruption Rate, Mass,	O :: II	Mouginis-Mark				kg/day	10^5 kg ::	1/day, 1/wk	30 m :: Land/L	N/A :: Sfc
3281	Eruption_Plume SO2 Eruption Rate, Mass	O :: II	Mouginis-Mark				kg/day		1/day, 1/wk	1 km :: G	N/A :: Sfc
3282	Eruption-Plume Fallout Rate	I :: II	Mouginis-Mark						1/day	1 km :: Land/R	N/A :: Plume_col
3283	Eruption-Plume HCl Content (Mass Eruption Rate)	I :: II	Mouginis-Mark				kton/day		1/day	:: G	N/A :: Plume_col
3284	Volcano Morphology	I :: II	Mouginis-Mark				m		4/yr	30 m :: Land/L	N/A :: Sfc
3285	Eruption-Plume Height	I :: II	Mouginis-Mark				km	200m(ver) ::	1/day	1 km :: Land/R	N/A :: Plume_col
3286	Eruption-Plume Height	O :: PI	Diner	MISR	AM	LaRC	m	100 m :: 100 m	[variable] [d]	500 m :: Land/L	N/A :: Plume_top
3287	Volcano Roughness	I :: II	Mouginis-Mark				cm	3-24 cm ::	1/yr	30 m :: Land/L	N/A :: Sfc
3288	Eruption_Plume SO2 Conc Spike	I :: II	Mouginis-Mark				kton/day		[near-real time ?]	1 km :: G	N/A :: Plume_col
3289	Eruption_Plume SO2 Content (Mass Eruption Rate)	I :: II	Mouginis-Mark				kton/day		1/day	1 km :: G	N/A :: Plume_col
3290	Volcano Temperature, Eruption Spike	I :: II	Mouginis-Mark				C	10 C ::	[near-real time ?]	1 km :: G	N/A :: Sfc
3291	Lake Water Temperature, Volcano Summit	I :: II	Mouginis-Mark				C	2 C ::	1/(3 mo)	100 m :: Land/L	N/A :: Sfc
3292	Lava-Flow Temperature	I :: II	Mouginis-Mark				C	10 C ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3293	Eruption-Plume Temperature	I :: II	Mouginis-Mark				C	10 C ::	2/day [d,n]	100 m :: R	N/A :: Plume_col
3294	Volcano-Activity Temperature	O :: FI	Rowan, Goetz	HIRIS	AM2	EDC	C	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
3295	Volcano Temperature-Change	I :: II	Mouginis-Mark				C/yr	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
3296	Volcano Temperature-Change	O :: II	Mouginis-Mark				C/yr	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
3297	Lava-Flow Thickness	I :: II	Mouginis-Mark				cm	5 cm(ver) ::	1/event	30 m :: Land/L	N/A :: Sfc
3298	Volcano Age	O :: FI	Pieri, Kahle	ASTER	AM1	EDC	KA	variable :: variable		15,30,90 m :: Land/R,L	N/A ::
3299	Volcano-Activity Extent	O :: FI	Rowan, Goetz	HIRIS	AM2	EDC	m^2		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
3300	Volcano Volume-Change	O :: II	Mouginis-Mark				m^3	1000 m^3 ::	1/event	30 m :: Land/L	N/A :: Sfc
3301	Eruption-Plume Characteristics	O :: FI	Pieri	ASTER	AM1	EDC	variable	variable :: variable		15,30,90 m :: R/L	
3302	Temperature, PBL	I :: II	Mouginis-Mark						1/day	30 m :: Land/R	N/A :: Plume_col

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3303	Calibration Data, MODIS	O :: FI	Evans	MODIS	AM,PM	GSFC	variable		1/day, 1/wk, 1/mo	N/A :: Ocean/G,R,L	N/A :: Sfc
3304	Data Characteristics, MODIS	O :: FI	Justice, Strahler	MODIS	AM,PM	GSFC	dimensionless	30,10, 5% ::	1/day	1 km :: G	N/A :: Sfc
3305	Data Characteristics, MODIS	O :: FI	Justice, Strahler	MODIS	AM,PM	GSFC	dimensionless	30,10, 5% ::	1/day	10 km :: G	N/A :: Sfc
3306	Data Characteristics, MODIS	O :: FI	Justice, Strahler	MODIS	AM,PM	GSFC	dimensionless	30,10, 5% ::	1/day	50 km :: G	N/A :: Sfc
3307	Cloud XXX, PSC	I :: II	Grose				no/cm^3	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
3310	Level-1B Radiance, MODIS	I :: II	Srokosz				W/m^2/sr/um	0.05% ::	1/day	1 km :: R	N/A :: Atmos
3311	Soil Temperaturee	I :: II	Simard				K	0.5 :: 1.0	2/day	100 m :: R/Canada	N/A :: Sfc
3312	Land_sfc Temperature	I :: II	Simard				K	1.3 :: 1.0 ?	2/day	1 km :: R/Canada	N/A :: Sfc
3313	Land_sfc Temperature	I :: II	Simard				K	1.3 :: 1.0 ?	2/day	10 km :: R/Canada	N/A :: Sfc
3314	Organic Matter Conc, Dissolved	O :: FI	Carder, Melack	HIRIS	AM2	EDC	mg/m^3	100% :: 50%	(>=2)/day	90 m :: Ocean/L+Land/La	N/A :: TOO
3315	Suspended-Solids Conc, Ocean Water	O :: FI	Carder, Melack	HIRIS	AM2	EDC	mg/m^3	100% :: 50%	(>=2)/day	90 m :: Ocean/L+Land/La	N/A :: TOO
3316	Phytoplankton Type	O :: FI	Davis, Melack	HIRIS	AM2	EDC	mg/m^3	100% :: 50%	(>=2)/day	90 m :: Ocean/L+Land/La	N/A :: TOO
3317	*Organic Matter Fluorescence Efficiency, Colored Dissolved [CDOM = Gelbstoff]*	O :: FI	Hoge	MODIS	AM,PM	GSFC	dimensionless	100% :: 50%	1 day,wk,mo	20 km :: Ocean/GR	N/A :: TOO
3318	*Organic Matter Fluorescence Efficiency, Colored Dissolved [CDOM = Gelbstoff]*	O :: FI	Hoge	MODIS	AM,PM	GSFC	dimensionless	100% :: 50%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
3319	Pigment Conc, Phycobillin [Phycoerythrin, etc.]	O :: FI	Hoge	MODIS	AM,PM	GSFC	mg/m^3	50% :: 15%	1 day,wk,mo	20 km :: Ocean/GR	N/A :: TOO
3320	Pigment Conc, Phycobillin [Phycoerythrin, etc.]	O :: FI	Hoge	MODIS	AM,PM	GSFC	mg/m^3	50% :: 15%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
3321	Precipitable Water	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	dimensionless ?	12% :: 8%	1 day, mo	1 km :: Land	N/A :: Atmos
3322	Precipitable Water	O :: FI	Kaufman, Tanre	MODIS	AM,PM	GSFC	dimensionless ?	5% :: 3%	1 day, mo	1 dg :: Land	N/A :: Atmos
3323	Land_sfc Emissivity	O :: FI	Wan	MODIS	AM,PM	EDC	dimensionless	0.05 :: 0.02	1 day, 1 wk	1 km :: Land/R	N/A :: Sfc
3324	Land_sfc Emissivity	O :: FI	Wan	MODIS	AM,PM	EDC	dimensionless	0.05 :: 0.02	1 day, 1 wk	10 km :: Land	N/A :: Sfc
3325	CO Conc	I :: II	Dickinson								
3326	Heating, Diabatic,	I :: II	Dickinson							<0.5-1 deg :: G	
3327	Heat Flux, Latent	I :: II	Dickinson							<0.5-1 deg :: Ocean	
3328	Heat Flux, Sensible	I :: II	Dickinson							<0.5-1 deg :: Ocean	
3329	PBL Height	I :: II	Dickinson								
3330	Cloud Pressure, Top	I :: II	Dickinson							<0.5-1 deg :: G	
3331	Soil Roughness	I :: II	Dickinson							High_res :: Land	
3332	Soil Roughness	I :: II	Dickinson							Low_res :: Land	
3333	Temperature	I :: II	Dickinson							<0.5-1 deg :: G	
3334	Temperature, Near_sfc	I :: II	Dickinson							<0.5-1 deg :: G	
3335	Wind Velocity	I :: II	Dickinson							<0.5-1 deg :: G	
3336	Wind Velocity, Divergent Horizontal	I :: II	Dickinson							<0.5-1 deg :: G	
3337	Wind Velocity, Rotational Horizontal	I :: II	Dickinson							<0.5-1 deg :: G	
3338	Wind Velocity, Sea_sfc	I :: II	Dickinson							<0.5-1 deg :: Ocean	
3339	Wind Speed, Land_sfc	I :: II	Dickinson							<0.5-1 deg :: Land	
3340	Lightning Intensity	I :: II	Dickinson							<0.5-1 deg :: G	
3341	Lightning Rate	I :: II	Dickinson							<0.5-1 deg :: G	
3342	Cloud Height, Base	I :: II	Dickinson								
3343	Cloud Cover	I :: II	Dickinson							High_res :: G	
3344	Cloud Cover	I :: II	Dickinson							Med_res :: G	
3345	Cloud Cover	I :: II	Dickinson							Low_res :: G	
3346	Cloud Drop Phase	I :: II	Dickinson							<0.5-1 deg :: G	
3347	Cloud Drop Size	I :: II	Dickinson							<0.5-1 deg :: G	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3348	Cloud Drop Size-distribution	I :: II	Dickinson							<0.5-1 deg :: G	
3349	Cloud Height, Top	I :: II	Dickinson							<0.5-1 deg :: G	
3350	Evaporation, Land_sfc	I :: II	Dickinson							<0.5-1 deg :: G	
3351	Vegetation Evapotrans	I :: II	Dickinson							High_res :: Land	
3352	Vegetation Evapotrans	I :: II	Dickinson							Med_res :: Land	
3353	Humidity Profile	I :: II	Dickinson							<0.5-1 deg :: G	
3354	Humidity, Near_sfc	I :: II	Dickinson							<0.5-1 deg :: G	N/A :: Near_sfc
3355	Precipitable Water	I :: II	Dickinson							<0.5-1 deg :: G	
3356	Moisture Flux, Horizontal,	I :: II	Dickinson							<0.5-1 deg :: G	N/A : Trop
3357	Cloud Liq-water Content	I :: II	Dickinson							<0.5-1 deg :: G	
3358	Cloud Liq-water Content	I :: II	Dickinson							<0.5-1 deg :: G	
3359	Precipitation Rate, Rain	I :: II	Dickinson							<0.5-1 deg :: G	
3360	Precipitation Rate, Snow	I :: II	Dickinson							<0.5-1 deg :: G	
3361	Albedo, Cloud	I :: II	Dickinson							<0.5-1 deg :: G	
3362	Albedo, Sea_Ice	I :: II	Dickinson							<0.5-1 deg :: Ocean/Cryo	
3363	Albedo, Land_sfc	I :: II	Dickinson							<0.5-1 deg :: G	
3364	Albedo, Snow	I :: II	Dickinson							High_res :: Land	
3365	Albedo, TOA	I :: II	Dickinson							<0.5-1 deg :: G	
3366	Albedo, Vegetation	I :: II	Dickinson							High_res :: Land	
3367	Albedo, Vegetation	I :: II	Dickinson							High_res :: Land	
3368	Aerosol Backscatter	I :: II	Dickinson							<0.5-1 deg :: G	
3369	Land_sfc Reflectance, Bi-directional, (BRDF)	I :: II	Dickinson							<0.5-1 deg :: G	
3370	Soil Reflectance, Bi-directional, (BRDF)	I :: II	Dickinson							<0.5-1 deg :: Land	
3371	Vegetation Reflectance, Bi-directional, (BRDF)	I :: II	Dickinson							<0.5-1 deg :: Land	
3372	Cloud Emissivity	I :: II	Dickinson							<0.5-1 deg :: G	
3373	Land_sfc Emissivity	I :: II	Dickinson							<0.5-1 deg :: Land	
3374	Aerosol Extinction	I :: II	Dickinson							<0.5-1 deg :: G	
3375	Radiative Flux, LW, Down	I :: II	Dickinson							<0.5-1 deg :: G	N/A :: Sfc ?
3376	Radiative Flux, LW, Net	I :: II	Dickinson							<0.5-1 deg :: G	N/A :: Sfc ?
3377	Radiative Flux, LW, TOA	I :: II	Dickinson							<0.5-1 deg :: G	N/A :: TOA
3378	Radiative Flux, LW, Up	I :: II	Dickinson							<0.5-1 deg :: G	N/A :: Sfc ?
3379	Radiative Flux, SW, Net	I :: II	Dickinson							<0.5-1 deg :: G	N/A :: Sfc
3380	Radiative Flux, SW, TOA	I :: II	Dickinson							<0.5-1 deg :: G	N/A :: Sfc
3381	Cloud Optical Depth, LW	I :: II	Dickinson							<0.5-1 deg :: G	
3382	Cloud Optical Depth, SW	I :: II	Dickinson							<0.5-1 deg :: G	
3383	Optical Depth, Total	I :: II	Dickinson							<0.5-1 deg :: G	
3384	Irradiance, Incident, Sfc	I :: II	Dickinson							<0.5-1 deg :: G	
3385	Radiation Budget	I :: II	Dickinson							<0.5-1 deg :: G	
3386	Cloud Temperature, Emission	I :: II	Dickinson							<0.5-1 deg :: G	
3387	Cloud Temperature, Top	I :: II	Dickinson							<0.5-1 deg :: G	
3388	Ice_Sheet Temperature	I :: II	Dickinson							<0.5-1 deg :: Land/Cryo	
3389	Land_sfc Temperature	I :: II	Dickinson							High_res :: Land	
3390	Land_sfc Temperature	I :: II	Dickinson							Low_res :: Land	
3391	Land_sfc Temperature	I :: II	Dickinson							Med_res :: Land	
3392	Sea_sfc Temperature (SST)	I :: II	Dickinson							<0.5-1 deg :: Ocean	
3393	Sea_sfc Temperature (SST)	I :: II	Dickinson							<0.5-1 deg :: Ocean	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3394	Vegetation Temperature	I :: II	Dickinson							<0.5-1 deg :: Land	
3395	Land_sfc Temperature-Difference, Day-Night	I :: II	Dickinson							<0.5-1 deg :: G	
3396	Cloud Transmissivity	I :: II	Dickinson							<0.5-1 deg :: G	
3397	Vegetation Biomass, Green	I :: II	Dickinson							<0.5-1 deg :: Land	
3398	Fire Extent	I :: II	Dickinson							<0.5-1 deg :: Land	
3399	Vegetation Moisture, Root-zone	I :: II	Dickinson							<0.5-1 deg :: Land	
3400	Vegetation Extent	I :: II	Dickinson							High_res :: Land	
3401	Vegetation Extent	I :: II	Dickinson							Med-low_res :: Land	
3402	Vegetation Height	I :: II	Dickinson							Med-low_res :: Land	
3403	Vegetation Rooting Depth	I :: II	Dickinson							<0.5-1 deg :: Land	
3404	Vegetation Roughness	I :: II	Dickinson							Med-low_res :: Land	
3405	Vegetation Type	I :: II	Dickinson							<0.5-1 deg :: Land	
3406	Vegetation Index, Leaf Area, (LAI)	I :: II	Dickinson							Low_res :: Land	
3407	Vegetation Water Potential	I :: II	Dickinson							Low_res :: Land	
3408	Wetlands Extent	I :: II	Dickinson							Low_res :: Land	
3409	Soil Extent	I :: II	Dickinson							Low_res :: Land	
3410	Topographic Elevation, Land_sfc	I :: II	Dickinson							Low_res :: Land	
3411	Soil Moisture	I :: II	Dickinson							Low_res :: Land	
3412	Soil Moisture	I :: II	Dickinson							Med_res :: Land	
3413	Soil Moisture	I :: II	Dickinson							High_res :: Land	
3414	Snow Depth	I :: II	Dickinson							Med_res :: Land	
3415	Snow Extent	I :: II	Dickinson							Low_res :: Land	
3416	Snow Extent	I :: II	Dickinson							Med_res :: Land	
3417	Sea_Ice Cover	I :: II	Dickinson							<0.5-1 deg :: Ocean/Cryo	
3418	Sea_Ice Thickness	I :: II	Dickinson							<0.5-1 deg :: Ocean/Cryo	
3419	Electric Conductivity	I :: II	Dickinson							<0.5-1 deg :: G	
3420	Electric Field Strength, DC	I :: II	Dickinson							<0.5-1 deg :: G	
3421	X-Ray Images	I :: II	Dickinson							<0.5-1 deg :: G	
3423	Aerosol Size-distribution (Radius-Dispersion)	I :: II	Harris				um	0.1 :: 0.05	1/day	50 km :: Ocean/R	
3424	Aerosol Mass Loading	I :: II	Harris				g/m^2	1% :: 1%	1/day	50 km :: Ocean/R	
3425	Sea_sfc Feature position	I :: II	Harris				deg long,lat	120 m :: 60 m	1 wk	0.25-1 km:: Ocean/R	
3426	Sea_sfc Feature velocity	I :: II	Harris				km/day	20% :: 10%	1 wk	0.25-1 km:: Ocean/R	
3427	Sea_Level Height, Along-track	I :: II	Harris				cm	2% :: 1%	1-10 days	7-25 km :: Ocean/R	
3428	Temperature	I :: II	Harris				K	1 :: 0.5	2/day	10-50 km :: Ocean/R	1 km :: Atmos
3429	Sea_sfc Topographic Height	I :: II	Harris				cm	2% :: 1%	1-10 days	7-25 km :: Ocean/R	
3430	Ocean Wave Direction	I :: II	Harris				deg	10 :: 10	1/day	10 deg :: Ocean/R	
3431	Ocean Wave Height	I :: II	Harris				m	10-20% :: 5-20%	1-10 days	7-25 km :: Ocean/R	
3432	Ocean Wave Length	I :: II	Harris				km	10% :: 10%	1/day	1-10 km :: Ocean/R	
3433	Wind Velocity	I :: II	Harris				m/s, deg	10%,20% :: 5%,10%	1 day	25 km :: Ocran/R	N/A :: Sfc
3434	Wind Velocity	I :: II	Harris				m/s, deg	7%,14% :: 5%,10%	2 days	100 km :: Ocean/R	N/A :: Sfc
3435	Wind Speed, Sea_sfc	I :: II	Harris				m/s	5-10% :: 2-10%	1-10 days	1-25 km :: Ocean/R	N/A :: Sfc
3436	Cloud Cover	I :: II	Harris				%	5-10% :: 2-5%	2/day	5-50 km :: Ocean/R	
3437	Cloud Height, Top	I :: II	Harris				km	0.5 :: 0.3	2/day	20-50 km :: Ocean/R	
3438	Humidity Profile	I :: II	Harris				g/kg	10% :: 5%	2/day	10-50 km :: Ocean/R	1 km :: Atmos
3439	Precipitable Water	I :: II	Harris						1/day	10-25 km :: Ocean/R	
3440	Precipitable Water	I :: II	Harris				mm	5% :: 3%	2/day	20-50 km :: Ocean/R	
3441	Precipitation Amount	I :: II	Harris				mm/day	2 :: 1	2/day	20-50 km :: Ocean/R	

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3442	Aerosol Angstrom Exponent	I :: II	Harris					15% :: 5%	1/day	1-20 km :: Ocean/R	
3443	Radiative Flux, Sea_sfc	I :: II	Harris				W/m^2	5% :: 2%	2/day	20-50 km :: Ocean/R	
3444	Aerosol Optical Depth	I :: II	Harris				eq.atm	10%,0.05 :: 5%,0.02	2/day-1/day	20-50 km :: Ocean/R	
3445	Cloud Optical Depth	I :: II	Harris				none	10-20% :: 5-10%	2/day-1/day	5-50 km :: Ocean/R	
3446	Aerosol Radiance, Single_scattering	I :: II	Harris				mW/(cm^2-sr-um)	10% :: 5%	1/day	1-20 km :: Ocean/R	
3447	Level-2 Radiance, Water-leaving	I :: II	Harris				mW/(cm^2-sr-um)	10% :: 5%	1/day	1-20 km :: Ocean/R	
3448	Level-1B Backscatter Coef, HIRIS	I :: II	Harris				/m	20% :: 10%	2-10 days	0.25-1 km :: Ocean/R	
3449	Cloud Temperature, Top	I :: II	Harris				K	1-2 K :: 0.5-1 K	2/day-1/day	5-50 km :: Ocean/R	
3450	Land_sfc Temperature, Skin	I :: II	Harris				K	0.5 :: 0.2	2/day	20-50 km :: Ocean/R	
3451	Sea_sfc Temperature (SST)	I :: II	Harris				K	0.5-1 K :: 0.2-0.3 K	1/day	0.25-1 km :: Ocean/R	
3452	Sea_sfc Temperature (SST)	I :: II	Harris				K	0.5-1 K :: 0.2-0.3 K	1/day	20 km :: Ocean/R	
3453	Gelbstoff Absorption Coef	I :: II	Harris				/m	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	
3454	Chlorophyll_a Conc	I :: II	Harris				mg/m^3	40% :: 20%	2-10 days	0.25-1 km:: Ocean/R	
3455	Chlorophyll_a Conc	I :: II	Harris				mg/m^3	20-30% :: 10-15%	1/day	1-20 km :: Ocean/R	
3456	Chlorophyll_a Conc	I :: II	Harris				mg/m^3	20-30% :: 10-15%	2-10 days	0.25-1 km :: Ocean/R	
3457	Organic Matter Conc, Dissolved	I :: II	Harris				mg/m^3	100% :: 30%	1/day	1-20 km :: Ocean/R	
3458	Pigment Conc	I :: II	Harris				mg/m^3	30% :: 10%	1/day	1-20 km :: Ocean/R	
3459	Pigment Conc, Accessory	I :: II	Harris				mg/m^3	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	
3460	Ocean Productivity, Primary	I :: II	Harris				mg/m^3/day	30% :: 5%	1/day	1-20 km :: Ocean/R	
3461	Ocean Water Attenuation Coef@490nm	I :: II	Harris				/m	25% :: 10%	1/day	1-20 km :: Ocean/R	
3462	Chlorophyll Fluorescence	I :: II	Harris				mW/(cm^2-sr-um)	25% :: 5%	1/day	1-20 km :: Ocean/R	
3463	Ocean Wave Power Spectrum, 2-D	I :: II	Bates							:: Ocean	N/A :: Sfc
3464	Level-1B Backscatter, ALT	O :: FI	Fu	ALT	ALT	JPL	dB				
3485	Level-1B Radiance, MODIS-T	I :: II	Sellers				W/m^2/sr/um				
3487	Land_sfc Emissivity, LW (8-12u)	I :: II	Cihlar				fraction	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
3488	Precipitation Amount	I :: II	Cihlar				mm	0.1 mm :: 0.1 mm	1 day	500m :: Canada/R	N/A :: Sfc
3489	Precipitation Amount, Snow	I :: II	Cihlar				mm/wk	10% :: 10%	1 wk	1 km :: Canada/R	N/A :: Sfc
3490	Radiative Flux	I :: II	Cihlar				W/m^2		1 wk	1 km^2 ::	N/A :: Sfc
3491	Snow Water Equivalent	I :: II	Cihlar				mm	10% :: 10%	1 wk	1 km :: Canada/R	N/A :: Sfc
3492	Soil Hydraulic Properties	I :: II	Cihlar					5-10% :: 5%	once	1 km :: Canada/R	N/A :: Sfc
3493	Soil Moisture	I :: II	Cihlar				% saturation	10% :: 20%		1 km :: Canada/R	N/A :: Sfc
3494	Soil Spectral-characteristics	I :: II	Cihlar				%	5% :: 10%	once	250-1000 m :: Canada/R	N/A :: Sfc
3495	Topographic Elevation, Land_sfc	I :: II	Cihlar				m	5-10 m ::	once	30 m :: Canada/R	10 m :: Sfc
3496	Vegetation Reflectance, Bi-directional, (BRDF)	I :: II	Cihlar					0.05 :: 0.001	1 wk (for 1 yr)	:: Canada/R	N/A :: Sfc
3497	Vegetation Evapotrans	I :: II	Cihlar				cm	20% :: 5-20%	1 day, 1 wk	500 m :: Canada/R	N/A :: Sfc
3498	PAR, Intercepted, Vegetation, (IPAR)	I :: II	Cihlar				%	10% :: 1%	1 day	250-1000 m :: Canada/R	N/A :: Sfc
3499	Vegetation Index, Leaf Area, (LAI)	I :: II	Cihlar				%	10% :: 1%	1 wk	1 km :: Canada/R	N/A :: Sfc
3500	Vegetation Reflectance Factor	I :: II	Cihlar				dimensionless	0.05 :: 0.001	1 day	250-1000 m :: Canada/R	N/A :: Sfc
3501	Vegetation Moisture, Root-zone	I :: II	Cihlar				m	10% :: 20%	1 wk (in grow. seas)	1 km :: Canada/R	N/A :: Sub_sfc
3502	Vegetation Structure	I :: II	Cihlar				geometric			1 km :: Canada/R	N/A :: Sfc
3503	Vegetation Temperature	I :: II	Cihlar				K	0.5 K :: 1.0 K	1 day	250-1000 m :: Canada/R	N/A :: Sfc
3504	Vegetation Type	I :: II	Cihlar				ha	15% :: 15%	once	100 m :: Canada/R	N/A :: Sfc
3505	Precipitation Amount, Rain	O :: II	Lau			MSFC			1/mo	:: Land/R(Andes)	N/A :: Sfc
3506	Precipitable Water	O :: II	Lau			MSFC				:: G	N/A :: Sfc
3507	Evaporation, Land_sfc	O :: II	Lau			MSFC				:: G	N/A :: Sfc
3508	Soil Moisture	O :: II	Lau			MSFC				:: G	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3509	Vegetation Evapotrans	O :: II	Lau			MSFC				:: G	N/A :: Sfc
3510	Vegetation Index	O :: II	Lau			MSFC				:: G	N/A :: Sfc
3511	Heating, Latent	O :: II	Lau			MSFC					:: Atmos
3512	Moisture Transport Statistics	O :: II	Lau			MSFC				:: G	:: Atmos
3513	Moisture Budget	O :: II	Lau			MSFC				:: R	:: Upper_atmos
3514	Precipitation Sampling statistics, Rain	O :: II	Lau			MSFC					N/A :: Sfc
3515	Radiative Flux Divergence, Clear-sky	O :: II	Lau			MSFC					
3516	Radiative Flux Divergence, Cloudy-sky	O :: II	Lau			MSFC					
3517	Heat Flux, Latent	O :: II	Liu			JPL			3 day	1 x 1 dg :: Ocean	N/A :: Sfc
3518	Heat Flux, Sensible	O :: II	Liu			JPL			3 day	1 x 1 dg :: Ocean	N/A :: Sfc
3519	Ocean Circulation, Model Eddy-Resolving	O :: II	Liu			JPL			3 day	1/3 dg :: Ocean	30 level ::
3520	Sea_Level Height	O :: II	Liu			JPL			10 day	1/3 dg :: Ocean	N/A :: Sfc
3521	Cloud Cover	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3522	Cloud Temperature, Top	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3523	Cloud Pressure	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3524	Cloud Phase	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3525	Albedo, Cloud	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3526	Cloud Optical Depth	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3527	Cloud Liq_Water Content	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3528	Cloud Drop Size	O :: II	Dickinson			GSFC				0.5-1 dg :: G	
3529	Vegetation Reflectance, Bi-directional, (BRDF)	O :: II	Dickinson			GSFC					
3530	Heat Flux, Sensible	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3531	Heat Flux, Latent	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3532	Radiative Flux, Solar	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3533	Radiative Flux, LW	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3534	Heat Transport	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3535	Moisture Transport	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3536	Momentum Transport	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3537	Energy Flux, Net	O :: II	Dickinson			GSFC			1/mo	1 x 1 dg ::	
3538	Momentum	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3539	Heat Flux, Latent	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3540	Heat Flux, Sensible	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3541	Moisture Flux, Net	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3542	Radiative Flux, Solar	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3543	Radiative Flux, LW	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3544	Momentum-Change Statistics	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3545	Heat Flux-Change Statistics, Latent	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3546	Heat Flux-Change Statistics, Sensible	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3547	Moisture Flux-Change Statistics , Net	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3548	Radiative Flux-Change Statistics , Solar	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3549	Radiative Flux-Change Statistics , LW	O :: II	Srokocz			JPL			1/mo	>= 1 dg (Select) ::	
3550	Sea_Level Height-Variability, RMS	O :: II	Srokocz			JPL			1/seas	1 x 1 dg ::	
3551	Sea_Level Height-Change Statistics	O :: II	Srokocz			JPL			5 yr (yr,seas,<seas)	1 x 1 dg :: Ocean /R	
3552	Sea_sfc Temperature Statistics	O :: II	Srokocz			JPL			1/mo	1 km ::	
3553	Sea_sfc Temperature-Change Statistics	O :: II	Srokocz			JPL			1/5yr	1 x 1 dg ::	
3554	Sea_sfc Feature-Occurence Statistics	O :: II	Srokocz			JPL			occasional	1 km ::	

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3555	Sea_sfc Gradient-Changes Statistics	O :: II	Srokocz			JPL			occasional	1 km ::	
3556	O3 Conc	O :: II	Murakami			GSFC				5 dg :: G	2 km :: Atmos
3557	Trace Gas Total Burden, Greenhouse	O :: II	Murakami			GSFC				5 dg :: G	NA :: Atmos
3558	Precipitation Amount	O :: II	Murakami			GSFC				:: Ocean/R(-Pacific)	
3559	Precipitable Water	O :: II	Murakami			GSFC				:: Ocean/R(-Pacific)	
3560	Wind Velocity, Tropospheric 3-D	O :: II	Murakami			GSFC				:: Ocean/R(-Pacific)	
3561	Sea_Level Height	O :: II	Murakami			GSFC				:: Ocean/R(-Pacific)	
3562	Wind Velocity, Sea_sfc	O :: II	Murakami			GSFC				:: Ocean/R(-Pacific)	
3563	Heat Flux, Latent	O :: II	Murakami			GSFC				:: Ocean/R(-Pacific)	
3564	Sea_sfc Temperature (SST)	O :: II	Murakami			GSFC				:: Ocean/R(-Pacific)	
3565	Ocean Color/Temperature Maps, Composite	O :: II	Harris			GSFC				:: Ocean / R(Australia-STC)	
3566	Phytoplankton Biomass	O :: II	Harris			GSFC				:: Ocean / R(Australia-STC)	
3567	Phytoplankton Species Composition	O :: II	Harris			GSFC				:: Ocean / R(Australia-STC)	
3568	Temperature, Dry-bulb, Tropopause	O :: II	Harris			GSFC				:: Ocean / R(Australia-STC)	
3569	Ocean Productivity-Variability	O :: II	Harris			GSFC			seas, yr	: Ocean / R(Australia-STC)	
3570	Fish-stock Abundance	O :: II	Harris			GSFC			seas, yr	: Ocean / R(Australia-STC)	
3571	C Flux	O :: II	Harris			GSFC				:: Ocean	
3572	Precipitation Amount, Average	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3573	Precipitation Variability(&Extrema)	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3574	Snow&Ice Content	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3575	Surface Water Content (Soil Moisture+Lakes+Rivers)	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3576	Sediment Conc	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3577	Land_sfc Temperature, Average	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3578	Land_sfc Temperature-	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3579	Wind Velocity, Prevailing	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3580	Dust Conc	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3581	Dust Spatial Distribution	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3582	Dust Source	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3583	Dust Size	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3584	Dust Composition	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3585	Vegetation Density	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3586	Vegetation Class(Type)	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3587	Land_sfc Roughness	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3588	Crustal Motion	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3589	Erosion-Deposition Events	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3590	Landform Face Freshness	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3591	Landform Stratigraphy	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3592	Landform Structures(Relief/Lithology-	O :: II	Isacks			GSFC				:: Land/R(Andes)	
3593	Level-2 Data Comparisons, EOS_Instrument	O :: II	Le Marshall			GSFC				:: R (Tropics,So.Hemis)	
3594	Wind Stress, Sea_sfc	O :: PI	TBD	MIMR	PM	MSFC	m/s			39 km :: Ocean	N/A :: Sfc
3595	*Wind Stress, Sea_sfc*	O :: PI	TBD	MIMR	PM	MSFC	m/s		1 mo	1 dg :: Ocean	N/A :: Sfc
3596	Precipitable Water	O :: PI	TBD	MIMR	PM	MSFC	g/km^3			22 km :: Ocean	Column :: Trop
3597	*Precipitable Water*	O :: PI	TBD	MIMR	PM	MSFC	g/km^3	0.16 cm ::	1 mo	1 dg :: Ocean	Column :: Trop
3598	Cloud Liq_water Total Column	O :: PI	TBD	MIMR	PM	MSFC	mg/cm^2			22 km :: Ocean	N/A :: Trop
3599	*Cloud Liq_water Total Column*	O :: PI	TBD	MIMR	PM	MSFC	mg/cm^2	0.005 cm ::	1 mo	1 dg :: Ocean	N/A :: Trop
3600	Precipitation Rate	O :: PI	TBD	MIMR	PM	MSFC	mm/hr?			22 km :: Global	N/A :: Sfc

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3601	*Precipitation Index*	O :: PI	TBD	MIMR	PM	MSFC			1 mo	1 dg :: Global	N/A :: Sfc
3602	Level-1B Radiance, MIMR	O :: PI	TBD	MIMR	PM	MSFC	K		1 day	1 dg :: Global	N/A ::
3603	Sea_sfc Temperature (SST)	O :: PI	TBD	MIMR	PM	MSFC	K			60 km :: Ocean	N/A :: Sfc
3604	*Sea_sfc Temperature (SST)*	O :: PI	TBD	MIMR	PM	MSFC	K	1 K ::	1 mo	1 dg :: Ocean	N/A :: Sfc
3605	Soil Moisture	O :: PI	TBD	MIMR	PM	MSFC				60 km :: Land	N/A :: Sfc
3606	*Soil Moisture*	O :: PI	TBD	MIMR	PM	MSFC			1 mo	1 dg :: Land	N/A :: Sfc
3607	Snow Cover	O :: PI	TBD	MIMR	PM	NSIDC				22 km :: Land	N/A :: Sfc
3608	*Snow Cover*	O :: PI	TBD	MIMR	PM	NSIDC			1 mo	1 dg :: Land	N/A :: Sfc
3609	Sea_Ice Age	O :: PI	TBD	MIMR	PM	NSIDC				22 km :: Ocean/Cryo	:: Sfc
3610	*Sea_Ice Age*	O :: PI	TBD	MIMR	PM	NSIDC			1 mo	1 dg :: Ocean/Cryo	:: Sfc
3611	Sea_Ice Conc	O :: PI	TBD	MIMR	PM	NSIDC				22 km :: Ocean/Cryo	N/A :: Sfc
3612	*Sea_Ice Conc*	O :: PI	TBD	MIMR	PM	NSIDC			1 mo	1 dg :: Ocean/Cryo	N/A :: Sfc
3613	Sea_Ice Extent	O :: PI	TBD	MIMR	PM	NSIDC				22 km :: Ocean/Cryo	N/A :: Sfc
3614	*Sea_Ice Extent*	O :: PI	TBD	MIMR	PM	NSIDC			1 mo	1 dg :: Ocean/Cryo	N/A :: Sfc
3615	Cloud Reflectance, Bi-directional (BRDF)	I :: II	Wielicki					5% :: 2%	TBD	10 dg [Angle] :: G	N/A :: Cld
3616	Sea_Ice Meltpond Fraction	O :: FI	Welch	ASTER	AM1	EDC	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3617	Sea_Ice Lead (Open-Water) Fraction	O :: FI	Welch	ASTER	AM1	EDC	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3618	Sea_Ice Fraction, New (First-Year)	O :: FI	Welch	ASTER	AM1	EDC	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3619	Sea_Ice Temperature	O :: FI	Welch	ASTER	AM1	EDC	K			90 m :: Ocean/Cryo	N/A :: Sfc
3620	Sea_sfc Temperature (SST)	O :: FI	Welch	ASTER	AM1	EDC	K			90 m :: Ocean/Cryo	N/A :: Sfc
3621	Sea_Ice Size-distribution	O :: FI	Welch	ASTER	AM1	EDC				90 m :: Ocean/Cryo	N/A :: Sfc
3622	Sea_Ice Lead (Open Water) Size-distribution	O :: FI	Welch	ASTER	AM1	EDC				90 m :: Ocean/Cryo	N/A :: Sfc
3623	Sea_Ice Thickness	O :: FI	Welch	ASTER	AM1	EDC	m			90 m-1 km :: Ocean/Cryo	N/A :: Sfc
3624	Sea_Ice Albedo	O :: FI	Welch	ASTER	AM1	EDC				90 m :: Ocean/Cryo	N/A :: Sfc
3625	Cloud Thickness	O :: FI	Welch	ASTER	AM1	EDC			1/(16 day)	100 m :: L	N/A :: Cloud
3626	Cloud Liquid_Water Content	O :: FI	Welch	ASTER	AM1	EDC			1/(16 day)	90 m :: L	N/A :: Cloud
3627	Cloud Drop Size_distribution	O :: FI	Welch	ASTER	AM1	EDC			1/(16 day)	90 m :: L	N/A :: Cloud
3628	Cloud Field Scales_of_Organization	O :: FI	Welch	ASTER	AM1	EDC			1/(16 day)	90 m :: L	N/A :: Cloud
3629	Land_sfc Thermal Anomalies	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
3630	Sea_Ice Area	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3631	Coral Reef Maps	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3632	Ocean_Water Turbidity	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3633	Land_sfc Water Area	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
3634	Snow Area	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
3635	Sea_sfc Temperature (SST)	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3636	Ocean_Water Temperature-Pattern	O :: FI	Tsu	ASTER	AM1	EDC		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3637	*CO2 Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb		1/(16 day)	16 x 5 km :: L	
3638	*HCl Conc*	O :: PI	Beer	TES	CHEM	LaRC			1/(16 day)	16 x 5 km :: L	
3639	*HFl Conc*	O :: PI	Beer	TES	CHEM	LaRC	ppb		1/(16 day)	16 x 5 km :: L	
3640	*Spectra, UV Stellar Comparison [0.1 nm res.?]*	O :: PI	Rottman	SOLSTICE	MO	GSFC	photons/cm^2/s/nm	<5% :: <1%		N/A :: N/A	N/A :: NA
3641	*Cloud Cover*	O :: FI	Salomonson?	MODIS	AM,PM	GSFC	%	10% :: 5%	1/mo (day & night)	0.25 km :: G	N/A :: Cloud
3642	*Lightning Occurrence (Location,Time)*	O :: PI	Christian	LIS	TRM	MSFC		10 km (in 1100km FOV) ::		.07 dg :: G	N/A :: Atmos
3643	*Lightning Radiant Energy*	O :: PI	Christian	LIS	TRM	MSFC				.07 dg :: G	N/A :: Atmos
3644	*Reflectance, Bi-directional (BRDF)*	O :: PI	Travis	EOSP	AERO,AM2	LaRC		5% ::	2 day [d]	10 km :: G	NA :: Cloud, Sfc
3645	Instrument Characteristics, MODIS Level-1	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3646	Radiance, At-Satellite, MODIS Level-1	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					

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Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3647	Reflectance, Exoatmospheric, MODIS Level-	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3648	Instrument Model, MODIS Level-1	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3649	Radiance, Solar Diffuser, MODIS Level-1	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3650	Radiance, Lunar Reference, MODIS Level-1	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3651	Irradiance, Solar, MODIS Level-2	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3652	Irradiance, Lunar, MODIS Level-2	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3653	Reflectance, Lunar, MODIS Level-2	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3654	Radiance Error, MODIS Level-2	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3655	Reflectance Error, MODIS Level-2	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3656	Geometric Error, MODIS Level-2	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3657	Geometric Error, MODIS Level-3	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3658	Texture, MODIS Level-2	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3659	Texture, MODIS Level-3	O :: FI	Salomonson, Barker	MODIS	AM,PM	GSFC					
3660	Classification Masks, Clouds/Snow/Land/Water, MODIS Level-2	O :: FI	Salomonson, Barker (with Hall)	MODIS	AM,PM	GSFC					
3661	Classification Masks, Clouds/Snow/Land/Water, MODIS Level-3	O :: FI	Salomonson, Barker (with Hall)	MODIS	AM,PM	GSFC					
3662	Organic Matter Degradation_Product Absorption Coef@415nm (DOM+Detritus)	O :: FI	Carder	MODIS	AM,PM	GSFC	/m	40% :: 15%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3663	Organic Matter Degradation_Product Absorption Coef@415nm (DOM+Detritus)	O :: FI	Carder	MODIS	AM,PM	GSFC	/m	40% :: 15%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
3664	Organic Matter Conc, Particulate	O :: FI	Clark	MODIS	AM,PM	GSFC	mg/m^3	50% :: 30%	1/day, 1/wk	1 km :: Ocean-I/L	N/A :: TOO
3665	Albedo, Spectral, Land_sfc	O :: FI	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3666	Albedo, Total [SW], Land_sfc	O :: FI	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3667	Albedo, Total [SW], TOA	O :: FI	Muller, Strahler, Tanre	MODIS	AM,PM	GSFC	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: TOA
3668	Ground Control Points, Potential	O :: FI	Muller	MODIS	AM,PM	GSFC		0.3 pixels ::		0.3 pixels :: Land/L	N/A :: Sfc
3669	Land_sfc Reflectance, Bidirectional (BRDF)	O :: FI	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3670	Land_sfc Roughness	O :: FI	Muller, Tanre	MODIS	AM,PM	EDC		5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3671	Photogrammetric Camera Model	O :: FI	Muller	MODIS	AM,PM	GSFC				N/A :: N/A	N/A :: N/A
3672	Simulated Data Sets, MODIS	O :: FI	Muller	MODIS	AM,PM	GSFC				0.25-1 km :: L(test sites)	N/A :: Sfc
3673	Simulated Scenes, MODIS, Monte Carlo Ray-Tracing	O :: FI	Muller	MODIS	AM,PM	GSFC				0.25-1 km :: L(test sites)	N/A :: Sfc
3674	Land_sfc Emissivity [2]	O :: FI	Kahle, Becker, Christensen	ASTER	AM1	EDC	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
3675	Land_sfc Emissivity [3]	O :: FI	Kahle, Becker, Christensen	ASTER	AM1	EDC	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
3676	*Aerosol Optical Depth*	O :: PI	Diner	MISR	AM	LaRC	dimensionless	0.05/10% :: 0.05/10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
3677	Aerosol Phase Function, Asymmetric	O :: PI	Diner	MISR	AM	LaRC	dimensionless	0.05 :: 0.05	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
3678	Aerosol Size-distribution	O :: PI	Diner	MISR	AM	LaRC	dimensionless	15% :: 10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
3679	*Albedo, Planetary Spectral, TOA*	O :: PI	Diner	MISR	AM	LaRC	dimensionless	<=0.03 :: 0.01	9,16 day; mo; seas; yr	1.92 km ? :: G	N/A :: TOA
3680	*Albedo, Spectral, Land_sfc*	O :: PI	Diner	MISR	AM	LaRC	dimensionless	<=0.03 :: 0.01	9,16 day; mo; seas; yr	1.92 km ? :: G	N/A :: Sfc
3681	Pigment Conc, Phytoplankton	O :: PI	Diner	MISR	AM	LaRC	mg/m^3	30% :: 30%	9,16 day; mo; seas; yr	1.92 km ? :: Ocean/G,R	N/A :: TOO
3682	Vegetation Index, Normalized	O :: PI	Diner	MISR	AM	LaRC	dimensionless	2% :: 2%	9,16 day; mo; seas; yr	1.92 km ? :: Land	N/A :: Sfc
3683	Radiance, Cloud Cleared, Level-2	O :: FI	Chedin, McMillin, Rizzi, Smith, Susskind	AIRS	PM	GSFC					
3684	Cloud Optical Thickness	O :: FI	Smith, Gautier ??	AIRS	PM	GSFC	dimensionless	TBD :: TBD	1/day	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
3685	Cloud Transmissivity, Spectral	O :: FI	Chahine	AIRS	PM	GSFC	dimensionless	TBD :: TBD	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
3686	Cloud Reflectivity, Spectral	O :: FI	Chahine	AIRS	PM	GSFC	dimensionless	TBD :: TBD	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud

Appendix C: Output/Input Data Products Listed by Product Number (Master Product List)

Prod #	Product Name	Type	Investigator	Instrument	Platform	DAAC	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3687	Radiative Flux, LW, Up (OLR)	O :: FI	Chedin, Revercomb, Susskind	AIRS	PM	GSFC	W/m^2	5 - TBD :: 3 - TBD	2/day [d,n]	50 km :: G	N/A :: TOA
3688	Tropopause Height	O :: FI	Smith, Susskind	AIRS	PM	GSFC	km	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Atmos
3689	Cloud Radiative Forcing, LW	O :: FI	Susskind	AIRS	PM	GSFC	W/m^2	5 :: 3			
3690	O3 Conc	O :: FI	Susskind	AIRS	PM	GSFC	Dobson unit	10% :: 5%	2/day [d,n]	50 km :: G	variable :: Atmos
3691	Temperature Profile, Microwave [see also 1588]	O :: FI	Rosenkranz	AIRS[AMSU-A, MHS only]	PM	GSFC	K	2-4 K :: 2-4 K	2/day [d,n]	50 km :: G	1 km :: Atmos
3692	Humidity Profile, Microwave [see also 1828]	O :: FI	Rosenkranz	AIRS[AMSU-A, MHS only]	PM	GSFC	g/kg	20% :: 20%	2/day [d,n]	50 km :: G	2 km :: Atmos
3693	Precipitable Water, Microwave [see also 1869]	O :: FI	Rosenkranz	AIRS[AMSU-A, MHS only]	PM	GSFC	mm	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
3694	Precipitation Index, Microwave [see also 1969]	O :: FI	Staelin	AIRS[AMSU-A, MHS only]	PM	GSFC	mm	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
3695	Land_sfc Emissivity, Spectral (Microwave) [see also 2113]	O :: FI	Rosenkranz	AIRS[AMSU-A, MHS only]	PM	GSFC	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: Land	N/A :: Sfc
3696	Land_sfc BRDF, AM-PM Asymmetry	O :: FI	Vanderbilt	MODIS	AM,PM	GSFC	1/sr	5% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
3697	Land_sfc BRDF, AM-PM Degree_of_Asymmetry	O :: FI	Vanderbilt	MODIS	AM,PM	GSFC	%	30% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
3698	Cloud Reflectance, Bi-directional, SW_Broadband, (BRDF)	O :: PI	Barkstrom	CERES	TRM,AM,PM	LaRC	fraction	5% :: 1%		10 dg [Angle] :: G	N/A :: Atmos
3699	Vegetation Index-Directional Reflectances, Atmosphere-Corrected [O3 & molecular scattering]	O :: FI	Huete, Justice	MODIS	AM,PM	EDC	dimensionless	0.02 :: 0.01 [if low aerosols]	1/day	500 m :: Land/R	N/A :: TOA
3700	Vegetation Index, Hemispherical, Sfc	O :: FI	Huete, Justice	MODIS	AM,PM	EDC	dimensionless	0.02 :: 0.01	1 wk, 1 mo	1 km :: Land/R	N/A :: Sfc
3701	Vegetation Index, Composited, Sfc	O :: FI	Huete, Justice	MODIS	AM,PM	EDC	dimensionless	0.02 :: 0.01	1/wk	1 km :: Land/R	N/A :: Sfc
3702	Vegetation Index, Integrated Annual	O :: FI	Huete, Justice	MODIS	AM,PM	EDC	dimensionless	0.02 :: 0.01	1/yr	1 km :: Land/R	N/A :: Sfc
3703	Vegetation Index Temporal Signal	O :: FI	Huete, Justice	MODIS	AM,PM	EDC	dimensionless	0.02 :: 0.01	1/yr (weekly points)	1 km :: Land/R	N/A :: Sfc
3704	Vegetation Index [Self_Atmospheric-Correcting, TOA]	O :: FI	Huete, Justice, Kaufman, Tanre	MODIS	AM,PM	EDC	dimensionless	0.02 :: 0.01	1/day	1 km :: Land/R	N/A :: TOA

List of Data Product Groups

Appendix D

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix D : List of Data Product Groups

The attribute ranges encompass the requirements of the investigators for the indicated type.

Domain keywords are described in Table A-3. Acronyms and abbreviations are described in Table A-1.

Product Name	*Type*	*Investigator or Instrument Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Coverage*	*Vertical Resol. :: Coverage*
Cloud Cover	I :: II	Barron; Hansen; Bates; Harris; Dickinson; Isacks; Kerr/Sorooshian; Lau; Liu; Moore; Murakami; Rothrock; Sellers; Simard; Srokosz; Wielicki	%	2% - 10% :: 1% - 10%	6/day [d,n] - 1/mo	30 m - 500 km :: L/R/G	N/A; 0.5 km :: Trop-Atmos
	O :: FP	AIRS/AMSU; GLRS; HIRIS; ASTER; MODIS; CERES	dimensionless; %	0.05; 1% -10% :: 0.025; 0.5% - 5%;	1/(1-3 min); 1/mo	30 m-200 km; 1 x 1 dg :: L-G	N/A :: Cloud
	O :: II	Barron; Wielicki; Dickinson	%; fraction	5% :: 1%	1/(5 min) - 2/day	2 km - 4.5 x 7.5 dg ::	:: Atmos

II's needing "Cloud Cover" as input data

Instruments producing "Cloud Cover"

II's generating the output product "Cloud Cover"

The II's and Instrument Teams present "Cloud Cover" as a percentage, or as a dimensionless areal fraction.

The absolute accuracies of the measured "Cloud Cover" percentage range from 1 to 5%, depending on the instrument, whereas the corresponding relative accuracies range from 0.5 to 5%. One instrument team gives the absolute accuracy as the fraction 0.05, with a relative accuracy 0.025

Legend for Appendix D: List of Data Product Groups

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Acceleration, Diffusive_Meridional	O :: II	Bates (1377)	m/s^2		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
Acceleration, Diffusive_Zonal	O :: II	Bates (1376)	m/s^2		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
Aerosol Angstrom Exponent	I :: II	Harris (3442)		15% :: 5%	1/day	1-20 km :: Ocean/R	
	O :: FP	MODIS (2295/2296)	dimensionless	15% :: 5%	1/day-1/mo	1 km - 20 km :: Ocean/R - L	N/A :: Atmos
Aerosol Backscatter	I :: II	Dickinson (3368); Murakami (2105)				<0.5-1 deg :: G	
Aerosol Conc	I :: II	Grose (1006); Kerr-Sorooshian (1007); Moore (1008); Schoeberl (1010)	no/cm^3; mg/cm^3	5% - 50% :: 5% - 10%	2/day - 1/(2 day)	30m - 15 x 4 dg	1 km - 3 km :: Atmos
Aerosol Conc, Stratospheric	I :: II	Mouginis-Mark (3263)			1/wk	:: G	:: Strat
Aerosol Conc, Tropospheric	I :: II	Mouginis-Mark (3264)			1/wk	:: G	:: Trop
Aerosol Dispersal, Eruption_Plume	O :: II	Mouginis-Mark (3265)	kg-sulfate/day		1/event	1 km :: G	:: Plume_col
Aerosol Extinction	I :: II	Dickinson (3374); Murakami (2327)	/km	5-10% ::		<0.5-1 deg :: G	N/A :: Atmos
Aerosol Extinction Coef	O :: FP	HIRDLS (1992); SAGE-III (1012)	/km	5-10% :: 0.05; 1-10%	1/(2 min)- 2/day [d, n]	<2 x <1 dg ; 1 - 4 dg :: G	1 km :: 0-40 km
Aerosol Layer Boundary Height	I :: II	Bates (1013); Isacks (1015)	m	75m	1/event - 1/mo	2km - 200km	75 m :: Atmos
	O :: FP	GLRS-A (1014)	m	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Aerosol Mass Loading	I :: II	Harris (3424)	g/m^2	1% :: 1%	1/day	50 km :: Ocean/R	
	I :: II	Isacks (1016)	g/m^2	30% :: 10%	1/wk	1-10 km :: Land/R	N/A :: Atmos
	O :: FP	MODIS (1017)	g/m^2	30% :: 10%	1/day-1/mo	0.5 dg :: R - G	N/A :: Atmos
Aerosol Optical Depth	I :: II	Hansen (1001/2287); Harris (3444); Hartmann (1002); Sellers (2288); Wielicki (2289)	dimensionless; eq.atm	tau=0.02; 10%,0.05 (eq. atm); 0.10 :: 5%,0.02 (eq. atm.); 0.10	2/day - 1/wk	20 km - 500 km :: G; Ocean/R	0 - 3 km :: Atmos
	O :: FP	EOSP (2297); GLRS-A (2291); HIRIS (2292); MISR (2298/2299/3676)	dimensionless	0.20 - .05; 0.05/10% - 20% :: 0.01; 0.05/10%	1/day [d]-1/(2-16 day) [d];mo; seas; yr	2-200 km :: L - G	Column :: Atmos
Aerosol Optical Depth, Spectral	O :: FP	MODIS (2293/2294)	dimensionless	0.05 - 0.1 :: 0.02 - 0.05	1/day- 1/mo	0.5 dg :: Land - Ocean	N/A :: Atmos
Aerosol Phase Function, Asymmetric	O :: FP	MISR (2334/2335/3677)	dimensionless	0.05 :: 0.05	1(5-16) day [d]; mo; seas; yr	1.9 km - 15.4 km :: G	Column :: Atmos
Aerosol Radiance	O :: FP	MODIS (2344/2345)	mW/cm^2/sr/um	10% :: 5%	1/day- 1/mo	1 km - 20 km :: Ocean/L - G	N/A :: Atmos
Aerosol Radiance, Single_scattering	I :: II	Harris (3446)	mW/(cm^2-sr-um)	10% :: 5%	1/day	1-20 km :: Ocean/R	
Aerosol Size-distribution	I :: II	Bates (1019); Hartman (1020); Isacks (1024); Schoeberl (1021)	dimensionless; um; no/cm^3/um	5% - 20%	1/day - 1/(5 - 16 day)	2 - 200 km	0 - 15 km :: Atmos
	O :: FP	MISR (1993/1994/3678)	dimensionless	15% :: 10 - 20%	1/(5-16 day); mo; seas; yr	1.9 - 15.4 km :: R - G	Column :: Atmos
Ocean Wave Length	I :: II	Harris (3432)	km	10% :: 10%	1/day	1-10 km :: Ocean/R	
Aerosol Size-distribution (Radius-Dispersion)	O :: FI	MODIS (1022)	um, dimensionless	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
Aerosol XXX	I :: II	Bates (1005); Pyle (1003); Sellers (1004)	/m/sr		2/day - 1/(1-3 day) [few day]	100 km :: G	1 km :: Atmos; Strat
Albedo, Aerosol	O :: FP	MODIS (2003)	dimensionless	0.06 :: 0.03	1/day-1/mo	0.5 dg :: R - G	N/A :: Atmos
	I :: II	Dickinson (3361); Kerr-Sorooshian (2006); Sellers (2007)	dimensionless	5% :: 5%	1/hr - TBD	500 m - 1dg :: R, G	:: Cloud
	O :: FP	HIRIS (2008)	%	5% :: 5%		90 m :: R	:: Cloud
	O :: II	Dickinson (3525)				0.5-1 dg :: G	
Albedo, Land_sfc	I :: II	Barron (2013); Bates (1995); Dickinson (3363); Hartmann (1997); Issacks (1998); Kerr-Sorooshian (2014); Sellers (1999)	dimensionless	1% - 10% :: 0.5% - 10%	1/day - 1/wk	250 m - 100 km :: Land/R,G	N/A :: Sfc
	O :: FP	AIRS (2000) ; MODIS (2015)	dimensionless	15% :: 5 - 8%	1/day-1/wk	2.5 km - 50 km :: Land/ R - G	N/A :: Sfc
	O :: II	Schimel (2002)	%	10% :: 1%	1/day, 1/wk	[multiple] :: 6 sites/L	
Albedo, Planetary Spectral, TOA	I :: II	Kerr, Sorooshian (2009)	%	3% - 10% :: 10%	1/day	25 km - 100 km	N/A :: TOA
	O :: FP	MISR (2010/2011/3679)	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]; mo; seas; yr	240 m ; 1.92 km :: Land/R - G	N/A :: TOA
	O :: II	Barron (2004/2005)	fraction		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg ::	:: TOA
Albedo, Sea_ice	I :: II	Dickinson (3362); Rothrock (2012)	fraction	0.05 :: 0.05	1/(3 day) - TBD	25 km - 1 dg :: Polar; G	N/A :: Sfc
Albedo, Snow	I :: II	Dickinson (3364); Hansen (2017); Lau (2018); Simard (2019)	%	2 - 10% :: 10%	1/wk	100 m - 500 km :: Land/R,G	N/A :: Sfc
Albedo, Spectral, Land_sfc	I :: II	Dozier (2020)	dimensionless	5% :: 1%	1/wk, 1/mo	50m :: Land/L	
	O :: FP	MISR (2021/2022/3680), MODIS (3665)	fraction;dimensionless	<=0.03;.05 :: 0.01 - .03	1/day - 1/(5-16 day) [d]; mo; seas; yr	240 m ; 1 km; 1.92 km :: R; G	N/A :: Sfc
Albedo, Spectral, TOA	O :: FP	MODIS (2001)	fraction	10% :: 5%	1/(3-8 day)	1 km :: Land/R	N/A :: TOA
Albedo, TOA	I :: II	Barron (2023); Dickinson (3365)	%	3 ::	1/day	100 km :: G	N/A :: TOA
Albedo, Total [SW], Land_sfc	O :: FP	MODIS (3666)	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Albedo, Total [SW], TOA	O :: FP	MODIS (3667)	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: TOA
Albedo, Vegetation	I :: II	Dickinson (3366/3367); Hansen (2024)		0.02 ::	1/wk	Hi_res - 500km :: Land	:: Sfc
Angular Momentum	I :: II	Bates (1378)	kg m^2/s	1% ::		:: G	:: Atmos
	O :: II	Tapley (1379)	kg m^2/s	1% ::	4/day	:: G	:: Atmos
Anisotropy, LW_broadband,	O :: FP	CERES (2027)	fraction	2% :: 0.005		10 dg :: G	N/A :: Sfc - Atmos
Anisotropy, LW_broadband, Clear-sky	I :: II	Wielicki (2025/2026)	fraction	2% :: 1%		10 dg :: G/clr	:: Sfc,Atmos
Bedrock Lithology	O :: II	Barron (2779/2815/2816)			1/mission - 5000 yrs	5 km - 100 km :: Land	
Bowen Ratio	O :: II	Schimel (2887)	ratio	20% :: 1%	1/day	500 m :: 6 sites/L	:: Sfc
Br Conc	O :: II	Schoeberl (1025)	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
Brightness Temperature (at Sensor)	O :: FP	ASTER (2452)	K	.5NEdT :: .2NEdT	1/(2-16 day)	90 m :: G	N/A :: at sensor
BrO Conc	I :: II	Grose (1026); Pyle (1027); Schoeberl (1028)	mix ratio	20% - 25% :: 1 -15%	2/day - 1/wk	15 x 4 km - 30 x 4 dg	2-3 km :: Strat
	O :: II	Schoeberl (1029)	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
BrO(Br^81-O) Conc	O :: FP	MLS (1030)	mix ratio	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
BrONO2 Conc	I :: II	Pyle (1031)	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
	O :: II	Schoeberl (1032)	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
BrOy Conc	O :: II	Pyle (1033)					
C Budget, Global	O :: II	Cihlar (2547)	kg/ha/yr	:: 0.1	1/yr	1 km :: Land/R	N/A :: Sfc
C Flux	O :: II	Harris (3571)				:: Ocean	
C Flux, Global	O :: II	Hansen (2548)	g-C/m^2/s		1/wk	500 km ::	
C-Cycle Diagnostic Data	O :: II	Hansen (2554)			1/wk	500 km :: G	:: Trop
C2H6 Conc	I :: II	Schoeberl (1037)	ppb	20% :: 0.2	1/wk	8 x 10 dg :: G	3 km :: Strat
Calibration Data, MODIS	O :: FP	MODIS (3303)	variable		1/day- 1/mo	N/A :: Ocean/R - G	N/A :: Sfc
CBrClF2 Conc	O :: II	Schoeberl (1038)	ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CCl4 Conc	O :: II	Schoeberl (1039/1041)	ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CFC-11(CFCl3) Conc	I :: II	Grose (1050); Pyle (1051); Schoeberl (1052)	mix ratio (-log10), ppt	15% :: 5% - 10%	2/day - 1/wk	15 x 4 km - 30 x 4 dg	1.5 - 3 km :: Strat
	O :: FP	HIRDLS (1055)	mix ratio	5-10% :: 1-10%	2/day [d, n]	4 x 4 dg :: G	1 km :: 7-30 km
	O :: II	Schoeberl (1053/1054)	ppb	15% - 25% ::	1/day - 1/mo	2 x 3 dg - 10 dgZM :: G	2 km :: 0 - 90 km
CFC-113(C2Cl3F3) Conc	O :: II	Schoeberl (1035)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CFC-114(C2Cl2F4) Conc	O :: II	Schoeberl (1034)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CFC-115(C2ClF5) Conc	O :: II	Schoeberl (1036)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CFC-12(CF2Cl2) Conc	I :: II	Grose (1042); Pyle (1043); Schoeberl (1044)	mix ratio	15% :: 5% - 10%	2/day - 1/wk	15 x 4 km - 30 x 4 dg	1.5 - 3 km :: Strat
	O :: FP	HIRDLS (1047)	mix ratio	5-10% :: 1-10%	2/day [d, n]	4 x 4 dg :: G	1 km :: 7-30 km
	O :: II	Schoeberl (1045/1046)	ppb	15% - 25% ::	1/day - 1/mo	2 x 3 dg - 10 dgZM :: G	2 km :: 0-90 km
CFC-XXX (HCFCs) Conc	O :: II	Pyle (1181)					
CFC-XXX Conc	O :: II	Hansen (1057)					
	O :: II	Pyle (1058)					
CFClO Conc	O :: II	Schoeberl (1056)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CH3 Conc	O :: II	Schoeberl (1060)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CH3Br Conc	I :: II	Pyle (1061), Schoeberl (1062)	mix ratio (-log10), ppt	20% - 25% :: 2 -10%	2/day - 1/wk	15 x 4 km - 8 x 10 dg	3 km :: Strat
	O :: II	Schoeberl (1063)	ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CH3CCl3 Conc	O :: II	Schoeberl (1064)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CH3Cl Conc	I :: II	Grose (1065); Pyle (1066); Schoeberl (1067)	mix ratio (-log10), ppt	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
	O :: FP	MLS (1070)	mix ratio	:: 1x10-11	2/day [d, n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE;40 km
	O :: II	Grose (1068); Schoeberl (1069)	mix ratio; ppb	25% ::	1/mo	~6 x 6 dg - 10 dgZM :: G	24 lvl; 2 km :: 0-90 km
CH3O Conc	O :: II	Schoeberl (1071/1072)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CH3O2 Conc	O :: II	Schoeberl (1072)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CH3OOH Conc	O :: II	Schoeberl (1073)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
CH4 Budget	O :: II	Grose (1090)			1/mo	~6 x 6 dg :: G	
CH4 Conc	I :: II	Grose (1074); Hansen (1075/1076); Pyle (1077); Schoeberl (1078)	mix ratio (-log10), ppm	0.1% - 15% :: 0.05% - 5%	2/day - 1/wk	15 x 4 km - 30 x 4 dg	1.5 - 3 km :: Atmos
	O :: FP	HIRDLS (1085) ; SAFIRE (1086) ; TES (1087/1088/1089)	mix ratio; ppmv; ppb	5-10% :: 1-10%; 14 ppb - 40 ppb	1/(18-72 s) [?]-1/(16 day)	4 x 4 dg ; 25 x 1-5 dg; 160 x 23 km :: G; 86S-86N	1 km - 6 km :: 7-65 km

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
CH4 Conc	O :: II	Grose (1080); Pyle (1081); Schoeberl (1082/1083/1084)	mix ratio; ppm	10% - 15% :: 10%	1/day - 1/mo	~6 x 6 dg - 10 dgZM :: R , G	24 lvl; 1 km - 2 km :: 0 - 90 km
CH4 Emission	O :: II	Moore (1091/1092)	g/ha/timestep	30%? :: 5-10%?	1/mo	.030-1 km :: Land/R,L,G	:: Sfc
CH4 Flux	O :: II	Richey, Batista (1093/1094)	g/ha/day	20% :: 20%	1/day	1 km :: Land/R	:: Sfc
CH4 Total Burden	O :: FP	AIRS (1095); MOPITT (1096)	ppb; ppbv	175 :: 150; 1%	1/(12 s) [?] -2/day [d, n]	120 km - 250 km :: G	Column :: Atmos
CH4 Uptake	O :: II	Schimel (1098/1099)	g/ha/mo	30% :: 5%	1/seas	30 m :: 6 sites/L	:: Sfc
CH4 Uptake Time-derivative	O :: II	Schimel (1100)	g/ha/mo^2	30% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
Chemistry Diagnostics, Seasonal	O :: II	Grose (1371)			1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
Chlorophyll Conc	I :: II	Srokosz (2563)	ug/l	10% :: 0.1mg	1/day	1 km :: Ocean [S. Atlan]	N/A :: Sfc
Chlorophyll Fluorescence	I :: II	Harris (3462)	mW/(cm^2-sr-um)	25% :: 5%	1/day	1-20 km :: Ocean/R	
Chlorophyll Fluorescence Efficiency	O :: FP	MODIS (3211/3212)	dimensionless	15% :: 5%	1/day- 1/wk	1 km - 20 km :: Ocean/R	N/A :: TOO
Chlorophyll Fluorescence Line Curv	O :: FP	MODIS (2573/2574)	mW/cm^2/sr/um	25% :: 8%	1/day- 1/wk	1 km - 20 km :: Ocean/R - G	N/A :: TOO
Chlorophyll Fluorescence Line Height	O :: FP	MODIS (2575/2576)	mW/cm^2/sr/um	0.004 :: 0.001	1/day-1/mo	1 km - 20 km :: Ocean/L - G	N/A :: TOO
Chlorophyll_a Conc	I :: II	Harris (3454/3455/3456)	mg/m^3	20-40% :: 10-20%	1-10 days	0.25-20 km :: Ocean/R	
	O :: FP	MODIS (2569/2570/2571/2572)	mg/m^3	50-100% :: 10%- 35%	1/day-1/mo	1 km - 20 km :: Ocean/L - G	N/A :: TOO
Chlorophyll_a Conc (via Fluorescence)	O :: FP	MODIS (2566/2567)	mg/m^3	50-100% :: 35%	1/day, 1/wk	1 - 4 km :: Ocean/R,L	N/A :: TOO
Chlorophyll_a Conc, Case-II Waters	O :: FP	HIRIS (2565)	mg/m^3	100% :: 50%	1/(2 day) [d]	60-90 m :: Ocean-II/L	N/A :: TOO
Chlorophyll_a Conc, Case-I Waters, Phytoplankton	O :: FP	HIRIS (2564)	mg/m^3	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
CHO Conc	O :: II	Schoeberl (1101)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
Cl Conc	O :: II	Schoeberl (1102)	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
Classification Masks, Clouds/Snow/Land/Water, MODIS Level-2	O :: FP	MODIS (3660)					
Classification Masks, Clouds/Snow/Land/Water, MODIS Level-3	O :: FP	MODIS (3661)					
Climatology Diagnostic Data	O :: II	Hansen (2545)			1/wk	500 km :: G	:: Atmos
ClO Conc	I :: II	Grose (1103); Pyle (1104); Schoeberl (1105)	mix ratio (-log10), ppb	10% - 20% :: 5 - 10%	2/day - 1/day	15 x 4 km - 30 x 4 dg	3 km :: Strat; Mid-atmos
	O :: FP	MLS (1107)	mix ratio	<=5% :: 0.3-3x10-10	2/day [d, n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
	O :: II	Schoeberl (1106)	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
ClONO2 Conc	I :: II	Grose (1108); Pyle (1109); Schoeberl (1110)	mix ratio (-log10), ppb	15 - 20% :: 5 -10%	2/day - 1/day	15 x 4 km - 30 x 4 dg	3 km :: Strat
	O :: II	Schoeberl (1111)	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
Cloud Condensation Rate, Total	O :: II	Barron (1786/1787)	kg/m^2/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Cloud Cover	I :: II	Barron(2049/2050/2051);Bates(2073/2074);Dickinson(3343);Hansen(2052);Harris(3436);Isacks(2053);Kerr-Sorooshian(2075); Lau(2054); Liu (2055); Moore(2057); Murakami(2058); Rothrock(2076);Sellers(2059); Simard(2056);	%	2% - 10% ::1% - 10%	6/day [d,n] - 1/mo	30 m - 500 km :: L-G	N/A; 0.5 km :: Trop-Atmos
	O :: FP	AIRS (2062); GLRS-A(2078) ; HIRIS (2079) ; ASTER (2080) ; MODIS (2081/2082/3641)	dimensionless; %	0.05; 1% -10% :: 0.025; 0.5% - 5%	1/(1-3 min); 1/mo	30 m; 10-200 km; 1 x 1 dg :: G; L	N/A :: Cloud
	O :: II	Barron (2064/2065/2066); Wielicki (2067); Dickinson (3521)	%; fraction	5% :: 1%	1/(5 min) - 2/day	2 km - 4.5 x 7.5 dg	:: Atmos
Cloud Cover, Cirrus	I :: II	Bates (2069/2072); Lau (2070)	/m/sr; %	5% :: 5%	1/day	100 km :: G	N/A; 0.5 km :: Trop
	O :: II	Bates (2083)	dimensionless		1/(20 min)	50 km :: G	N/A :: High_cloud
Cloud Cover, Low-level	O :: II	Bates (2085)	dimensionless		1/(20 min)	50 km :: G	N/A :: Low_Cloud
Cloud Cover, Mid-level	O :: II	Bates (2084)	dimensionless		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
Cloud Drop Phase	I :: II	Bates (1759); Dickinson (3346); Wielicki (1760/1761)	water/ice	25%; 90% Conf ::10%; 90% Conf	6/day [d,n] - 1/mo	.03 - 100 km :: R/G	N/A :: Atmos
	O :: FP	HIRIS (1762) ; ASTER (1763) ; MODIS (1764/1765); CERES (1767/1768/1769)	water/ice; dimensionless	water/ice ;90% Conf :: 90%-95% Conf	1/day - 1/mo	30 m-100 km; 1 x 1 dg :: L-G	N/A :: Cloud; Atmos
	O :: II	Wielicki (1766)	water/ice	90% Conf :: 90% Conf	18/day [d,n]	25 km :: R	N/A :: Atmos
Cloud Drop Size	I :: II	Dickinson (3347); Wielicki (1771/1772)	um	25%-30% :: 10%	1/(16 day) - 6/day [d,n]	.03-100 km :: R,G	N/A :: Atmos
	O :: FP	BOSP (1774)	um	25% :: 25%	1/day [d]	100 km :: G	N/A :: Cloud
	O :: II	Dickinson (3528); Wielicki (1773)	um	30% :: 10%	18/day [d,n]	25 km; 0.5-1 dg :: R,G	N/A :: Atmos

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Cloud Drop Size(Effective Radius)	I :: II	Bates (1777)	um	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
	O :: FP	HIRIS (1778) ; ASTER (1779) ; CERES (1782/1783/1784); MODIS (1780/1781)	um	10 um; 0-40% :: 5- 10%	6/day [d,n] - 1/mo	30 m-100 km; 1 - 1.25 dg :: L;G	N/A :: Cloud; Atmos
Cloud Drop Size-distribution	I :: II	Dickinson (3348); Hartmann (1775)	um	20% :: 20%	1/day	10 km; <0.5-1 deg :: G	0-15 km :: Cloud
	O :: FP	HIRIS (1776); ASTER (3627)	no/cm^2/um	20% :: 10%	1/(2-16 day)	30 m - 25 km; 1 x 1 dg :: L - G	N/A :: Cloud; Atmos
Cloud Emissivity	I :: II	Dickinson (3372)				<0.5-1 deg :: G	
	O :: FP	GLRS-A (2114); ASTER (2115); MODIS (2126/2127)	dimensionless	5% - 10%; 0.1 :: 0.05	2/day -1/mo	90 m; 1-100 km; 1 dg :: L - G	150 m :: Cloud
	O :: II	Barron (2117/2118)	fraction		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Cloud Emissivity, IR Spectral (3-16um)	O :: FP	AIRS (2128)	dimensionless	0.05 :: 0.025	2/day [d, n]	15 x 45 km :: G	N/A :: Cloud
Cloud Field Area	O :: FP	MODIS (2068)	km^2		1/mo	1 dg :: G	N/A :: Sfc
Cloud Field Organization scale	O :: FP	HIRIS (1509)				:: L	
Cloud Field Perimeter	O :: FP	MODIS (2092)	km		1/mo	1 dg :: G	N/A :: Sfc
Cloud Field Size-distribution	O :: FP	ASTER (2093)	dimensionless		1/(16 day)	15-90 m :: L	N/A :: Cloud
Cloud Field Structure	O :: FP	HIRIS (1503)				:: L	
Cloud Height	I :: II	Hansen (1399)	km (m)	50 m ::	1/wk	500 km :: G	:: Cloud
	O :: FP	GLRS-A (1400)	m	75 m ::	1/(2-16 day)	2-10 km :: G	75 m ::
Cloud Height, Base	I :: II	Dickinson (3342); Kerr-Sorooshian (1385); Barron (1380/1381/1382); Bates (1384); Wielicki (1386/1387/1388)	m; km; mb	100 m - 1 km :: 50 m - 100 m	6/day [d,n] - 1/[16 day]	30 m - 100 km :: L/R/G	100 m; 100 mb :: Trop-Atmos
	O :: FP	GLRS-A (1389); HIRIS (1390); ASTER (1391); CERES (1394/1395)	m; km	50 m - 1.0 km :: 50 m - 100 m	6/day [d, n] - 1/mo	30 m-100 km; 1 x 1 dg :: L-G	75 m - 0.1 km :: Atmos
	O :: II	Wielicki (1392)	km	1.0 km :: 0.1 km	18/day [d,n]	25 km :: R	0.1 km :: Atmos
Cloud Height, Base, Cirrus	O :: II	Bates (1396)	mb		1/(20 min)	50 km :: G	N/A :: High_cloud
Cloud Height, Base, Low-level	O :: II	Bates (1397)	mb		1/(20 min)	50 km :: G	N/A :: Low_Cloud
Cloud Height, Base, Mid-level	O :: II	Bates (1398)	mb		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
Cloud Height, Cirrus	I :: II	Bates (1401); Lau (1402)	m	100 m - 500 m ::	2/day	50 km :: G	N/A :: Cloud; Atmos
Cloud Height, PSC	I :: II	Pyle (1404)			2/day	:: G	:: Strat
	O :: FP	GLRS-A (1405); HIRDLS (1408)	m; km	150 m - 0.4 km :: 0.4 km	2/day [d,n] -1/(2-16 day)	2-200 km; 4 x 4 dg :: Polar; G	75 m - 0.4 km :: Strat
Cloud Height, Stratoform	I :: II	Bates (1406)	m	50 m ::	2/day	50 km :: G	N/A :: Cloud
Cloud Height, Top	I :: II	Barron (1412/1413/1414); Bates (1415/1416); Dickinson (3349); Harris (3437); Kerr-Sorooshian (1417); Murakami (1418); Wielicki (1422)	m, km	100m - 1 km :: 25 m - 500 m	6/day [d,n] :: 1/(16day)	:30 m - 100 km :: L/R/G	N/A; 100 m :: Cloud; Atmos
	O :: FP	AIRS (1423); GLRS-A (1425); HIRIS (1426); ASTER (1427); CERES (1429/1430/1431); MISR (1432/1433)	km; m	75 m - 1.0 km :: 250 - 300 m	6/day [d,n] -1/(5-16 day) [d]; 1/mo	15 x 45 km; 90 m - 200 m; 1 x 1 dg :: L - G	N/A ; 75 m ; 0.1 km :: Cloud; Atmos; Strat/Trop
	O :: II	Wielicki (1428)	km	0.5 km :: 0.1 km	18/day [d,n]	25 km :: R	0.1 km :: Atmos
Cloud Height, Top, Cirrus	O :: II	Bates (1434)	mb		1/(20 min)	50 km :: G	N/A :: High_cloud
Cloud Height, Top, Low-level	O :: II	Bates (1435)	mb		1/(20 min)	50 km :: G	N/A :: Low_Cloud
Cloud Height, Top, Mid-level	O :: II	Bates (1436)	mb		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
Cloud Height, Top, PSC	O :: FP	SAGE-III (1437)	km	0.2 km :: 5%	1/(2 min)-30/day	<2 x <1 dg :: G	1 km :: Strat/Trop
Cloud Ice Content	I :: II	Bates (1890); Hartman (1785)	kg/m^2	0.02 :: 0.02	1/day	10 km :: G, Ocean	N/A :: Cloud
	O :: II	Hartmann (1891)	kg/m^2	0.02 :: 0.02	1/day	10 km :: G	
Cloud Ice Index	I :: II	Bates (1892)	dimensionless		2/day [d,n]	50 km :: G	N/A :: Cloud
	O :: FP	AIRS (1893)	dimensionless		2/day [d, n]	50 km :: G	N/A :: Cloud
Cloud JPDF	O :: FP	MODIS (2094)	dimensionless		1/day-1/mo	1 dg :: G	N/A :: N/A
Cloud Liq_water Content	I :: II	Barron (1902/1903); Bates (1894/1904); Dickinson (3357/3358); Kerr-Sorooshian (1905); Wielicki (1906/1907)	mm; g/m^2	10% - 20% :: 5% - 10%	6/day [d,n] - 1/day	30 m -100 km ; 1 x 1 dg :: G	1 km -30 km :: Cloud; Atmos
	O :: FP	AIRS (1908); CERES (1895/1896/1897); MLS (1898); HIRIS (2281); ASTER (3626)	g/m^3	0.1; 30% - 75% :: 0.1; 5% - 10%	- 1/(16 day)	90 m - ::	NA :: Cloud
	O :: II	Barron (1912/1913); Dickinson (1914); Wielicki (1916)	g/cm^3; g/km; g/m^2	30% :: 10%	1/hr - 1/(6 hr)	1 -100 km :: R,G	15-20 lvl :: Atmos

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Cloud Liq_water Total Column	I :: II	Abbott (1918); Hartman (1919); Lau (1920); Sellers (1921); Srokosz (1922)	kg/m^2	10% :: 5%; 0.1 kg/m^2	1/day - 1/2 day	10 km - 100 km :: Ocean-G	Column :: Trop
	O :: FP	CERES (1899/1900/1901); MIMR (3598, 3599)	kg/m^2	50% :: 10%	6/day [d, n] -1/mo	25 km - 1.25 x 1.25 dg :: G	Column :: Atmos
	O :: II	Hartmann (1923)	kg/m^2	0.05 :: 0.05	1/day	10 km :: G	Column :: Trop
Cloud Masking-shadowing	O :: FP	MODIS (2282/2283/2284)	dimensionless	5% - 30% ::	1/day	.25 km - 1km :: G	N/A :: Sfc
Cloud Optical Depth	I :: II	Barron (2301/2302/2303); Bates (2304); Harris (3445); Hartmann (2306)	dimensionless	3% - 25% :: 3% - 10%; 0.25	2/day - 1/mo	30 m-100 km :: Ocean/GRL; G	N/A :: Cloud
	O :: FP	GLRS-A (2308); HIRIS (2309); ASTER (2310); MODIS (2311/2312)	dimensionless	0.1; 3% - 20% :: 1.50% - 10%	1/(1-3 min)- 1/mo	30 m - 200 km :: L - G	Column :: Cloud
	O :: II	Dickinson (3526)	dimensionless	25% :: 10%	18/day [d,n]	25 km -1 dg :: R,G	:: Atmos
Cloud Optical Depth, Cirrus	O :: FP	GLRS-A (2300)		20% ::	1/(2-16 day)	1-100 km :: G	
Cloud Optical Depth, LW	I :: II	Dickinson (3381); Wielicki (2314)	dimensionless	25% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
	O :: FP	CERES (2316/2317/2318)	dimensionless	10% - 25% :: 5% - 10%	6/day [d, n]; 1/day, 1/mo [Aug]	25 km - 1.25 dg :: G	N/A :: Atmos
	O :: II	Wielicki (2315)					
Cloud Optical Depth, PSC	O :: FP	GLRS-A (2324)	dimensionless	0.1 ::		200 m :: Polar	N/A :: Strat
Cloud Optical Depth, SW	I :: II	Dickinson (3382); Wielicki (2319)	dimensionless	25% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
	O :: FP	CERES (2321/2322/2323)	dimensionless	10% - 25% :: 5% - 10%	1/(6 hr) - 3/day [d, n]	25 km ; 1.25 dg :: G	N/A :: Atmos
	O :: II	Wielicki (2320)					
Cloud Optical Thickness	O :: FP	AIRS (3684)					
Cloud Phase	O :: II	Dickinson (3524)				0.5-1 dg :: G	
Cloud Pressure	O :: II	Dickinson (3523)				0.5-1 dg :: G	
Cloud Pressure, Top	I :: II	Bates (1527); Dickinson (3330)	mb	50 mb :: 20 -100 mb	1/(6 hr) - 2/day	5 km - 1 dg :: G	N/A;100 mb :: Cloud
	O :: FP	EOSP (1530); HIRDLS (1531); MODIS (1528/1529)	mb	30 mb - 50 mb ; 5-10% :: 20 mb - 30 mb; 5-10%	2/day-1/mo	5 km - 4 x 4 dg :: G	30 mb; 0.4 km :: Trop
Cloud Radiation	I :: II	Moore (2360)	cal/cm^2/day	10% :: 10%	1/wk	1 km :: G	:: Cloud
Cloud Radiative Forcing	I :: II	Bates (2421)	W/m^2		1/wk	500 km :: G	:: Atmos
	O :: II	Hansen (2422)	W/m^2		1/wk	500 km :: G	:: Atmos
Cloud Radiative Forcing, LW		AIRS (3689)					
Cloud Reflectance, Bi-directional, (BRDF)	I :: II	Wielicki (3615/2423)		5% :: 2%		<0.5-1 deg; 10 dg [Angle] :: G	N/A :: Cloud
	O :: FP	CERES (3698); HIRIS (2037); MISR (2038/2039)	/sr	3%-5% :: 1%	[variable] [d]	30 m - 240 m; 1.92 :: R-G	N/A :: Cloud; Trop
Cloud Reflectance, Bi-directional, SW_Broadband, (BRDF)	O :: FP	CERES (3698)	fraction	5% :: 1%		10 dg [Angle] :: G	N/A :: Atmos
Cloud Reflectivity, Spectral		Chahine (3686)					
Cloud Spectral Char	I :: II	Liu (2546)				:: G	N/A :: Cloud
Cloud Structure, 3-D	O :: FP	ASTER (1409)			1/(16 day)	15-90 m :: L	15-90 m :: Cloud
Cloud Structure, Cirrus	O :: FP	GLRS-A (1410)	/m	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
Cloud Structure, Mesoscale	O :: II	Hartmann (1411)			1/day	100 km :: Sites	
Cloud Temperature	I :: II	Sellers (2457)					
Cloud Temperature, Emission	I :: II	Barron (2458/2459); Dickinson (3386)	K	1 - 2; 5% :: 0.5K -1K; 5%	1/hr - 1/wk	500 m - 500 km :: R/G	N/A :: Cloud
Cloud Temperature, Top	I :: II	Bates (2460); Dickinson (3387); Hansen (2461); Harris (3449); Kerr-Sorooshian	K	1-2 K; 5% :: 0.5 K - 2K; 5%	1/hr - 1/wk	500 m - 500 km :: R, G	N/A :: Cloud
	O :: FP	AIRS (2463); ASTER (2465); MODIS (2466/2467)	K;C	1K - 2 K (C) :: 0.5 K - 2 K (C)	2/day [d, n]-1/mo	90 m - 15 x 45 km; 1 dg :: L-G	N/A :: Cloud
	O :: II	Bates (2468/2469/2470); Dickinson (3522)	K		1/(20 min)	50 km - 1 dg :: G	N/A :: Low - High Cloud
Cloud Thickness	O :: FP	ASTER (3625)			1/(16 day)	100 m :: L	N/A :: Cloud
Cloud Transmissivity	I :: II	Dickinson (3396); Rothrock (2544)		0.1 :: 0.1	1/day	<0.5-1 deg :: G; Polar	N/A :: Cloud
Cloud Transmissivity, Spectral		AIRS (3685)					
Cloud XXX, PSC	I :: II	Grose (3307)	no/cm^3	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
ClOy Conc	O :: II	Grose (1112/1113/1114); Pyle (1115)	mix ratio		1/mo - 48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
CO Conc	I :: II	Dickinson (3325); Grose (1116); Hansen (1117); Moore (1118); Pyle (1119); Schoeberl (1120/1121)	mix ratio; ppmv; ppb	0.1%-25% :: 5%-10%	2/day - 1/wk	15 x 4 km - 30 x 4 dg :: G	2 km - 10 km :: Atmos
	O :: FP	MLS (1124/1125) ; MOPITT (1126) ; TES (1127/1128/1129)	mix ratio; ppb	<=5% :: 3x10-8 - 1x10-5; 10%; 3 ppb - 15 ppb	1/(0.4 s) [?]-1/(16 day)	0.1 x 2.5 dg ; 160 x 23 km - 16 x 5 km :: 82N-82S; G	2.5 km - 6 km :: TPSE; 60-100 km; 0-30 km
	O :: II	Brewer (1134/1135); Schoeberl (1123)	ppb	20% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
CO Flux	O :: II	Brewer (1134/1135)	mol-CO/m^2/s	30% :: 20%	1/day	30 m - 20 km :: Ocean/L,G	N/A :: Sfc
CO Total Burden	O :: FP	AIRS (1136) ; MOPITT (1137)	ppb	20 :: 15; 10%	1/(4 s) [?] - 2/day [d, n]	66 km - 250 km :: G	Column :: Atmos
CO2 Conc	I :: II	Grose (1138); Hansen (1139); Sellers (1141); Kerr-Sorooshian (1140)	mix ratio; ppm	1% - 15%; 0.2 ppm :: 0.5% - 15%	1/day - 1/mo	50 km - 500 km; ZM :: G	1 km -10 km :: Atmos
	O :: FP	TES (3637)	ppb		1/(16 day)	16 x 5 km :: L	
CO2 Exchange	O :: II	Moore (1143/1144); Schimel (1145)	various; g/ha/hr	25% :: 1%	1/day	Mult :: Land/R, G,6 sites/L	:: Sfc
CO2 Exchange Time-deriv	O :: II	Schimel (1146)	g/ha/hr^2	25% :: 1%	1/day	Mult :: 6 sites/L	:: Sfc
CO2 Flux	O :: II	Brewer (1148/1149); Richey-Batista (1147); Sellers (1150)	mol-CO2/m^2/s; kg/ha/hr; mmol/m^2/s	20% :: 20%	1/hr - 1/day	30 m-1 dg :: Ocean/L,R,G	N/A :: TOO; Sfc
CO2 Partial Pressure	I :: II	Hansen (3075)		2% ::	1/wk	500 km :: Ocean	:: TOO
CO2 Total Burden (Mixing Ratio)	O :: FP	AIRS (1151)	ppm	25 :: 20	2/day [d, n]	50 km :: G	Column :: Atmos
Coccolith Backscatter Coef	O :: FP	MODIS (2556/2557)	/m	25% :: 10%	1/day -1/mo	1 km - 20 km :: Ocean/R - G	N/A :: TOO
Coccolith Conc, Detached	O :: FP	MODIS (2577/2578)	mg-CaCO3/m^3	30% :: 10%	1/day -1/mo	1 km - 20 km :: Ocean/L - G	N/A :: TOO
COF2 Conc	O :: II	Brewer (1153); Schoeberl (1152)	mix ratio; ppb	25% - 30% :: 20%	1/day - 1/mo	TBD - 10 dgZM :: L,G	2 km :: 0-90 km
Coral Reef Maps	O :: FP	ASTER (3631)				:: Ocean/TBD	
COS Conc	O :: II	Brewer (1154)	mix ratio	30% :: 20%	1/day	:: G	:: PBL
COS Flux	O :: II	Richey, Batista (1155)	kg/ha/hr	20% :: 20%	1/day	1 km :: Land/R	
Crustal Motion	O :: II	Isacks (3588)				:: Land/R(Andes)	
CS2 Conc	O :: II	Brewer (1156/1157)	mix ratio	30% :: 20%	1/day	:: L,G	:: PBL
Data Characteristics, MODIS	O :: FP	MODIS (3304/3305/3306)	dimensionless	30,10, 5% ::	1/day	1 km - 50 km :: G	N/A :: Sfc
DMS Conc	I :: II	Schoeberl (1158)	ppb	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Trop
	O :: II	Brewer (1159/1160)	mix ratio	30% :: 20%	1/day	:: L,G	:: PBL
DMS Flux	O :: II	Brewer (1161/1162)	mol/m^2/s	30% :: 20%	1/day	30 m - 20 km :: Ocean/L,G	N/A :: Sfc
Drainage_Basin Boundary	I :: II	Lau (2904)	km^2	100m^2 :: 100m^2	1/mission	10 m :: Land/L	N/A :: Sfc
	O :: II	Kerr, Sorooshian (2886)	km^2	10000 km^2 ::	1/mission	30 m :: Land/R	:: Sfc
Drainage_Network Structure	I :: II	Isacks (2902); Barron (2905)	feature recog.; m	30 m ::	1/3mo; 1/yr; 1/mission	15-30 m :: Land/L, R	N/A :: Sfc
Dust Composition	O :: II	Isacks (3584)				:: Land/R(Andes)	
Dust Conc	O :: II	Isacks (3580)				:: Land/R(Andes)	
Dust Size	O :: II	Isacks (3583)				:: Land/R(Andes)	
Dust Source	O :: II	Isacks (3582)				:: Land/R(Andes)	
Dust Spatial Distribution	O :: II	Isacks (3581)				:: Land/R(Andes)	
Electric Conductivity	I :: II	Dickinson (3419)				<0.5-1 deg :: G	
Electric Field Strength, DC	I :: II	Dickinson (3420)				<0.5-1 deg :: G	
Electron Content, Total, (TEC)	O :: FP	GGI (3229)		:: 0.10%	1/s [?]	multiple :: G	mult :: 0-20000 km
Electron Content-Difference, Total, (TEC-difference)	O :: FP	GGI (3228)		:: 0.10%	1/s [?]	various :: G	mult :: 0-20000 km
Electron Energy Spectra	I :: II	Schoeberl (3226)	electrn/cm^2/s/keV	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
Energy Flux, Net	O :: II	Dickinson (3537)			1/mo	1 x 1 dg ::	
Erosion Chemical Denudation	O :: II	Barron (2770/2771)	mm/kyr		1/yr	10 km - 100 km :: Land/R,G	
Erosion Rock Weathering	I :: II	Barron (2807/2808)			1/mission	10 km - 100 km :: Land/R,G	N/A :: Sfc
Erosion Sediment Yield	O :: II	Barron (2782)	kg/km^2		? 5000 yr	5 km :: 2 sites	
Erosion-Deposition Events	O :: II	Isacks (3589)				:: Land/R(Andes)	
Eruption-Plume Characteristics	O :: FP	ASTER (3301)	variable	variable :: variable		15,30,90 m :: R/L	

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Eruption-Plume Dispersal	I :: II	Mouginis-Mark (3273)	km/day	1 km ::	1/orbit, 1/day	1 km :: Land/L	N/A :: Plume_col
	O :: II	Mouginis-Mark (3267)	km/day		1/event	1 km :: R	N/A :: Sfc
Eruption-Plume Fallout Rate	I :: II	Mouginis-Mark (3282)			1/day	1 km :: Land/R	N/A :: Plume_col
Eruption-Plume HCl Content (Mass Eruption Rate)	I :: II	Mouginis-Mark (3283)	kton/day		1/day	:: G	N/A :: Plume_col
Eruption-Plume Height	I :: II	Mouginis-Mark (3285)	km	200m(ver) ::	1/day	1 km :: Land/R	N/A :: Plume_col
	O :: FP	MISR (3286)	m	100 m :: 100 m	[variable] [d]	500 m :: Land/L	N/A :: Plume_top
Eruption-Plume Temperature	I :: II	Mouginis-Mark (3293)	C	10 C ::	2/day [d,n]	100 m :: R	N/A :: Plume_col
Eruption_Plume SO2 Conc Spike	I :: II	Mouginis-Mark (3288)	kton/day		[near-real time ?]	1 km :: G	N/A :: Plume_col
Eruption_Plume SO2 Content (Mass Eruption Rate)	I :: II	Mouginis-Mark (3289)	kton/day		1/day	1 km :: G	N/A :: Plume_col
Eruption_Plume SO2 Eruption Rate, Mass	O :: II	Mouginis-Mark (3281)	kg/day		1/day, 1/wk	1 km :: G	N/A :: Sfc
Evaporation, Land_sfc	I :: II	Dickinson (3350)				<0.5-1 deg :: G	
	O :: II	Lau (3507)				:: G	N/A :: Sfc
Fire Burning Index	O :: II	Moore (2633)	ha		1/yr	1 km :: Land	
Fire Class	O :: FP	MODIS (2711)	C	10 C :: 5 C	1/day - 1/wk	10 km :: Land	N/A :: Sfc
Fire Count	O :: FP	MODIS (2663/2664)			1/day - 1/wk	1 km - 10 km :: Land/R - G	N/A :: Sfc
Fire Extent	I :: II	Dickinson (3398)		10% ::	1/wk	<0.5 deg - 500 km::Land	
	O :: FP	MODIS (2665/2666)			1/day - 1/wk	1 km; 1 dg :: Land/R,G	N/A :: Sfc
Fire Temperature	O :: FP	MODIS (2471)	C	10 C :: 5 C	1/day - 1/wk	1 km :: Land/R	N/A :: Sfc
Fires [Count, Extent, etc.]	I :: II	Hansen (2662)		10% ::	1/wk	500 km :: Land	:: Sfc
Fish-stock Abundance	O :: II	Harris (3570)			1/seas - 1/yr	:: Ocean / R(Australia-STC)	
Forest Deforestation	I :: II	Hansen (2658)		10% ::	1/wk	500 km :: Land	:: Sfc
Gelbstoff Absorption Coef	I :: II	Harris (3453)	/m	20% - 50% :: 10%	1/day - 1/seas	30m - 20 km :: Ocean	N/A :: Ocean
Gelbstoff Absorption Coef@300nm	I :: II	Brewer (3213/3214)	/m	50% :: 10%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
Gelbstoff Absorption Coef@410nm	O :: FP	HIRIS (3215)	/m	50% :: 0.25	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Geodetic Baselines	O :: FP	GGI (2818)	km	:: 2:10^9	1/min	:: G	:: Sfc
Geodetic Carrier Phase, GPS(L1,L2),	O :: FP	GGI (2819)	mm	:: 0.4 mm	1/(0.1 s)	:: G	
Geodetic EOS-platform Position	O :: FP	GGI (2862)	cm	:: <3 cm	1/s		:: In_situ
Geodetic Geocenter	O :: FP	GGI (2850)	cm	:: 2 cm	1/day		
Geodetic Location, Reference	O :: II	Tapley (2857)	cm	< 2 cm :: <1 cm		N/A :: G	N/A :: Sfc
Geodetic Orientation	O :: FP	GGI (2861)	arcsec	:: 0.001arc-s	2/day		
	O :: II	Tapley (2860)	mas (m-arc_sec),ms	1mas,0.1ms ::	1/day	N/A :: G	N/A :: N/A
Geodetic Pseudorange, GPS(L1,L2)	O :: FP	GGI (2867)	cm	:: 12 cm	? 1/s	:: G	
Geodetic Site Position, Horizontal	I :: II	Isacks (2863)	mm	3-5 mm :: 1-2 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
Geodetic Site Position, Vertical	I :: II	Isacks (2865)	mm	5 mm :: 2 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
Geologic Unit Maps (Geology Maps)	O :: FP	ASTER (2883)	N/A	variable :: variable	50/mission	90 m :: Land/R,L	
Geometric Error, MODIS Level-2	O :: FP	MODIS (3656)					
Geometric Error, MODIS Level-3	O :: FP	MODIS (3657)					
Geopotential Gravity Field	O :: II	Barron (2852/2853)	m^2/s^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Geopotential Height	O :: II	Bates (1498)	m		1/(20 min)	50 km :: G	50 lvl :: 1000-0.1 mb
Geopotential Height Gradient	I :: II	Bates (1499)	m/km	0.04m/km ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
	O :: FP	HIRDLS (1500)	m/km	0.04m/km :: 0.04m/km	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-80 km
Geopotential Height RMSE	O :: II	Bates (1540)	m		1/(20 min)	100 km :: G	25 lvl :: 1000-0.1 mb
Glacier Cover	I :: II	Isacks (2923)	km^2	5% :: 2%	1/seas	10-30 m :: Land/L	N/A :: Sfc
Glacier Cover, Bare_Ice	O :: FP	HIRIS (2922)	km^2	5% :: 2%	1/wk-1/mo	50 m :: Glacier/L	N/A :: Sfc

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Glacier Displacement	I :: II	Simard (2894)	m	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
	O :: FP	HIRIS (2895)	km^2	1% :: 0.20%	1/yr	30 m :: Glacier/L	N/A :: Sfc
Glacier Percolation Zone	O :: FP	HIRIS (2978)	km^2	5% :: 2%	1/wk-1/mo	50 m :: Glacier/L	N/A :: Sfc
Glacier Velocity	O :: FP	HIRIS (2930) ; ASTER (2931)	m/s	10^-6 :: variable	1/yr	15 -100 m :: Land/Cryo	N/A :: Sfc
Glint Field	O :: FP	MODIS (2254)	dimensionless		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc
Ground Control Points, Potential	O :: FP	MODIS (3668)		0.3 pixels ::		0.3 pixels :: Land/L	N/A :: Sfc
Ground Water Sum Routing	O :: II	Richey, Batista (2710)	g/ha/day	20% :: 20%	1/mo	1 km :: Land/R	
H Conc	O :: II	Schoeberl (1163)	ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
H2 Conc	O :: II	Schoeberl (1164)	ppm	15% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
H2CO Conc	O :: FP	MLS (1165)	mix ratio	:: 2x10-11	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 - 3 km :: 30 - 50 km
	O :: II	Schoeberl (1059)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
H2O (H2^17O) Conc	O :: FP	SAFIRE (1852) ; MLS (1854)	ppbv	:: 2%<50km - 10% (20-40 km)	1/(36-72 s) [?] - 2/day [d, n]	25 x 2.5-5 dg :: 86S-86N	2.5 - 3 km :: 20-90 km; TPSE
H2O (H2^18O) Conc	O :: FP	SAFIRE (1853) ; MLS (1855)	ppmv	:: 2%<50km - 10% (20-50 km)	1/(36-72 s) [?] - 2/day [d, n]	25 x 2.5-5 dg :: 86S-86N	2.5 - 3 km :: 20-80 km; TPSE
H2O (HDO) Conc	I :: II	Schoeberl (1856)	ratio to H2O	10% :: 10%	1/day	8 x 10 dg :: G	3 km :: Strat
	O :: FP	SAFIRE (1857)	ppmv	:: 7% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-60 km
H2O Conc	I :: II	Bates (1808); Grose (1811); Pyle (1819); Schoeberl (1821/1822)	g/m^3; mix ratio; mix ratio (-log10); ppm	5-15% :: 1-5%; 5%t;0.05s	2/day - 1/day	15 x 4 km - 30 x 4 dg :: G	1-3 km :: 10-80 km; Trop/Meso/Strat
	O :: FP	HIRDLS (1837) ; MLS (1838) ; SAFIRE (1839) ; SAGE-III (1840/1841) ; TES (1844)	mix ratio; /cm^3 & ppmv; ppm	5-10% :: 1-15%; 0.05 - 50 ppm	1/(36-72 s) [?] - 1/(16 day)	<2 x <1 dg - 25 x 2.5-5 dg; 16 x 5 km :: G; 82N-82S; Polar	1 km - 6 km :: 7-100 km; TPSE
	O :: II	Grose (1832); Pyle (1833); Schoeberl (1834/1835)	mix ratio; ppm	15% - 30% :: 10%	48/day [for 10 day]	~6 x 6 dg :: G	2 km; 24 lvl
H2O Conc, Stratospheric	I :: II	Hansen (1864)		3% ::	1/wk	500 km :: G	Column :: Strat
	O :: FP	TES (1842/1843)	ppm	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
H2O2 Conc	I :: II	Grose (1166); Pyle (1167); Schoeberl (1168)	mix ratio (-log10); mix ratio; ppb	20% - 25% :: 10%; 0.1t,.05s (ppb)	2/day - 1/wk	15 x 4 km - 30 x 10 dg	2 km - 3 km :: Strat
	O :: FP	MLS (1171) ; SAFIRE (1172)	mix ratio; ppbv	:: 1x10-10; 7% (30-35 km)	1/(36-72 s) - 1/day [z. mean]	0.1 x 2.5 dg - 25 x 2.5-5 dg :: 82N-82S	2.5 km - 3 km :: 20-50 km
	O :: II	Schoeberl (1169/1170)	ppb	30% ::	1/mo - 1/(3 mo)	10 dgZM :: G, 6Regions	1 - 2 km :: 0-90 km
H2S Conc	O :: II	Brewer (1173/1174)	mix ratio	30% :: 20%	1/day	:: L,G	:: PBL
Halons Conc	O :: II	Pyle (1175)					
HBr Conc	I :: II	Grose (1176); Pyle (1177); Schoeberl (1178)	mix ratio	25% :: 10%	1/day	30 x 4 dg :: G	3 km :: Strat
	O :: FP	SAFIRE (1180)	ppbv	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
	O :: II	Schoeberl (1179)	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
HCl Conc	I :: II	Grose (1182); Pyle (1183); Schoeberl (1184)	mix ratio (-log10); mix ratio; ppb	15% :: 5% - 10%	2/day - 1/day	4 x 5 dg - 30 x 4 dg :: G	2-3 km :: Strat-Mid-atmos
	O :: FP	SAFIRE (1187); TES (3638)	ppbv	:: 5% (25-55 km)	1 scan/(36-72 s); 1/(16 days)	25 x 2.5-5 dg; 15 x 5 km :: 86S-86N	3 km :: 10-65 km
	O :: II	Grose (1185); Schoeberl (1186)	mix ratio; ppb	20% ::	1/mo - 1/seas	~6 x 6 dg - 10 dgZM :: G	24 lvl; 2km :: 0-90 km
HCl(H_Cl^35) Conc	O :: FP	MLS (1188)	mix ratio	<=5% :: 0.1-10x10-10	2/day [d, n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
HCl(H_Cl^37) Conc	O :: FP	MLS (1189)	mix ratio	<=5% :: 0.1-10x10-10	2/day [d, n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
HCN Conc	I :: II	Schoeberl (1190)	ppb	20% :: 0.01	1/wk	8 x 10 dg :: G	3 km :: Strat
	O :: FP	MLS (1191); SAFIRE (1192)	mix ratio; ppbv	<=5% :: 4x10-11; 35% (25-30 km)	1/(36-72 s) - 2/day [d, n]	0.1 x 2.5 dg - 25 x 2.5-5 dg :: 82N-82S	2.5 km - 3 km :: 20-65 km
Heat Flux	O :: II	Barron (2130)	W/m^2		1/day	200 km :: R	
Heat Flux Convergence, Eddy	O :: II	Barron (1494)	W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
Heat Flux Rate, Latent	O :: II	Barron (1495/1496)	m/s ?		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Heat Flux, Feedback	O :: II	Hansen (2135)	W/m^2		1/wk	500 km :: G	:: Atmos
Heat Flux, Horizontal	O :: II	Kerr, Sorooshian (2136)	W/m^2/um			10 km :: Land/R	:: Trop
Heat Flux, Latent	I :: II	Bates (1464/1465); Brewer (1467); Dickinson (3327); Lau (1468)	W/m^2 or mm/day	10 (W/m^2 or mm/day); 10% :: 10; 10% - 20%	1/hr - 1/seas	30 m - 100 km :: Ocean; >60 dgLAT; Land/L	N/A :: Sfc

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Heat Flux, Latent	O :: II	Abbott (1469); Barron (1470); Bates (1471); Dickinson (3531); Hartman (1472); Kerr-Sorooshian (1473); Liu (3517); Murakami (3563); Rothrock (1474); Srokocz (3539)	W/m^2	10% - 20% :: 10% - 20%	1/(20 min) - 1/mo	500 m - 2.5 dg :: R/G; Land; Ocean; Select; >60 dgLat; -Pacific	Sfc; 10 lvl :: Sfc
Heat Flux, Net	I :: II	Murakami (1475)	W/m^2	5% ::			
Heat Flux, Sensible	I :: II	Bates (1476); Brewer (1477); Dickinson (3328); Lau (1479)	W/m^2	10% :: 10% - 20%	1/hr - 1/seas	30 m - 100 km:: Ocean; >60 dgLAT; Land/L	
	O :: II	Barron (1480/1481/1482); Bates (1483); Dickinson (3530); Kerr-Sorooshian (1484/1485); Liu (3518); Rothrock (1486); Sellers (1487); Srokocz (3540)	W/m^2		1/(20 min) - 1/mo	500 m - 4.5 x 7.5 dg :: R/G; Land	N/A :: Sfc
Heat Flux, Sfc	I :: II	Dozier (2131)	W/m^2		1/wk	50 m :: Land/L	N/A :: Sfc
	O :: II	Barron (1488/1489/1490/1491/2132)	W/m^2		1/ (5 min) - 1/(5 day)	500 m - 2.5 dg :: G/R	Sfc; 10 lvl :: Sfc
Heat Flux, Zonal_mean	O :: II	Barron (3100)	W/m^2		1/(5 day)	2.5 dgZM :: G	10 lvl ::
Heat Flux-Change Statistics, Latent	O :: II	Srokocz (3545)			1/mo	>= 1 dg (Select) ::	
Heat Flux-Change Statistics, Sensible	O :: II	Srokocz (3546)			1/mo	>= 1 dg (Select) ::	
Heat Transport	O :: II	Dickinson (3534)			1/mo	1 x 1 dg ::	
Heating Rate, Convective	O :: II	Bates (1441)	K/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
Heating Rate, Diffusive	O :: II	Bates (1442)	K/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
Heating Rate, Latent	I :: II	Lau (1501/1502)	C/day	0.5 - 1 C/dy :: 5%	1/day - 1/mo	50 km - 500 km :: R/G	1 - 2 km :: Trop
Heating Rate, LW_Radiative	O :: II	Barron (1450/1451); Bates (1452)	K/s		1/(4-6 hr) - 2/day	50 km - 4.5 x 7.5 dg :: G	
Heating Rate, SW Radiative	O :: II	Barron (1453/1454)	K/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	:: Sfc
Heating Rate, U-horizontal_Diffusive	O :: II	Barron (1455/1456/1457/1458)	K/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Heating Rate, V-horizontal_Diffusive	O :: II	Barron (1459/1460/1461/1462)	K/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Heating, Convective	O :: II	Barron (1443/1444)	W/m^3		1/hr	1-100 km :: R	
Heating, Diabatic	I :: II	Dickinson (3326)				<0.5-1 deg :: G	
Heating, East-West Sfc-stress	O :: II	Barron (1445/1446)	J/m^2/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Heating, Latent	I :: II	Bates (1463)				25 km :: G	10 lvl :: Trop
	O :: II	Lau (3511)					:: Atmos
Heating, Net_Diabatic	O :: II	Barron (1449)	W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
Heating, North-South Sfc-stress	O :: II	Barron (1447/1448)	J/m^2/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
HF Conc	I :: II	Grose (1193); Pyle (1194); Schoeberl (1195)	mix ratio; ppb	15% - 25% :: 5% - 10%	2/day - 1/day	4 x 5 dg - 30 x 4 dg :: G	2 km - 3 km :: Strat
	O :: FP	SAFIRE (1197)	ppbv	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
	O :: II	Schoeberl (1196)	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
HFl Conc	O :: FP	TES (3639)	ppb		1/(16 day)	16 x 5 km :: L	
HNO3 Conc	I :: II	Grose (1198); Pyle (1199); Schoeberl (1200)	mix ratio; ppb	15% - 20% :: 5%; 0.1ppb	2/day - 1/day	2 x 3 dg - 30 x 4 dg :: G	2-3 km :: Strat-Mid-atmos
	O :: FP	HIRDLS (1202) ; MLS (1203) ; SAFIRE (1204) ; TES (1206)	mix ratio; ppbv; ppt	<=5% -10% :: 1-10%; 5x10-10; 3 ppt	2/day [d, n]	0.1 x 2.5 dg -0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE - 80 km
	O :: II	Schoeberl (1201)	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
HNO4 Conc	I :: II	Grose (1207); Schoeberl (1208)	mix ratio; ppb	20% - 50% :: 2% -10%	2/day - 1/wk	8 x 10 dg - 30 x 4 dg :: G	3 km :: Mid-atmos
	O :: II	Schoeberl (1209)	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
HNOx Conc	I :: II	Pyle (1210)	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
HO2 Conc	I :: II	Grose (1212); Pyle (1213); Schoeberl (1214)	mix ratio; ppb	15% - 25% :: 10%; 0.02ppb	2/day - 1/day [d]	15 x 4 km - 30 x 10 dg :: G	2-3 km :: Strat-Mid-atmos
	O :: FP	MLS (1216); SAFIRE (1217)	mix ratio; ppbv	:: 3-20x10-10; 7% (30-60 km)	1/(36-72 s) [?] - 2/day [d, n]	0.1 x 2.5 dg -25 x 2.5-5 dg :: 82N-82S	2.5 km - 3 km :: 20 km- 80 km
	O :: II	Schoeberl (1215)	ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
HOCl Conc	I :: II	Grose (1218); Pyle (1219); Schoeberl (1220)	mix ratio; ppb	20% - 25% :: 2% - 10%	2/day - 1/wk	15 x 4 km - 30 x 4 dg :: G	3 km :: Strat
	O :: FP	MLS (1222) ; SAFIRE (1223)	mix ratio; ppbv	:: 3x10-11; 7% (35-40 km)	1/(36-72 s) [?] - 1/day	0.1 x 2.5 dg -25 x 2.5-5 dg :: 82N-82S	2.5 km - 3 km :: 20km - 45 km
	O :: II	Schoeberl (1221)	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
HOy Conc	O :: II	Grose (1224/1225/1226); Pyle (1227)	mix ratio		48/day [for 10 day] - 1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
Humidity	I :: II	Murakami (1818)	g/kg	10% ::			
	O :: II	Barron (1829/1830)	g/kg		1/hr	1-100 km :: R	

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Humidity Profile	I :: II	Abbott (1805); Barron (1806/1807); Bates (1809); Dickinson (3353); Hansen (1812); Harris (1813); Hartman (1814); Isacks (1815); Kerr-Sorooshian (1816); Liu (1817); Sellers (1823); Tapley (1825); Wielicki (1826)	mix ratio; g/kg; g/m^3; ppm; Pa	3% - 20%; TBD ::1% - 10%; TBD	4/day [d,n] - 1/wk	10 km - 500 km :: R;G Land/Ocean/Polar	0 - 3 km :: 0 - 80 km
	O :: FP	AIRS (1828/3692)	g/kg	10% :: 5%	2/day [d,n]	50 km :: G	2 km :: Atmos
	O :: II	Barron (1831)	g/cm^3; g/kg		1/(6 hr) - 1/day	10 km - 1 dg :: R/G	15-20 lvl :: PBL
Humidity Profile, PBL	O :: II	Barron (1880)	g/kg		1/day	10 km :: R	:: PBL
Humidity Profile, Specific	I :: II	Srokosz (1824)	g/kg	0.3g/kg :: 0.1g/kg	2/day	10 km :: Ocean [South Atlan]	
	O :: II	Bates (1879)	g/kg		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
Humidity, Near_sfc	I :: II	Dickinson (3354); Rothrock (1820)	g/cm^3		1/day	<0.5-1 deg :: G; Polar	N/A :: Near_sfc
Humidity, Relative, Near_sfc	I :: II	Kerr, Sorooshian (1881)	%	10% :: 10%	1/hr	1 km :: Land/R	N/A :: Sfc
Humidity, Specific	O :: II	Barron (1439/1440/1882/1883)	g/kg; kg/kg		1/(5 min) - 2/day	500 m - 4.5 x 7.5 dg :: [East U.S.]; G	
Humidity, Specific, Near_sfc	O :: II	Bates (1884/1885)	g/kg		1/(20 min)	25 km - 50 km :: G	N/A :: Near_sfc
Humidity-Change, Specific, Convective_Adjusted	O :: II	Barron (1886/1887)	kg/kg/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Humidity-RMSE, Specific	O :: II	Bates (1982)	g/kg		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
Humidity-Tendency, Specific	O :: II	Barron (1888/1889)	kg/kg/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Hydrological Parameter, XXX	O :: II	Moore (3069)	% saturation		1/wk	1 km :: Land	
Ice_Sheet Accumulation	O :: II	Simard (2927)		20% ::	1/yr	:: Canada/R	:: Sfc
Ice_Sheet Boundary (Margin)	O :: II	Simard (2928)		20% ::	1/yr	:: Canada/R	:: Sfc
Ice_Sheet Cover	I :: II	Bates (2918)	dimensionless		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc
Ice_Sheet Cover Index	O :: FP	AIRS (2921)	dimensionless		2/day [d, n]	50 km :: Land/Cryo	N/A :: Sfc
Ice_Sheet Displacement	I :: II	Simard (2896)	m	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
	O :: FP	GLRS-A (2897)	mm/day;m/yr	10 mm/dy ; 0.5 km/dy :: 10 mm/dy; 0.5 km/dy	1/wk -1/yr	30 m - 15 km :: Land/Cryo	N/A :: Sfc
	O :: II	Simard (2899)	cm	10 cm ::	1/yr	:: Canada/R	:: Sfc
Ice_Sheet Elevation	I :: II	Barron (2906/2907); Isacks (2908); Simard (2909/2910)	mm; m	100 ::	1/(3 mo) - 2/yr	10 m - 100 km :: Land/Cryo,R	N/A :: Sfc
	O :: FP	ALT (2911); GLRS-A (2912)	m;mm	.1m-5m :: 100 mm	1/mo - 1/yr	75 m - 15 km :: Land/Cryo	N/A :: Sfc
Ice_Sheet Mass balance	O :: II	Barron (2945)	cm/yr		1/yr	100 km :: Antarctica	
Ice_Sheet Roughness	O :: FP	GLRS-A (1554)	mm	100 mm :: 100 mm	1/(3 mo)	75 m :: Cryo	:: Sfc
Ice_Sheet Strain Rate	O :: FP	GLRS-A (3048)	u-strain/yr	10^-6/yr :: 10^-6/yr	1/(3 mo)	10-100 km :: Land/Cryo	N/A :: Sfc
Ice_Sheet Temperature	I :: II	Barron (3051/3052); Dickinson (3388)	K	1 K ::	1/wk	10 km - 100 km :: Land/Cryo	N/A :: Sfc
Ice_Sheet Thickness	I :: II	Barron (3053/3054); Simard (3055/3056)	mm	100 ::	1/(3 mo)	10 km-100 km :: Land/Cryo,R	0 - 30m :: Sfc
Ice_Sheet Velocity	I :: II	Barron (2929)	m/s			:: Land/Cryo	N/A :: Sfc
Ice_Sheet Velocity (Outflow), Polar	O :: FP	HIRIS (2932)	m/s	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
Industrial_Emissions Conc	I :: II	Hansen (1372)	mix ratio	2% ::	1/wk	500 km :: G	:: Trop
Infiltration	O :: II	Barron (2933/2934/2935)	mm/s		1/event, 1/mo, 1/yr	30 m -18km :: R	
Infiltration Capacity	I :: II	Kerr, Sorooshian (2936)	L/T		1/yr	30 m :: Land/R	
Instrument Characteristics, MODIS Level-1	O :: FP	MODIS (3645)					
Instrument Model, MODIS Level-1	O :: FI	MODIS (3648)					
Inundation Depth	O :: II	Moore (2937)	m		1/wk	1 km :: Land	
Inundation Extent	I :: II	Lau (2938); Moore (2939/2942)	m^2; ha/km^2	10% - 20% :: 5% - 20%	1/wk; 1/mo	100 m - 25 km :: Land/L,G	N/A :: Sfc
	O :: II	Moore (2941)	ha/km^2		1/wk	1 km :: Land	
Irradiance, Incident, Sfc	I :: II	Dickinson (3384)				<0.5-1 deg :: G	
Irradiance, Lunar, MODIS Level-2	O :: FP	MODIS (3652)					
Irradiance, Solar	I :: II	Abbott (2269); Grose (2271); Hansen (2272); Pyle (2273)	W/m^2; W/m^2/nm	0.05% - 5% :: 1%	2/day - 1/wk	4 km - 500 km; 15 x 4 dg :: Ocean [Southern]; G	0 - 3 km :: Sfc-TOA
Irradiance, Solar, MODIS Level-2	O :: FP	MODIS (3651)					
Irradiance, Solar, Total	O :: FP	ACRIM (2274)	W/m^2	0.10% :: 0.00%	1/(2 min)	N/A :: N/A	N/A :: TOA
Irradiance, Total	O :: II	Kerr, Sorooshian (2270)					
Irradiance, UV Solar	I :: II	Brewer (2275/2276)	E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	30 m - 20 km :: Ocean/L,R	
Irradiance, UV Solar [0.0015 nm res.]	O :: FP	SOLSTICE (2277)	photons/cm^2/s/nm	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Irradiance, UV Solar [0.1 nm res.]	O :: FP	SOLSTICE (2278)	photons/cm^2/s/nm	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Irradiance, Visible Solar	I :: II	Brewer (2279/2280)	E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	30 m - 20 km :: Ocean/L,R	
Lake Extent	I :: II	Barron (3062); Isacks (3059)	m^2	10% :: 10%	1/day	15 m -30 m; TBD :: Land/L,R	N/A :: Sfc
Lake Water Attenuation Coef	I :: II	Richey, Batista (3203)	/m	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
Lake Water Chemistry, XXX	I :: II	Richey, Batista (2812)	g/m^3; kg/ha	5 - 20% :: 5 - 20%	1/wk - 1/seas	1 km :: Land/R	N/A :: Sfc
Lake Water Chlorophyll Conc	I :: II	Richey, Batista (2654)	g/m^3	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
Lake Water Temperature, Volcano Summit	I :: II	Mouginis-Mark (3291)	C	2 C ::	1/(3 mo)	100 m :: Land/L	N/A :: Sfc
Land Geochemical Analysis	O :: II	Dozier (2811)	N/A		1/day	50 m :: L	
Land Heat Capacity	I :: II	Kerr, Sorooshian (2855)				30 m :: Land/R	N/A :: Sfc
Land Thermal inertia	I :: II	Kerr, Sorooshian (2541)	cal/cm^2/K/s	.008 :: .004	1/(16 day)	60 m :: Land/R	N/A :: Sfc
	O :: FP	ASTER (2542)	cal/cm^2/K/s	0.008 :: 0.004		15-90 m :: Land/R,L	N/A :: Sfc
Landform Distribution	I :: II	Barron (2849)	m	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
Landform Face Freshness	O :: II	Isacks (3590)				:: Land/R(Andes)	
Landform Feature Distribution	I :: II	Isacks (2851)	feature recog.		1/mission	15-30 m :: Land/R	N/A :: Sfc
Landform Lineament / Slope Maps	O :: FP	ASTER (2856)	Orientation/length	10% :: 5%	1/seas	15-30 m :: Land/R,L	N/A :: Sfc
Landform Morphology	O :: FP	GLRS-A (2858)	mm	100-500mm ::	1/wk-1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
Landform Scarp-fault Elevation	I :: II	Isacks (2869)	cm	10 cm :: 5 cm	1/mission	[2-D sect.] :: Land/L	N/A :: Sfc
Landform Sfc units, Geologic	O :: FP	HIRIS (2884)	dimensionless	:: 30%		30 m :: L	N/A :: Sfc
Landform Stratigraphy	O :: II	Isacks (3591)				:: Land/R(Andes)	
Landform Structures(Relief/Lithology-Change)	O :: II	Isacks (3592)				:: Land/R(Andes)	
Land_Cover Type	O :: FP	MODIS (2669/2670)	categorical fraction	0.1 :: 0.05	1/mo -1/seas	1 km - 5 km :: Land	N/A :: Sfc
Land_Cover Type-Change	O :: FP	MODIS (2671/2672)	categorical fraction	0.1 :: 0.07	1/seas	1 km - 5 km :: Land	N/A :: Sfc
Land_sfc Biochemical Analysis	O :: II	Dozier (2553)	N/A		1/day	50 m :: L	
Land_sfc BRDF, AM-PM Asymmetry	O :: FP	MODIS (3696)	1/sr	5% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
Land_sfc BRDF, AM-PM Degree_of_Asymmetry	O :: FP	MODIS (3697)	%	30% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
Land_sfc Brightness Temperature (Radiance)	O :: FP	ASTER (2453), TES (2455)	K	1-2 K :: 0.3 - 1 K	1/(2-16 day)	90 m - 16 x 5 km :: G	N/A :: Sfc
Land_sfc Emissivity	I :: II	Bates (2112); Dickinson (3373); Kerr-Sorooshian (2123); Wielicki (2120)	fraction; %	0.025 - .05 :: 0.025 - .05	2/day [d,n]; 1/yr	90 m - 1.25 dg :: Land/R-G	N/A :: Sfc
	O :: FP	MODIS (2110/2111/3323/3324)	dimensionless	0.01 - 0.05 :: 0.01 - 0.02	1/day, 1/wk	1 km - 50 km :: Land/R - G	N/A :: Sfc
	O :: FP	ASTER (2124/3674/3675)	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
Land_sfc Emissivity, LW (8-12u)	I :: II	Cihlar (3487)	fraction	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
Land_sfc Emissivity, Relative Spectral	O :: FP	ASTER (2129)	dimensionless	:: 0.02	1/(0.5-16 day)	15-30 m :: Land/R,L	N/A :: Sfc
Land_sfc Emissivity, Spectral	I :: II	Isacks (2125)			1/yr	15-90 m :: Land/L	N/A :: Sfc
	O :: FP	AIRS (2113/3695)	dimensionless	0.05 :: 0.025	2/day [d, n]	15 x 45 km :: Land	N/A :: Sfc
Land_sfc Radiance-Corection, Topographic	O :: FP	MODIS (2404/2405)			1/day	1 km - 10 km :: Land/R - G	N/A :: Sfc
Land_sfc Rebound, Post-Glacial,	O :: II	Tapley (2868)	/yr	5% ::	1/(~10 yr)	N/A :: G	ns [?] :: Global
Land_sfc Reflectance Factor, MODIS	I :: II	Cihlar (2437)		0.05 :: 0.001	1/(3 mo)	0.25 km :: Canada/R	N/A :: Atmos
Land_sfc Reflectance, Bi-directional Spectral, (BRDF)	I :: II	Sellers (2041)				250-500 m :: Land	
	I :: II	Dickinson (3369); Sellers (2034)				<0.5-1 deg :: G	
	O :: FP	HIRIS (2035); MISR (2631/2632); MODIS (2424/2425)	dimensionless; %;fraction;/sr	5% - 15% :: 2% - 8%	1/(5-16 day) -1/wk	30 m - 10 km :: Land/L - R	N/A :: Sfc
Land_sfc Reflectance, Bi-directional, SW_Broadband, (BRDF)	I :: II	Wielicki (2043/2044)	fraction	5% :: 2%		10 dg :: G	N/A :: Sfc; Cloud
	O :: FP	CERES (2045)	fraction	5% :: 1%		10 dg :: G	N/A :: Sfc,Atmos
Land_sfc Reflectance, Bidirectional (BRDF)	O :: FP	MODIS (3669)	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Land_sfc Reflectance, Directional	I :: II	Brewer (2426/2427); Kerr-Sorooshian (2428)	%; fraction	3% - 5% :: 2% - 5%	1/day - 1/seas	30 m - 2 km :: L,R; Land/Ocean	N/A :: Sfc; Cloud
	O :: FP	ASTER (2433); HIRIS (2432); MODIS (2429/2430/2431/2434)	dimensionless;fraction	0.01; 3% - 10% :: 0.005; 1% - 5%	1/day - 1/mo	30 m - 1.1 km :: Land/R - G	N/A :: Sfc
Land_sfc Reflectance, Relative Spectral	O :: FP	ASTER (2435)	dimensionless	4% :: 0.5-1.3%	1/(2-16 day)	15 - 30 m :: Land/R,L	N/A :: Sfc
Land_sfc Roughness	I :: II	Isacks (1553); Barron (1545/1546/1547)	cm; m	2 cm; 10% :: 1 cm; 0.1	1/mo - 1/mission	30 m - 100 km :: Land/L,R	N/A :: Sfc
	O :: FP	MODIS (1556/1557)	dimensionless	5% - 15% :: 3 - 8%	1/day - 1/wk	1 km - 10 km :: Land/R - G	N/A :: Sfc
	O :: II	Isacks (3587)				:: Land/R(Andes)	

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Land_sfc Roughness, Aerodynamic	I :: II	Kerr-Sorooshian (1549); Lau (1550/1551)	cm	0.1 m; 10% :: 0.2 m; 10%	1/hr - 1/seas	30 m - 25 km :: Land	N/A :: Sfc
Land_sfc Roughness, Geometric,	I :: II	Kerr, Sorooshian (1552)	cm	0.1 cm :: 0.2 cm	2/mo	25 km :: Land	N/A :: Sfc
Land_sfc Temperature	I :: II	Dickinson (3389/3390/3391); Hansen (2477); Richey-Batista (2476); Sellers (2478); Simard (3312/3313)	K	0.2 K - 1.3 C :: 1 C ?	2/day - 1/wk	High Res - 500 km :: Land/L,R,G; Canada/R	N/A :: Sfc
	O :: FP	MODIS (2484/2485)	K;C	1-6 K ;1-3 C :: 0.3 K; 1 C	1/day - 1/(2-16 day)	90 m -10 km :: Land/L - G	N/A :: Sfc
	O :: II	Barron (2486/2487/2494/2495)	C; K		1/(5 min) - 2/day	500 m - 4.5 x 7.5 dg :: [East. U.S.]; G	N/A :: Sfc
Land_sfc Temperature (3-products)	O :: FP	ASTER (2483)	K	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Land_sfc Temperature, Average	O :: II	Isacks (3577)				:: Land/R(Andes)	
Land_sfc Temperature, Skin	I :: II	Barron (2472/2473/2474/2475); Harris (3450); Isacks (2496/2497); Wielicki (2479)	K	0.5 - 6 :: 0.2 - 1	2/day - 1/wk	90m-50 km :: Ocean/L,R	N/A :: Sfc
	O :: FP	AIRS (2481)	K	1.0K :: 0.5 K	2/day [d, n]	50 km :: Land	N/A :: Sfc
	O :: II	Bates (2499)	K		1/(20 min)	50 km :: Land	N/A :: Sfc
Land_sfc Temperature-Difference, Day-Night	I :: II	Bates (2538); Dickinson (3395)	K	0.5 K :: 0.25 K	1/day	50 km - 100 km :: Land; G	N/A :: Sfc
	O :: FP	AIRS (2539); ASTER (2540); MODIS (2537)	K	0.5 K - 2K :: 0.25 K - 1 K	1/day - 2/day [d, n]	90 m - 50 km :: Land/L - G	N/A :: Sfc
Land_sfc Temperature-Variability(&Extrema)	O :: II	Isacks (3578)				:: Land/R(Andes)	
Land_sfc Thermal Anomalies	O :: FP	ASTER (3629)		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
Land_sfc Thermal Change	O :: FP	ASTER (2447)	dimensionless	1-2 K :: 0.5 K		90 m :: Land/R,L	N/A :: Sfc
Land_sfc Water Area	O :: FP	ASTER (3633)		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
Lava-Flow Advance Rate	I :: II	Mouginis-Mark (3262)	m/day	30m (hor) ::	2/day	30m :: Land/L	N/A :: Sfc
Lava-Flow Areal Change	I :: II	Mouginis-Mark (3266)	m^2	(30m)^2 ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
Lava-Flow Cooling Rate	O :: II	Mouginis-Mark (3268)	C/day	5 C/dy ::	1/event	30 m :: Land/L	N/A :: Sfc
Lava-Flow Eruption Rate, Mass,	O :: II	Mouginis-Mark (3280)	kg/day	10^5 kg ::	1/day, 1/wk	30 m :: Land/L	N/A :: Sfc
Lava-Flow Temperature	I :: II	Mouginis-Mark (3292)	C	10 C ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
Lava-Flow Thickness	I :: II	Mouginis-Mark (3297)	cm	5 cm(ver) ::	1/event	30 m :: Land/L	N/A :: Sfc
Level-1B Backscatter Coef	O :: PI	STIKSCAT (2108)	dB	:: 0.25 dB		25 km :: G	N/A :: Sfc
Level-1B Backscatter Coef, ALT	I :: II	Srokosz (2096)	dB	0.2dB :: 0.1dB	1/(10 day)	10 km :: Ocean [S. Atl]	N/A :: Sfc
Level-1B Backscatter Coef, GLRS	O :: FP	GLRS-A (2104)	/m	10% ::	1/(2-16 day)	1 - 100 km :: G	75 m ::
Level-1B Backscatter Coef, HIRIS	I :: II	Harris (3448)	/m	20% :: 10%	2-10 days	0.25-1 km :: Ocean/R	
Level-1B Backscatter Coef, SAR_EOS	I :: II	Cihlar (2102)		2 dB :: 1 dB	1/(3 mo)	25 m :: Canada/R	N/A :: Sfc
Level-1B Backscatter Coef, STIKSCAT	I :: II	Srokosz (2109)	dB	0.3 dB :: 0.1 dB	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
Level-1B Backscatter Coef Waveforms, ALT	I :: II	Srokosz (3125)	dB	0.02(bin) :: 0.1dB	1/(10 day)	10 km ::Ocean[S. Atl]	N/A :: Sfc
Level-1B Backscatter, ALT	O :: FP	ALT (3464)	dB				
Level-1B Backscatter, SAR	I :: II	Srokosz (2106)	dB	0.2 dB :: TBD	[occasional]	25 m :: Ocean [S. Atl]	N/A :: Sfc
Level-1B Backscatter, STIKSCAT	I :: II	Brewer (2097)	dB	10% :: TBD	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
Level-1B Irradiance, SOLSTICE	O :: FP	SOLSTICE (2398)	W/m^2		1/hr	2 dg :: G	1 km :: Mid_atm
Level-1B Polarization, EOSP	O :: FP	EOSP (2336)	dimensionless	0.20% :: 0.10%	1/day [d]	10 - 70 km :: G	N/A :: N/A
Level-1B Radiance Mixture-Model, MODIS Spectral-spatial	O :: FP	MODIS (2286)	dimensionless	5-10% :: 0.05	1/day	pixel_size :: G	N/A :: Sfc
Level-1B Radiance, AIRS	I :: II	Bates (2346)					
	O :: FP	AIRS[AIRS] (2347)	W/m^2/sr/um	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
Level-1B Radiance, AMSU-A	I :: II	Bates (2349)	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
	O :: FP	AIRS[AMSU-A] (2350)	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d, n]	40 x 40 km :: G	N/A :: N/A
Level-1B Radiance, ASTER	O :: FP	ASTER (2375)					
Level-1B Radiance, CERES	I :: II	Wielicki (2358)	W/m^2/sr/um	SW2%, LW1% :: SW2%,LW1%	6/day [d,n]	25 km :: R	N/A :: Atmos
	O :: FP	CERES (2359)	W/m^2/sr/um	SW 2%,LW 1% :: 0.005	6/day [d, n]	25 km :: G	N/A :: N/A
Level-1B Radiance, EOSP	O :: FP	EOSP (2362)	W/m^2/sr/um	5% :: 2%	1/day [d]	10-70 km :: G	N/A :: N/A
Level-1B Radiance, GGI	O :: FP	GGI (2364)					
Level-1B Radiance, HIRDLS	O :: FP	HIRDLS (2369)	W/m^2/sr/um				
Level-1B Radiance, HIRIS	O :: FP	HIRIS (2370)	W/m^2/sr/um				
Level-1B Radiance, LIS	O :: FP	LIS (2384)	W/m^2/sr/um				

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Level-1B Radiance, MHS	I :: II	Bates (2351)	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
	O :: FP	AIRS [MHS] (2352)	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d, n]	15 x 15 km :: G	N/A :: N/A
Level-1B Radiance, MIMR	O :: FP	MIMR (3602)	K		1/day		
Level-1B Radiance, MISR	O :: FP	MISR (2386/2387)	W/m^2/sr/um	3% :: 1%	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
Level-1B Radiance, MLS	O :: FP	MLS (2388)	K		2/day [d, n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: Trop-150 km
Level-1B Radiance, MODIS	I :: II	Sellers (2389); Srokosz (3310); Wielicki (2390)	W/m^2/sr/um	SW 5%,LW .1K :: SW 2%; LW .1K	1/day - 2/day [d,n]	0.25-1.0 km :: R,G	N/A :: Atmos
	I :: II	Sellers (3485)	W/m^2/sr/um				
Level-1B Radiance, MODIS<3um	O :: FI	MODIS (2338/2339/2392)	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	0.25 km - 1 km :: G	N/A :: N/A
Level-1B Radiance, MODIS>3um	O :: FP	MODIS (2340)	W/m^2/sr/um	1%(1Σ) :: RMS<NEdL	1/day	214 m - 856 m :: G	N/A :: N/A
Level-1B Radiance, MOPITT	O :: FP	MOPITT (2394)	W/m^2/sr/um	2% ::	1/(0.4 s) [?]	22 km :: G	Column :: Atmos
Level-1B Radiance, SAFIRE	O :: FP	SAFIRE (2396)					
Level-1B Radiance, TES	O :: FP	TES (2402)					
Level-1B Transmission, SAGE-III	O :: FP	SAGE-III (2543)	dimensionless	0.05% :: 0.05%	1/(2 min), 30/day	200 x 2.5 km :: G	1-2 km :: 0-90 km
Level-2 Data Comparisons, EOS_Instrument	O :: II	Le Marshall (3593)				:: R (Tropics,So.Hemis)	
Level-2 Radiance, Atmos_corrected, BOSP	O :: FP	BOSP (2353)	W/m^2/sr/um	25% :: 15%	1/day [d]	40 km :: G	N/A :: N/A
Level-2 Radiance, Land_leaving	O :: FP	ASTER (2378); MODIS (2379/2380/2381)	W/m^2/sr/um	5% - 10%; 2 K :: 3% - 6%; 0.3 K	1/day - 1/(2-16 day)	15 m - 0.5 km :: Land/L - R	N/A :: Sfc
Level-2 Radiance, Water-leaving	I :: II	Brewer (2414/2415); Harris (3447)	E/m^2/s/Hz; mW/(cm^2-sr-	10% :: 5%; TBD	1/day, 1/seas	30 m - 20 km :: Ocean/L,R,G	N/A :: TOO
	O :: FP	MODIS (2416/2417)	mW/cm^2/sr/um	10% :: 5%	1/day -1/mo	1 km - 20 km :: Ocean/L - G	N/A :: Sfc
Lightning Intensity	I :: II	Dickinson (3340)				<0.5-1 deg :: G	
Lightning Occurrence (Location,Time)	O :: FP	LIS (3642)		10 km (in 1100km FOV) ::		.07 dg :: G	N/A :: Atmos
Lightning Radiant Energy	O :: FP	LIS (3643)				.07 dg :: G	N/A :: Atmos
Lightning Rate	I :: II	Barron (1757); Dickinson (3341); Kerr-Sorooshian (1758)	/s; #/hr	10%; 1 :: 10%; 1	1/(10 min) - 1/day	1 km - 1 dg :: G; Land	N/A :: Atmos; Trop
	O :: FP	LIS (1756)		:: 5%		.07 dg :: G	N/A :: Atmos
Lithosphere Gravity Field	O :: II	Tapley (2854)	mgal	10% ::		200 km :: Ocean	N/A :: Ocean
Magnetic Field Strength, DC	O :: FP	MLS (3247)	G	:: 2x10-3G	2/day [d,n]	2.5 x 0.2 dg :: 82N-82S	2.5 km :: 80-100 km
Mineral Conc, Rock-Soil	I :: II	Isacks (2778)	%		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
Mineral Flux, XXX Geochemical	O :: II	Barron (2813/2814)	eq/km^2/yr		1/day	1 km - 10 km :: Land/R,G	
Mineral Index	O :: FP	ASTER (2773)	dimensionless	10% :: 5%	1/seas	15-90 m :: Land/R,L	N/A :: Sfc
Mineral Maps	O :: FP	ASTER (2817)	dimensionless	variable :: variable	50/mission	90 m :: Land/R,L	N/A :: Sfc
Mineral Thermal history	O :: FP	HIRIS (2774)		::	1/seas	30 m :: Land/L	N/A :: Sfc
Mineral(CO3) Relative Abundance	O :: FP	HIRIS (2766)	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Mineral(Fe) Relative Abundance	O :: FP	HIRIS (2772)	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Mineral(OH) Relative Abundance	O :: FP	HIRIS (2776)	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Mineral(SO4) Relative Abundance	O :: FP	HIRIS (2784)	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Moistening, Convective	O :: II	Bates (1924)	g/kg/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
Moistening, Diffusive	O :: II	Bates (1925)	g/kg/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
Moisture Budget	O :: II	Grose (1845); Lau (3513)			1/mo	-6 x 6 dg :: G,R	:: Upper_atmos
Moisture Flux	O :: II	Barron (1847); Sellers (1846)	kg (H2O)/m^2 :: kg/m^2/s		4/day - 1/mo	10 km - 1 dg :: N. Atlantic	
Moisture Flux, Horizontal,	I :: II	Dickinson (3356)				<0.5-1 deg :: G	N/A : Trop
Moisture Flux, Net	O :: II	Srokocz (3541)			1/mo	>= 1 dg (Select) ::	
Moisture Flux, Sfc	O :: II	Barron (1848/1849/1850/1851)	W/m^2; g/m^2/s		1/(5 min) - 1/day	500 m - 100 km :: R	N/A :: Sfc
Moisture Flux-Change Statistics , Net	O :: II	Srokocz (3547)			1/mo	>= 1 dg (Select) ::	
Moisture Transport	O :: II	Dickinson (3535)			1/mo	1 x 1 dg ::	
Moisture Transport Statistics	O :: II	Lau (3512)				:: G	:: Atmos
Momentum	O :: II	Srokocz (3538)			1/mo	>= 1 dg (Select) ::	
Momentum Transport	O :: II	Dickinson (3536)			1/mo	1 x 1 dg ::	
Momentum-Change Statistics	O :: II	Srokocz (3544)			1/mo	>= 1 dg (Select) ::	
N Conc	O :: II	Schoeberl (1228)	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
N2O Budget	O :: II	Grose (1244)			1/mo	-6 x 6 dg :: G	

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
N2O Conc	I :: II	Grose (1229); Hansen (1230); Pyle (1231); Schoeberl (1232)	mix ratio; ppb	15% :: 5% - 10%	1/day - 1/wk	15 x 4 km-30 x 4 dg :: G	2 km - 3 km :: Atmos
	O :: FP	HIRDLS (1239) ; MLS (1240) ; SAFIRE (1241); TES (1243)	mix ratio; ppmv; ppt	<=5%-10% :: 1-15%; 1-10x10-8; 10 ppt	1/(18-72 s) [?] - 1/(16 day)	0.1 x 2.5 dg - 25 x 1-5 dg :: G; 82N-82S	1 km - 3 km :: 7-65 km; TPSE
	O :: II	Grose (1234/1235); Pyle (1236); Schoeberl (1238)	mix ratio; ppb	15% - 25% :: 10%	(1-4)/day - 1/mo	2 x 3 dg - 10 dgZM :: G	2 kg; 24 lvl :: 0-90 km
N2O Emission	O :: II	Moore (1245/1246); Schimel (1247)	g/ha/mo	25% - 30% :: 1% - 10%	1/mo - 1/yr	.030-1 km :: Land/L,R,G	:: Sfc
N2O Emission Time-deriv	O :: II	Schimel (1248)	g/ha/mo^2	50% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
N2O Total Burden	O :: FP	AIRS (1249)	ppb	40 :: 30	2/day [d, n]	Zonal_ave :: G	Column :: Atmos
N2O5 Conc	I :: II	Grose (1250); Pyle (1251); Schoeberl (1252)	mix ratio; ppb	15% - 20% :: 10% - 20%	2/day - 1/day	15 x 4 km - 30 x 4 dg :: G	3 km :: Mid-atmos-Strat
	O :: FP	HIRDLS (1254) ; SAFIRE (1255)	mix ratio; ppbv	5-10% :: 1-10% (20-40 km)	1/(18-72 s) [?]-1/(16 day)	25 x 1-5 dg -160 x 23 km :: 86S-86N; G	1.5-3 km :: 10-45 km
	O :: II	Schoeberl (1253)	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
NH3 Conc	O :: FP	TES (1256)	ppt	:: 300 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
NH4 Exchange	O :: II	Schimel (1257)	g/ha/mo	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
NH4 Exchange Time-deriv	O :: II	Schimel (1258)	g/ha/mo^2	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
NMHC Flux	O :: II	Schimel (1259/1260)	g/ha/mo	50% :: 1 - 5%	1/seas	[multiple]; 30 m :: 6 sites/L	:: Sfc
NMHC Flux Time-deriv	O :: II	Schimel (1261)	g/ha/mo^2	50% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
NO Conc	I :: II	Grose (1262); Pyle (1263); Schoeberl (1264)	mix ratio; ppb	15% :: 5%; .2s,1.0m	2/day; 1/day [d]	15 x 4 km - 30 x 4 dg :: G	2 - 3 km :: Mid-atmos-Strat
	O :: FP	MLS (1266) ;TES (1267/1268)	mix ratio; ppt	:: 0.1-10x10-7; 15 ppt - 25 ppt	2/day [d, n]-1/(16 day)	0.1 x 2.5 dg -160 x 23 km :: 82N-82S; G	2-3 km :: 13-120 km
	O :: II	Schoeberl (1265)	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
NO2 Conc	I :: II	Grose (1269); Pyle (1270); Schoeberl (1271)	mix ratio; ppb	10% - 15% :: 5%	2/day - 1/day	15 x 4 km - 30 x 4 dg :: G	2 - 3 km :: Mid-atmos-Strat
	O :: FP	HIRDLS (1273) ; MLS (1274) ; SAFIRE (1275) ; SAGE-III (1276) ; TES (1278)	mix ratio; ppbv;/cm^3&ppbv; ppt	5-10% :: 3-15%; 1-8x10-8; 500 ppt	2/day [d, n]-1/(16 day)	4 x 4 dg -160 x 23 km :: G	1 km - 3 km :: 10-55 km
	O :: II	Schoeberl (1272)	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
NO3 Conc	I :: II	Grose (1279); Pyle (1280)	mix ratio	20% - 25% :: 10%	1/day [n]	15 x 4 km - 30 x 4 dg :: G	2 - 3 km :: Mid-atmos; Strat
	O :: FP	SAGE-III (1282)	/cm^3&ppbv	10% :: 10%	1/(2 min) - 30/day	<2 x <1 dg :: G	1 km :: 20-55 km
	O :: II	Schoeberl (1281)	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
NOx Conc	O :: II	Schoeberl (1283)	ppt	30% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
NOx Emission	O :: II	Schimel (1284/1285)	g/ha/mo	25% :: 1% - 5%	1/seas	[multiple]; 30 m :: 6 sites/L	:: Sfc
NOx Emission Time-deriv	O :: II	Schimel (1286)	g/ha/mo^2	25% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
NOy Budget	O :: II	Grose (1291)			1/mo	~6 x 6 dg :: G	
NOy Conc	O :: II	Grose (1287/1288/1289/1292); Pyle (1290)	mix ratio		48/day [for 10 day] - 1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
O(1D) Conc	O :: II	Schoeberl (1293)	ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
O(3P) Conc	I :: II	Grose (1294); Pyle (1295); Schoeberl (1296)	mix ratio	15% - 30% :: 5% - 10%	1/wk - 1/wk [d]	15 x 4 km - 30 x 4 dg :: G	2-3 km :: Mid-atmos; Strat
	O :: FP	SAFIRE (1298)	%	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
	O :: II	Schoeberl (1297)	ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
O2 Conc	O :: FP	MLS (1299) ; SAFIRE (1300)	%;/cm^3	2% - <=5% :: 1% - <2%(10-65 km)	1/(2 min) - 2/day [d, n]	0.1 x 2.5 dg -<2 x <1 dg :: 82N-82S	1 km - 2.5 km [6.5] :: TPSE, 6 km - 120 km
O2(NUI) Conc	O :: FP	MLS (1303)		:: 10%	2/day [d, n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [6.5] :: 20-80 km
O3 Budget	O :: II	Grose (1330)			1/mo	~6 x 6 dg :: G	
O3 Conc	I :: II	Bates (1305); Grose (1306); Hansen (1307); Moore (1309); Murakami (1310/1331); Pyle (1311); Schoeberl (1312/1313)	/m^3; mix ratio; ppmv; ppm	2%-25% :: 1%-10%	2/day - 1/wk	15 x 4 km - 30 x 4 dg :: G	1 - 3 km ::10 - 80 km
	O :: FP	AIRS (3690); HIRDLS (1318) ; MLS (1319/1328) ; SAFIRE (1320) ; SAGE-III (1321) ; TES (1323/1324)	mix ratio;/cm^3&ppmv; ppb	<= 3% -10% :: 1-10%; 3 ppb - 20 ppb	2/day [d, n]-1/(16 day)	4 x 4 dg -16 x 5 km ; 0.1 x 2.5 dg :: G; 82N-82S	1 km - 6 km :: 7-80 km; TPSE
	O :: II	Murakami (3556); Schoeberl (1315/1316/1317)	ppm; ppb	10% - 20% :: 10%	(1-4)/day - 1/(3 mo)	2 x 3 dg - 10 dgZM; 6 Regions :: R,G	1 - 2 km :: 0-90 km
O3 Conc, SBUV-2_Corrected	O :: II	Schoeberl (1346)	ppm	0.5 :: 0.2	1/day	8 x 10 dg :: G	5 km :: Atmos
	O :: II	Schoeberl (1347)	ppm	0.5 :: 0.2	1/day	8 x 10 dg :: G	5 km :: Atmos
	O :: II	Schoeberl (1348)	ppm	0.5 :: 0.2	1/day	8 x 10 dg :: R	5 km :: Atmos
O3 Total Burden	I :: II	Kerr, Sorooshian (1308)	ppm	5% :: 5%	1/day	25 km :: G	Column :: Atmos

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
O3 Total Burden	O :: FP	AIRS (1332) ; MODIS (1333/1334)	DU	15%; 15-20DU :: 10%; 10DU	2/day [d, n] - 1/mo	50 km :: G	Column :: Atmos
O3 Total Burden, TOMS_Follow-on	O :: II	Schoeberl (1335)	DU	5 :: 2	1/day	1 x 1 dg :: G	Column :: Atmos
O3 Total Burden, TOMS_Version-6	O :: II	Schoeberl (1336)	DU	5 DU :: 2	1/day	1 x 1 dg :: R	Column :: Atmos
O3(17^OOO) Conc	O :: FP	MLS (1339); SAFIRE (1341)	ppbv	:: 15% (20-35 km); 50%	1/(36-72 s) [?]; 2/day [d,n]	0.1 x 2.5 dg - 25 x 2.5-5 dg :: 86S-86N	2.5 km [1.2]; 3 km :: 20-50 km
O3(18^OOO) Conc	I :: II	Schoeberl (1342)	ratio to ^ (48)O3	10% :: 10%	1/wk	8 x 10 dg :: G	5 km :: Strat
O3(NU2) Conc	O :: FP	SAFIRE (1329)	ppbv	:: 10% (20-40 km)	1/(36-72 s)	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
O3(O17^OO) Conc	O :: PI	SAFIRE (1340)	ppbv	:: 40% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
O3(OO^17_O) Conc	O :: PI	MLS (1337)		:: 100%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 25-45 km
O3(OO^18) Conc	O :: PI	MLS (1304)		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-80 km
O3(OO^18_O) Conc	O :: PI	MLS (1338)		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
O3(O^18_OO) Conc	O :: PI	SAFIRE (1344)	ppbv	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
O3(^18OOO) Conc	O :: FP	MLS (1343); SAFIRE (1345)	ppbv	:: 15% - 20% (20-35 km)	1/(36-72 s) [?]; 2/day [d,n]	0.1 x 2.5 dg - 25 x 2.5-5 dg :: 86S-86N	2.5 km [1.2] :: 20-60 km
O3(NU1,3) Conc	O :: FP	MLS (1326) ; SAFIRE (1327)	ppbv	:: 15% (20-30 km) - 50%	1/(36-72 s) - 2/day [d, n]	0.1 x 2.5 dg - 25 x 2.5-5 dg :: 82N-82S	2.5 km [1.2] -3 km :: 20-60 km
Ocean Angular Momentum	O :: II	Tapley (3089)	kg m^2/s^2	10% ::	1/day	:: Ocean	:: Ocean
Ocean Circulation, Model Eddy-Resolving	O :: II	Liu (3519)			3 day	1/3 dg :: Ocean	30 level ::
Ocean Color/Temperature Maps, Composite	O :: II	Harris (3565)				:: Ocean/R(Austra.-STC)	
Ocean Current Circulation, Large-scale	O :: II	Tapley (3090)	m	10% ::	1/(1-3 mo) [few mo]	4000 km :: Ocean	N/A :: Sfc
Ocean Current Velocity	O :: II	Abbott (3092)	cm/s		1/day	10 km :: Ocean [Southern]	N/A :: Sfc
Ocean Current Velocity, Geostrophic	O :: II	Abbott (3094)	cm/s		1/mo	:: Ocean [Southern]	N/A :: TOO
Ocean Current Velocity, Meridional	O :: II	Bates (3096)	cm/s			:: Ocean	200 m :: 0-4500 m
Ocean Current Velocity, Zonal	O :: II	Bates (3097)	cm/s			:: Ocean	200 m :: 0-4500 m
Ocean Eddy Kinetic Energy	O :: II	Abbott (3102)	g/cm^2/s^2		1/(3 mo)	:: Ocean [Southern]	:: Sfc
Ocean Productivity, Primary	I :: II	Brewer (2599/2600); Harris (3460)	mmol-C/m^2/day; mg/m^3/day	30% - 50% :: 5%	1/day, 1/seas	30 m - 20 km :: Ocean/L,R	N/A :: TOO
	O :: FP	HIRIS (2601) ; MODIS (2606)	mg-C/m^2/hr;mg C/m^2/day;mg/m^3	<35% - 100% :: <20% -100%	1/day - 1/yr	30m - 50 km :: Ocean/R - G; Ocean-I	N/A :: TOO; Sfc
	O :: II	Rothrock (2607)	g-C/m^2/day		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
Ocean Productivity, Primary, Near sfc	I :: II	Abbott (2598)	mg-C/m^3/day		1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: Near_sfc
	O :: FP	MODIS (2602/2603)	mg-C/m^3/day	:: 50-100%	1/day, 1/wk	1 km - 4 km :: Ocean-I/R,L	N/A :: TOO
Ocean Productivity, Primary, Total Column	I :: II	Abbott (2597)	mg-C/m^2/day		1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
Ocean Productivity-Variability	O :: II	Harris (3569)			seas, yr	:: Ocean / R(Australia-STC)	
Ocean Tide, Model	O :: FP	ALT (3121)	cm	2 cm ::	1/mission	100 km :: Ocean	N/A :: Sfc
Ocean Water Attenuation Coef	I :: II	Abbott (3204)	/m	20%-25% :: 5% - 10%	1/day - 1/seas	30m - 20 km :: Ocean	N/A :: TOO
Ocean Water Attenuation Coef, Diffuse	I :: II	Brewer (3201/3202)	/m	25% :: TBD	1/day, 1/seas	30 m - 20 km :: Ocean/L	N/A :: Sfc
	O :: II	Rothrock (3198)	/m		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
Ocean Water Attenuation Coef, PAR	O :: FP	MODIS (2031/2032)	/m	35% :: 10%	1/day - 1/wk	1 km - 20 km :: G	N/A :: TOO
Ocean Water Attenuation Coef@490nm	I :: II	Harris (3461)	/m	25% :: 10%	1/day	1-20 km :: Ocean/R	
	O :: FP	MODIS (3199/3200)	/m	25% :: 10%	1/day -1/mo	1 km - 20 km :: Ocean-I/ R,L	N/A :: TOO
Ocean Water Attenuation Coef@520nm, Beam	O :: FP	MODIS (3206/3207)	/m	:: 35%	1/day - 1/wk	1 km - 20 km :: Ocean	N/A :: TOO
Ocean Water Backscatter Coef, Total	O :: FP	MODIS (2559/2560)	/m	25% :: 10%	1/day -1/mo	1 km - 20 km :: Ocean/R-G	N/A :: TOO
Ocean Water Backscatter Coef@565nm	O :: FP	HIRIS (3210)	/m	::		::	::
Ocean Water Salinity	I :: II	Hansen (3079); Bates (3080); Lau (3081)	o/oo; %	0.02% - 10% :: TBD; 10%	1/(3 day) - 1/wk	100 - 500 km :: > 60 dgLAT; Ocean/Trop,G	:: TOO
	O :: II	Bates (3078); Rothrock (3082)	o/oo		1/(3 day)	100 km :: > 60 dgLAT; Ocean	200 m :: 0-4500 m
Ocean Water Salinity, Sub ice	I :: II	Rothrock (3083)	o/oo	0.02 o/oo :: 0.02 o/oo	1/(3 day)	500 km :: Polar	N/A :: TOO
Ocean Water Salt Flux	O :: II	Rothrock (3084)	kg/m^2/day	20% :: 20%	1/day	100 km :: > 60 dgLAT	:: TOO
Ocean Water Temperature, Internal	I :: II	Bates (3115); Hansen (3116); Lau (3218); Rothrock (3117)	K	0.02 K - 0.5K :: 0.02 K	1/day - 1/wk	10 km -500 km :: Ocean; >60 dgLAT; Polar	10m; TBD :: lvl [?]; Sub_sfc
	O :: II	Bates (3118); Rothrock (3119)	K		1/(3 day)	100 km :: > 60 dgLAT; Ocean	200 m; lvl :: 0 - 4500 m; TOO
Ocean Wave Direction	I :: II	Harris (3430)	deg	10 :: 10	1/day	10 deg :: Ocean/R	

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Ocean Wave Height	I :: II	Harris (3431); Bates (3126)	m	10-20% :: 5-20%	1-10 days	50m-25 km :: Ocean/L,R	N/A :: Sfc
Ocean Wave Height, Along-track	I :: II	Bates (3128)	cm	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
	O :: FP	ALT (3129)	cm	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Ocean Wave Height, Significant	I :: II	Abbott (3130); Srokosz (3131)	m	>(.5m,5%); 10%	1/day - 1/(10-20 day)	10-20 km :: Ocean/Southern,R	N/A :: Sfc
Ocean Wave Length	I :: II	Harris (3432)	km	10% :: 10%	1/day	1-10 km :: Ocean/R	
Ocean Wave Power Spectrum, 2-D	I :: II	Bates (3463)				:: Ocean	N/A :: Sfc
Ocean_Water Temperature-Pattern	O :: FP	ASTER (3636)		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
Ocean_Water Turbidity	O :: FP	ASTER (3632)		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
OClO Conc	I :: II	Grose (1349); Pyle (1350); Schoeberl (1351)	mix ratio; ppb	20% - 25% ::10%; 0.01	2/day - 1/wk [n]	15 x 4 km - 30 x 4 dg :: G	3 km :: Strat
	O :: FP	MLS (1352) ; SAGE-III (1353)	mix ratio;/cm^3&ppbv	20% :: 3x10-11; 20%	1/(2 min) - 1/mo. [z. mean]	0.1 x 2.5 dg -<2 x <1 dg :: 82N-82S; G	2 km - 2.5 km [1.2] :: TPSE; 15-25 km
OCS Conc	I :: II	Schoeberl (1354)	ppb	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Strat
OH Conc	I :: II	Grose (1355); Pyle (1211); Schoeberl (1356)	mix ratio; ppb	10 - 25% :: 10%	2/day	15 x 4 km - 30 x 4 dg :: G	2 - 3 km :: Mid-atmos; Strat
	O :: FP	SAFIRE (1360)	ppbv	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
	O :: II	Schoeberl (1357/1358/1359)	no/cm^3; ppb	15% - 30% :: 10%	1/mo - 1/(3 mo)	2 x 3 dg - 10 dgZM; 6 Regions :: R,G	1 km - 2 km :: 0-90 km
Oil_Slick Cover	O :: II	Brewer (3073/3074)	% surface		1/day	30 m - 20 km :: Ocean/L,G	N/A :: TOO
Optical Depth, Total	I :: II	Dickinson (3383); Kerr-Sorooshian (2325); Isacks (2326)	eq.atm	5% -15% :: 1 - 10%	1/(5-16 day)	10 km - 1 dg :: Land/R; G	:: Atmos
Organic Matter Conc, Dissolved	I :: II	Abbott (2579); Brewer (2561/2562); Harris (3457)	mmol/m^3; mg/m^3; mol-C/m^3	50% - 100% :: 10% - 30%	1/(1-2 day); 1/seas	30 m - 20 km :: Ocean/L,R	N/A :: TOO
	O :: FP	HIRIS (3314); MODIS (2580/2581/2582/2583)	mg/m^3	100% -150% :: 30% - 50%	1/day - 1/mo	30m - 20 km :: Ocean [Southern]R,L; Ocean/L+Land/Lakes	N/A :: TOO
Organic Matter Conc, Particulate	O :: FP	MODIS (2608/3664)	mg/m^3	50% :: 30%	1/day, 1/wk	1 - 20 km :: Ocean; I/L	N/A :: TOO
Organic Matter Degradation_Product Absorption Coef@415nm (DOM+Detritus)	O :: FP	MODIS (3662/3663)	/m	40% :: 15%	1/day, 1/wk, 1/mo	1 km - 20 km :: Ocean/R,L	N/A :: TOO
Organic Matter Fluorescence Efficiency, Colored Dissolved [CDOM = Gelbstoff]	O :: FP	MODIS (3317/3318)	dimensionless	100% :: 50%	1 dy,wk,mo	1 km - 20 km :: Ocean/L,R,G	N/A :: TOO
Orography, Model	O :: II	Bates (2843)	m			50 km :: G	N/A :: Sfc
Ox Conc	O :: II	Grose (1361/1362/1363); Pyle (1364)	mix ratio		48/day [for 10 day] - 1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
PAN Conc	I :: II	Schoeberl (1365)	ppb	20% :: 0.01	1/day	8 x 10 dg :: G	3 km :: Strat
PAR	I :: II	Moore (2328/2329)	W/m^2/sr	20% :: 10%	1/day - 1/wk	30 m - 500 m :: Land/L,R	
	O :: FP	MODIS (2330)	quanta/m^2/s	TBD :: TBD	1/day	N/A :: G	N/A :: Atmos
	O :: II	Kerr-Sorooshian (2331); Moore (2332/2333)	W/m^2	100 :: 100	1/day	.030-1 km :: Land/R,L	N/A :: Sfc
PAR, Absorbed, Non-vegetative, (APAR)	O :: FP	HIRIS (2029)	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
PAR, Absorbed, Vegetative, (APAR)	O :: FP	HIRIS (2030)	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
PAR, Incident, (IPAR)	O :: FP	MODIS (2268)	MJ/m^2	200 :: 5 - 20%	1/day - 1/wk	1 km :: G,R	N/A :: Atmos
PAR, Intercepted, (IPAR)	I :: II	Schimel (2263/2264/2265)	5E, % ::	10% :: 1%	1/day - 1/wk; [multiple]	30 m - 500 m; [multiple] :: 6 sites/L	N/A :: Sfc
PAR, Intercepted, Vegetation, (IPAR)	I :: II	Cihlar (3498)	%	10% :: 1%	1 day	250-1000 m :: Canada/R	N/A :: Sfc
PAR, Sfc (IPAR)	O :: FP	MODIS (2266/2267)	quanta/m^2/s	10% :: 5%	1/day [d]	1 km :: Ocean/L - G	N/A :: Sfc
Particulate Backscatter Coef	O :: FP	MODIS (3216/3217)	/m;/m	:: 30%	1/day	1 km - 20 km :: Ocean	N/A :: TOO
PBL Height	I :: II	Barron (1510/1511); Bates (1512); Dickinson (3329); Sellers (1513)	m	TBD; 75 m :: TBD	TBD; 1/day	2 - 200 km :: Land; R,G	75 - 100 m :: PBL; Mixed-layer
	O :: FP	GLRS-A (1514)	m	150 m ::	1/(2-16 day)	2 - 200 km :: G	75 m :: Trop
PBL Thickness	O :: II	Bates (1638/1639)	m		1/(20 min)	25 km - 50 km :: G	N/A :: PBL
Permafrost Distribution	O :: II	Simard (2979)	km	1 km ::	1/(3 yr)	:: Canada/R	:: Sfc
Permafrost Sensitivity	O :: II	Simard (2980)		1 km ::	1/(3 yr)	:: Canada/R	:: Sfc
Photogrammetric Camera Model	O :: FP	MODIS (3671)				N/A :: N/A	N/A :: N/A
Phytoplankton Backscatter	I :: II	Abbott (3209)	mw/cm^2/sr/um	50% :: 20%	1/day	1-4 km :: Ocean	N/A :: N/A
Phytoplankton Backscatter Coef	O :: FP	MODIS (2555/2558)	soft; med; hard		1/day - 1/mo	1 km - 20 km :: Ocean/R - G	N/A :: TOO
Phytoplankton Biomass	O :: II	Harris (3566)				:: Ocean / R(Australia-STC)	
Phytoplankton Species Composition	O :: II	Harris (3567)				:: Ocean / R(Australia-STC)	
Phytoplankton Type	O :: FP	HIRIS (3316)	mg/m^3	100% :: 50%	(>=2)/day	60 - 90 m :: Ocean/L;Land/Lakes	N/A :: TOO
	O :: II	Brewer (2595/2596)	%		1/day	30 m - 20 km :: Ocean/L,G	N/A :: TOO

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Pigment Conc	I :: II	Harris (3458); Hansen (3077)	mg/m^3	2% - 30% :: 10%	1/day - 1/wk	1-500 km :: Ocean/R,G	
	O :: FP	MODIS (2591/2592)	mg/m^3	30% :: 10%	1/day - 1/mo	1 km - 20 km :: Ocean/R - G	N/A :: TOO
	O :: II	Rothrock (3076)	mg/m^3		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
Pigment Conc [via Spectral Curv]	O :: FP	MODIS (2593/2594)	mg/m^3	35% :: 15%	1/day - 1/wk	1 km - 20 km :: Ocean/R	N/A :: TOO
Pigment Conc, Accessory	I :: II	Harris (3459)	mg/m^3	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	
	O :: FP	HIRIS (3072)	mg/m^3	100% :: 50%	1/(>=2 day)	60 - 90 m :: Ocean-I/L	N/A :: TOO
Pigment Conc, Non-photosynthetic	I :: II	Moore (2695/2696)	relative	20% :: 20%	1/(16 day)	30 m -1 km :: Land/L,R	:: Sfc
Pigment Conc, Phycobillin [Phycoerythrin, etc.]	O :: FP	MODIS (3319/3320)	mg/m^3	200% :: 50%	1/day - 1/mo	1 km - 20 km :: Ocean/R -G	N/A :: TOO
Pigment Conc, Phycoerythrin	I :: II	Abbott (2584)	mg/m^3	50% :: 15%	1/day - 1/mo	1 km - 20 km :: Ocean/R -G	N/A :: TOO
Pigment Conc, Phytoplankton	I :: II	Abbott (2587); Rothrock (2590)	mg/m^3	35% :: 10%	1/(1-2 day)	1-10 km :: Ocean [South]; Polar	N/A :: TOO
	O :: FP	MISR (2588/2589/3681)	mg/m^3	30% :: 30%	1/(1-2 day) [d]; 9,16 day; mo; seas; yr	240 m - 1.92 km :: Ocean/R - G	N/A :: TOO
Planetary Wave Structure	O :: II	Grose (1515)			1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
Precipitable Water	I :: II	Abbott (1858); Barron (1859/1860/1861); Bates (1862); Dickinson (3355); Harris (3439/3440); Kerr-Sorooshian (1865); Liu (1866); Murakami (1867); Richey-Batista (1810/1863); Srokosz (1868)	kg/m^2; mm; cm; g/cm^2; mm/mo?; %	10% :: 5%	2/day [d,n] - 1/wk	30 m - 500 km :: L,R,G; Land/Ocean	Column :: Atmos
	O :: FP	AIRS (1869/3693) ; HIRIS (1872/1873) ; MIMR (3596/3597); MODIS (1874/1875/3321/3322)	dimensionless; mm; cm	5% - 12%; 10 mm :: 3% - 8%; 5 mm	1/(1-3 min) - 1/mo	30 m - 50 km; 1 dg :: L - G	Column :: Trop; Atmos; 7-80 km
	O :: II	Barron (1876/1877); Lau (3506); Murakami (3559)	g/kg		1/hr	1-100 km :: R,G; Ocean/R(~Pacific)	N/A :: Sfc
Precipitation Amount	I :: II	Barron (1926/1927); Brewer (1928/1929); Cihlar (3448); Hansen (1930); Harris (3441); Hartmann (1931); Isacks (1932); Lau (1935/1936); Murakami (1938); Sellers (1939); Wielicki (1940)	mm/day; mm/wk; mm	0.1 - 10 mm/day; 10% - 50% :: 0.1 - 10 mm/day; 25%	4/day - 1/ seas	10 - 500 km :: G; Ocean & Land/L,R	N/A :: Sfc-Trop
	O :: II	Bates (1942); Hartmann (1945); Murakami (3558); Richey-Batista (1943/1944)	mm/day; mm/mo; mm	10 mm/day; 10% :: 10 mm/day; 10%	(4 - 6)/day - 1/ wk	1- 50 km :: G; Ocean & Land/L,R	N/A :: Sfc-Trop
Precipitation Amount, Average	O :: II	Isacks (3572)				:: Land/R(Andes)	
Precipitation Amount, Convective	O :: II	Barron (1946/1947); Bates (1948)	m/s ?; mm		1/(4-6 hr) - 2/day	50 km - 4.5 x 7.5 dg :: G	N/A :: Sfc
Precipitation Amount, Daily	I :: II	Kerr, Sorooshian (1934)	mm	1 mm :: 1 mm	1/day	1 km :: Land/R	N/A :: Sfc
Precipitation Amount, Large-scale_stable	O :: II	Barron (1952/1953)	m/s ?		2/day	4.5 x 7.5 dg :: G	
Precipitation Amount, Rain	I :: II	Liu (1973); Moore (1974)	mm/day; mm/wk	1 - 10%; TBD :: 1 - 10%; TBD	2/day - 1/wk	1 km - 0.5 dg :: G	NA :: Sfc; Trop
	O :: II	Barron (1956); Lau (3505)	g/cm^3		1/(6 hr) - 1/mo	1 dg :: Land/R(Andes); G	N/A; 15-20 lvl :: Sfc
Precipitation Amount, Rain, Monthly	I :: II	Kerr, Sorooshian (1957)	mm	10% :: 10%	1/mo	500 m :: Land/L	N/A :: Sfc
Precipitation Amount, Snow	I :: II	Cihlar (3489); Moore (1983); Sellers (1984)	mm/wk	10% :: 10%	1/wk	1 km :: G; Canada/R	N/A :: Sfc
	O :: II	Barron (2994/2995)	m		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Precipitation Amount, Snow, Convective	O :: II	Barron (1985/1986)	m/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Precipitation Amount, Snow, Large-scale_Stable	O :: II	Barron (1987/1988)	m/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Precipitation Conc, Ice	I :: II	Bates (1949)	g/m^3			10 km :: G	7 lvl :: Trop
	O :: II	Barron (1951)	g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
Precipitation Depth	I :: II	Lau (2981)	mm	10% :: 10%	1/day	1 km :: Land/R	N/A :: Sfc
Precipitation Index	I :: II	Bates (1968)	mm	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
	O :: FP	AIRS (1969) ; MIMR (3601)	mm	2mm/hr :: 1mm/hr;30%	2/day [d, n]	50 km :: G	N/A :: Trop
Precipitation Index, Antecedent	I :: II	Bates (1970)	dimensionless		1/day	26-52 km :: Land	N/A :: Sfc
Precipitation Index, Microwave [see also 1969]	O :: FP	AIRS[AMSU-A, MHS only] (3694)	mm	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
Precipitation Rate	I :: II	Bates (1958); Isacks (1933); Lau (1960); Simard (1937)	mm/hr	20% - 25% :: 10%	1/hr; 1/event; 1/mo; 1/hr	100 m - 50 km :: Land/L,R; G; Canada/R	N/A; 1 lvl :: Sfc; Trop
	O :: FP	MIMR (3600)	mm/hr?;mb	:: 20%	-2/day [d, n]	8 km -4 x 4 dg :: Ocean- G	N/A :: Sfc; 7-80 km
	O :: II	Barron (1962)	cm/hr		1/hr	20-100 km :: R	

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Precipitation Rate, Rain	I :: II	Abbott (1972); Bates (1954); Dickinson (3359); Kerr-Sorooshian (1959); Srokosz (1975)	g/m^3; mm/hr	5% - 20% :: 1% - 20%; 1 mm/hr	1/day - 1/(2day)	500 m - 100 km :: Ocean [Southern]; G	N/A; 7 lvl :: Trop
	O :: II	Barron (1980/1981)	cm/hr		1/(5 min) [?]	500 m - 30 km :: [East. U.S.]	
Precipitation Rate, Snow	I :: II	Dickinson (3360)				<0.5-1 deg :: G	
Precipitation Sampling statistics, Rain	O :: II	Lau (3514)					N/A :: Sfc
Precipitation Storm Depth (Precip-thickness)	I :: II	Lau (1965)	mm	10% :: 10%	1/hr	100 m :: Land/L	N/A :: Sfc
Precipitation Variability(&Extrema)	O :: II	Isacks (3573)				:: Land/R(Andes)	
Precipitation_Drop Phase, Sfc	I :: II	Bates (1966)	type (snow,water)			10 km :: G	N/A :: Sfc
Pressure	I :: II	Grose (1516); Kerr-Sorooshian (1518)	mb	5% :: 2% - 5%	1/hr - 2/day	25 km - 15 x 4 dg :: G	3 km :: Trop; Mid-atmos
Pressure	O :: FP	HIRDLS (1524) ; MLS (1525) ; SAFIRE (1526); SAGE-III (1301/1302)	mb; /cm^3	0.1% - 2% :: 0.10%; 1%(30-50km); <2% (16-70 km)	1/(18-120 s) - 2/day [d, n]; 30/day (Lun., Sol.)	0.1 x 2.5 dg-4 x 4 dg :: G; 82N-82S	0.2 - 2.5 km :: 7 - 110 km; TPSE
	O :: II	Barron (1521/1522)	mb		1/hr	1 km -100 km :: R	
Pressure, Sfc	I :: II	Isacks (1517); Lau (1533); Rothrock (1519); Tapley (1520)	mb	5%; 1 - 5 mb :: 1 mb	1/day - 4/day	50 - 500 km :: Land/R; G; Polar	N/A :: Sfc
	O :: II	Barron (1534/1535); Bates (1532/1536); Rothrock (1523)	Pa; mb	1 :: 0.5	1/(20 min) - 1/(3 day)	50 km - 4.5 x 7.5 dg :: G; > 60 dgLAT	N/A :: Sfc; [Sea_lvl]
Pressure, Tropopause	O :: II	Bates (1537)	mb		1/(20 min)	50 km :: G	N/A :: Tropopause
Pressure-RMSE, Sfc	O :: II	Bates (1541)	mb		1/(20 min)	100 km :: G	N/A :: Sfc
Pressure-Tendency, Sfc	O :: II	Barron (1538/1539)	Pa/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	N/A :: Sfc
Proton Energy Spectra	I :: II	Schoeberl (3255)	proton/cm^2/s/MeV	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
Radiance Error, MODIS Level-2	O :: FP	MODIS (3654)					
Radiance, At-Satellite, MODIS Level-1	O :: FP	MODIS (3646)					
Radiance, Cloud Cleared, Level-2	O :: FP	AIRS (3683)					
Radiance, Lunar Reference, MODIS Level-1	O :: FP	MODIS (3650)					
Radiance, Solar Diffuser, MODIS Level-1	O :: FP	MODIS (3649)					
Radiance, Total	O :: II	Rothrock (2406)	mW/m^2		1/(3 day)	100 km :: > 60 dgLAT	
Radiation Budget	I :: II	Dickinson (3385); Hansen (2357)			1/wk	50 - 500 km :: G	
Radiation Intensity, IR	I :: II	Schoeberl (2374)	photons/cm^2/s/cm	1%(~1K) :: 0.5%	1/day	100 km :: G	1.5 km :: Strat
Radiation Intensity, UV	I :: II	Schoeberl (2411)	photons/cm^2/s/nm	5% :: 2%	1/day	:: G	:: Strat
	O :: II	Schoeberl (2412)	photons/cm^2/s/nm	20% :: 15%	1/day	2 x 3 dg :: G	2 km :: Trop
Radiation Intensity, Visible	I :: II	Schoeberl (2413)	photons/cm^2/s/nm	5% :: 2%	1/day	:: G	:: Strat
Radiative Flux	I :: II	Cihlar (3490)	W/m^2		1 wk	1 km^2 ::	N/A :: Sfc
Radiative Flux Convergence	O :: II	Barron (2143)	W/m^2/km		1/(5 day)	2.5 dg :: G	10 lvl ::
Radiative Flux Divergence, Clear-sky	O :: FP	CERES (2144/2145/2146)	W/m^2/km	10% :: 5%	1/(6 hr) - 1/mo	1.25 x 1.25 dg :: G	lyr :: Atmos
	O :: II	Lau (3515)					
Radiative Flux Divergence, Cloudy-sky	O :: II	Lau (3516)					
	O :: FP	CERES (2147/2148/2149)	W/m^2/km	25% - 50% :: 10%	6/day [d, n] - 1/mo	1.25 x 1.25 dg :: G	lyr :: Atmos
Radiative Flux Divergence, LW	I :: II	Wielicki (2150)	W/m^2/km	10%clr/25% :: 5%clr/10%	6/day [d,n]	1.25 dg :: G	:: Atmos
	O :: II	Wielicki (2151)	W/m^2/km	10%clr,25% :: 5%clr,10%	18/day [d,n]	25 km :: R	:: Atmos
Radiative Flux Divergence, SW	I :: II	Wielicki (2152)	W/m^2/km	10%clr/25% :: 5%clr/10%	6/day [d,n]	1.25 dg :: G	:: Atmos
	O :: II	Wielicki (2153)	W/m^2/km	10%clr,25% :: 5%clr,10%	9/day [d,n]	25 km :: R	:: Atmos
Radiative Flux, Broadband	I :: II	Richey, Batista (2141)	W/m^2		2/day	:: Land/R	
Radiative Flux, Broadband, Down	I :: II	Kerr, Sorooshian (2142)	W/m^2	1 W/m^2 :: 1 W/m^2	1/hr	8 km :: Land/R	N/A :: TOA
Radiative Flux, LW	I :: II	Barron (2185/2186/2187/2189); Brewer (2255/2256); Hartmann (2188/2190); Lau (2154); Srokosz (2385)	W/m^2	5% - 10%; 10W/m^2 :: 2% - 10%; 1W/m^2	2/day - 1/seas	30 m - 500 km :: L,R,G; Ocean/L,G	N/A :: Sfc; TOA
	O :: II	Dickinson (3533); Srokocz (3543)			1/mo	1 dg - >= 1 dg (Select) ::	
Radiative Flux, LW Spectral	O :: FP	AIRS (2209/2210)	W/m^2	<10 -<10 :: <5	2/day [d, n]	50 km :: Land; Ocean	N/A :: Sfc
Radiative Flux, LW, Average_Net	O :: II	Barron (2155/2156)	W/m^2		2/day	4.5 x 7.5 dg :: G	:: TOA
Radiative Flux, LW, Clear-sky	O :: II	Barron (2155/2156/2159/2160/2161/2162)	W/m^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	:: Sfc; TOA
Radiative Flux, LW, Down	I :: II	Dickinson (3375); Kerr-Sorooshian (2163); Sellers (2164); Wielicki (2165)	W/m^2	10% - 20%; 7W/m^2 :: 10%-20%; 2W/m^2	6/day [d,n] :: [diurnal]	100 m - 1.25 dg :: G; L,R	N/A; 0.5km :: Sfc

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Radiative Flux, LW, Down	O :: FP	CERES (2168/2169/2170)	W/m^2	5 W/m^2 -7 W/m^2 :: 2 W/m^2	1/(6 hr) - 1/mo	1 - 1.25 dg :: G	N/A :: Sfc
	O :: II	Bates (2166); Wielicki (2167)	W/m^2	7 W/m^2 :: 2 W/m^2	1/(20 min) - 18/day [d,n]	25 km - 50 km :: Land; R	N/A :: Sfc
Radiative Flux, LW, Net	I :: II	Bates (2173/2174); Dickinson (3376); Wielicki (2175)	W/m^2	7 W/m^2 :: 2 W/m^2	2/day [d,n] :: 6/day [d,n]	50 km - 1.25 dg :: Land; G	N/A :: Sfc
	O :: FP	AIRS (2176/2177) ; CERES (2180/2181/2182)	W/m^2	<15; 5 - 7 W/m^2 :: 2 W/m^2	6/day [d, n] - 1/mo	50 km - 1.25 dg :: Land; G	N/A :: Sfc
	O :: II	Rothrock (2178); Wielicki (2179)	W/m^2	7 W/m^2; 10% :: 2 W/m^2; 10%	18/day [d,n] - 1/day	100 km :: > 60 dgLAT	N/A :: Sfc
Radiative Flux, LW, Net Up	I :: II	Murakami (2183)	W/m^2	2% ::			N/A :: Atmos
Radiative Flux, LW, TOA	I :: II	Dickinson (3377)	W/m^2			<0.5-1 deg :: G	N/A; TOA
Radiative Flux, LW, Up	I :: II	Bates (2191); Dickinson (3378); Kerr-Sorooshian (2192); Murakami (2395); Sellers (2193); Wielicki (2194/2195)	mW/m^2/sr/cm	10% - 20%; 5 - 7 W/m^2 :: 15% - 20%; 2W/m^2	6/day [d,n] - 2/day [d,n]	50 km - 1.25 dg	N/A; 0.5 km
	O :: FP	CERES (2200/2201/2202/2203/2204/2205)	W/m^2	3 - 7 W/m^2 :: 1 - <7 W/m^2	6/day [d, n] - 1/mo	90 m - 25 km; 1.25 dg :: G; L	N/A :: TOA; Sfc
	O :: II	Bates (2184/2197); Wielicki (2198/2199)	W/m^2	5 - 7 W/m^2 :: 2 W/m^2	1/(20 min) - 18/day [d,n]	25 km - 50 km :: Land; R	N/A :: Sfc; TOA
	O :: FP	AIRS (3687)					
Radiative Flux, Net	I :: II	Simard (2137)		10% ::		:: Canada/R	
	O :: II	Kerr, Sorooshian (2138)	W/m^2	15% :: 15%	[diurnal]	1 km :: Land/R	N/A :: Sfc
Radiative Flux, Net_Down	O :: II	Barron (2139/2140)	W/m^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Radiative Flux, Sea_sfc	I :: II	Harris (3443)	W/m^2	5% :: 2%	2/day	20-50 km :: Ocean/R	
Radiative Flux, Solar	O :: II	Dickinson (3532); Srokocz (3542)			1/mo	1 x 1 dg - >= 1 dg (Select)	
Radiative Flux, Solar, Ave-absorbed	O :: II	Barron (2441/2442)	W/m^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Radiative Flux, Solar, Net_Down	O :: II	Barron (2133/2134)	W/m^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	:: Sfc
Radiative Flux, Solar, Sfc Clear-sky	O :: II	Barron (2444/2446)	W/m^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	:: Sfc
Radiative Flux, Solar, TOA Clear-sky	O :: II	Barron (2443/2445)	W/m^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	:: TOA
Radiative Flux, SW	I :: II	Barron (2236/2237/2238/2239); Brewer (1492/1493); Hartmann (2213/2214); Lau (2215); Srokosz (2400)	W/m^2	0.5%; 1-10W/m^2 :: 0.5% - 10%	2/day - 1/day	30 m - 500 km	N/A :: Sfc; TOA
Radiative Flux, SW, Down	I :: II	Kerr-Sorooshian (2216); Sellers (2217); Wielicki (2218)	W/m^2	10% - 20%; 15 W/m^2 :: 10%-20%; 2W/m^2	1/hr - 3/day [d]; diurnal	500 m - 100 km :: Land/R	N/A :: Sfc
	O :: FP	CERES (2221/2222/2223)	W/m^2	10 -15 W/m^2 :: 2 W/m^2	6/day [d, n]-1/(6 hr)	1 dg - 1.25 dg :: G	N/A :: Sfc
	O :: II	Bates (2219); Wielicki (2220)	W/m^2	15 W/m^2 :: 2 W/m^2	1/(20 min) - 9/day [d,n]	25 - 50 km :: Land; R	N/A :: Sfc
Radiative Flux, SW, Net	I :: II	Dickinson (3379); Wielicki (2226)	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d,n]	<0.5-1.25 deg :: G	N/A :: Sfc
	O :: FP	AIRS (2232/2233); CERES (2229/2230/2231)	W/m^2	<10 -15 W/m^2 :: 2 - <5 W/m^2	3/day [d, n]-1/day	50 km; 1.25 dg :: G; Ocean	N/A :: Sfc
	O :: II	Rothrock (2227); Wielicki (2228)	W/m^2	15 W/m^2; 15% :: 2 W/m^2; 15%	1/day - 1/wk	25 - 100 km :: >60 dgLAT; R	N/A :: Sfc
Radiative Flux, SW, Net, Down	I :: II	Murakami (2234)	W/m^2	2% ::			N/A :: Atmos
Radiative Flux, SW, TOA	I :: II	Dickinson (3380)				<0.5-1 deg :: G	N/A :: Sfc
Radiative Flux, SW, Up	I :: II	Kerr-Sorooshian (2240); Wielicki (2241/2242)	W/m^2	15%;10 -15 W/m^ ::15%; 2W/m^2	[diurnal] :: 3/day [d]	500 m - 1.25 dg :: Land/R; G	N/A :: Sfc :: TOA
	O :: FP	CERES (2246/2247/2248/2249/2250/2251)	W/m^2	7 W/m^2 -15 W/m^2 :: 2 W/m^2	3/day [d, n] - 1/mo	1 dg -1.25 x 1.25 dg ; 15-30 m :: G; L	N/A :: TOA; Sfc
	O :: II	Bates (2235/2243); Wielicki (2244/2245)	W/m^2	10 W/m^2 - 15 W/m^2 :: 2 W/m^2	1/(20 min) - 9/day [d,n]	25 km - 50 km :: Land; R	N/A :: Sfc; TOA
Radiative Flux-Change Statistics , LW	O :: II	Srokocz (3549)			1/mo	>= 1 dg (Select)	
Radiative Flux-Change Statistics , Solar	O :: II	Srokocz (3548)			1/mo	>= 1 dg (Select)	
Reflectance Error, MODIS Level-2	O :: FP	MODIS (3655)					
Reflectance, Bi-directional Spectral	O :: FP	EOSP (3644)		5% ::	2 day [d]	10 km :: G	NA :: Cloud + Sfc mixed
Reflectance, Exoatmospheric, MODIS Level-2	O :: FP	MODIS (3647)					
Reflectance, Lunar, MODIS Level-2	O :: FP	MODIS (3653)					
River Channel Geometry	I :: II	Barron (2888)	m	10% :: 10%	1/seas	1 m :: Land/L	N/A :: Sfc
River Channel Geometry, Major-stream	I :: II	Lau (3049)	m^2	10 :: 10	1/mission	30 m :: Land/R	N/A :: Sfc
	O :: II	Kerr, Sorooshian (3050)	m^2	10 :: 10	1/seas	30 m :: Land/R	:: Sfc

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
River Channel Patterns	I :: II	Isacks (2982)				15-30 m :: Land/L	N/A :: Sfc
River Discharge	I :: II	Moore (2889)	m^3/s	5% :: 5%	1/wk, 1/mo	few sites :: Land	:: Sfc
	O :: II	Barron (2890/2891/2892); Moore (2893)	m^3/s		1/event;1/wk -1/yr	30 m - 18 km :: R; Land	
River Extent	I :: II	Barron (3063/3064)	m^2	10% :: 10%	1/day	30 m - 10 km :: Land/L,R	N/A :: Sfc
River Floodplain Extent	I :: II	Lau (2914); Moore (2915); Richey-Batista (2913)	m^2; ha/km^2	10% - 20% :: 5% - 20%	1/wk; 1/seas	100 m - 25 km :: Land/L,R	N/A :: Sfc
River Stage (Flooding)	I :: II	Richey-Batista (2983); Moore (2984)	cm; m	5 cm :: 5%	1/wk - 1/seas	100 m :: Land/R	N/A :: Sfc
River Water Attenuation Coef	I :: II	Richey, Batista (3205)	/m	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
River Water Chemistry	I :: II	Richey, Batista (2809)	g/m^3	[10%],5% :: [5%].10%	1/wk	1 km :: Land/R	N/A :: Sfc
River Water Chlorophyll Conc	I :: II	Richey, Batista (2655)	g/m^3	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
Runoff	I :: II	Lau (2985)	m^3/s	5% :: 5%	1/day	< 0.5 deg :: Land/L,R,G	NA :: Sfc
	O :: II	Dozier (2989); Moore (2990); Richey-Batista (2987/2988)	m^3/km^2/s; m^3/s; mm-H2O/wk	5% - 50% :: 5% - 50%	1/day - 1/wk	50 m -1 km :: L; R; G	
Runoff, Soil Moisture	O :: II	Barron (2992/2993)	m/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Runoff_Chemistry	O :: II	Dozier (3070)	eq/m^2/s	100% :: 100%	1/day	50 m :: L	
Runoff_Contributing-area	O :: II	Kerr-Sorooshian (2901/2991)	km^2	5 :: 5	1/mission	500 m :: Land/R	N/A :: Sfc
Sand Depth	I :: II	Isacks (2780)	m	0.5 :: 0.5	1/seas	50 m :: Land/L	N/A :: Sfc
Sea_Ice Age	O :: FP	MIMR (3609/3610)			1/mo	22 km - 1dg :: Ocean/Cryo	:: Sfc
Sea_Ice Albedo	O :: FP	ASTER (3624)				90 m :: Ocean/Cryo	
Sea_Ice Area	O :: FP	ASTER (3630)					
Sea_Ice Conc	I :: II	Barron (3136/3137/3167/3168); Bates (3182); Brewer (3149); Simard (3141); Srokosz	%; fraction	5% - 20% :: 1% - 20%	1/day - 1/seas	10 - 100 km :: Ocean/Cryo; Canada/R	N/A :: Sfc
	O :: FP	MIMR (3611/3612)			1/mo	22 km - 1dg :: Ocean/Cryo	N/A :: Sfc
	O :: II	Barron (3143); Simard (3144/3169/3172)	% cover; km; km/day	500 m -10 km; 10% ::	1/day - 1/(2 wk)	500 m - 50 km :: Ocean/Cryo; Canada/R	:: Sfc
Sea_Ice Conc, First-year	I :: II	Rothrock (3165)	fraction	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
Sea_Ice Conc, GCM	I :: II	Rothrock (3178)	fraction	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
	O :: II	Barron (3146/3147)	%		1/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Sea_Ice Conc, Multi-year	I :: II	Barron (3173/3174); Rothrock (3175)	m^2; fraction		1/day - 1/(3 day)	10-100 km::Ocean/Cryo	N/A :: Sfc
	O :: II	Barron (3176)	%		1/seas	50 km ::	
Sea_Ice Cover	I :: II	Bates (3148); Dickinson (3417); Hansen (3150); Rothrock (3188); Wielicki (2919)	fraction	3 -10% :: 3 -10%	2/day [d,n] - 1/wk	25 km - 500 km :: Ocean/Cryo	N/A :: Sfc
	O :: FP	AIRS (3151)	fraction	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
	O :: II	Barron (3179/3185)	%; cm		1/day	50 km - 4.5 x 7.5 dg :: G; Ocean/Cryo	
Sea_Ice Duration, Ice-free_Season	O :: II	Simard (3135)	day	1 km [?] ::	1/yr [?]	:: Canada/R	:: Sfc
Sea_Ice Edge	I :: II	Abbott (3156); Rothrock (3189); Simard (3157/3190); Srokosz (3158)	presence/absence; dg (lat,lon); fraction	10 km - 25 km; 0.03 - 0.1	1/day - 1/(7 day)	10 km - 25 km :: Ocean/Cryo; Canada/R	N/A :: Sfc
	O :: II	Simard (3159)	km	500 m ::	1/(2 wk)	500 m :: Canada/R	:: Sfc
Sea_Ice Emissivity	I :: II	Bates (2121)	dimensionless		1/day	10 km :: Polar	N/A :: Sfc
Sea_Ice Extent	I :: II	Barron (3160/3161); Simard (3162)		5%; 25 km :: 5%	1/day - 1/(7day)	10-100 km :: Ocean/Cryo;Canada/R	N/A :: Sfc
	O :: FP	MIMR (3613/3614)				17 km :: Ocean/Cryo	N/A :: Sfc
	O :: II	Rothrock (3194); Simard (3193)	fraction	500 m; 0.05 :: 0.05	1/(3 day) - 1/(2 wk)	500 m -100 km :: >60 dgLAT; Canada/R	:: Sfc
Sea_Ice Fraction	O :: FP	ASTER (3152)	fractional area			90 m :: Ocean/Cryo	N/A :: Sfc
Sea_Ice Fraction, New (First-Year)	O :: FP	ASTER (3618)	dimensionless			90 m :: Ocean/Cryo	
Sea_Ice Fraction, Open-water	O :: II	Barron (3184)	m		[ice response]	[crit feat] :: [modern ice]	N/A :: Sfc
Sea_Ice Lead (Open Water) Size-distribution	O :: FP	ASTER (3622)				90 m :: Ocean/Cryo	
Sea_Ice Lead (Open-Water) Fraction	O :: FP	ASTER (3617)	dimensionless			90 m :: Ocean/Cryo	
Sea_Ice Leads	I :: II	Barron (3166)		5% :: 5%	1/day	30 m -100 km :: Ocean/Cryo	N/A :: Sfc
Sea_Ice Max Extent	O :: FP	MODIS (3153/3154)	km^2	<=5% :: <=5%	1/day - 1/mo	1 km -10 km :: Ocean/Cryo- R	N/A :: Sfc
	O :: II	Barron (3186); Rothrock (3187)	cm; fraction		1/day - 1/(3 day)	100 km - 2.8 x 2.8 dg :: >60 dgLAT; G	:: Sfc
Sea_Ice Meltpond Fraction	O :: FP	ASTER (3616)	dimensionless			90 m :: Ocean/Cryo	

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Sea_Ice Motion	I :: II	Rothrock (3103)	km/day	0.5 km :: 0.5 km	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
Sea_Ice Motion, Regional	I :: II	Simard (3196)		500 m ::	1/(7 day)	500 m :: Canada/R	N/A :: Sfc
Sea_Ice Roughness	I :: II	Bates (1555)	mm	100 mm ::	1/(3 mo)	:: Polar	N/A :: Sfc
Sea_Ice Size-distribution	O :: FP	ASTER (3621)				90 m :: Ocean/Cryo	
Sea_Ice Temperature	I :: II	Bates (2489); Rothrock (2490); Simard (3120)	K	0.3 - 2 K :: 2 K	1/day - 1/(3 day)	10 km - 25 km :: Polar; Canada/R	N/A :: Sfc
	O :: FP	ASTER (3619)	K			90 m :: Ocean/Cryo	N/A :: Sfc
Sea_Ice Thickness	I :: II	Dickinson (3418)	cm; m	5%; 5cm :: 1%; 3 cm	1/(10-20 day); 1/day; 1/seas	90 m - 1 dg :: Ocean/Cryo;	:: Sfc
	O :: FP	ASTER (3623)	m			90 m-1 km :: Ocean/Cryo	N/A :: Sfc
Sea_Level Height	I :: II	Abbott (3105); Brewer (3106)	cm; m	5 cm; 5% :: 3 cm; 1%	1/day - 1/seas	7-20 km :: Ocean	N/A :: Sfc
Sea_Level Height	O :: II	Bates (3109); Liu (3520); Murakami (3561); Tapley (3110/3124)	cm; mm		10 day - 1/yr	1/3 dg - 2 x 2 dg :: Ocean; Ocean/R(-Pacific)	N/A :: Sfc
Sea_Level Height, Along-track	I :: II	Bates (3111); Harris (3427)	cm	10 cm; 2% :: 1%	1-10 days	7-25 km :: Ocean; /R	N/A :: Sfc
	O :: FP	ALT (3112)	cm	10 cm ::		7 km :: Ocean	N/A :: Sfc
Sea_Level Height-Change	O :: II	Abbott (3113); Barron (3114)	cm RMS; m	4-6cm RMS :: TBD	[ice response]	G ave :: Ocean [Southern]; G	N/A :: Sfc
Sea_Level Height-Change Statistics	O :: II	Srokosz (3551)			5 yr (yr,seas,<seas)	1 x 1 dg :: Ocean /R	
Sea_Level Height-Variability, RMS	O :: II	Srokosz (3550)			1/seas	1 x 1 dg ::	
Sea_sfc Brightness Temperature (Radiance)	O :: II	Barron (2454)	K		1/(5 day)	2.5 dg :: G	
Sea_sfc Feature position	I :: II	Harris (3425)	deg long,lat	120 m :: 60 m	1 wk	0.25-1 km:: Ocean/R	
Sea_sfc Feature velocity	I :: II	Harris (3426)	km/day	20% :: 10%	1 wk	0.25-1 km:: Ocean/R	
Sea_sfc Feature-Occurence Statistics	O :: II	Srokosz (3554)			occasional	1 km ::	
Sea_sfc Gradient-Changes Statistics	O :: II	Srokosz (3555)			occasional	1 km ::	
Sea_sfc Reflectance Factor, MODIS-T	I :: II	Cihlar (2438)		0.05 :: 0.001	1/(3 mo)	0.5 km :: Canada/R	
Sea_sfc State	O :: II	Bates (3134)			1/hr	25 km :: Ocean	N/A :: Sfc
Sea_sfc Temperature (SST)	I :: II	Abbott (2504/2505); Barron (2506); Bates (2508/2509); Brewer (2510/2511); Dickinson (3392/3393); Hansen (2512); Harris (3451/3452); Hartman (2513); Lau (2514/2515/2516); Liu (2517); Murakami (2518); Rothrock (2519); Srokosz (2520); Wielicki (2521)	K	0.2 -1 K :: 0.05 - 1 K	2/day [d,n] :: 1/seas	30 m - 500 km :: Ocean/L,R,G	N/A :: Sfc
	O :: FP	ASTER (3620/3635); MIMR (3603/3604); MODIS (2527/2528/2529/2530/2531/2532)	K	0.3-0.6K :: 0.4K-0.6K	2/day [d, n] - 1/mo	90 m - 50 km :: Ocean/L - G	N/A :: Sfc
	O :: II	Murakami (3564)				:: Ocean/R(-Pacific)	
Sea_sfc Temperature (SST), Skin	O :: FP	AIRS (2523)	K	0.5 K :: 0.4 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
Sea_sfc Temperature Statistics	O :: II	Srokosz (3552)			1/mo	1 km ::	
Sea_sfc Temperature-Change Statistics	O :: II	Srokosz (3553)			1/5yr	1 x 1 dg ::	
Sea_sfc Topographic Height	I :: II	Harris (3429)	cm	2% :: 1%	1-10 days	7-25 km :: Ocean/R	
Sediment Conc	O :: II	Isacks (3576)				:: Land/R(Andes)	
Sediment(C) Constituent Flux	O :: II	Moore (2769)	kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
Sediment(N) Constituent Flux	O :: II	Moore (2775)	kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
Sediment(P) Constituent Flux	O :: II	Moore (2777)	kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
Simulated Data Sets, MODIS	O :: FP	MODIS (3672)				0.25-1 km :: L(test sites)	N/A :: Sfc
Simulated Scenes, MODIS, Monte Carlo Ray-Tracing	O :: FP	MODIS (3673)				0.25-1 km :: L(test sites)	N/A :: Sfc
Snow Area	O :: FP	ASTER (3634)					
Snow Chemistry	O :: II	Dozier (3002)	m-eq/m^2	50% :: 50%	1/wk, 1/mo	50 m :: Snow/L	
Snow Contaminant Conc	I :: II	Dozier (2767)	mg/m^3	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	
	O :: FP	HIRIS (2768)	mg/m^3	20% :: 20%	1/wk -1/mo	50 m :: Snow/L	N/A :: Sfc
Snow Cover	I :: II	Barron (3003/3004/3005); Bates (3006/3007); Dozier (3008); Hansen (3009); Isacks (3010/3011); Lau (3012); Murakami (3014); Sellers (3015); Simard (3026); Wielicki	km; fraction; m^2; dimensionless; km^2	2% - 10%; 50 m^2 :: 2% - 10%; 10 m^2	2/day [d,n] - 1/seas	15 m - 500 km :: Land/G,R,L	N/A :: Sfc
	O :: FP	HIRIS (3019); MIMR (3607/3608); MODIS (3020/3021)	km^2	<=5% :: 2% - 5%	1/day -1/mo	50 m - 1 dg :: Cryo/L; Land/L- G	N/A :: Sfc

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Snow Cover	O :: II	Simard (3023)	km	10 km ::	1/wk	10 km :: Canada/R	:: Sfc
Snow Cover Index [combined with 2921]	O :: FP	AIRS (3018)	dimensionless		2/day [d,n]	50 km :: Land	N/A :: Sfc
Snow Cover, Cold	O :: FP	HIRIS (3025)	km^2	5% :: 2%	1/wk -1/mo	50 m :: Glacier/L	N/A :: Sfc
Snow Cover, Wet	I :: II	Dozier (3028)	km^2	10% :: 10%	1/wk, 1/mo	50 m :: Snow/L	
	O :: FP	HIRIS (3029/3030)	km^2	5% - 10% :: 2% - 10%	1/wk -1/mo	50 m :: Glacier/L; Cryo/L	N/A :: Sfc
Snow Depth	I :: II	Dickinson (3414); Isacks (3031); Lau (3032); Simard (3034)	cm	10% - 20% :: 10% - 20%	1/wk - 1/seas	30 m - 10 km :: Land/L,R; Canada/R	N/A :: Sfc
	O :: II	Bates (3035); Simard (3036)	m;cm	5 cm/10% ::	1/(20 min) - 1/wk	10 km - 50 km :: Land	N/A :: Sfc
Snow Extent	I :: II	Dickinson (3415/3416)				Low_res; Med_res :: Land	
Snow Grain Size	I :: II	Dozier (3037)	mm	200% :: 200%	1/wk, 1/mo	50 m :: Snow/L	
	O :: FP	HIRIS (3038)	um	200% :: 200%	1/wk -1/mo	50 [km?] :: Snow/L	N/A :: Sfc
Snow Liq-water Content	I :: II	Dozier (3039); Moore (3027)	N/A	100% :: 100%	1/wk - 1/mo	50 m - 1 km :: Snow/L	
	O :: FP	HIRIS (2943)	mass fraction	100% :: 100%	1/wk -1/mo	50 m :: Snow/L	N/A :: Sfc
Snow Mass	I :: II	Murakami (3040)	g/cm^2	10% ::		:: Land	N/A :: Sfc
Snow Melt Area, Distributed	O :: II	Dozier (3041)	mm/hr	50 :: 50	1/day	50 m :: L	
Snow Melt Chemistry	O :: II	Dozier (3042)	m-eq/m^2	100% :: 100%	1/1wk, 1/mo	50 m :: L	
Snow Reflectance, Spectral	O :: FP	HIRIS (2440)	dimensionless	5% :: 1%	1/wk -1/mo	50 m :: Land/L	N/A :: Sfc
Snow State	I :: II	Simard (3043)				:: Canada/R	N/A :: Sfc
	O :: II	Simard (3044)	wet or dry			:: Canada/R	:: Sfc
Snow Temperature, Sfc	I :: II	Dozier (2500)	K	1 K :: 0.3 K	1/wk	500 m :: Snow/L	
Snow Water Equivalent	I :: II	Barron (2998/2999); Cihlar (3491); Dozier (3000); Lau (2996/2997); Moore (3046); Simard (3045)	mm; m	10% - 20%; 10 mm	1/day - 1/mo	30 m -10 km :: Land/L,R; Canada/R	N/A :: Sfc
	O :: II	Simard (3001)	mm	10 mm/10% ::	1/wk	10 km :: Canada/R	:: Sfc
Snow&Ice Content	O :: II	Isacks (3574)				:: Land/R(Andes)	
SO2 Conc	I :: II	Schoeberl (1366)	ppb	20% ::	1/wk	8 x 10 dg :: G	3 km :: Strat
	O :: FP	MLS (1369); TES (1370)	mix ratio; ppt	:: 5x10-10; 600 ppt	2/day [d, n] - 1/(16 day)	160 x 23 km; 0.1 x 2.5 dg :: 82N-82S; G	2-3 km :: TPSE; 4-30 km
SO2 Conc	O :: II	Brewer (1367/1368)	mix ratio	30% :: 20%	1/day	:: L; G	:: PBL
Soil Brightness Index	O :: FP	MODIS (2047)	%	5% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
	O :: II	Kerr, Sorooshian (2048)	%	5% :: 10%	1/(2 mo)	30 m :: Land/R	
Soil Bulk Density	I :: II	Kerr, Sorooshian (2791)	g/cm^3	5% :: 5%	1/yr	1 km :: Land	N/A :: Sfc
Soil Chemistry	I :: II	Richey, Batista (2810)	kg/ha	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
Soil Class	I :: II	Kerr, Sorooshian (2792)	class		1/yr	30 m :: Land/R	:: Sfc
	O :: II	Kerr, Sorooshian (2793)	class		1/yr	30 m :: Land/R	
Soil Color Index	O :: FP	MODIS (2095)	class	10% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
Soil Composition	I :: II	Barron (2794/2795/2796)		10% :: 5%	1/mission	30 m - 100 km :: Land/L,R	N/A :: Sfc
Soil Extent	I :: II	Barron (2797/2795/2796/2797/2798); Dickinson (3409); Moore (2800)	N/A; ha	5 ? - 15% :: 5 ? - 15%	1/yr	30 m - 100 km :: Land/L,R	N/A :: Sfc
Soil Hydraulic Conditions, Unsaturated	I :: II	Kerr, Sorooshian (2917)	L/T	0.05 ::		30 m :: Land/R	:: Sfc
Soil Hydraulic Properties	I :: II	Cihlar (3492); Simard (2916)		5 -10% :: 5%	once	1 km :: Canada/R	N/A :: Sfc
Soil Index	O :: FP	ASTER (2801)	dimensionless		1/seas	15-90 m :: Land/R,L	N/A :: Sfc
Soil Maps, Level-4 [Class,Comp,Age,etc.]	O :: FP	ASTER (2803)	varies		1/seas	15-30 m :: Land/R,L	N/A :: Sfc
Soil Mineral Type	I :: II	Kerr, Sorooshian (2802)	mineral type		1/yr	30 m :: Land/R	:: Sfc
Soil Moisture	I :: II	Barron (2946/2947/2948); Bates (2959/2960); Cihlar (3493); Dickinson (3411); Hansen (2962); Isacks (2963); Lau (2964/2965); Moore (2966); Murakami (3066); Richey-Batista (2958); Sellers (2967); Simard (2949)	cm^3/cm^3; cm; % vol; % saturated	5% - 30% :: 2% - 40%	1/day - 1/yr	30 m - 500 km :: Land/L,R,G; Canada/R	N/A :: Sfc
	O :: FP	MIMR (3605/3606)		10-25% ; 1.0K :: 5- 40%	1/mo	60 km - 1dg :: Land	N/A :: Sfc
	O :: II	Barron (2969/2970/2971/3067/3068); Bates (2972); Kerr-Sorooshian (2973); Lau (3508); Moore (2974/2975); Schimel (2976)	mm; m; g/cm^2; % vol; kg/m^2; cm	20% - 25% :: 5% - 20%	1/(20 min) - 1/yr; 1/event	30 m - 4.5 x 7.5 dg	N/A :: Sfc
Soil N Turnover	O :: II	Moore (2549/2550); Schimel (2551)	kg/ha per t-step; kg/ha	25% - 30% :: 1%	1/mo - 1/yr	Mult :: Land/L-G	

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Soil N Turnover Time-deriv	O :: II	Schimel (2552)	kg/ha	25% :: 1%	1/seas	Mult :: 6 sites/L	:: Sfc
Soil Proportion, Bare	I :: II	Barron (2785/2786/2787); Simard (2788)	%	5% - 10% :: 5	1/seas	30 m - 100 km :: Land/L,R; Canada/R	N/A :: Sfc
	O :: II	Kerr-Sorooshian (2789); Moore (2705); Schimel (2790)	%	10% - 15% :: 5% - 10%	1/wk - 1/mo	500 m - 1 km :: Land; 6 sites/L	N/A :: Sfc
Soil Reflectance, Bi-directional, (BRDF)	I :: II	Kerr-Sorooshian (2042); Dickinson (3370)	dimensionless	10% :: 10%	1/seas	<0.5-1 deg :: Land	N/A :: Sfc
Soil Roughness	I :: II	Dickinson (3331/3332)				Hi_res; Low_res :: Land	
Soil Spectral-characteristics	I :: II	Cihlar (3494)	%	5% :: 10%	once	250-1000 m :: Canada/R	N/A :: Sfc
Soil Temperature	I :: II	Lau (2501/2502); Simard (3311)	K	0.5 - 1 K :: 0.5 - 1 K	2/day - 1/(3 day)	100 m - 1 km :: Land/L,R; Canada/R	N/A :: Sfc
Soil Temperature	O :: II	Kerr, Sorooshian (2503)	K	0.5 K :: 0.5	2/day [d,n]	500 m :: Land/R	:: Sfc
Spectra, UV Stellar Comparison	O :: FP	SOLSTICE (3640)	photons/cm^2/s/nm	<5% :: <1%			
Stability (Lifted Index), Atmospheric	O :: FP	MODIS (1559/1560)	C	2 C :: 1 C	2/day - 1/mo	5 km ; 0.5 dg :: G	N/A :: Atmos
Stratopause Height	I :: II	Bates (1561)	km	1 km :: 0.5 km	2/day [d,n]	50 km :: G	N/A :: Mid-atmos
	O :: FP	AIRS (1562)	km	1 km :: 0.5 km	2/day [d, n]	50 km :: G	N/A :: Mid-atmos
Structure-Location, Significant Mappable	I :: II	Kerr, Sorooshian (2882)			1/yr	30 m :: Land/R	:: Sfc
Surface Water Area	I :: II	Lau (3060/3061)	m^2	100 ::	1/wk	30 m - 1 km :: Land/L,R	N/A :: Sfc
Surface Water Content (Soil Moisture+Lakes+Rivers)	O :: II	Isacks (3575)				:: Land/R(Andes)	
Surface Water Saturated Area	O :: II	Barron (2955/2956/2957)			1/event, 1/mo, 1/yr	30 m - 18 km :: R	
Suspended-Solids Conc, Lake Water	I :: II	Barron (2804)		25% ::		10 km	N/A :: Sfc
Suspended-Solids Conc, Ocean Water	O :: FP	HIRIS (3315); MODIS (3085/3086)	g/m^3	50% - 100% :: 35% - 50%	(>=2)/day - 1/mo	30-90 m; 1 km - 20 km :: Ocean; Ocean/R,L; Ocean/L+Land/Lakes	N/A :: TOO
Temperature Profile	I :: II	Abbott; Barkstrom; Barron (1565); Bates (1569/1570); Grose (1572); Hansen (1573/1754); Hartman (1575); Isacks (1576);	K; C	0.5 K - 2 K; 10% :: 0.3 K - 2 K; 5%	4/day [d,n] - 1/wk	10 km - 15 x 4 dg	0.5 - 3 km :: 0 - 80 km
		Kerr/Sorooshian (1577); Lau (1578); Liu (1589); Murakami (1580); Pyle (1581); Schoeberl (1582); Sellers (1583); Srokosz (1584); Wielicki (1585)					
	O :: FP	AIRS (1588/3691); GGI (1605/1606); HIRDLS (1608); MLS (1609) ; SAFIRE (1610); SAGE-III (1611/1612); TES (1614/1615/1616)	K	0.5 K - 2 K :: 0.4 K- 2K	2/day [d, n] -1/yr	1 km - 50 km :: G- Land	300 m - 1 km :: Atmos; Trop- Sfc
	O :: II	Barron (1589/1590/1591/1592/1593/1594); Bates (1626); Grose (1595/1596/1597); Pyle (1598); Schoeberl (1599/1600/1601/1602/1603/1604/1624/1625)	K; C	0.8 K - 2 K :: 1 K - 2 K	1/(5 min) - 1/mo; 2/day	500 m - 4.5 x 7.5 dg :: R/[East. U.S.]; G,R; 1-3 sites	24 - 50 lyr; 2-3.8 km; 110 mb ::1000-0.1mb; 0 - 90 km
Temperature, Dry-bulb, Near_sfc	O :: II	Bates (1617/1619/1620/1623)	K		1/(20 min)	25 km - 50 km :: G	N/A :: 10 m; Near_sfc
Temperature, Dry-bulb, PBL	O :: II	Barron (1628); Bates (1618)	K		1/(20 min) - 1/day	10 km - 50 km :: R	N/A :: PBL
Temperature, Dry-bulb, Tropopause	O :: II	Harris (3658)				:: Ocean / R(Australia-STC)	
Temperature, Near_sfc	I :: II	Barron (1566/1568); Dickinson (3334); Hansen (1629/1630); Kerr/Sorooshian (1631); Rothrock (1627); Schimel (1632/1633)	K; C	0.2 K - 1K; 10% :: 1K - 2K; 1%	2/day [d,n] - 1/wk	30 m - 500 km :: Land/L,R,G; Ocean/R,G; Polar	N/A :: Near_sfc
Temperature, PBL	I :: II	Mouginis-Mark (3302)			1/day	30 m :: Land/R	N/A :: Plume_col
Temperature, Stratospheric	O :: II	Bates (1621)	K		1/(20 min)	25 km :: G	N/A :: PBL [Top of]
Temperature, Tropospheric	O :: II	Bates (1622)	K		1/(20 min)	50 km :: G	N/A :: Tropopause
Temperature-Change, Convective_Adjustment	O :: II	Barron (1634/1635)	K/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Temperature-RMSE	O :: II	Bates (1542)	K		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
Temperature-Tendency	O :: II	Barron (1636/1637)	K/s		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Texture, MODIS Level-2	O :: FP	MODIS (3658)					
Texture, MODIS Level-3	O :: FP	MODIS (3659)					

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Topographic Elevation, Land_sfc	I :: II	Barron (2823/2824); Cihlar(3495); Dickinson (3410); Dozier (2825); Isacks (2844); Kerr, Sorooshian (2826); Moore (2827); Wielicki (2847)					
	O :: FP	MISR (2846)	m	100 m :: 100 m	1/mission	15-30 m :: Land/R,L	N/A :: Sfc
	O :: II	Barron (2840)	km		? 5000 yr	5 km :: 2 sites	
Topographic Elevation, Land_sfc, (DEM)	I :: II	Isacks (2833/2838/2839); Kerr/Sorooshian (2834); Lau (2835)	m; cm; km	2% - 30%; 1 m - 200 m :: 1% - 10%	(1-10 days) - 1/mission	1 m - 25 km :: Land/L,R; Ocean/R	N/A; 30 m :: Sfc
	O :: FP	ASTER (2828)	m	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Topographic Elevation, Land_sfc, Control, (DEM)	I :: II	Isacks (2837)					
Topographic Elevation-Change Rate, Land_sfc	O :: FP	GLRS-A (2831)	mm/day -mm/yr	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
Topographic Elevation, Sea_sfc	I :: II	Liu (3123); Murakami (3122); Srokosz (3107)	cm; m	1 cm - 3 cm :: 1 cm - 3 cm	1/(10 day)	10 km :: Ocean/R,G	N/A :: Sfc
Topographic Elevation, Sea_sfc	O :: FP	ALT (3108)	cm	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Topographic Slope (Azimuth), Land_sfc	I :: II	Kerr/Sorooshian (2830/2845)	dg; %	10 :: 5	1/yr	30 m :: Land/R	:: Sfc
Torque, Friction	I :: II	Bates (1640)	kg m^2/s^2	5% ::		:: G	:: Atmos
	O :: II	Tapley (1641)	kg m^2/s^2	5% ::	4/day	50 km :: G	N/A :: Sfc
Torque, Mountain	O :: II	Tapley (2875)	kg m^2/s^2	5% ::	4/day	50 km :: Land	N/A :: Sfc
Torque, Ocean-Land	O :: II	Tapley (2876)	kg m^2/s^2	10% ::	4/day	50 km :: G	N/A :: Sfc
Trace Gas Conc	I :: II	Murakami (1374)	mix ratio	20% ::			N/A :: TOA
Trace Gas Conc, Non-diurnally-varying	O :: II	Grose (1375)	mix ratio		1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
Trace Gas Total Burden	O :: II	Schoeberl (1373)	column density	25% :: 15%	[irreg]	N/A :: R	Column :: Atmos
Trace Gas Total Burden, Greenhouse	O :: II	Murakami (3557)				5 dg :: G	NA :: Atmos
Trace Gas Transfer Coef	O :: II	Brewer (3088)	m/s		1/day, 1/seas	25 km :: Ocean/G,L	N/A :: TOO
Trace Gas Transport Diagnostics	O :: II	Grose (1755)			1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
Tropopause Height	O :: FP	AIRS (3688)	km	1 km :: 0.5 km	2/day [d,n]	50 km :: G	N/A :: Atmos
Tropopause Height, Aerosol_located	I :: II	Bates (1642)	m	75 m ::		200 km :: G	75 m :: Trop
	O :: FP	GLRS-A (1643)	m	300 m ::	1/(2-16 day)	200 km :: G	300 m :: Trop
Tropopause Height, Cirrus_located	O :: FP	GLRS-A (1644)	m	300 m ::	1/(2-16 day)	10 km :: G	300 m :: Trop
Vegetation Biomass	I :: II	Richey/Batista (2627) , Sellers (2628)	t/ha	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
	O :: II	Kerr/Sorooshian (2609); Moore (2610/2611)	kg/m^2	20% ::	1/seas - 1/(3 yrs)	30 m - 1 km:: Land/R,G	:: Sfc
Vegetation Biomass, Dead	I :: II	Barron (2612/2613)	kg/ha	25% :: 15%	1/mission	30 m - 10 km	N/A :: Sfc
	O :: FP	HIRIS (2614)	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Biomass, Green	I :: II	Barron (2615/2616); Dickinson (3397); Isacks (2617); Moore (2618/2619)	kg/ha; g/ha	25% - 40% :: 15%	1/2 day - 1/mission	30 m - 100 km :: Land	N/A :: Sfc
	O :: FP	HIRIS (2620)	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Biomass, Sub_sfc	I :: II	Kerr, Sorooshian (2624)	kg/m^2		1/(1-3 yr) [few yr]	1120 m :: Land/R	:: Sub_sfc
	O :: II	Moore (2625/2626)	kg/ha		1/(1-3 yr) [few yr]	:: Land/R,G	
Vegetation Biome Area	I :: II	Kerr, Sorooshian (2630)	km^2	5% :: 5%	1/seas	:: Land/R	N/A :: Sfc
Vegetation Cellulose Conc	I :: II	Moore (2647)	%	20% :: 20%	1/(16 day)	30 m :: Land/L	
	O :: FP	HIRIS (2648)	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Change	O :: II	Cihlar (2713)	veg change classes	1 class	1/yr	1 km :: Land/R	N/A :: Scf
Vegetation Chlorophyll Conc	I :: II	Moore (2649/2650); Schimel (2651/2652)	g/ha; kg/ha	10 - 20% :: 1 -10%	1/day - 1/wk	30 m - 1 km :: Land/L,R	N/A :: Sfc
	O :: FP	HIRIS (2653)	g/ha	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Class(Type)	O :: II	Isacks (3586)				:: Land/R(Andes)	
Vegetation Condition	O :: II	Kerr, Sorooshian (2714)	N/A	10% :: 10%	1/wk	500 m :: Land/R	N/A :: Sfc
Vegetation Cover	I :: II	Sellers (2740)	ha		1/(1-4 days)	100 km ::	:: Sfc
	O :: FP	HIRIS (2741)	%	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Crown Height	O :: FP	HIRIS (2656)	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Crown Spacing	O :: FP	HIRIS (2657)	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Density	I :: II	Kerr, Sorooshian (2634)	%			60 m :: Land/R	:: Sfc
	O :: II	Isacks (3585)				:: Land/R(Andes)	

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Vegetation Evapotrans	I :: II	Bates (1989/1990); Cihlar (3497); Dickinson (3351/3352); Lau (1788); Moore (3057/3058); Murakami (1991); Schimel (1790); Simard (1789)	W/m^2; %; cm; mm/day; m/yr	10% - 20%; 0.05 mm - 1 mm/day :: 5% - 20%; 1 mm/day	1/day - 1/wk	30 m - 1 dg :: Canada/R; Land/L,R,G	N/A :: Sfc
	O :: FP	ASTER (1791)	mm/day	1 mm/dy :: 0.5 mm/dy		90 m :: Land/R,L	N/A :: Sfc
	O :: II	Barron (1792/1793); Lau (3509); Moore (1797/1798); Richey/Batista (1795/1796); Schimel (1799)	W/m^2; mm/day; mm/mo; cm/day	1 - 20% :: 1% - 5%	1/event; 1/day - 1/yr	.030-18 km	N/A :: Sfc
Vegetation Evapotrans Time-deriv, Annual	O :: II	Schimel (1803)	cm ?	20% :: 1%	1/day	[multiple] :: 6 sites/L	:: Sfc
Vegetation Extent	I :: II	Barron (2715/2716/2717); Dickinson (3400/3401); Hansen (2718); Moore (2635)	ha	15% :: 15%	1/yr	1 km :: Land	
	O :: II	Moore (2635)	ha	15% :: 15%	1/yr	1 km :: Land	
Vegetation Growing_Season Duration	O :: FP	MODIS (2659/2660)	day	10 dy ::	1/yr	1 km - 10 km :: Land	N/A :: Sfc
	O :: II	Cihlar (2661)	day	10 dy :: 1dy	1/yr	1 km :: Land/R	N/A :: Sfc
Vegetation Height	I :: II	Kerr/Sorooshian (2636); Dickinson (3402)	m	10% :: 10%	1/seas	30 m; Med-low_res :: Land/R,G	:: Sfc
	O :: II	Schimel (2637)	m	20% :: 5%	1/yr	500 m :: 6 sites/L	:: Sfc
Vegetation Index	I :: II	Hansen (2742); Isacks (2743/2744); Murakami (2745)	%	5%; 1 :: 0.5 - 1	1/wk - 1/mo	30 m - 500 km :: Land/L,R,G	:: Sfc
	O :: FP	HIRIS (2746); MODIS (2749/2750/2751)	dimensionless	20%; 0.01 :: 10%; 0.01	1/day - 1/mo	15 m -10 km; pixel_size :: Land/R,L	N/A :: Sfc
	O :: II	Cihlar (2706); Kerr/Sorooshian (2752); Lau (3510); Moore (2753/2754)	various indices; %; dimensionless	.01 - .05 :: 0.001 - .01	1/(10 day) - 1/yr	30 m - 1 km :: Land/L,R,G	N/A :: Sfc
Vegetation Index, PVI	O :: FP	ASTER (2747)					
Vegetation Index, Leaf Area, (LAI)	I :: II	Barron (2673/2674/2675); Bates (2676); Dickinson (3406); Lau (2677); Schimel (2678/2679)	area fraction; %	0.5; 10% :: 0.2; 1 - 10%	1/day - 1/seas	30 m - 100 km :: Land/L,R,G	N/A :: Sfc
	O :: FP	MODIS (2680)	dimensionless	0.1-0.25 :: 5% - 20%	1/day - 1/wk	pixel_size :: Land/R - G	N/A :: Sfc
	O :: II	Kerr/Sorooshian (2682); Moore (2683)	%	10% :: 5%	1/mo - 1/(1-3 mo)	30 m :: Land/L,R	:: Sfc
Vegetation Index, Normalized	O :: FP	MISR (2756/2757/3682)	dimensionless	2% :: 2%	1/(5-16 day) [d] - yr	240 m - 1.92 km :: Land/R	N/A :: Sfc
Vegetation Index, Polarization	O :: FP	MODIS (2337)	dimensionless		1/day	pixel_size :: Land	N/A :: Sfc
Vegetation Index, Soil&BRDF_Adjusted	O :: FP	MODIS (2724)	dimensionless	0.01 :: 0.01	1/day - 1/mo	1 km :: Land/R	N/A :: Sfc
Vegetation Index, Soil_Adjusted	O :: FP	MODIS (2748)	dimensionless	0.01 :: 0.01	1/day - 1/mo	1 km :: Land/R	N/A :: Sfc
Vegetation Leaf Water Content	I :: II	Moore (2760)	g/cm^3	20% :: 20%	1 day - 1 wk	30 m :: Land/L	N/A :: Sfc
Vegetation Leaf-tissue Water Content	O :: FP	HIRIS (2761)	g/cm^3	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Lignin Conc	I :: II	Moore (2684); Schimel (2685/2686)	%	20% :: 1 - 20%	1/(16 day) - [multiple]	30 m :: Land/L	N/A :: Sfc
	O :: FP	HIRIS (2687)	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vegetation Litter Biomass	O :: II	Kerr/Sorooshian (2621); Moore (2622/2623)	kg/km^2; kg/ha		1/(1-3 yr) [few yr]	30 m :: Land/L,R	:: Sfc
Vegetation Moisture, Root-zone	I :: II	Barron (2950/2951/2952); Cihlar (3501); Dickinson (3399); Richey/Batista (2708); Simard (2953)	cm^3/cm^3; m	10% - 20% :: 5% - 20%	1/day; 1/seas	30 m -100 km :: Land/L,R,G; Canada/R	N/A :: Sub_sfc
	O :: II	Bates 2594)	g/cm^2		1/(20 min)	50 km :: Land	N/A ::
Vegetation N Conc	I :: II	Moore (2688/2689); Schimel (2690/2691)	%	20% :: 1 - 20%	1/(16 day) - 1/seas	30 m - 1 km :: Land/L,R	N/A :: Sfc
Vegetation Phenologic State, AVHRR	O :: II	Sellers (2712)			1/mo	20 km ::	
Vegetation Physiography	I :: II	Richey, Batista (2693)	m	10% :: 10%	1/mo	1 km :: Land/R	N/A :: Sfc
Vegetation Phytomass	O :: II	Cihlar (2694)	kg/ha	:: 10%	1/yr	1 km :: Land/R	N/A :: Sfc
Vegetation Production Time-deriv, Net Primary, (dNPP/dt)	O :: II	Schimel (2702)	kg/ha	20% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
Vegetation Production, Net Ecosystem, (NEP)	O :: II	Moore (2697)	t/yr/km^2	25% :: 10%	1/yr	? km :: Land	
Vegetation Production, Net Primary, (NPP)	I :: II	Schimel (2698)	kg/ha	20% :: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
	O :: II	Kerr/Sorooshian (2699); Moore (2700); Schimel (2701)	t/yr/km^2; t/yr; kg/ha	20% - 25% :: 1% - 10%	1/seas - 1/yr	500 m - 1 km :: Land; 6 sites/L	N/A :: Sfc
Vegetation Productivity	O :: II	Kerr, Sorooshian (2704)	annual %			30 m :: Land/R	:: Sfc
Vegetation Productivity, Primary	O :: FP	MODIS (2703)	Mg/km^2/yr	100 :: 5-30%	1/wk - 1/yr	1 km :: Land/R - G	N/A :: Sfc
Vegetation Reflectance, Bi-directional, (BRDF)	I :: II	Cihlar (3496); Dickinson (3371); Kerr/Sorooshian (2046)	dimensionless	10% :: 10%	1/seas	<0.5-1 deg :: Land	

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Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Vegetation Reflectance, Bi-directional, (BRDF)	O :: II	Dickinson (3529)					
Vegetation Rooting Depth	I :: II	Kerr/Sorooshian (2707); Dickinson (3403)	m	20% :: 20%	1/yr	30 m - 1 dg :: Land/R,G	
Vegetation Roughness	I :: II	Dickinson (3404)				Med-low_res :: Land	
Vegetation Spatial Density	I :: II	Kerr, Sorooshian (2638)	#/km^2	20% :: 10%		60 m :: Land/R	:: Sfc
Vegetation Stomatal Resistance	I :: II	Kerr, Sorooshian (2709)			1/seas	30 m :: Land/R	
Vegetation Stress	O :: FP	MODIS (2723)	s/m	200-1000 :: 5-30%	1/day - 1/wk	pixel_size :: Land/R - G	N/A :: Sfc
Vegetation Stress Index, Water	O :: II	Kerr, Sorooshian (3065)	%change	5% :: 5%	1/(2 mo)	500 m :: Land/R	
Vegetation Stress Index, XXX	O :: II	Moore (2725)	%change	5% :: 5%	1/(2 mo)	500 m :: Land/R	
Vegetation Structure	I :: II	Barron (2639/2640); Cihlar (3502); Richey/Batista (2726); Schimel (2641/2642/2643)	%		1/seas - 1/yr	30 m - 10 km :: Land/L,R	N/A :: Sfc
Vegetation Succession	O :: II	Cihlar (2727)	vegetation change	:: 1 class	1/(2 yr)	1 km :: Land/R	N/A :: Sfc
Vegetation Temperature	I :: II	Dickinson (3394); Kerr/Sorooshian (2456); Moore (2535)	K	0.5K :: 0.5K	2/day [d,n]	500 m - 1 dg :: Land/R,G	:: Sfc
Vegetation Type	I :: II	Barron (2728/2729/2730); Cihlar (3504); Dickinson (3405); Hansen (2731); Isacks (2732); Kerr,Sorooshian (2733); Lau (2734); Moore (2736)	N/A; class; species; ha; m	5% - 15%; 30 m :: 5% - 15%	1/wk - 1/yr	30 m - 500 km :: Land/L,R,G	N/A :: Sfc
Vegetation Type	O :: FP	HIRIS (2644)	ha	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
	O :: II	Cihlar (2737); Moore (2738)	classes	[1 km] :: 1 class	1/yr	1 km :: Land/R,G	N/A :: Sfc
Vegetation Type Boundaries	I :: II	Barron (2739)					
Vegetation Water Content	I :: II	Moore (2762)	g/cm^3	20% :: 20%	1/day, 1/wk	30 m :: Land/L	:: Sfc
Vegetation Water Content, Integrated	I :: II	Kerr, Sorooshian (2758)	%	20% :: 20%	2/wk	500 m :: Land/R	N/A :: Sfc
Vegetation Water Potential	I :: II	Dickinson (3407)				Low_res :: Land	
Vertical Motion	O :: II	Barron (1506/1507); Bates (1692)	cm/s; mb/s		1/(20 min) - 1/hr	1 km - 100 km :: R,G	50 lyr :: 1000-0.1 mb
Vertical Motion, Omega	O :: II	Barron (1504/1505/1508)	Pa/s		1/(6 hr) - 2/day	1 dg - 4.5 x 7.5 dg :: G	15-20 lvl ::
Volcano Age	O :: FP	ASTER (3298)		variable :: variable		15-90 m :: Land/R - L	N/A ::
Volcano Cone Deformation	O :: II	Mouginis-Mark (3272)	cm/mo	1 cm (ver) ::	(~10)/event	30 m :: Land/L	cm :: Sfc
Volcano Deformation	I :: II	Mouginis-Mark (3269)	cm	1 cm(ver) ::	1/day	cm [?] :: [30 km^2/10]	N/A :: Sfc
Volcano Deformation(Inflation-Deflation)	O :: FP	GLRS-A (3270/3271)	mm/day - mm/yr	5 mm/yr ; 5/yr-100/d ::	1/day - 1/yr	1 km - 100 km :: Land/R - L	:: Sfc
Volcano Elevation	O :: II	Mouginis-Mark (3275)	cm	10 m (ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
Volcano Elevation Change	I :: II	Mouginis-Mark (3274/3278)	m, cm	10 m (ver);1- 5 (ver) ::	2/day [d,n] :: 1/mission	30 m :: Land/L	N/A :: Sfc
Volcano Elevation, Reference	I :: II	Mouginis-Mark (3276)	cm	10 m (ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
	O :: II	Mouginis-Mark (3277)	cm	10 m (ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
Volcano Emissions, Eruption	O :: II	Mouginis-Mark (3279)	SO2 rlse in kton		1/yr	20 km :: G	N/A :: Plume_top
Volcano Morphology	I :: II	Mouginis-Mark (3284)	m		4/yr	30 m :: Land/L	N/A :: Sfc
Volcano Roughness	I :: II	Mouginis-Mark (3287)	cm	3-24 cm ::	1/yr	30 m :: Land/L	N/A :: Sfc
Volcano Temperature, Eruption Spike	I :: II	Mouginis-Mark (3290)	C	10 C ::	[near-real time ?]	1 km :: G	N/A :: Sfc
Volcano Temperature-Change	I :: II	Mouginis-Mark (3295)	C/yr	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
	O :: II	Mouginis-Mark (3296)	C/yr	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
Volcano Volume-Change	O :: II	Mouginis-Mark (3300)	m^3	1000 m^3 ::	1/event	30 m :: Land/L	N/A :: Sfc
Volcano-Activity Extent	O :: FP	HIRIS (3299)	m^2		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Volcano-Activity Temperature	O :: FP	HIRIS (3294)	C	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Vorticity, Potential	O :: II	Grose (1645); Pyle (1646)			1/day	~6 x 6 dg :: G	1 lvl :: 0-30 km
Wetlands Extent	I :: II	Dickinson (3408); Hansen (2764)		5% ::	1/wk	Low_res; 500 km :: Land	:: Sfc
Wind Direction	I :: II	Liu (1702); Srokosz (1703)	dg	10 dg :: 1 - 10 dg	1/day	25 km :: Ocean/G, R/[S. Atlan]	N/A :: Sfc
	O :: II	Barron (1704/1705)	dg		1/(5 min)	500 m - 30 km:: [East. U.S.]	
Wind Flux(Draw)	I :: II	Kerr, Sorooshian (1706)	km/day		1/day	25 km :: Land	10 km :: Trop
Wind Speed	I :: II	Lau (1712/1739); Pyle (1714); Sellers (1715)	m/s	0.5 - 5 m/s :: 2%; 5 m/s	2/day - 4/day	15 x 4 km - 100 km :: G	0.5 - 2 km :: Sfc - Strat
	O :: FP	MLS (1734)	m/s	:: 10m/s	2/day [d, n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-110 km
	O :: II	Barron (1721/1722/1723/1724); Schoeberl (1725/1726/1727/1728/1729/1730)	m/s	2 m/s :: 2 m/s	1/(5 min) - 1/(4 day)	500 m - 4 x 5 dg :: R,G; R/[East. U.S.]	2 km - 3.8 km; 110 mb :: Atmos
Wind Speed RMSE, Mean_Meridional	O :: II	Bates (1543)	m/s		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb

Appendix D: List of Data Product Groups

Product Name	*Type*	*Investigator or Instrument Team Name*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
Wind Speed RMSE, Mean_Zonal	O :: II	Bates (1544)	m/s		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
Wind Speed, Along-track	O :: FP	ALT (1735)	m/s	2 m/s ::		7 km :: Ocean	N/A :: Sfc
Wind Speed, Land_sfc	I :: II	Dickinson (3339); Kerr/Sorooshian (1711)	m/s	5 m/s :: 5 m/s	1/hr	25 km - 100 km :: Land	N/A :: Sfc
Wind Speed, Mean Meridional	O :: II	Bates (1691)	m/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
Wind Speed, Mean Zonal	O :: II	Bates (1693)	m/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
Wind Speed, Meridional	O :: II	Bates (1694/1701); Barron (1736/1737)	m/s		1/(20 min) - 2/day	25 km - 4.5 x 7.5 dg :: G	N/A; 50 lyr :: 1000-0.1 mb; Near_sfc
Wind Speed, PBL	I :: II	Lau (1738)	m/s	20% :: 10%	1/hr	30 m :: Land/L	N/A :: PBL
Wind Speed, Sea_sfc	I :: II	Abbott (1707/1708); Bates (1709); Brewer (1710); Harris (3435); Liu (1713); Srokosz (1716); Tapley (1717)	m/s	5% - 15%; 1 m/s :: 2% - 10%; 0.1 - 1 m/s	4/day - 1/seas	1 - 50 km :: Ocean	N/A :: Sfc
	O :: FP	AIRS (1718)	m/s		1/day	50 km :: Ocean	N/A :: Sfc
Wind Speed, Zonal	O :: II	Barron (1740/1741); Bates (1699/1700)	m/s		1/(20 min) - 2/day	25 km - 4.5 x 7.5 dg :: G	N/A :: Near_sfc
Wind Stress	I :: II	Bates (1742); Lau (1743); Murakami (1744); Tapley (1745)	N/m^2	0.01; 10% ::	4/day	TBD; 50 km :: Ocean	:: Sfc
	O :: FP	STIKSCAT (1746)				:: Ocean	:: Sfc
Wind Stress, Meridional	O :: II	Barron (1558/1750); Bates (1649/1749)	N/m^2		1/(20 min) - 2/day	25 km - 4.5 x 7.5 dg :: G	N/A :: Sfc
Wind Stress, Sea_sfc	O :: FP	MIMR (3594/3595)	m/s		1/day - 1/mo	39 km - 1 dg :: Ocean	N/A :: Sfc
Wind Stress, Zonal	O :: II	Barron (1747/1748); Bates (1751/1752)	N/m^2		1/(20 min) - 2/day	25 km - 4.5 x 7.5 dg :: G	N/A :: Sfc
Wind Trajectories	O :: II	Bates (1695)	dg (lat,lon),mb		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
Wind U Tendency	O :: II	Barron (1696/1698)	m/s^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Wind V Tendency	O :: II	Barron (1647/1648)	m/s^2		2/day	2.8 x 2.8 dg - 4.5 x 7.5 dg :: G	
Wind Velocity	I :: II	Abbott (1754); Barron (1650/1651/1652); Barkstrom; Bates (1659/1660/1651); Dickinson; Grose (1662); Harris (3433/3434); Hartmann (1665); Isacks (1666); Liu (1667); Murakami (1668); Schoeberl (1671); Srokosz (1672); Wielicki (1673)	m/s; deg	1 m/s - 5 m/s, 10 dg - 20 dg; 7% - 20% :: 0.5 m/s - 5 m/s, 5 dg; 5% - 10%	1/(12 min) - 1/wk	30 m - 15 x 4 dg	0 - 3 km :: 0 - 60 km
	O :: II	Barron (3163); Grose (1676/1677); Rothrock (3132)	cm/s, m/s; dg		48/day - 1/(3 day)	100 km - ~6 x 6 dg :: G; > 60 dgLat; Land/R(Andes)	1-24 lvl :: 0 - 90 km
Wind Velocity, 3-D	O :: II	Pyle (1683)					
Wind Velocity, Divergent Horizontal	I :: II	Dickinson (3336)				<0.5-1 deg :: G	
Wind Velocity, Friction	I :: II	Srokosz (1684)	m/s,dg	5%,5 dg :: .01m/s,1dg	1/day	25 km :: Ocean [S. Atl]	N/A :: Sfc
Wind Velocity, Geostrophic	I :: II	Bates (1685)	m/s	2 m/s ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
	O :: FP	HIRDLS (1687)	m/s	3 m/s :: 3 m/s	2/day [d, n]	4 x 4 dg :: G	1 km :: 7-80 km
	O :: II	Rothrock (1686)	m/s		1/(3 day)	100 km :: > 60 dgLAT	
Wind Velocity, Land_sfc	I :: II	Barron (1655/1656)	m/s,dg	1 :: 1	1/day	30 m -100 km :: Land/L,R,G	N/A :: Sfc
Wind Velocity, Line-of-sight (Level-1B)	I :: II	Bates (2382)					
Wind Velocity, Prevailing	O :: II	Isacks (3579)					
Wind Velocity, Rotational Horizontal	I :: II	Dickinson (3337)				<0.5-1 deg :: G	
Wind Velocity, Sea_sfc	I :: II	Abbott (1753); Barron (1653/1657); Bates (1658); Dickinson (3338); Hansen (1663); Hartmann (1664); Rothrock (1669/1670)	m/s,dg	10%,<20dg; 1 m/s - 2 m/s :: 5% -10% ,20 dg; 1m- 2m/s	1/ day - 1/wk	10 km - 500 km :: Ocean[South.]; Ocean/R,G; Polar	N/A :: Sfc
	O :: FP	STIKSCAT (1679/1680)	m/s; dg	:: 7% - 10%; 16 deg	1/(2 day)	1 dg; 25 km :: Ocean/R,L	N/A :: Near_Sfc
	O :: II	Murakami (3562); Rothrock (1678); Simard (3164)	(m/s,dg); km	25 km ::	1/(3 day) - 1/wk	25 km - 100 km :: Ocean/R(~Pacific); >60 dgLat; Canada/R	:: Sfc
Wind Velocity, Sea_sfc Glint-Pattern	O :: FP	MODIS (1688)	m/s		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc
Wind Velocity, Tropospheric 3-D	O :: II	Murakami (3560)				:: Ocean/R(~Pacific)	
X-Ray Energy Spectra	I :: II	Schoeberl (3258)	photon/cm^2/s/A	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 15-110 km
X-Ray Images	I :: II	Dickinson (3421)				<0.5-1 deg :: G	

Output Data Products Listed by Instrument

Appendix E

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2274	*Irradiance, Solar, Total*	AR	Willson	ACRIM	MO	GSFC	AL	W/m^2	0.1% :: 0.0005%	1/(2 min)	N/A :: N/A	N/A :: TOA
1718	Wind Speed, Sea_sfc	AD	Aumann	AIRS	PM	GSFC	PL	m/s		1/day	50 km :: Ocean	N/A :: Sfc
3686	Cloud Reflectivity, Spectral	AR	Chahine	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
3685	Cloud Transmissivity, Spectral	AR	Chahine	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
2062	*Cloud Cover*	AH	Chahine, Chedin, Smith	AIRS	PM	GSFC	AL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
1423	*Cloud Height, Top*	AH	Chahine, Chedin, Smith	AIRS	PM	GSFC	PL	km	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
2463	*Cloud Temperature, Top*	AR	Chahine, Chedin, Smith	AIRS	PM	GSFC	AL	K	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
2128	Cloud Emissivity, IR Spectral (3-14um)	AR	Chahine, Smith	AIRS	PM	GSFC	PL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
2113	*Land_sfc Emissivity, Spectral*	LR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: Land	N/A :: Sfc
2481	*Land_sfc Temperature, Skin*	LR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	AL	K	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
2539	Land_sfc Temperature-Difference, Day-Night	LR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	K	0.5 K :: 0.25 K	2/day [d,n]	50 km :: G	N/A :: Sfc
2523	*Sea_sfc Temperature (SST), Skin*	OR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	K	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
1828	*Humidity Profile*	AH	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	AL	g/kg	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
1869	*Precipitable Water*	AH	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	AL	mm	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
1588	*Temperature Profile*	AD	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	AL	K	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
3683	Radiance, Cloud Cleared, Level-2	AR	Chedin, McMillin, Rizzi, Smith, Susskind	AIRS	PM	GSFC	AL					
1332	*O3 Total Burden*	AC	Chedin, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	Dobson unit	5 - 15% :: 3 - 10%	2/day [d,n]	50 km :: G	Column :: Atmos
1095	*CH4 Total Burden*	AC	Chedin, Revercomb, Strow	AIRS	PM	GSFC	PL	ppb, dimensionless	50 - 175 ppb, 2% :: 30 - 150 ppb, TBD	1/day [n] - 2/day [d,n]	50 - 250 km :: G	Column :: Atmos
3687	Radiative Flux, LW, Up (OLR)	AR	Chedin, Revercomb, Susskind	AIRS	PM	GSFC	PL	W/m^2	5 - TBD :: 3 - TBD	2/day [d,n]	50 km :: G	N/A :: TOA
3151	*Sea_Ice Cover*	OH	Chedin, Staelin	AIRS	PM	GSFC	PL	fraction	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
2176	Radiative Flux, LW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
2177	Radiative Flux, LW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
2232	Radiative Flux, SW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
2233	Radiative Flux, SW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
2000	Albedo, Land_sfc	LR	Gautier ??	AIRS	PM	GSFC	PL	dimensionless		1/day	50 km :: Land	N/A :: Sfc
2209	*Radiative Flux, LW Spectral*	AR	Gautier ??, Susskind	AIRS	PM	GSFC	PL	W/m^2	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Land	N/A :: Sfc
2210	*Radiative Flux, LW Spectral*	AR	Gautier ??, Susskind	AIRS	PM	GSFC	PL	W/m^2	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
1151	CO2 Total Burden (Mixing Ratio)	AC	Revercomb	AIRS	PM	GSFC	PL	ppm	25 :: 20	2/day [d,n]	50 km :: G	Column :: Atmos
1136	*CO Total Burden*	AC	Revercomb, Strow	AIRS	PM	GSFC	PL	ppb	10 - 20 :: 6 - 15	2/day [d,n]	50 - 250 km :: G	Column :: Atmos
1249	*N2O Total Burden*	AC	Revercomb, Strow	AIRS	PM	GSFC	PL	ppb	20 - 40 :: 15 - 30	2/day [d,n]	Zonal_ave :: G	Column :: Atmos

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1908	Cloud Liq_water Content	AH	Rosenkranz	AIRS	PM	GSFC	PL	mm	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
1562	Stratopause Height	AD	Smith	AIRS	PM	GSFC	PL	km	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Mid-atmos
3684	Cloud Optical Thickness	AR	Smith, Gautier ??	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	1/day	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
3688	Tropopause Height	AD	Smith, Susskind	AIRS	PM	GSFC	PL	km	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Atmos
1893	Cloud Ice Index	AH	Staelin	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	2/day [d,n]	50 km :: G	N/A :: Cloud
2921	*Ice_Sheet Cover Index*	LH	Staelin	AIRS	PM	GSFC	PL	dimensionless		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc
3018	*Snow Cover Index [combined with 2921]*	LH	Staelin	AIRS	PM	GSFC	PL	dimensionless		2/day [d,n]	50 km :: Land	N/A :: Sfc
3689	Cloud Radiative Forcing, LW	AR	Susskind	AIRS	PM	GSFC	PL	W/m^2	5 :: 3			
3690	O3 Conc	AC	Susskind	AIRS	PM	GSFC	PL	Dobson unit	10% :: 5%	2/day [d,n]	50 km :: G	variable :: Atmos
1969	Precipitation Index	AH	Susskind	AIRS	PM	GSFC	PL	mm	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
2347	Level-1B Radiance, AIRS	AR	Chahine	AIRS[AIRS]	PM	GSFC	AL	W/m^2/sr/um	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
2350	Level-1B Radiance, AMSU-A	AR	Chahine	AIRS[AMSU-A]	PM	GSFC	AL	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
3692	Humidity Profile, Microwave [see also 1828]	AH	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	AL	g/kg	20% :: 20%	2/day [d,n]	50 km :: G	2 km :: Atmos
3695	Land_sfc Emissivity, Spectral (Microwave) [see also 2113]	LR	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	PL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: Land	N/A :: Sfc
3693	*Precipitable Water, Microwave [see also 1869]*	AH	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	AL	mm	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
3691	Temperature Profile, Microwave [see also 1588]	AD	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	AL	K	2-4 K :: 2-4 K	2/day [d,n]	50 km :: G	1 km :: Atmos
3694	Precipitation Index, Microwave [see also 1969]	AH	Staelin	AIRS[AMSU-A, MHS]	PM	GSFC	PL	mm	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
2352	Level-1B Radiance, MHS	AR	Chahine	AIRS[MHS]	PM	GSFC	AL	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
3464	Level-1B Backscatter, ALT	AR	Fu	ALT	ALT	JPL		dB				
3129	Ocean Wave Height, Along-track	OD	Fu	ALT	ALT	JPL	AL	cm	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
3112	*Sea_Level Height, Along-track*	OD	Fu	ALT	ALT	JPL	AL	cm	10 cm ::		7 km :: Ocean	N/A :: Sfc
3108	*Topographic Elevaton, Sea_sfc*	OD	Fu	ALT	ALT	JPL	AL	cm	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
1735	*Wind Speed, Along-track*	AD	Fu	ALT	ALT	JPL	AL	m/s	2 m/s ::		7 km :: Ocean	N/A :: Sfc
3121	Ocean Tide, Model	OD	Sanchez	ALT	ALT	JPL	AL	cm	2 cm ::	1/mission	100 km :: Ocean	N/A :: Sfc
2911	*Ice_Sheet Elevation*	LH	Zwally	ALT	ALT	NSIDC	AL	m	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
2801	Soil Index	LC	Gillespie	ASTER	AM1	EDC	AL	dimensionless		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
2747	Vegetation Index (PVI)	LB	Gillespie	ASTER	AM1	EDC	PL	dimensionless			15 m :: Land/R,L	N/A :: Sfc
2817	Mineral Maps	LC	Gillespie, Rowan, Kahle	ASTER	AM1	EDC	PL	dimensionless	variable :: variable	50/mission	90 m :: Land/R,L	N/A :: Sfc
2883	Geologic Unit Maps (Geology Maps)	LD	Gillespie, Rowan, Kieffer, Kahle	ASTER	AM1	EDC	PL	N/A	variable :: variable	50/mission	90 m :: Land/R,L	
2375	Level-1B Radiance, ASTER	AR	Tsu	ASTER	AM1	EDC	AL	W/m^2/sr/um	2-4% :: 1%	1/16 day	15,30,90m :: G	N/A :: at sensor
2452	*Brightness Temperature (at Sensor)*	LR	Kahle	ASTER	AM1	EDC	AL	K	.5NEdT :: .2NEdT	1/(2-16 day)	90 m :: G	N/A :: at sensor
2435	Land_sfc Reflectance, Relative Spectral	LR	Kahle, Becker	ASTER	AM1	EDC	AL	arbitrary units	N/A :: N/A	1/(2-16 day)	15,30 m :: Land/R,L	N/A :: Sfc
2124	Land_sfc Emissivity [1]	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
3674	Land_sfc Emissivity [2]	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
3675	Land_sfc Emissivity [3]	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2483	Land_sfc Temperature (3-products)	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	K	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
2129	Land_sfc Emissivity, Relative Spectral	AR	Kahle, Becker, Schmugge	ASTER	AM1	EDC	AL	arbitrary units	N/A :: N/A	1/(0.5-16 day)	90 m :: Land/R,L	N/A :: Sfc
2803	Soil Maps, Level-4 [Class,Comp,Age,etc.]	LC	Kahle, Gillespie	ASTER	AM1	EDC	PL	varies		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
2828	Topographic Elevation, Land_sfc,	LD	Kahle, Tsu	ASTER	AM1	EDC	AL	m	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
2453	Land_sfc Brightness Temperature (Radiance)	LR	Kahle, Palluconi, Christensen	ASTER	AM1	EDC	AL	K	1-2 K :: 0.3	1/(2-16 day)	90 m :: G	N/A :: Sfc
2931	Glacier Velocity	LH	Kieffer	ASTER	AM1	EDC	AL	m/yr	20 m/yr :: 10 m/yr	1 yr	15 m :: Land/Cryo	
2542	Land Thermal Inertia	LR	Kieffer et al	ASTER	AM1	EDC	AL	joule/m^2/K/s	40% :: 20%		90 m :: Land/R,L	N/A :: Sfc
2540	Land_sfc Temperature-Difference, Day-Night	LR	Kieffer et al	ASTER	AM1	EDC	AL	K	1-2 K :: 0.3 K		90 m :: Land/R,L	N/A :: Sfc
2447	Land_sfc Thermal Change	LR	Kieffer, Christensen, Pieri,	ASTER	AM1	EDC	AL	dimensionless	1-2 K :: 0.5 K		90 m :: Land/R,L	N/A :: Sfc
2378	Level-2 Radiance, Land_leaving	LR	Palluconi et al	ASTER	AM1	EDC	AL	W/m^2/sr/um	TBD :: 0.065-0.085	1/(2-16 day)	90 m :: Land/R,L	N/A :: Sfc
3301	Eruption-Plume Characteristics	VO	Pieri	ASTER	AM1	EDC	AL	variable	variable :: variable		15,30,90 m :: R/L	
3298	Volcano Age	VO	Pieri, Kahle	ASTER	AM1	EDC	AL	KA	variable :: variable		15,30,90 m :: Land/R,L	N/A ::
2856	Landform Lineament / Slope Maps	LD	Rowan	ASTER	AM1	EDC	AL	Orientation/length	variable :: variable	25 scenes/yr	50 m :: Land/R,L	N/A :: Sfc
2773	Mineral Index	LC	Rowan,Kahle,Gillespie	ASTER	AM1	EDC	AL	dimensionless	10% :: 5%	15 scenes/yr	15,30,90 m :: Land/R,L	N/A :: Sfc
1791	Vegetation Evapotranspiration (ET)	AH	Schmugge	ASTER	AM1	EDC	AL	mm/day	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
2433	Land_sfc Reflectance, Directional	LR	Slater	ASTER	AM1	EDC	AL	dimensionless	4% :: 0.5-1.3	3/yr	15,30 m :: Land/R,L	N/A :: Sfc
3631	Coral Reef Maps	OB	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3629	Land_sfc Thermal Anomalies	LR	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
3633	Land_sfc Water Area	LH	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
3636	Ocean_Water Temperature-Pattern	OD	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3632	Ocean_Water Turbidity	OR	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3630	Sea_Ice Area	OH	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3635	Sea_sfc Temperature (SST)	OD	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3634	Snow Area	LH	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
2080	Cloud Cover	AH	Welch	ASTER	AM1	EDC	AL	fractional area	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
1763	Cloud Drop Phase	AH	Welch	ASTER	AM1	EDC	AL	dimensionless	water/ice ::	1/(16 day)	15-30 m :: L	N/A :: Cloud
1779	Cloud Drop Size(Effective Radius)	AH	Welch	ASTER	AM1	EDC	AL	um	10 um ::	1/(16 day)	15-90 m :: L	:: Cloud
3627	Cloud Drop Size_distribution	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	N/A :: Cloud
2115	Cloud Emissivity	AR	Welch	ASTER	AM1	EDC	AL	dimensionless	5% ::	1/(16 day)	90 m :: L	N/A :: Cloud
3628	Cloud Field Scales_of_Organization	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	N/A :: Cloud
2093	Cloud Field Size-distribution	AH	Welch	ASTER	AM1	EDC	AL	dimensionless		1/(16 day)	90 m :: L	N/A :: Cloud
1391	Cloud Height, Base	AH	Welch	ASTER	AM1	EDC	AL	m	100 m :: 100 m	1/(16 day)	100 m :: L	N/A :: Cloud
1427	Cloud Height, Top	AH	Welch	ASTER	AM1	EDC	AL	m	300 m :: 300 m	1/(16 day)	90 m :: L	N/A :: Cloud
3626	Cloud Liquid_Water Content	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	N/A :: Cloud
2310	Cloud Optical Depth	AR	Welch	ASTER	AM1	EDC	AL	dimensionless	3% :: 3%	1/(16 day)	15-30 m :: L	N/A :: Cloud
1409	Cloud Structure, 3-D	AH	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	:: Cloud
2465	Cloud Temperature, Top	AR	Welch	ASTER	AM1	EDC	AL	K	2 K :: 2 K	1/(16 day)	90 m :: L	N/A :: Cloud
3625	Cloud Thickness	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	100 m :: L	N/A :: Cloud
3624	Sea_Ice Albedo	OR	Welch	ASTER	AM1	EDC	AL				90 m :: Ocean/Cryo	N/A :: Sfc
3152	Sea_Ice Fraction	OH	Welch	ASTER	AM1	EDC	AL	fractional area			90 m :: Ocean/Cryo	N/A :: Sfc

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3618	Sea_Ice Fraction, New (First-Year)	OH	Welch	ASTER	AM1	EDC	AL	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3622	Sea_Ice Lead (Open Water) Size-distribution	OH	Welch	ASTER	AM1	EDC	AL				90 m :: Ocean/Cryo	N/A :: Sfc
3617	Sea_Ice Lead (Open-Water) Fraction	OH	Welch	ASTER	AM1	EDC	AL	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3616	Sea_Ice Meltpond Fraction	OH	Welch	ASTER	AM1	EDC	AL	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3621	Sea_Ice Size-distribution	OH	Welch	ASTER	AM1	EDC	AL				90 m :: Ocean/Cryo	N/A :: Sfc
3619	Sea_Ice Temperature	OH	Welch	ASTER	AM1	EDC	AL	K			90 m :: Ocean/Cryo	N/A :: Sfc
3623	Sea_Ice Thickness	OH	Welch	ASTER	AM1	EDC	AL	m			90 m-1 km :: Ocean/Cryo	N/A :: Sfc
3620	Sea_sfc Temperature (SST)	OD	Welch	ASTER	AM1	EDC	AL	K			90 m :: Ocean/Cryo	N/A :: Sfc
2027	*Anisotropy, LW_broadband*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	fraction	2% :: 0.5%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
2086	Cloud Cover	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
2087	Cloud Cover	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
2088	Cloud Cover	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
1767	Cloud Drop Phase	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	water/ice	90% Conf :: 90% Conf	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
1768	Cloud Drop Phase	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	water/ice	90% Conf :: 90% Conf	6/day [d,n]	25 km :: G	N/A :: Atmos
1769	Cloud Drop Phase	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	water/ice	90% Conf :: 90% Conf	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
1782	Cloud Drop Size(Effective Radius)	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	um	30% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
1783	Cloud Drop Size(Effective Radius)	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	um	30% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
1784	Cloud Drop Size(Effective Radius)	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	um	30% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
1393	Cloud Height, Base	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
1394	Cloud Height, Base	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1395	Cloud Height, Base	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1429	Cloud Height, Top	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
1430	Cloud Height, Top	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1431	Cloud Height, Top	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1895	Cloud Liq_water Content	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	g/m^3	75% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
1896	Cloud Liq_water Content	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	g/m^3	75% :: 10%	6/day [d,n]	25 km :: G	lyr :: Atmos
1897	Cloud Liq_water Content	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	g/m^3	75% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
1899	Cloud Liq_water Total Column	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	kg/m^2	50% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	Column :: Atmos
1900	Cloud Liq_water Total Column	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	kg/m^2	50% :: 10%	6/day [d,n]	25 km :: G	Column :: Atmos
1901	Cloud Liq_water Total Column	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	kg/m^2	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	Column :: Atmos
2316	Cloud Optical Depth, LW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
2317	Cloud Optical Depth, LW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
2318	Cloud Optical Depth, LW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
2321	Cloud Optical Depth, SW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
2322	Cloud Optical Depth, SW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
2323	Cloud Optical Depth, SW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
3698	Cloud Reflectance, Bi-directional, SW_Broadband, (BRDF)	LR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	fraction	5% :: 1%		10 dg [Angle] :: G	N/A :: Atmos
2045	Land_sfc Reflectance, Bi-directional, SW_Broadband, (BRDF)	LR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	fraction	5% :: 1%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
2359	Level-1B Radiance, CERES	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/sr/um	SW 2%,LW 1% :: 0.005	6/day [d,n]	25 km :: G	N/A :: N/A
2144	*Radiative Flux Divergence, Clear-sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
2145	*Radiative Flux Divergence, Clear-sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	10% :: 5%	6/day [d,n]	1.25 dg :: G	lyr :: Atmos
2146	*Radiative Flux Divergence, Clear-sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	10% :: 5%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
2147	*Radiative Flux Divergence, Cloudy_sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	25% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
2148	*Radiative Flux Divergence, Cloudy_sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2149	*Radiative Flux Divergence, Cloudy_sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	50% :: 10%	6/day [d,n]	1.25 dg :: G	lyr :: Atmos
2168	*Radiative Flux, LW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2169	*Radiative Flux, LW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2170	*Radiative Flux, LW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2180	*Radiative Flux, LW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2181	*Radiative Flux, LW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2182	*Radiative Flux, LW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2200	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	3 W/m^2 :: 1 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
2201	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: <7 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2202	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: <7 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2203	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: <5 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2204	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
2205	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	6/day [d,n]	25 km :: G	N/A :: TOA
2221	*Radiative Flux, SW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2222	*Radiative Flux, SW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2223	*Radiative Flux, SW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2229	*Radiative Flux, SW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: Sfc
2230	*Radiative Flux, SW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2231	*Radiative Flux, SW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2246	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	12 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: TOA
2247	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2248	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2249	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	12 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
2250	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2251	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
2297	*Aerosol Optical Depth*	AR	Travis	EOSP	AERO,AM2	LaRC	AL	dimensionless	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
1770	*Cloud Drop Phase*	AH	Travis	EOSP	AERO,AM2	LaRC	AL	water/ice	:: 95% Corr	1/day [d]	100 km :: G	N/A :: Cloud
1774	*Cloud Drop Size*	AH	Travis	EOSP	AERO,AM2	LaRC	AL	um	25% :: 25%	1/day [d]	100 km :: G	N/A :: Cloud
2313	*Cloud Optical Depth*	AR	Travis	EOSP	AERO,AM2	LaRC	AL	dimensionless	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
1530	Cloud Pressure, Top	AH	Travis	EOSP	AERO,AM2	LaRC	AL	mb	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
2336	*Level-1B Polarization, EOSP*	AR	Travis	EOSP	AERO,AM2	LaRC	AL	dimensionless	0.2% :: 0.1%	1/day [d]	10-70 km :: G	N/A :: N/A
2362	Level-1B Radiance, EOSP	AR	Travis	EOSP	AERO,AM2	LaRC	AL	W/m^2/sr/um	5% :: 2%	1/day [d]	10-70 km :: G	N/A :: N/A
2353	Level-2 Radiance, Atmos_corrected, EOSP	AR	Travis	EOSP	AERO,AM2	LaRC	AL	W/m^2/sr/um	25% :: 15%	1/day [d]	40 km :: G	N/A :: N/A
3644	*Reflectance, Bi-directional (BRDF)*	AR	Travis	EOSP	AERO,AM2	LaRC	AL		5% ::	2 day [d]	10 km :: G	NA :: Cloud, Sfc
3229	*Electron Content, Total, (TEC)*	SE	Melbourne	GGI	ALT	JPL	AL		:: 0.1%	1/s [?]	multiple :: G	mult :: 0-20000 km
3228	*Electron Content-Difference, Total, (TEC-difference)*	SE	Melbourne	GGI	ALT	JPL	AL		:: 0.1%	1/s [?]	various :: G	mult :: 0-20000 km
2818	Geodetic Baselines	LD	Melbourne	GGI	ALT	JPL	AL	km	:: 2:10^9	1/min	:: G	:: Sfc
2819	Geodetic Carrier Phase, GPS(L1,L2),	LD	Melbourne	GGI	ALT	JPL	AL	mm	:: 0.4 mm	1/(0.1 s) [?]	:: G	
2862	*Geodetic EOS-platform Position*	LD	Melbourne	GGI	ALT	JPL	AL	cm	:: <3 cm	? 1/s		:: In_situ
2850	Geodetic Geocenter	LD	Melbourne	GGI	ALT	JPL	AL	cm	:: 2 cm	1/day		
2861	Geodetic Orientation	LD	Melbourne	GGI	ALT	JPL	AL	arcsec	:: 0.001arc-s	2/day		
2867	Geodetic Pseudorange, GPS(L1,L2),	LD	Melbourne	GGI	ALT	JPL	AL	cm	:: 12 cm	? 1/s	:: G	
2364	Level-1B Radiance, GGI	AR	Melbourne	GGI	ALT	JPL	AL					
1605	*Temperature Profile*	AD	Melbourne	GGI	ALT	JPL	AL	K	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
1606	Temperature Profile	AD	Melbourne	GGI	ALT	JPL	AL	K	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 2-5/50-60 km

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2897	*Ice_Sheet Displacement*	LH	Bentley	GLRS-A	ALT	NSIDC	AL	mm/day	10 mm/day :: 10 mm/day	1/mo	N/A :: Land/Cryo	N/A :: Sfc
2912	*Ice_Sheet Elevation*	LH	Bentley	GLRS-A	ALT	NSIDC	AL	mm	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
1554	*Ice_Sheet Roughness*	AD	Bentley	GLRS-A	ALT	NSIDC	AL	mm	100 mm :: 100 mm	1/(3 mo)	75 m :: Cryo	:: Sfc
3048	Ice_Sheet Strain Rate	LH	Bentley	GLRS-A	ALT	NSIDC	AL	u-strain/yr	10^-6/yr :: 10^-6/yr	1/(3 mo)	10-100 km :: Land/Cryo	N/A :: Sfc
2831	*Topographic Elevation-Change Rate, Land_sfc*	LD	Cohen, Schutz et al	GLRS-A	ALT	GSFC	AL	mm/day -mm/yr	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
2858	*Landform Morphology*	LD	Schutz et al	GLRS-A	ALT	GSFC	AL	mm	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
3271	*Volcano Deformation(Inflation-Deflation)*	VO	Schutz et al	GLRS-A	ALT	GSFC	AL	mm/day - mm/yr	5/yr-100/d ::	1/day, 1/yr	1 km :: Land/L	:: Sfc
3270	Volcano Deformation(Inflation-Deflation)	VO	Schutz et al	GLRS-A	ALT	GSFC	AL	mm/day - mm/yr	5 mm/yr ::	1/day, 1/yr	100 km :: Land/R	:: Sfc
2078	Cloud Cover	AH	Spinhirne	GLRS-A	ALT	GSFC	AL	%	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
2114	Cloud Emissivity	AR	Spinhirne	GLRS-A	ALT	GSFC	AL		10% ::	1/(2-16 day)	1-100 km :: G	150 m ::
1400	*Cloud Height*	AH	Spinhirne	GLRS-A	ALT	GSFC	AL	m	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
2300	*Cloud Optical Depth, Cirrus*	AR	Spinhirne	GLRS-A	ALT	GSFC	AL		20% ::	1/(2-16 day)	1-100 km :: G	
1410	Cloud Structure, Cirrus	AH	Spinhirne	GLRS-A	ALT	GSFC	AL	/m	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
2104	Level-1B Backscatter Coef, GLRS	AR	Spinhirne	GLRS-A	ALT	GSFC	AL	/m	10% ::	1/(2-16 day)	1-100 km :: G	75 m ::
1014	*Aerosol Layer Boundary Height*	AC	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
2291	*Aerosol Optical Depth*	AR	Spinhirne et al	GLRS-A	ALT	GSFC	AL	dimensionless	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
1389	*Cloud Height, Base*	AH	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
1405	*Cloud Height, PSC*	AH	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	150 m ::	1/(2-16 day)	2-200 km :: Polar	75 m :: Strat
1425	*Cloud Height, Top*	AH	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
2308	*Cloud Optical Depth*	AR	Spinhirne et al	GLRS-A	ALT	GSFC	AL	dimensionless	0.1 ::		2-200 km :: G	N/A :: Cloud
2324	*Cloud Optical Depth, PSC*	AR	Spinhirne et al	GLRS-A	ALT	GSFC	AL	dimensionless	0.1 ::		200 m :: Polar	N/A :: Strat
1514	PBL Height	AD	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
1643	Tropopause Height, Aerosol_located	AD	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	300 m ::	1/(2-16 day)	200 km :: G	300 m :: Trop
1644	Tropopause Height, Cirrus_located	AD	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	300 m ::	1/(2-16 day)	10 km :: G	300 m :: Trop
1992	*Aerosol Extinction Coef*	AR	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	/km	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1055	*CFC-11(CFCl3) Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1047	*CFC-12(CF2Cl2) Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1085	*CH4 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
1408	*Cloud Height, PSC*	AH	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	km	0.4 km :: 0.4 km	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Strat
1531	*Cloud Pressure, Top*	AH	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mb	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
1500	Geopotential Height-Gradient	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	m/km	0.04m/km :: 0.04m/km	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-80 km
1837	*H2O Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1202	*HNO3 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
2369	Level-1B Radiance, HIRDLS	AR	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	W/m^2/sr/um				
1239	*N2O Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
1254	*N2O5 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
1273	*NO2 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
1318	*O3 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1524	Pressure	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mb	0.1% :: 0.1%	2/day [d,n]	4 x 4 dg :: G	0.2 km :: 7-80 km
1608	Temperature Profile	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	K	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1687	Wind Velocity, Geostrophic	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	m/s	3 m/s :: 3 m/s	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
2564	Chlorophyll_a Conc, Phytoplankton, Case-I Waters	OB	Carder, Davis	HIRIS	AM2	EDC	AL	mg/m^3	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2565	Chlorophyll_a Conc, Case-II Waters	OB	Carder, Melack	HIRIS	AM2	EDC	AL	mg/m^3	100% :: 50%	1/(2 day) [d]	60-90 m :: Ocean-II/L	N/A :: TOO
3215	Gelbstoff Absorption Coef@410nm	OR	Carder, Melack	HIRIS	AM2	EDC	AL	/m	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
3210	Ocean Water Backscatter Coef@565nm	OR	Carder, Melack	HIRIS	AM2	EDC	AL	/m	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean/L	N/A :: Sfc
3314	Organic Matter Conc, Dissolved	OB	Carder, Melack	HIRIS	AM2	EDC		mg/m^3	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
3315	Suspended-Solids Conc, Ocean Water	OB,OC	Carder, Melack	HIRIS	AM2	EDC		mg/m^3	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
3316	Phytoplankton Type	OB	Davis, Melack	HIRIS	AM2	EDC		mg/m^3	100% :: 50%	(>=2)/day	60-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
3072	Pigment Conc, Accessory	OB	Davis, Melack	HIRIS	AM2	EDC	AL	mg/m^3	100% :: 50%	1/(>=2 day)	60-90 m :: Ocean-I/L	N/A :: TOO
2601	Ocean Productivity, Primary,	OB	Davis, Melack et al	HIRIS	AM2	EDC	AL	mg-C/m^2/hr	100% :: 50%	1/(>=2 day)	30-90 m :: Ocean/L	N/A :: TOO
2922	Glacier Cover, Bare_Ice	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
2978	Glacier Percolation Zone	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
2768	Snow Contaminant Conc	LC	Dozier	HIRIS	AM2	NSIDC	AL	mg/m^3	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
3019	Snow Cover	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
3025	Snow Cover, Cold	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
3029	Snow Cover, Wet	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
3030	Snow Cover, Wet	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	10% :: 10%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
3038	Snow Grain Size	LH	Dozier	HIRIS	AM2	NSIDC	AL	um	200% :: 200%	1/wk, 1/mo	50 [km?] :: Snow/L	N/A :: Sfc
2943	Snow Liq-water Content	LH	Dozier	HIRIS	AM2	NSIDC	AL	mass fraction	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
2440	Snow Reflectance, Spectral	LR	Dozier	HIRIS	AM2	NSIDC	AL	dimensionless	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
2292	Aerosol Optical Depth	AR	Gerstl	HIRIS	AM2	EDC	AL	dimensionless	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
2035	Land_sfc Reflectance, Bi-directional, (BRDF)	LR	Gerstl	HIRIS	AM2	EDC	AL	dimensionless	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
2370	*Level-1B Radiance, HIRIS*	AR	Goetz	HIRIS	AM2	EDC	AL	W/m^2/sr/um				
1872	Precipitable Water	AH	Goetz	HIRIS	AM2	EDC	AL	cm	10% :: 3%	1/(1-3 min), 1(2-16 day)	30 m :: L	Column :: Atmos
1873	Precipitable Water	AH	Goetz	HIRIS	AM2	EDC	AL	cm	10% :: 3%	1/(1-3 min), 1/(2-16 day)	30 m :: L	Column :: Trop
2895	Glacier Displacement	LH	Kieffer	HIRIS	AM2	NSIDC	AL	km^2	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
2930	Glacier Velocity	LH	Kieffer	HIRIS	AM2	NSIDC	AL	m/s	10^-6 :: variable	1/yr	100 m :: Land/Cryo	N/A :: Sfc
2932	Ice_Sheet Velocity (Outflow), Polar	LH	Kieffer	HIRIS	AM2	NSIDC	AL	m/s	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
2884	Landform Sfc units, Geologic	LD	Kieffer, Clark	HIRIS	AM2	EDC	AL	dimensionless	:: 30%		30 m :: L	N/A :: Sfc
2774	Mineral Thermal history	LC	Rowan	HIRIS	AM2	EDC	AL			1/seas	30 m :: Land/L	N/A :: Sfc
2766	Mineral(CO3) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2776	Mineral(OH) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2784	Mineral(SO4) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2772	Mineral(Fe) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
3299	Volcano-Activity Extent	VO	Rowan, Goetz	HIRIS	AM2	EDC	AL	m^2		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
3294	Volcano-Activity Temperature	VO	Rowan, Goetz	HIRIS	AM2	EDC	AL	C	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2432	Land_sfc Reflectance, Directional	LR	Slater	HIRIS	AM2	EDC	AL	dimensionless	3% :: 1%	1/mo	30 m :: Land/R,L	N/A :: Sfc
2656	Vegetation Crown Height	LB	Ustin	HIRIS	AM2	EDC	AL	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2657	Vegetation Crown Spacing	LB	Ustin	HIRIS	AM2	EDC	AL	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2746	Vegetation Index	LB	Ustin et al	HIRIS	AM2	EDC	AL	dimensionless	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2029	PAR, Absorbed, Non-vegetative,	AR	Ustin, Wessman	HIRIS	AM2	EDC	AL	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2030	PAR, Absorbed, Vegetative, (APAR)	AR	Ustin, Wessman	HIRIS	AM2	EDC	AL	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2614	Vegetation Biomass, Dead	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2620	Vegetation Biomass, Green	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2653	Vegetation Chlorophyll Conc	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	g/ha	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

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Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2741	Vegetation Cover	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	%	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2008	Albedo, Cloud	AR	Welch	HIRIS	AM2	EDC	AL	%	5% :: 5%		90 m :: R	:: Cloud
2079	Cloud Cover	AH	Welch	HIRIS	AM2	EDC	AL	dimensionless	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
1762	Cloud Drop Phase	AH	Welch	HIRIS	AM2	EDC	AL	water/ice		1/(2-16 day)	30 m :: L	N/A :: Cloud
1778	Cloud Drop Size(Effective Radius)	AH	Welch	HIRIS	AM2	EDC	AL	um	10 um ::	1/(2-16 day)	30 m :: L	:: Cloud
1776	Cloud Drop Size-distribution	AH	Welch	HIRIS	AM2	EDC	AL	no/cm^2/um	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
1509	Cloud Field Organization scale	AH	Welch	HIRIS	AM2	EDC	AL				:: L	
1503	Cloud Field Structure	AD	Welch	HIRIS	AM2	EDC	AL				:: L	
1390	Cloud Height, Base	AH	Welch	HIRIS	AM2	EDC	AL	m	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
2281	Cloud Liq_water Content	AH	Welch	HIRIS	AM2	EDC	AL	g/m^2	30% :: 10%		90 m :: R	:: Cloud
2309	Cloud Optical Depth	AR	Welch	HIRIS	AM2	EDC	AL	dimensionless	3% :: 1.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	N/A :: Cloud
2037	Cloud Reflectance, Bi-directional, (BRDF)	AR	Welch	HIRIS	AM2	EDC	AL		:: 1%		30 m :: R	:: Cloud
1426	Cloud Height, Top	AH	Welch, Goetz	HIRIS	AM2	EDC	AL	m	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
2644	Vegetation Type	LB	Wessman	HIRIS	AM2	EDC	AL	ha	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2648	Vegetation Cellulose Conc	LB	Wessman, Aber	HIRIS	AM2	EDC	AL	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2687	Vegetation Lignin Conc	LB	Wessman, Aber	HIRIS	AM2	EDC	AL	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2761	Vegetation Leaf-tissue Water Content	LB	Wessman, Goetz	HIRIS	AM2	EDC	AL	g/cm^3	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2384	Level-1B Radiance, LIS	AR	Christian	LIS	TRM	MSFC	AL	W/m^2/sr/um				
3642	*Lightning Occurrence (Location,Time)*	AE	Christian	LIS	TRM	MSFC	AL		10 km (in 1100km FOV) ::		.07 dg :: G	N/A :: Atmos
3643	*Lightning Radiant Energy*	AE	Christian	LIS	TRM	MSFC	AL				.07 dg :: G	N/A :: Atmos
1756	Lightning Rate	AE	Christian	LIS	TRM	MSFC	AL		:: 5%		.07 dg :: G	N/A :: Atmos
3599	*Cloud Liq_water Total Column*	AH	TBD	MIMR	PM	MSFC	AL	mg/cm^2	0.005 cm ::	1 mo	1 dg :: Ocean	N/A :: Trop
3598	Cloud Liq_water Total Column	AH	TBD	MIMR	PM	MSFC	AL	mg/cm^2			22 km :: Ocean	N/A :: Trop
3602	Level-1B Radiance, MIMR	AR	TBD	MIMR	PM	MSFC	AL	K		1 day	1 dg :: Global	N/A ::
3597	*Precipitable Water*	AH	TBD	MIMR	PM	MSFC	AL	g/km^3	0.16 cm ::	1 mo	1 dg :: Ocean	Column :: Trop
3596	Precipitable Water	AH	TBD	MIMR	PM	MSFC	AL	g/km^3			22 km :: Ocean	Column :: Trop
3601	*Precipitation Index*	AH	TBD	MIMR	PM	MSFC	AL			1 mo	1 dg :: Global	N/A :: Sfc
3600	Precipitation Rate	AH	TBD	MIMR	PM	MSFC	AL	mm/hr?			22 km :: Global	N/A :: Sfc
3610	*Sea_Ice Age*	OH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Ocean/Cryo	:: Sfc
3609	Sea_Ice Age	OH	TBD	MIMR	PM	NSIDC	AL				22 km :: Ocean/Cryo	:: Sfc
3612	*Sea_Ice Conc*	OH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Ocean/Cryo	N/A :: Sfc
3611	Sea_Ice Conc	OH	TBD	MIMR	PM	NSIDC	AL				22 km :: Ocean/Cryo	N/A :: Sfc
3614	*Sea_Ice Extent*	OH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Ocean/Cryo	N/A :: Sfc
3613	Sea_Ice Extent	OH	TBD	MIMR	PM	NSIDC	AL				22 km :: Ocean/Cryo	N/A :: Sfc
3604	*Sea_sfc Temperature (SST)*	OR	TBD	MIMR	PM	MSFC	AL	K	1 K ::	1 mo	1 dg :: Ocean	N/A :: Sfc
3603	Sea_sfc Temperature (SST)	OR	TBD	MIMR	PM	MSFC	AL	K			60 km :: Ocean	N/A :: Sfc
3608	*Snow Cover*	LH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Land	N/A :: Sfc
3607	Snow Cover	LH	TBD	MIMR	PM	NSIDC	AL				22 km :: Land	N/A :: Sfc
3606	*Soil Moisture*	LH	TBD	MIMR	PM	MSFC	AL			1 mo	1 dg :: Land	N/A :: Sfc
3605	Soil Moisture	LH	TBD	MIMR	PM	MSFC	AL				60 km :: Land	N/A :: Sfc
3595	*Wind Stress, Sea_sfc*	AD	TBD	MIMR	PM	MSFC	AL	m/s		1 mo	1 dg :: Ocean	N/A :: Sfc
3594	Wind Stress, Sea_sfc	AD	TBD	MIMR	PM	MSFC	AL	m/s			39 km :: Ocean	N/A :: Sfc
2299	*Aerosol Optical Depth*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
3676	*Aerosol Optical Depth*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05/10% :: 0.05/10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
2298	Aerosol Optical Depth	AR	Diner	MISR	AM	LaRC	PL	dimensionless	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2334	Aerosol Phase Function, Asymmetric	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05 :: 0.05	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
2335	Aerosol Phase Function, Asymmetric	AR	Diner	MISR	AM	LaRC	PL	dimensionless	0.05 :: 0.05	1/(5-16 day) [d]	1.9 km :: R	Column :: Atmos
3677	Aerosol Phase Function, Asymmetric	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05 :: 0.05	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
1993	Aerosol Size-distribution	AC	Diner	MISR	AM	LaRC	AL	dimensionless	15% :: 10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
1994	Aerosol Size-distribution	AC	Diner	MISR	AM	LaRC	PL	dimensionless	15% :: 10%	1/(5-16 day)	1.9 km :: R	Column :: Atmos
3678	Aerosol Size-distribution	AC	Diner	MISR	AM	LaRC	AL	dimensionless	15% :: 10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
2011	*Albedo, Planetary Spectral, TOA*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
3679	*Albedo, Planetary Spectral, TOA*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	9,16 day; mo; seas; yr	1.92 km ? :: G	N/A :: TOA
2010	Albedo, Planetary Spectral, TOA	AR	Diner	MISR	AM	LaRC	PL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: TOA
2022	*Albedo, Spectral, Land_sfc*	LR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
3680	*Albedo, Spectral, Land_sfc*	LR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	9,16 day; mo; seas; yr	1.92 km ? :: G	N/A :: Sfc
2021	Albedo, Spectral, Land_sfc	LR	Diner	MISR	AM	LaRC	PL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
1433	*Cloud Height, Top*	AH	Diner	MISR	AM	LaRC	PL	m	100 m :: 100 m	1/(5-16 day) [d]	500 m :: R	N/A :: Trop
1432	Cloud Height, Top	AH	Diner	MISR	AM	LaRC	PL	m	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
2039	*Cloud Reflectance, Bi-directional, (BRDF)*	AR	Diner	MISR	AM	LaRC	PL	/sr	3% :: 1%	[variable] [d]	1.92 km :: G	N/A :: Trop
2038	Cloud Reflectance, Bi-directional, (BRDF)	AR	Diner	MISR	AM	LaRC	PL	/sr	3% :: 1%	[variable] [d]	240 m :: R	N/A :: Trop
3286	Eruption-Plume Height	VO	Diner	MISR	AM	LaRC	PL	m	100 m :: 100 m	[variable] [d]	500 m :: Land/L	N/A :: Plume_top
2631	*Land_sfc Reflectance, Bi-directional, (BRDF)*	LB	Diner	MISR	AM	LaRC	AL	/sr	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
2632	Land_sfc Reflectance, Bi-directional, (BRDF)	LB	Diner	MISR	AM	LaRC	AL	/sr	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
2386	Level-1B Radiance, MISR	AR	Diner	MISR	AM	LaRC	AL	W/m^2/sr/um	3% :: 1%	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
2387	Level-1B Radiance, MISR	AR	Diner	MISR	AM	LaRC	AL	W/m^2/sr/um	3% :: 1%	1/(5-16 day) [d]	240 m :: R,L	N/A :: TOA
2588	Pigment Conc, Phytoplankton	OB	Diner	MISR	AM	LaRC	PL	mg/m^3	30% :: 30%	1/(1-2 day) [d]	240 m :: Ocean/R	N/A :: TOO
2589	Pigment Conc, Phytoplankton	OB	Diner	MISR	AM	LaRC	AL	mg/m^3	30% :: 30%	1/(1-2 day) [d]	1.92 km :: Ocean/G,R	N/A :: TOO
3681	Pigment Conc, Phytoplankton	OB	Diner	MISR	AM	LaRC	AL	mg/m^3	30% :: 30%	9,16 day; mo; seas; yr	1.92 km ? :: Ocean/G,R	N/A :: TOO
2846	*Topographic Elevation, Land_sfc*	LD	Diner	MISR	AM	LaRC	PL	m	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
2756	Vegetation Index, Normalized	LB	Diner	MISR	AM	LaRC	AL	dimensionless	2% :: 2%	1/(5-16 day) [d]	1.92 km :: Land	N/A :: Sfc
2757	Vegetation Index, Normalized	LB	Diner	MISR	AM	LaRC	PL	dimensionless	2% :: 2%	1/(5-16 day) [d]	240 m :: Land/R	N/A :: Sfc
3682	Vegetation Index, Normalized	LB	Diner	MISR	AM	LaRC	AL	dimensionless	2% :: 2%	9,16 day; mo; seas; yr	1.92 km ? :: Land	N/A :: Sfc
1030	BrO(Br^81-O) Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
1070	CH3Cl Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
1107	ClO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
1898	Cloud Liq_water Content	AH	Waters	MLS	MO	GSFC	AL		:: 5%	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Upper Trop
1124	CO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
1125	CO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
1165	H2CO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 2x10-11	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-50 km
1854	H2O (H2^17O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 2%<50km	2/day [d,n]		2.5 km [1.2] :: TPSE, 90 km
1855	H2O (H2^18O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 2%<50km	2/day [d,n]		2.5 km [1.2] :: TPSE, 80 km
1838	H2O Conc	AC	Waters	MLS	MO	GSFC	AL		:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
1171	H2O2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
1188	HCl(H_Cl^35) Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1189	HCl(H_Cl^37) Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
1191	HCN Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 4x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 20-65 km
1203	HNO3 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
1216	HO2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
1222	HOCl Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
2388	Level-1B Radiance, MLS	AR	Waters	MLS	MO	GSFC	AL	K		2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Trop-150 km
3247	Magnetic Field Strength, DC	SE	Waters	MLS	MO	GSFC	AL	G	:: 2x10-3G	2/day [d,n]	2.5 x 0.2 dg :: 82N-82S	2.5 km :: 80-100 km
1240	N2O Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
1266	NO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
1274	NO2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
1299	O2 Conc	AC	Waters	MLS	MO	GSFC	AL		<=5% :: 1%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [6.5] :: TPSE, 120 km
1303	O2(NU1) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [6.5] :: 20-80 km
1319	O3 Conc	AC	Waters	MLS	MO	GSFC	AL		<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
1328	O3 Conc	AC	Waters	MLS	MO	GSFC	AL		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
1339	O3(17^OOO) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-50 km
1337	O3(OO^17_O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 100%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 25-45 km
1304	O3(OO^18) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-80 km
1338	O3(OO^18_O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1343	O3(^18OOO) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 20%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1326	O3O3(NU1,3) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1352	OClO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
1525	Pressure	AD	Waters	MLS	MO	GSFC	AL	mb	:: 1%(30-50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
1369	SO2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
1609	Temperature Profile	AD	Waters	MLS	MO	GSFC	AL	K	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
1734	Wind Speed	AD	Waters	MLS	MO	GSFC	AL	m/s	:: 10m/s	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 60-110 km
3211	*Chlorophyll Fluorescence Efficiency*	OR	Abbott	MODIS	AM,PM	GSFC	PL	mW/cm^2/sr/um/mg-Chl/m^3	15% :: 5%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
3212	*Chlorophyll Fluorescence Efficiency*	OR	Abbott	MODIS	AM,PM	GSFC	PL	mW/cm^2/sr/um/mg-Chl/m^3	15% :: 5%	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2575	*Chlorophyll Fluorescence Line Height*	OB	Abbott	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	.004 :: .001	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2576	Chlorophyll Fluorescence Line Height	OB	Abbott	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	.004 :: .001	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
2566	Chlorophyll_a Conc (via Fluorescence)	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg/m^3	50-100% :: 35%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
2567	Chlorophyll_a Conc (via Fluorescence)	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg/m^3	50-100% :: 35%	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2602	Ocean Productivity, Primary, Near_sfc [via Fluorescence]	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg-C/m^3/day	:: 50-100%	1/day, 1/wk	1 km :: Ocean-I/R,L	N/A :: TOO
2603	Ocean Productivity, Primary, Near_sfc [via Fluorescence]	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg-C/m^3/day	:: 50-100%	1/day, 1/wk	4 km :: Ocean-I/G,R	N/A :: TOO
2110	Land_sfc Emissivity	LR	Barton	MODIS	AM,PM	EDC	PL	dimensionless	0.01 :: 0.01	1/day, 1/wk	1 km :: G,R	N/A :: Sfc

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2111	Land_sfc Emissivity	LR	Barton	MODIS	AM,PM	EDC	PL	dimensionless	0.01 :: 0.01	1/day, 1/wk	50 km :: G,R	N/A :: Sfc
2527	*Sea_sfc Temperature (SST)*	OR	Brown	MODIS	AM,PM	GSFC	AL	K	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
2528	Sea_sfc Temperature (SST)	OR	Brown	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2529	Sea_sfc Temperature (SST)	OR	Brown	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
2530	Sea_sfc Temperature (SST)	OR	Brown, Barton	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
2531	Sea_sfc Temperature (SST)	OR	Brown, Barton	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2532	Sea_sfc Temperature (SST)	OR	Brown, Barton	MODIS	AM,PM	GSFC	AL	K	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
2569	Chlorophyll_a Conc	OB	Carder	MODIS	AM,PM	GSFC	AL	mg/m^3	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/ L	N/A :: TOO
2570	Chlorophyll_a Conc	OB	Carder	MODIS	AM,PM	GSFC	AL	mg/m^3	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/G,R	N/A :: TOO
2580	Organic Matter Conc, Dissolved	OB	Carder	MODIS	AM,PM	GSFC	PL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2581	Organic Matter Conc, Dissolved	OB	Carder	MODIS	AM,PM	GSFC	PL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
3662	Organic Matter Degradation_Product Absorption Coef@415nm (DOM+Detritus)	OB	Carder	MODIS	AM,PM	GSFC	AL	/m	40% :: 15%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3663	Organic Matter Degradation_Product Absorption Coef@415nm (DOM+Detritus)	OB	Carder	MODIS	AM,PM	GSFC	AL	/m	40% :: 15%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
2571	*Chlorophyll_a Conc*	OB	Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ L	N/A :: TOO
2572	*Chlorophyll_a Conc*	OB	Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-I/G,R	N/A :: TOO
2031	Ocean Water Attenuation Coef, PAR	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	1 km :: Ocean-I/L	N/A :: TOO
2032	Ocean Water Attenuation Coef, PAR	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	20 km :: Ocean-I	N/A :: TOO
3206	Ocean Water Attenuation Coef@520nm, Beam	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	1 km :: Ocean	N/A :: TOO
3207	Ocean Water Attenuation Coef@520nm, Beam	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
2608	Organic Matter Conc, Particulate	OB	Clark	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 30%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
3664	Organic Matter Conc, Particulate	OB	Clark	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 30%	1/day, 1/wk	1 km :: Ocean-I/L	N/A :: TOO
3085	Suspended-Solids Conc, Ocean Water	OC	Clark	MODIS	AM,PM	GSFC	AL	g/m^3	50% :: 35%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3086	Suspended-Solids Conc, Ocean Water	OC	Clark	MODIS	AM,PM	GSFC	AL	g/m^3	50% :: 35%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
2606	Ocean Productivity, Primary	OB	Esaias	MODIS	AM,PM	GSFC	AL	mg/m^3	<35% :: <20%	1/wk, 1/mo, 1/yr	20 km :: Ocean/G,R	N/A :: TOO
2330	PAR	AR	Esaias	MODIS	AM,PM	GSFC	PL	quanta/m^2/s	TBD :: TBD	1/day	N/A :: G	N/A :: Atmos
3303	Calibration Data, MODIS	IC	Evans	MODIS	AM,PM	GSFC	AL	variable		1/day, 1/wk, 1/mo	N/A :: Ocean/G,R,L	N/A :: Sfc
2295	*Aerosol Angstrom Exponent*	AR	Gordon	MODIS	AM,PM	GSFC	AL	dimensionless	15% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Atmos
2296	*Aerosol Angstrom Exponent*	AR	Gordon	MODIS	AM,PM	GSFC	AL	dimensionless	15% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: Atmos
2344	*Aerosol Radiance*	AR	Gordon	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	10% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/G,R,L	N/A :: Atmos
2345	*Aerosol Radiance*	AR	Gordon	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	10% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R,L	N/A :: Atmos
2556	Coccolith Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2557	Coccolith Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2254	Glint Field	OR	Gordon	MODIS	AM,PM	GSFC	PL	dimensionless		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc
2559	Ocean Water Backscatter Coef, Total	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2560	Ocean Water Backscatter Coef, Total	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2266	PAR, Sfc (IPAR)	AR	Gordon	MODIS	AM,PM	GSFC	AL	quanta/m^2/s	10% :: 5%	1/day [d]	1 km :: Ocean/L	N/A :: Sfc
2267	PAR, Sfc (IPAR)	AR	Gordon	MODIS	AM,PM	GSFC	AL	quanta/m^2/s	10% :: 5%	1/day [d]	1 km :: Ocean	N/A :: Sfc
2555	Phytoplankton Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	soft, med, hard		1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2558	Phytoplankton Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	soft, med, hard		1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
1688	Wind Velocity, Sea_sfc Glint-Pattern	OR	Gordon	MODIS	AM,PM	GSFC	PL	m/s		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc
2416	*Level-2 Radiance, Water-leaving*	OR	Gordon et al	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	5% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Sfc

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2417	*Level-2 Radiance, Water-leaving*	OR	Gordon et al	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	5% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2577	Coccolith Conc, Detached	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg-CaCO3/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
2578	Coccolith Conc, Detached	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg-CaCO3/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: TOO
3199	Ocean Water Attenuation Coef@490nm	OR	Gordon, Clark	MODIS	AM,PM	GSFC	AL	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-l/ R,L	N/A :: TOO
3200	Ocean Water Attenuation Coef@490nm	OR	Gordon, Clark	MODIS	AM,PM	GSFC	AL	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-l/ R,L	N/A :: TOO
2591	Pigment Conc	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
2592	Pigment Conc	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
2574	*Chlorophyll Fluorescence Line Curv*	OB	Hoge	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	25% :: 8%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
2573	Chlorophyll Fluorescence Line Curv	OB	Hoge	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	25% :: 8%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
3317	*Organic Matter Fluorescence Efficiency, Colored Dissolved [CDOM*	OB	Hoge	MODIS	AM,PM	GSFC	AL	dimensionless	100% :: 50%	1 day,wk,mo	20 km :: Ocean/GR	N/A :: TOO
3318	*Organic Matter Fluorescence Efficiency, Colored Dissolved [CDOM*	OB	Hoge	MODIS	AM,PM	GSFC	AL	dimensionless	100% :: 50%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
3319	Pigment Conc, Phycobillin [Phycoerythrin, etc.]	OB	Hoge	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1 day,wk,mo	20 km :: Ocean/GR	N/A :: TOO
3320	Pigment Conc, Phycobillin [Phycoerythrin, etc.]	OB	Hoge	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
2593	Pigment Conc [via Spectral Curv]	OB	Hoge, Esaias	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
2594	Pigment Conc [via Spectral Curv]	OB	Hoge, Esaias	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1/day, 1/wk	20 km :: Ocean/R	N/A :: TOO
2537	Land_sfc Temperature-Difference, Day-Night	LR	Huete	MODIS	AM,PM	GSFC	PL	K	1 K :: 1 K	1/day	1 km :: Land/R	N/A :: Sfc
2286	Level-1B Radiance Mixture-Model, MODIS Spectral-spatial	AR	Huete	MODIS	AM,PM	GSFC	PL	dimensionless	5-10% :: 0.05	1/day	pixel_size :: G	N/A :: Sfc
2047	Soil Brightness Index	LR	Huete	MODIS	AM,PM	EDC	AL	dimensionless	5% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
2095	Soil Color Index	LR	Huete	MODIS	AM,PM	EDC	PL	class	10% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
3703	Vegetation Index Temporal Signal	LB	Huete, Justice	MODIS	AM,PM	EDC	PL	dimensionless	0.02 :: 0.01	1/yr (weekly points)	1 km :: Land/R	N/A :: Sfc
3701	Vegetation Index, Composited, Sfc	LB	Huete, Justice	MODIS	AM,PM	EDC	AL	dimensionless	0.02 :: 0.01	1/wk	1 km :: Land/R	N/A :: Sfc
3700	Vegetation Index, Hemispherical, Sfc	LB	Huete, Justice	MODIS	AM,PM	EDC	PL	dimensionless	0.02 :: 0.01	1 wk, 1 mo	1 km :: Land/R	N/A :: Sfc
3702	Vegetation Index, Integrated Annual	LB	Huete, Justice	MODIS	AM,PM	EDC	PL	dimensionless	0.02 :: 0.01	1/yr	1 km :: Land/R	N/A :: Sfc
3699	Vegetation Index-Directional Reflectances, Atmosphere-Corrected [O3 & molecular scattering]	LB	Huete, Justice	MODIS	AM,PM	EDC	AL	dimensionless	0.02 :: 0.01 [if low aerosols]	1/day	500 m :: Land/R	N/A :: TOA
3704	Vegetation Index [Self_Atmospheric-Correcting, TOA]	LB	Huete, Justice, Kaufman, Tanre	MODIS	AM,PM	EDC	AL	dimensionless	0.02 :: 0.01	1/day	1 km :: Land/R	N/A :: TOA
2659	Vegetation Growing_Season Duration	LB	Justice	MODIS	AM,PM	EDC	PL	day	10 day ::	1/yr	1 km :: Land	N/A :: Sfc
2660	Vegetation Growing_Season Duration	LB	Justice	MODIS	AM,PM	EDC	PL	day	10 day ::	1/yr	10 km :: Land	N/A :: Sfc
2749	*Vegetation Index*	LB	Justice, Huete et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
2750	*Vegetation Index*	LB	Justice, Huete et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	0.5 km :: Land/R	N/A :: Sfc
2751	*Vegetation Index*	LB	Justice, Huete et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
3304	Data Characteristics, MODIS	IC	Justice, Strahler	MODIS	AM,PM	GSFC	PL	dimensionless	30,10, 5% ::	1/day	1 km :: G	N/A :: Sfc
3305	Data Characteristics, MODIS	IC	Justice, Strahler	MODIS	AM,PM	GSFC	PL	dimensionless	30,10, 5% ::	1/day	10 km :: G	N/A :: Sfc
3306	Data Characteristics, MODIS	IC	Justice, Strahler	MODIS	AM,PM	GSFC	PL	dimensionless	30,10, 5% ::	1/day	50 km :: G	N/A :: Sfc
2068	Cloud Field Area	AH	Kaufman	MODIS	AM,PM	GSFC	PL	km^2		1/mo	1 dg :: G	N/A :: Sfc
2092	Cloud Field Perimeter	AH	Kaufman	MODIS	AM,PM	GSFC	PL	km		1/mo	1 dg :: G	N/A :: Sfc
2429	Land_sfc Reflectance, Directional	LR	Kaufman et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.005	1/day	1 km :: G	N/A :: Sfc
2430	Land_sfc Reflectance, Directional	LR	Kaufman et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.005	1/day	0.5 km :: G	N/A :: Sfc
2431	Land_sfc Reflectance, Directional	LR	Kaufman et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.005	1/day	0.25 km :: G	N/A :: Sfc
2711	Fire Class	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL	C	10 C :: 5 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2663	*Fire Count*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2664	*Fire Count*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	10 km :: Land	N/A :: Sfc
2665	*Fire Extent*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2666	*Fire Extent*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	1 dg :: Land	N/A :: Sfc
2471	*Fire Temperature*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL	C	10 C :: 5 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
1017	*Aerosol Mass Loading*	AC	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	g/m^2	30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
2293	*Aerosol Optical Depth, Spectral*	AR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
2379	Level-2 Radiance, Land_leaving	LR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	10% :: 5%	1/day	1 km :: Land/R	N/A :: Sfc
2380	Level-2 Radiance, Land_leaving	LR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	10% :: 5%	1/day, 1/mo	10 km :: Land	N/A :: Sfc
2381	Level-2 Radiance, Land_leaving	LR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	10% :: 5%	1/day	0.5 km :: Land/R	N/A :: Sfc
1874	Precipitable Water	AH	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless ?	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos
3321	Precipitable Water	AH	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless ?	12% :: 8%	1 day, mo	1 km :: Land	N/A :: Atmos
3322	Precipitable Water	AH	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless ?	5% :: 3%	1 day, mo	1 dg :: Land	N/A :: Atmos
2081	Cloud Cover	AH	King	MODIS	AM,PM	GSFC	AL	%	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
2082	Cloud Cover	AH	King	MODIS	AM,PM	GSFC	AL	%	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2311	*Cloud Optical Depth*	AR	King	MODIS	AM,PM	GSFC	AL	dimensionless	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
2312	*Cloud Optical Depth*	AR	King	MODIS	AM,PM	GSFC	AL	dimensionless	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1764	Cloud Drop Phase	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	water/ice	90% Conf :: 90% Conf	1/day	5 km :: G	N/A :: Cloud
1765	Cloud Drop Phase	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	water/ice	90% Conf :: 90% Conf	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1780	Cloud Drop Size(Effective Radius)	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	um	0-40% :: 5%	1/day	5 km :: G	N/A :: Cloud
1781	Cloud Drop Size(Effective Radius)	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	um	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2094	Cloud JPDF	AH	King, Menzel	MODIS	AM,PM	GSFC	PL	dimensionless		1/day, 1/mo	1 dg :: G	N/A :: N/A
2126	*Cloud Emissivity*	AR	Menzel	MODIS	AM,PM	GSFC	AL	dimensionless	0.10 :: 0.05	2/day	5 km :: G	N/A :: Cloud
2127	*Cloud Emissivity*	AR	Menzel	MODIS	AM,PM	GSFC	AL	dimensionless	0.10 :: 0.05	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2116	Cloud Emissivity	AR	Menzel	MODIS	AM,PM	GSFC	PL	dimensionless				N/A :: Cloud
1528	Cloud Pressure, Top	AH	Menzel	MODIS	AM,PM	GSFC	AL	mb	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
1529	Cloud Pressure, Top	AH	Menzel	MODIS	AM,PM	GSFC	AL	mb	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2466	*Cloud Temperature, Top*	AR	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2467	*Cloud Temperature, Top*	AR	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
1333	O3 Total Burden	AC	Menzel	MODIS	AM,PM	GSFC	AL	DU	15-20DU :: 10DU	2/day, 1/day	5 km :: G	Column :: Atmos
1334	O3 Total Burden	AC	Menzel	MODIS	AM,PM	GSFC	AL	DU	15-20DU :: 10DU	1/day, 1/mo	0.5 dg :: G	Column :: Atmos
1875	Precipitable Water	AH	Menzel	MODIS	AM,PM	GSFC	AL	mm	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
1559	Stability (Lifted Index), Atmospheric	AD	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	2/day	5 km :: G	N/A :: Atmos
1560	Stability (Lifted Index), Atmospheric	AD	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	2/day, 1/mo	0.5 dg :: G	N/A :: Atmos
3668	Ground Control Points, Potential	IU	Muller	MODIS	AM,PM	GSFC	AL		0.3 pixels ::		0.3 pixels :: Land/L	N/A :: Sfc
2404	Land_sfc Radiance-Correction, Topographic	LR	Muller	MODIS	AM,PM	EDC	AL		1 km :: 0.3 km	1/day	1 km :: Land/R	N/A :: Sfc
2405	Land_sfc Radiance-Correction, Topographic	LR	Muller	MODIS	AM,PM	EDC	AL		1 km :: 0.3 km	1/day	10 km :: Land	N/A :: Sfc
3671	Photogrammetric Camera Model	IC	Muller	MODIS	AM,PM	GSFC	BL				N/A :: N/A	N/A :: N/A
3672	Simulated Data Sets, MODIS	IC	Muller	MODIS	AM,PM	GSFC	BL				0.25-1 km :: L(test sites)	N/A :: Sfc
3673	Simulated Scenes, MODIS, Monte Carlo Ray-Tracing	IC	Muller	MODIS	AM,PM	GSFC	BL				0.25-1 km :: L(test sites)	N/A :: Sfc
2001	Albedo, Spectral, TOA	AR	Muller, Strahler	MODIS	AM,PM	GSFC	AL	fraction	10% :: 5%	1/(3-8 day)	1 km :: Land/R	N/A :: TOA
2434	Land_sfc Reflectance, Directional	LR	Muller, Strahler	MODIS	AM,PM	EDC	AL	fraction	5% :: 3%	1/day	1 km :: R	N/A :: Sfc
3665	Albedo, Spectral, Land_sfc	LR	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3666	Albedo, Total [SW], Land_sfc	LR	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3667	Albedo, Total [SW], TOA	LR	Muller, Strahler, Tanre	MODIS	AM,PM	GSFC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: TOA
3669	Land_sfc Reflectance, Bidirectional (BRDF)	LR	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3670	Land_sfc Roughness	LR	Muller, Tanre	MODIS	AM,PM	EDC	PL		5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3216	Particulate Backscatter Coef	OR	Parslow	MODIS	AM,PM	GSFC	PL	/m	:: 30%	1/day	1 km :: Ocean	N/A :: TOO
3217	Particulate Backscatter Coef	OR	Parslow	MODIS	AM,PM	GSFC	PL	/m	:: 30%	1/day	20 km :: Ocean	N/A :: TOO
2582	Organic Matter Conc, Dissolved	OB	Parslow et al	MODIS	AM,PM	GSFC	AL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2583	Organic Matter Conc, Dissolved	OB	Parslow et al	MODIS	AM,PM	GSFC	AL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean [Southern]R,L	N/A :: TOO
2680	*Vegetation Index, Leaf Area, (LAI)*	LB	Running	MODIS	AM,PM	EDC	PL	dimensionless	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
2703	*Vegetation Productivity, Primary*	LB	Running	MODIS	AM,PM	EDC	PL	Mg/km^2/yr	100 :: 5-30%	1/wk, 1/mo, 1/yr	1 km :: Land/G,R	N/A :: N/A
2723	Vegetation Stress	LB	Runnng, Huete	MODIS	AM,PM	EDC	PL	s/m	200-1000 :: 5-30%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
3641	*Cloud Cover*	AH	Salomonson?	MODIS	AM,PM	GSFC	AL	%	10% :: 5%	1/mo (day & night)	0.25 km :: G	N/A :: Cloud
2282	Cloud Masking-shadowing	AR	Salomonson	MODIS	AM,PM	GSFC	AL	dimensionless	5% ::	1/day	.25 km :: G	N/A :: Sfc
2283	Cloud Masking-shadowing	AR	Salomonson	MODIS	AM,PM	GSFC	AL	dimensionless	30% ::	1/day	1 km :: G	N/A :: Sfc
2284	Cloud Masking-shadowing	AR	Salomonson	MODIS	AM,PM	GSFC	AL	dimensionless	15% ::	1/day	0.5 km :: G	N/A :: Sfc
2338	Level-1B Radiance, MODIS<3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	0.5 km :: G	N/A :: N/A
2339	Level-1B Radiance, MODIS<3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
2392	Level-1B Radiance, MODIS<3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	0.25 km :: G	N/A :: N/A
2340	Level-1B Radiance, MODIS>3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	1%(1Σ) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
3153	Sea_Ice Max Extent	OH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
3154	Sea_Ice Max Extent	OH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk, 1/mo	1 km :: Ocean/Cryo,R	N/A :: Sfc
3020	Snow Cover	LH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
3021	Snow Cover	LH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
3656	Geometric Error, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3657	Geometric Error, MODIS Level-3	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3645	Instrument Characteristics, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3648	Instrument Model, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3652	Irradiance, Lunar, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3651	Irradiance, Solar, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3654	Radiance Error, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3646	Radiance, At-Satellite, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3650	Radiance, Lunar Reference, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3649	Radiance, Solar Diffuser, MODIS Level-	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3655	Reflectance Error, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3647	Reflectance, Exoatmospheric, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3653	Reflectance, Lunar, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3658	Texture, MODIS Level-2	IU	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3659	Texture, MODIS Level-3	IU	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3660	Classification Masks, Clouds/Snow/Land/Water, MODIS Level-2	IU	Salomonson, Barker (with Hall)	MODIS	AM,PM	GSFC	AL					

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3661	Classification Masks, Clouds/Snow/Land/Water, MODIS Level-3	IU	Salomonson, Barker (with Hall)	MODIS	AM,PM	GSFC	PL					
2669	*Land_Cover Type*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
2670	*Land_Cover Type*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
2671	*Land_Cover Type-Change*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 7%	1/seas	1 km :: Land	N/A :: Sfc
2672	*Land_Cover Type-Change*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 7%	1/seas	5 km :: Land	N/A :: Sfc
2268	PAR, Incident, (IPAR)	AR	Tanre	MODIS	AM,PM	EDC	PL	MJ/m^2	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
2294	*Aerosol Optical Depth, Spectral*	AR	Tanre, Kaufman	MODIS	AM,PM	GSFC	AL	dimensionless	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
1022	*Aerosol Size-distribution (Radius-Dispersion)*	AC	Tanre, Kaufman	MODIS	AM,PM	GSFC	AL	um, dimensionless	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
2003	*Albedo, Aerosol*	AR	Tanre, Kaufman	MODIS	AM,PM	GSFC	PL	dimensionless	0.06 :: 0.03	1/day, 1/mo	0.5 dg :: G,R	N/A :: Atmos
2015	Albedo, Land_sfc	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2016	Albedo, Land_sfc	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
2424	Land_sfc Reflectance, Bi-directional, (BRDF)	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	%	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2425	Land_sfc Reflectance, Bi-directional, (BRDF)	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	%	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
1556	Land_sfc Roughness	AD	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
1557	Land_sfc Roughness	AD	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
3696	Land_sfc BRDF, AM-PM Asymmetry	LR	Vanderbilt	MODIS	AM,PM	GSFC	PL	1/sr	5% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
3697	Land_sfc BRDF, AM-PM Degree_of_Asymmetry	LR	Vanderbilt	MODIS	AM,PM	GSFC	PL	%	30% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
2337	*Vegetation Index, Polarization*	LB	Vanderbilt	MODIS	AM,PM	EDC	PL	dimensionless		1/day	pixel_size :: Land	N/A :: Sfc
3323	Land_sfc Emissivity	LR	Wan	MODIS	AM,PM	EDC	PL	dimensionless	0.05 :: 0.02	1 day, 1 wk	1 km :: Land/R	N/A :: Sfc
3324	Land_sfc Emissivity	LR	Wan	MODIS	AM,PM	EDC	PL	dimensionless	0.05 :: 0.02	1 day, 1 wk	10 km :: Land	N/A :: Sfc
2484	*Land_sfc Temperature*	LR	Wan	MODIS	AM,PM	EDC	AL	C	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2485	Land_sfc Temperature	LR	Wan	MODIS	AM,PM	EDC	AL	C	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
1096	*CH4 Total Burden*	AC	Drummond	MOPITT	AM1	LaRC	AL	ppbv	:: 1%	1/(12 s) [?]	120 km :: G	Column :: Atmos
1126	*CO Conc*	AC	Drummond	MOPITT	AM1	LaRC	AL	ppb	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
1137	*CO Total Burden*	AC	Drummond	MOPITT	AM1	LaRC	AL	ppb	:: 10%	1/(4 s) [?]	66 km :: G [dy]	Column :: Atmos
2394	Level-1B Radiance, MOPITT	AR	Drummond	MOPITT	AM1	LaRC	AL	W/m^2/sr/um	2% ::	1/(0.4 s) [?]	22 km :: G	Column :: Atmos
1086	CH4 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
1852	H2O (H2^17O) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1853	H2O (H2^18O) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 10% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-60 km
1857	H2O (HDO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 7% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-60 km
1839	H2O Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
1172	H2O2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1180	HBr Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
1187	HCl Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
1192	HCN Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 35% (25-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 25-35 km
1197	HF Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
1204	HNO3 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
1217	HO2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1223	HOCl Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
2396	Level-1B Radiance, SAFIRE	AR	Russell	SAFIRE	MO	GSFC	AL					
1241	N2O Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 15% (20-35 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 20-40 km
1255	N2O5 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
1275	NO2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
1298	O(3P) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	%	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
1300	O2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	%	:: <2%(10-65 km)	1/(36-72 s) [?]	25 x 1-5 dg :: 86S-86N	3 km :: 10-80 km
1320	O3 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
1341	O3(17^OOO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km
1329	O3(NU2) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1340	O3(O17^OO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 40% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1344	O3(O^18_OO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1345	O3(^18OOO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km
1327	O3O3(NU1,3) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1360	OH Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
1526	Pressure	AD	Russell	SAFIRE	MO	GSFC	AL	mb	:: <2% (16-70 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
1610	Temperature Profile	AD	Russell	SAFIRE	MO	GSFC	AL	K	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
1012	*Aerosol Extinction Coef*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/km	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
1437	Cloud Height, Top, PSC	AH	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	km	0.2 km :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: Strat/Trop
1840	*H2O Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppmv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 3-50 km
1841	*H2O Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppmv	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
2543	Level-1B Transmission, SAGE-III	AR	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	dimensionless	0.05% :: 0.05%	1/(2 min), 30/day	200 x 2.5 km :: G	1-2 km :: 0-90 km
1276	*NO2 Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 10-50 km
1277	*NO2 Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-50 km
1282	NO3 Conc	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-55 km
1321	*O3 Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppmv	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
1353	*OClO Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	20% :: 20%	1/(2 min), 30/day	<2 x <1 dg :: G	2 km :: 15-25 km
1301	*Pressure*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3	2% :: 2%	1/(2 min), 30/day (Lun.)	<2 x <1 dg :: G	1 km :: 6-55 km
1302	*Pressure*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3	2% :: 2%	1/(2 min), 30/day (Sol.)	<2 x <1 dg :: G	1 km :: 6-70 km
1611	*Temperature Profile*	AD	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	K	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
1612	*Temperature Profile*	AD	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	K	2 K :: 2 K	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-70 km
2277	*Irradiance, UV Solar [0.0015 nm res.]*	AR	Rottman	SOLSTICE	MO	GSFC	AL	photons/cm^2/s/nm	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
2278	*Irradiance, UV Solar [0.1 nm res.]*	AR	Rottman	SOLSTICE	MO	GSFC	AL	photons/cm^2/s/nm	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
2398	Level-1B Irradiance, SOLSTICE	AR	Rottman	SOLSTICE	MO	GSFC	AL	W/m^2		1/hr	2 dg :: G	1 km :: Mid_atm
3640	*Spectra, UV Stellar Comparison [0.1 nm res.?]*	AR	Rottman	SOLSTICE	MO	GSFC	AL	photons/cm^2/s/nm	<5% :: <1%		N/A :: N/A	N/A :: NA
2108	Level-1B Backscatter Coef	AR	Freilich	STIKSCAT	CHEM	JPL	AL	dB	:: 0.25 dB		25 km :: G	N/A :: Sfc
1746	Wind Stress	AD	Freilich	STIKSCAT	CHEM	JPL	AL				:: Ocean	:: Sfc
1680	*Wind Velocity, Sea_sfc*	AD	Freilich	STIKSCAT	CHEM	JPL	AL	m/s,dg	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
1679	Wind Velocity, Sea_sfc	AD	Freilich	STIKSCAT	CHEM	JPL	AL	m/s,dg	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
1087	*CH4 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1088	*CH4 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1089	*CH4 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1127	*CO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 10 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1128	*CO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km

Appendix E: Output Data Products Listed by Instrument

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1129	*CO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
3637	*CO2 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb		1/(16 day)	16 x 5 km :: L	
1844	*H2O Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppm	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1843	*H2O Conc, Stratospheric*	AC	Beer	TES	CHEM	LaRC	AL	ppm	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1842	*H2O Conc, Tropospheric*	AC	Beer	TES	CHEM	LaRC	AL	ppm	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
3638	*HCl Conc*	AC	Beer	TES	CHEM	LaRC	AL			1/(16 day)	16 x 5 km :: L	
3639	*HFl Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb		1/(16 day)	16 x 5 km :: L	
1205	HNO3 Conc	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2.3 km :: 4-12 km
1206	HNO3 Conc	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
2455	Land_sfc Brightness Temperature (Radiance)	LR	Beer	TES	CHEM	LaRC	AL	K	:: 1 K	1/(16 day)	16 x 5 km :: G	N/A :: Sfc
2402	Level-1B Radiance, TES	AR	Beer	TES	CHEM	LaRC	AL					
1243	N2O Conc	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 10 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1256	*NH3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 300 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1267	*NO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 15 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1268	*NO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1278	*NO2 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1323	*O3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1324	*O3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1325	*O3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1370	*SO2 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1614	Temperature Profile	AD	Beer	TES	CHEM	LaRC	AL	K	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
1615	Temperature Profile	AD	Beer	TES	CHEM	LaRC	AL	K	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1616	Temperature Profile	AD	Beer	TES	CHEM	LaRC	AL	K	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km

Output Data Products
Listed by
Product Name

Appendix F

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2295	*Aerosol Angstrom Exponent*	AR	Gordon	MODIS	AM,PM	GSFC	AL	dimensionless	15% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Atmos
2296	*Aerosol Angstrom Exponent*	AR	Gordon	MODIS	AM,PM	GSFC	AL	dimensionless	15% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: Atmos
1992	*Aerosol Extinction Coef*	AR	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	/km	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1012	*Aerosol Extinction Coef*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/km	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
1014	*Aerosol Layer Boundary Height*	AC	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
1017	*Aerosol Mass Loading*	AC	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	g/m^2	30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
2297	*Aerosol Optical Depth*	AR	Travis	EOSP	AERO,AM2	LaRC	AL	dimensionless	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
2291	*Aerosol Optical Depth*	AR	Spinhirne et al	GLRS-A	ALT	GSFC	AL	dimensionless	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
2292	Aerosol Optical Depth	AR	Gerstl	HIRIS	AM2	EDC	AL	dimensionless	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
2299	*Aerosol Optical Depth*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
3676	*Aerosol Optical Depth*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05/10% :: 0.05/10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
2298	Aerosol Optical Depth	AR	Diner	MISR	AM	LaRC	PL	dimensionless	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
2293	*Aerosol Optical Depth, Spectral*	AR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
2294	*Aerosol Optical Depth, Spectral*	AR	Tanre, Kaufman	MODIS	AM,PM	GSFC	AL	dimensionless	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
2334	Aerosol Phase Function, Asymmetric	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05 :: 0.05	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
2335	Aerosol Phase Function, Asymmetric	AR	Diner	MISR	AM	LaRC	PL	dimensionless	0.05 :: 0.05	1/(5-16 day) [d]	1.9 km :: R	Column :: Atmos
3677	Aerosol Phase Function, Asymmetric	AR	Diner	MISR	AM	LaRC	AL	dimensionless	0.05 :: 0.05	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
2344	*Aerosol Radiance*	AR	Gordon	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	10% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/G,R,L	N/A :: Atmos
2345	*Aerosol Radiance*	AR	Gordon	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	10% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R,L	N/A :: Atmos
1993	Aerosol Size-distribution	AC	Diner	MISR	AM	LaRC	AL	dimensionless	15% :: 10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
1994	Aerosol Size-distribution	AC	Diner	MISR	AM	LaRC	PL	dimensionless	15% :: 10%	1/(5-16 day)	1.9 km :: R	Column :: Atmos
3678	Aerosol Size-distribution	AC	Diner	MISR	AM	LaRC	AL	dimensionless	15% :: 10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
1022	*Aerosol Size-distribution (Radius-Dispersion)*	AC	Tanre, Kaufman	MODIS	AM,PM	GSFC	AL	um, dimensionless	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
2003	*Albedo, Aerosol*	AR	Tanre, Kaufman	MODIS	AM,PM	GSFC	PL	dimensionless	0.06 :: 0.03	1/day, 1/mo	0.5 dg :: G,R	N/A :: Atmos
2008	Albedo, Cloud	AR	Welch	HIRIS	AM2	EDC	AL	%	5% :: 5%		90 m :: R	:: Cloud
2000	Albedo, Land_sfc	LR	Gautier ??	AIRS	PM	GSFC	PL	dimensionless		1/day	50 km :: Land	N/A :: Sfc
2015	Albedo, Land_sfc	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2016	Albedo, Land_sfc	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
2011	*Albedo, Planetary Spectral, TOA*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
3679	*Albedo, Planetary Spectral, TOA*	AR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	9,16 day; mo; seas; yr	1.92 km ? :: G	N/A :: TOA
2010	Albedo, Planetary Spectral, TOA	AR	Diner	MISR	AM	LaRC	PL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: TOA
2022	*Albedo, Spectral, Land_sfc*	LR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
3680	*Albedo, Spectral, Land_sfc*	LR	Diner	MISR	AM	LaRC	AL	dimensionless	<=0.03 :: 0.01	9,16 day; mo; seas; yr	1.92 km ? :: G	N/A :: Sfc
2021	Albedo, Spectral, Land_sfc	LR	Diner	MISR	AM	LaRC	PL	dimensionless	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
3665	Albedo, Spectral, Land_sfc	LR	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
2001	Albedo, Spectral, TOA	AR	Muller, Strahler	MODIS	AM,PM	GSFC	AL	fraction	10% :: 5%	1/(3-8 day)	1 km :: Land/R	N/A :: TOA
3666	Albedo, Total [SW], Land_sfc	LR	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
3667	Albedo, Total [SW], TOA	LR	Muller, Strahler, Tanre	MODIS	AM,PM	GSFC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: TOA
2027	*Anisotropy, LW_broadband*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	fraction	2% :: 0.5%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
2452	*Brightness Temperature (at Sensor)*	LR	Kahle	ASTER	AM1	EDC	AL	K	.5NEdT :: .2NEdT	1/(2-16 day)	90 m :: G	N/A :: at sensor
1030	BrO(Br^81-O) Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
3303	Calibration Data, MODIS	IC	Evans	MODIS	AM,PM	GSFC	AL	variable		1/day, 1/wk, 1/mo	N/A :: Ocean/G,R,L	N/A :: Sfc
1055	*CFC-11(CFCl3) Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1047	*CFC-12(CF2Cl2) Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
1070	CH3Cl Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
1085	*CH4 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
1086	CH4 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
1087	*CH4 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1088	*CH4 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1089	*CH4 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1095	*CH4 Total Burden*	AC	Chedin, Revercomb, Strow	AIRS	PM	GSFC	PL	ppb, dimensionless	50 - 175 ppb, 2% :: 30 - 150 ppb, TBD	1/day [n] - 2/day [d,n]	50 - 250 km :: G	Column :: Atmos
1096	*CH4 Total Burden*	AC	Drummond	MOPITT	AM1	LaRC	AL	ppbv	:: 1%	1/(12 s) [?]	120 km :: G	Column :: Atmos
3211	*Chlorophyll Fluorescence Efficiency*	OR	Abbott	MODIS	AM,PM	GSFC	PL	mW/cm^2/sr/u m/mg-Chl/m^3	15% :: 5%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
3212	*Chlorophyll Fluorescence Efficiency*	OR	Abbott	MODIS	AM,PM	GSFC	PL	mW/cm^2/sr/u m/mg-Chl/m^3	15% :: 5%	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2574	*Chlorophyll Fluorescence Line Curv*	OB	Hoge	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	25% :: 8%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
2573	Chlorophyll Fluorescence Line Curv	OB	Hoge	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	25% :: 8%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
2575	*Chlorophyll Fluorescence Line Height*	OB	Abbott	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	.004 :: .001	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2576	Chlorophyll Fluorescence Line Height	OB	Abbott	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	.004 :: .001	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
2569	Chlorophyll_a Conc	OB	Carder	MODIS	AM,PM	GSFC	AL	mg/m^3	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/ L	N/A :: TOO
2570	Chlorophyll_a Conc	OB	Carder	MODIS	AM,PM	GSFC	AL	mg/m^3	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/G,R	N/A :: TOO
2571	*Chlorophyll_a Conc*	OB	Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ L	N/A :: TOO
2572	*Chlorophyll_a Conc*	OB	Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-I/G,R	N/A :: TOO
2566	Chlorophyll_a Conc (via Fluorescence)	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg/m^3	50-100% :: 35%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
2567	Chlorophyll_a Conc (via Fluorescence)	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg/m^3	50-100% :: 35%	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
2565	Chlorophyll_a Conc, Case-II Waters	OB	Carder, Melack	HIRIS	AM2	EDC	AL	mg/m^3	100% :: 50%	1/(2 day) [d]	60-90 m :: Ocean-II/L	N/A :: TOO
2564	Chlorophyll_a Conc, Phytoplankton, Case-I Waters	OB	Carder, Davis	HIRIS	AM2	EDC	AL	mg/m^3	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
3660	Classification Masks, Clouds/Snow/Land/Water, MODIS Level-2	IU	Salomonson, Barker (with Hall)	MODIS	AM,PM	GSFC	AL					
3661	Classification Masks, Clouds/Snow/Land/Water, MODIS Level-3	IU	Salomonson, Barker (with Hall)	MODIS	AM,PM	GSFC	PL					
1107	ClO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
2062	*Cloud Cover*	AH	Chahine, Chedin, Smith	AIRS	PM	GSFC	AL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
2080	Cloud Cover	AH	Welch	ASTER	AM1	EDC	AL	fractional area	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
2086	Cloud Cover	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
2087	Cloud Cover	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
2088	Cloud Cover	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
2078	Cloud Cover	AH	Spinhirne	GLRS-A	ALT	GSFC	AL	%	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
2079	Cloud Cover	AH	Welch	HIRIS	AM2	EDC	AL	dimensionless	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
2081	Cloud Cover	AH	King	MODIS	AM,PM	GSFC	AL	%	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
2082	Cloud Cover	AH	King	MODIS	AM,PM	GSFC	AL	%	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
3641	*Cloud Cover*	AH	Salomonson?	MODIS	AM,PM	GSFC	AL	%	10% :: 5%	1/mo (day & night)	0.25 km :: G	N/A :: Cloud
1763	Cloud Drop Phase	AH	Welch	ASTER	AM1	EDC	AL	dimensionless	water/ice ::	1/(16 day)	15-30 m :: L	N/A :: Cloud
1767	Cloud Drop Phase	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	water/ice	90% Conf :: 90% Conf	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
1768	Cloud Drop Phase	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	water/ice	90% Conf :: 90% Conf	6/day [d,n]	25 km :: G	N/A :: Atmos

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1769	Cloud Drop Phase	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	water/ice	90% Conf :: 90% Conf	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
1770	*Cloud Drop Phase*	AH	Travis	EOSP	AERO,AM2	LaRC	AL	water/ice	:: 95% Corr	1/day [d]	100 km :: G	N/A :: Cloud
1762	Cloud Drop Phase	AH	Welch	HIRIS	AM2	EDC	AL	water/ice		1/(2-16 day)	30 m :: L	N/A :: Cloud
1764	Cloud Drop Phase	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	water/ice	90% Conf :: 90% Conf	1/day	5 km :: G	N/A :: Cloud
1765	Cloud Drop Phase	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	water/ice	90% Conf :: 90% Conf	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1774	*Cloud Drop Size*	AH	Travis	EOSP	AERO,AM2	LaRC	AL	um	25% :: 25%	1/day [d]	100 km :: G	N/A :: Cloud
1779	Cloud Drop Size(Effective Radius)	AH	Welch	ASTER	AM1	EDC	AL	um	10 um ::	1/(16 day)	15-90 m :: L	:: Cloud
1782	Cloud Drop Size(Effective Radius)	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	um	30% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
1783	Cloud Drop Size(Effective Radius)	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	um	30% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
1784	Cloud Drop Size(Effective Radius)	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	um	30% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
1778	Cloud Drop Size(Effective Radius)	AH	Welch	HIRIS	AM2	EDC	AL	um	10 um ::	1/(2-16 day)	30 m :: L	:: Cloud
1780	Cloud Drop Size(Effective Radius)	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	um	0-40% :: 5%	1/day	5 km :: G	N/A :: Cloud
1781	Cloud Drop Size(Effective Radius)	AH	King, Menzel	MODIS	AM,PM	GSFC	AL	um	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
1776	Cloud Drop Size-distribution	AH	Welch	HIRIS	AM2	EDC	AL	no/cm^2/um	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
3627	Cloud Drop Size_distribution	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	N/A :: Cloud
2115	Cloud Emissivity	AR	Welch	ASTER	AM1	EDC	AL	dimensionless	5% ::	1/(16 day)	90 m :: L	N/A :: Cloud
2114	Cloud Emissivity	AR	Spinhirne	GLRS-A	ALT	GSFC	AL		10% ::	1/(2-16 day)	1-100 km :: G	150 m ::
2126	*Cloud Emissivity*	AR	Menzel	MODIS	AM,PM	GSFC	AL	dimensionless	0.10 :: 0.05	2/day	5 km :: G	N/A :: Cloud
2127	*Cloud Emissivity*	AR	Menzel	MODIS	AM,PM	GSFC	AL	dimensionless	0.10 :: 0.05	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2116	Cloud Emissivity	AR	Menzel	MODIS	AM,PM	GSFC	PL	dimensionless				N/A :: Cloud
2128	Cloud Emissivity, IR Spectral (3-14um)	AR	Chahine, Smith	AIRS	PM	GSFC	PL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
2068	Cloud Field Area	AH	Kaufman	MODIS	AM,PM	GSFC	PL	km^2		1/mo	1 dg :: G	N/A :: Sfc
1509	Cloud Field Organization scale	AH	Welch	HIRIS	AM2	EDC	AL				:: L	
2092	Cloud Field Perimeter	AH	Kaufman	MODIS	AM,PM	GSFC	PL	km		1/mo	1 dg :: G	N/A :: Sfc
3628	Cloud Field Scales_of_Organization	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	N/A :: Cloud
2093	Cloud Field Size-distribution	AH	Welch	ASTER	AM1	EDC	AL	dimensionless		1/(16 day)	90 m :: L	N/A :: Cloud
1503	Cloud Field Structure	AD	Welch	HIRIS	AM2	EDC	AL				:: L	
1400	*Cloud Height*	AH	Spinhirne	GLRS-A	ALT	GSFC	AL	m	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
1391	Cloud Height, Base	AH	Welch	ASTER	AM1	EDC	AL	m	100 m :: 100 m	1/(16 day)	100 m :: L	N/A :: Cloud
1393	Cloud Height, Base	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
1394	Cloud Height, Base	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1395	Cloud Height, Base	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1389	*Cloud Height, Base*	AH	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
1390	Cloud Height, Base	AH	Welch	HIRIS	AM2	EDC	AL	m	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
1405	*Cloud Height, PSC*	AH	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	150 m ::	1/(2-16 day)	2-200 km :: Polar	75 m :: Strat
1408	*Cloud Height, PSC*	AH	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	km	0.4 km :: 0.4 km	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Strat
1423	*Cloud Height, Top*	AH	Chahine, Chedin, Smith	AIRS	PM	GSFC	PL	km	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
1427	Cloud Height, Top	AH	Welch	ASTER	AM1	EDC	AL	m	300 m :: 300 m	1/(16 day)	90 m :: L	N/A :: Cloud
1429	Cloud Height, Top	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
1430	Cloud Height, Top	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1431	Cloud Height, Top	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	km	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
1425	*Cloud Height, Top*	AH	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
1426	Cloud Height, Top	AH	Welch, Goetz	HIRIS	AM2	EDC	AL	m	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
1433	*Cloud Height, Top*	AH	Diner	MISR	AM	LaRC	PL	m	100 m :: 100 m	1/(5-16 day) [d]	500 m :: R	N/A :: Trop
1432	Cloud Height, Top	AH	Diner	MISR	AM	LaRC	PL	m	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
1437	Cloud Height, Top, PSC	AH	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	km	0.2 km :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: Strat/Trop

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1893	Cloud Ice Index	AH	Staelin	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	2/day [d,n]	50 km :: G	N/A :: Cloud
2094	Cloud JPDF	AH	King, Menzel	MODIS	AM,PM	GSFC	PL	dimensionless		1/day, 1/mo	1 dg :: G	N/A :: N/A
3626	Cloud Liquid_Water Content	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	N/A :: Cloud
1908	Cloud Liq_water Content	AH	Rosenkranz	AIRS	PM	GSFC	PL	mm	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
1895	Cloud Liq_water Content	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	g/m^3	75% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	1yr :: Atmos
1896	Cloud Liq_water Content	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	g/m^3	75% :: 10%	6/day [d,n]	25 km :: G	1yr :: Atmos
1897	Cloud Liq_water Content	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	g/m^3	75% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	1yr :: Atmos
2281	Cloud Liq_water Content	AH	Welch	HIRIS	AM2	EDC	AL	g/m^2	30% :: 10%		90 m :: R	:: Cloud
1898	Cloud Liq_water Content	AH	Waters	MLS	MO	GSFC	AL		:: 5%	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Upper Trop
1899	Cloud Liq_water Total Column	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	kg/m^2	50% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	Column :: Atmos
1900	Cloud Liq_water Total Column	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	kg/m^2	50% :: 10%	6/day [d,n]	25 km :: G	Column :: Atmos
1901	Cloud Liq_water Total Column	AH	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	kg/m^2	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	Column :: Atmos
3599	*Cloud Liq_water Total Column*	AH	TBD	MIMR	PM	MSFC	AL	mg/cm^2	0.005 cm ::	1 mo	1 dg :: Ocean	N/A :: Trop
3598	Cloud Liq_water Total Column	AH	TBD	MIMR	PM	MSFC	AL	mg/cm^2			22 km :: Ocean	N/A :: Trop
2282	Cloud Masking-shadowing	AR	Salomonson	MODIS	AM,PM	GSFC	AL	dimensionless	5% ::	1/day	.25 km :: G	N/A :: Sfc
2283	Cloud Masking-shadowing	AR	Salomonson	MODIS	AM,PM	GSFC	AL	dimensionless	30% ::	1/day	1 km :: G	N/A :: Sfc
2284	Cloud Masking-shadowing	AR	Salomonson	MODIS	AM,PM	GSFC	AL	dimensionless	15% ::	1/day	0.5 km :: G	N/A :: Sfc
2310	Cloud Optical Depth	AR	Welch	ASTER	AM1	EDC	AL	dimensionless	3% :: 3%	1/(16 day)	15-30 m :: L	N/A :: Cloud
2313	*Cloud Optical Depth*	AR	Travis	EOSP	AERO,AM2	LaRC	AL	dimensionless	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
2308	*Cloud Optical Depth*	AR	Spinhirne et al	GLRS-A	ALT	GSFC	AL	dimensionless	0.1 ::		2-200 km :: G	N/A :: Cloud
2309	Cloud Optical Depth	AR	Welch	HIRIS	AM2	EDC	AL	dimensionless	3% :: 1.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	N/A :: Cloud
2311	*Cloud Optical Depth*	AR	King	MODIS	AM,PM	GSFC	AL	dimensionless	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
2312	*Cloud Optical Depth*	AR	King	MODIS	AM,PM	GSFC	AL	dimensionless	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2300	*Cloud Optical Depth, Cirrus*	AR	Spinhirne	GLRS-A	ALT	GSFC	AL		20% ::	1/(2-16 day)	1-100 km :: G	
2316	Cloud Optical Depth, LW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
2317	Cloud Optical Depth, LW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
2318	Cloud Optical Depth, LW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
2324	*Cloud Optical Depth, PSC*	AR	Spinhirne et al	GLRS-A	ALT	GSFC	AL	dimensionless	0.1 ::		200 m :: Polar	N/A :: Strat
2321	Cloud Optical Depth, SW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
2322	Cloud Optical Depth, SW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
2323	Cloud Optical Depth, SW	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	dimensionless	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
3684	Cloud Optical Thickness	AR	Smith, Gautier ??	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	1/day	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
1530	Cloud Pressure, Top	AH	Travis	EOSP	AERO,AM2	LaRC	AL	mb	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
1531	*Cloud Pressure, Top*	AH	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mb	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
1528	Cloud Pressure, Top	AH	Menzel	MODIS	AM,PM	GSFC	AL	mb	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
1529	Cloud Pressure, Top	AH	Menzel	MODIS	AM,PM	GSFC	AL	mb	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud
3689	Cloud Radiative Forcing, LW	AR	Susskind	AIRS	PM	GSFC	PL	W/m^2	5 :: 3			
2037	Cloud Reflectance, Bi-directional, (BRDF)	AR	Welch	HIRIS	AM2	EDC	AL		:: 1%		30 m :: R	:: Cloud
2039	*Cloud Reflectance, Bi-directional, (BRDF)*	AR	Diner	MISR	AM	LaRC	PL	/sr	3% :: 1%	[variable] [d]	1.92 km :: G	N/A :: Trop
2038	Cloud Reflectance, Bi-directional, (BRDF)	AR	Diner	MISR	AM	LaRC	PL	/sr	3% :: 1%	[variable] [d]	240 m :: R	N/A :: Trop
3698	Cloud Reflectance, Bi-directional, SW_Broadband, (BRDF)	LR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	fraction	5% :: 1%		10 dg [Angle] :: G	N/A :: Atmos
3686	Cloud Reflectivity, Spectral	AR	Chahine	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1409	Cloud Structure, 3-D	AH	Welch	ASTER	AM1	EDC	AL			1/(16 day)	90 m :: L	:: Cloud
1410	Cloud Structure, Cirrus	AH	Spinhirne	GLRS-A	ALT	GSFC	AL	/m	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
2463	*Cloud Temperature, Top*	AR	Chahine, Chedin, Smith	AIRS	PM	GSFC	AL	K	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
2465	Cloud Temperature, Top	AR	Welch	ASTER	AM1	EDC	AL	K	2 K :: 2 K	1/(16 day)	90 m :: L	N/A :: Cloud
2466	*Cloud Temperature, Top*	AR	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	1/day, 1/mo	1 dg :: G	N/A :: Cloud
2467	*Cloud Temperature, Top*	AR	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
3625	Cloud Thickness	AR	Welch	ASTER	AM1	EDC	AL			1/(16 day)	100 m :: L	N/A :: Cloud
3685	Cloud Transmissivity, Spectral	AR	Chahine	AIRS	PM	GSFC	PL	dimensionless	TBD :: TBD	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
1124	CO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
1125	CO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
1126	*CO Conc*	AC	Drummond	MOPITT	AM1	LaRC	AL	ppb	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
1127	*CO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 10 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1128	*CO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1129	*CO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1136	*CO Total Burden*	AC	Revercomb, Strow	AIRS	PM	GSFC	PL	ppb	10 - 20 :: 6 - 15	2/day [d,n]	50 - 250 km :: G	Column :: Atmos
1137	*CO Total Burden*	AC	Drummond	MOPITT	AM1	LaRC	AL	ppb	:: 10%	1/(4 s) [?]	66 km :: G [dy]	Column :: Atmos
3637	*CO2 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb		1/(16 day)	16 x 5 km :: L	
1151	CO2 Total Burden (Mixing Ratio)	AC	Revercomb	AIRS	PM	GSFC	PL	ppm	25 :: 20	2/day [d,n]	50 km :: G	Column :: Atmos
2556	Coccolith Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2557	Coccolith Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2577	Coccolith Conc, Detached	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg-CaCO3/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
2578	Coccolith Conc, Detached	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg-CaCO3/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: TOO
3631	Coral Reef Maps	OB	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3304	Data Characteristics, MODIS	IC	Justice, Strahler	MODIS	AM,PM	GSFC	PL	dimensionless	30,10, 5% ::	1/day	1 km :: G	N/A :: Sfc
3305	Data Characteristics, MODIS	IC	Justice, Strahler	MODIS	AM,PM	GSFC	PL	dimensionless	30,10, 5% ::	1/day	10 km :: G	N/A :: Sfc
3306	Data Characteristics, MODIS	IC	Justice, Strahler	MODIS	AM,PM	GSFC	PL	dimensionless	30,10, 5% ::	1/day	50 km :: G	N/A :: Sfc
3229	*Electron Content, Total, (TEC)*	SE	Melbourne	GGI	ALT	JPL	AL		:: 0.1%	1/s [?]	multiple :: G	mult :: 0-20000 km
3228	*Electron Content-Difference, Total, (TEC-difference)*	SE	Melbourne	GGI	ALT	JPL	AL		:: 0.1%	1/s [?]	various :: G	mult :: 0-20000 km
3301	Eruption-Plume Characteristics	VO	Pieri	ASTER	AM1	EDC	AL	variable	variable :: variable		15,30,90 m :: R/L	
3286	Eruption-Plume Height	VO	Diner	MISR	AM	LaRC	PL	m	100 m :: 100 m	[variable] [d]	500 m :: Land/L	N/A :: Plume_top
2711	Fire Class	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL	C	10 C :: 5 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
2663	*Fire Count*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2664	*Fire Count*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	10 km :: Land	N/A :: Sfc
2665	*Fire Extent*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2666	*Fire Extent*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL			1/day, 1/wk	1 dg :: Land	N/A :: Sfc
2471	*Fire Temperature*	LB	Kaufman, Justice	MODIS	AM,PM	EDC	AL	C	10 C :: 5 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
3215	Gelbstoff Absorption Coef@410nm	OR	Carder, Melack	HIRIS	AM2	EDC	AL	/m	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
2818	Geodetic Baselines	LD	Melbourne	GGI	ALT	JPL	AL	km	:: 2:10^9	1/min	:: G	:: Sfc
2819	Geodetic Carrier Phase, GPS(L1,L2),	LD	Melbourne	GGI	ALT	JPL	AL	mm	:: 0.4 mm	1/(0.1 s) [?]	:: G	
2862	*Geodetic EOS-platform Position*	LD	Melbourne	GGI	ALT	JPL	AL	cm	:: <3 cm	? 1/s		:: In_situ
2850	Geodetic Geocenter	LD	Melbourne	GGI	ALT	JPL	AL	cm	:: 2 cm	1/day		
2861	Geodetic Orientation	LD	Melbourne	GGI	ALT	JPL	AL	arcsec	:: 0.001arc-s	2/day		
2867	Geodetic Pseudorange, GPS(L1,L2),	LD	Melbourne	GGI	ALT	JPL	AL	cm	:: 12 cm	? 1/s	:: G	
2883	Geologic Unit Maps (Geology Maps)	LD	Gillespie, Rowan, Kieffer, Kahle	ASTER	AM1	EDC	PL	N/A	variable :: variable	50/mission	90 m :: Land/R,L	

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3656	Geometric Error, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3657	Geometric Error, MODIS Level-3	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
1500	Geopotential Height-Gradient	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	m/km	0.04m/km :: 0.04m/km	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-80 km
2922	Glacier Cover, Bare_Ice	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
2895	Glacier Displacement	LH	Kieffer	HIRIS	AM2	NSIDC	AL	km^2	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
2978	Glacier Percolation Zone	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
2931	Glacier Velocity	LH	Kieffer	ASTER	AM1	EDC	AL	m/yr	20 m/yr :: 10 m/yr	1 yr	15 m :: Land/Cryo	
2930	Glacier Velocity	LH	Kieffer	HIRIS	AM2	NSIDC	AL	m/s	10^-6 :: variable	1/yr	100 m :: Land/Cryo	N/A :: Sfc
2254	Glint Field	OR	Gordon	MODIS	AM,PM	GSFC	PL	dimensionless		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc
3668	Ground Control Points, Potential	IU	Muller	MODIS	AM,PM	GSFC	AL		0.3 pixels ::		0.3 pixels :: Land/L	N/A :: Sfc
1165	H2CO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 2x10-11	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-50 km
1854	H2O (H2^17O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 2%<50km	2/day [d,n]		2.5 km [1.2] :: TPSE, 90 km
1852	H2O (H2^17O) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1855	H2O (H2^18O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 2%<50km	2/day [d,n]		2.5 km [1.2] :: TPSE, 80 km
1853	H2O (H2^18O) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 10% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-60 km
1857	H2O (HDO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 7% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-60 km
1837	*H2O Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1838	H2O Conc	AC	Waters	MLS	MO	GSFC	AL		:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
1839	H2O Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
1840	*H2O Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppmv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 3-50 km
1841	*H2O Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppmv	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
1844	*H2O Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppm	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1843	*H2O Conc, Stratospheric*	AC	Beer	TES	CHEM	LaRC	AL	ppm	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1842	*H2O Conc, Tropospheric*	AC	Beer	TES	CHEM	LaRC	AL	ppm	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1171	H2O2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
1172	H2O2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1180	HBr Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
1187	HCl Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
3638	*HCl Conc*	AC	Beer	TES	CHEM	LaRC	AL			1/(16 day)	16 x 5 km :: L	
1188	HCl(H_Cl^35) Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
1189	HCl(H_Cl^37) Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
1191	HCN Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 4x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 20-65 km
1192	HCN Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 35% (25-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 25-35 km
1197	HF Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
3639	*HFl Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb		1/(16 day)	16 x 5 km :: L	
1202	*HNO3 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
1203	HNO3 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
1204	HNO3 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
1205	HNO3 Conc	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2.3 km :: 4-12 km
1206	HNO3 Conc	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1216	HO2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
1217	HO2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km
1222	HOCl Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
1223	HOCl Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1828	*Humidity Profile*	AH	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	AL	g/kg	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
3692	Humidity Profile, Microwave [see also 1828]	AH	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	AL	g/kg	20% :: 20%	2/day [d,n]	50 km :: G	2 km :: Atmos
2921	*Ice_Sheet Cover Index*	LH	Staelin	AIRS	PM	GSFC	PL	dimensionless		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc
2897	*Ice_Sheet Displacement*	LH	Bentley	GLRS-A	ALT	NSIDC	AL	mm/day	10 mm/day :: 10 mm/day	1/mo	N/A :: Land/Cryo	N/A :: Sfc
2911	*Ice_Sheet Elevation*	LH	Zwally	ALT	ALT	NSIDC	AL	m	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
2912	*Ice_Sheet Elevation*	LH	Bentley	GLRS-A	ALT	NSIDC	AL	mm	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
1554	*Ice_Sheet Roughness*	AD	Bentley	GLRS-A	ALT	NSIDC	AL	mm	100 mm :: 100 mm	1/(3 mo)	75 m :: Cryo	:: Sfc
3048	Ice_Sheet Strain Rate	LH	Bentley	GLRS-A	ALT	NSIDC	AL	u-strain/yr	10^-6/yr :: 10^-6/yr	1/(3 mo)	10-100 km :: Land/Cryo	N/A :: Sfc
2932	Ice_Sheet Velocity (Outflow), Polar	LH	Kieffer	HIRIS	AM2	NSIDC	AL	m/s	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
3645	Instrument Characteristics, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3648	Instrument Model, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3652	Irradiance, Lunar, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3651	Irradiance, Solar, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
2274	*Irradiance, Solar, Total*	AR	Willson	ACRIM	MO	GSFC	AL	W/m^2	0.1% :: 0.0005%	1/(2 min)	N/A :: N/A	N/A :: TOA
2277	*Irradiance, UV Solar [0.0015 nm res.]*	AR	Rottman	SOLSTICE	MO	GSFC	AL	photons/cm^2/s/nm	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
2278	*Irradiance, UV Solar [0.1 nm res.]*	AR	Rottman	SOLSTICE	MO	GSFC	AL	photons/cm^2/s/nm	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
2542	Land Thermal Inertia	LR	Kieffer et al	ASTER	AM1	EDC	AL	joule/m^2/K/s	40% :: 20%		90 m :: Land/R,L	N/A :: Sfc
2856	Landform Lineament / Slope Maps	LD	Rowan	ASTER	AM1	EDC	AL	Orientation/length	variable :: variable	25 scenes/yr	50 m :: Land/R,L	N/A :: Sfc
2858	*Landform Morphology*	LD	Schutz et al	GLRS-A	ALT	GSFC	AL	mm	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
2884	Landform Sfc units, Geologic	LD	Kieffer, Clark	HIRIS	AM2	EDC	AL	dimensionless	:: 30%		30 m :: L	N/A :: Sfc
2669	*Land_Cover Type*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
2670	*Land_Cover Type*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
2671	*Land_Cover Type-Change*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 7%	1/seas	1 km :: Land	N/A :: Sfc
2672	*Land_Cover Type-Change*	LB	Strahler, Huete et al	MODIS	AM,PM	EDC	AL	categorical fraction	10% :: 7%	1/seas	5 km :: Land	N/A :: Sfc
3696	Land_sfc BRDF, AM-PM Asymmetry	LR	Vanderbilt	MODIS	AM,PM	GSFC	PL	1/sr	5% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
3697	Land_sfc BRDF, AM-PM Degree_of_Asymmetry	LR	Vanderbilt	MODIS	AM,PM	GSFC	PL	%	30% :: 30%	1 day	250 m, 1 km :: Land	N/A :: Sfc
2453	Land_sfc Brightness Temperature (Radiance)	LR	Kahle, Palluconi, Christensen	ASTER	AM1	EDC	AL	K	1-2 K :: 0.3	1/(2-16 day)	90 m :: G	N/A :: Sfc
2455	Land_sfc Brightness Temperature (Radiance)	LR	Beer	TES	CHEM	LaRC	AL	K	:: 1 K	1/(16 day)	16 x 5 km :: G	N/A :: Sfc
2110	Land_sfc Emissivity	LR	Barton	MODIS	AM,PM	EDC	PL	dimensionless	0.01 :: 0.01	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2111	Land_sfc Emissivity	LR	Barton	MODIS	AM,PM	EDC	PL	dimensionless	0.01 :: 0.01	1/day, 1/wk	50 km :: G,R	N/A :: Sfc
3323	Land_sfc Emissivity	LR	Wan	MODIS	AM,PM	EDC	PL	dimensionless	0.05 :: 0.02	1 day, 1 wk	1 km :: Land/R	N/A :: Sfc
3324	Land_sfc Emissivity	LR	Wan	MODIS	AM,PM	EDC	PL	dimensionless	0.05 :: 0.02	1 day, 1 wk	10 km :: Land	N/A :: Sfc
2124	Land_sfc Emissivity [1]	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3674	Land_sfc Emissivity [2]	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
3675	Land_sfc Emissivity [3]	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	emissivity units	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
2129	Land_sfc Emissivity, Relative Spectral	AR	Kahle, Becker, Schmugge	ASTER	AM1	EDC	AL	arbitrary units	N/A :: N/A	1/(0.5-16 day)	90 m :: Land/R,L	N/A :: Sfc
2113	*Land_sfc Emissivity, Spectral*	LR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: Land	N/A :: Sfc
3695	Land_sfc Emissivity, Spectral (Microwave) [see also 2113]	LR	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	PL	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: Land	N/A :: Sfc
2404	Land_sfc Radiance-Correction, Topographic	LR	Muller	MODIS	AM,PM	EDC	AL		1 km :: 0.3 km	1/day	1 km :: Land/R	N/A :: Sfc
2405	Land_sfc Radiance-Correction, Topographic	LR	Muller	MODIS	AM,PM	EDC	AL		1 km :: 0.3 km	1/day	10 km :: Land	N/A :: Sfc
2035	Land_sfc Reflectance, Bi-directional, (BRDF)	LR	Gersl	HIRIS	AM2	EDC	AL	dimensionless	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
2631	*Land_sfc Reflectance, Bi-directional, (BRDF)*	LB	Diner	MISR	AM	LaRC	AL	/sr	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
2632	Land_sfc Reflectance, Bi-directional, (BRDF)	LB	Diner	MISR	AM	LaRC	AL	/sr	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
2424	Land_sfc Reflectance, Bi-directional, (BRDF)	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	%	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
2425	Land_sfc Reflectance, Bi-directional, (BRDF)	LR	Tanre, Muller	MODIS	AM,PM	EDC	PL	%	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
2045	Land_sfc Reflectance, Bi-directional, SW_Broadband, (BRDF)	LR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	fraction	5% :: 1%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
3669	Land_sfc Reflectance, Bidirectional (BRDF)	LR	Muller, Strahler, Tanre	MODIS	AM,PM	EDC	PL	fraction	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
2433	Land_sfc Reflectance, Directional	LR	Slater	ASTER	AM1	EDC	AL	dimensionless	4% :: 0.5-1.3	3/yr	15,30 m :: Land/R,L	N/A :: Sfc
2432	Land_sfc Reflectance, Directional	LR	Slater	HIRIS	AM2	EDC	AL	dimensionless	3% :: 1%	1/mo	30 m :: Land/R,L	N/A :: Sfc
2429	Land_sfc Reflectance, Directional	LR	Kaufman et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.005	1/day	1 km :: G	N/A :: Sfc
2430	Land_sfc Reflectance, Directional	LR	Kaufman et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.005	1/day	0.5 km :: G	N/A :: Sfc
2431	Land_sfc Reflectance, Directional	LR	Kaufman et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.005	1/day	0.25 km :: G	N/A :: Sfc
2434	Land_sfc Reflectance, Directional	LR	Muller, Strahler	MODIS	AM,PM	EDC	AL	fraction	5% :: 3%	1/day	1 km :: R	N/A :: Sfc
2435	Land_sfc Reflectance, Relative Spectral	LR	Kahle, Becker	ASTER	AM1	EDC	AL	arbitrary units	N/A :: N/A	1/(2-16 day)	15,30 m :: Land/R,L	N/A :: Sfc
3670	Land_sfc Roughness	LR	Muller, Tanre	MODIS	AM,PM	EDC	PL		5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
1556	Land_sfc Roughness	AD	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
1557	Land_sfc Roughness	AD	Tanre, Muller	MODIS	AM,PM	EDC	PL	dimensionless	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
2484	*Land_sfc Temperature*	LR	Wan	MODIS	AM,PM	EDC	AL	C	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
2485	Land_sfc Temperature	LR	Wan	MODIS	AM,PM	EDC	AL	C	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
2483	Land_sfc Temperature (3-products)	LR	Kahle, Becker, Christensen	ASTER	AM1	EDC	AL	K	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
2481	*Land_sfc Temperature, Skin*	LR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	AL	K	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
2539	Land_sfc Temperature-Difference, Day-Night	LR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	K	0.5 K :: 0.25 K	2/day [d,n]	50 km :: G	N/A :: Sfc

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2540	Land_sfc Temperature-Difference, Day-Night	LR	Kieffer et al	ASTER	AM1	EDC	AL	K	1-2 K :: 0.3 K		90 m :: Land/R,L	N/A :: Sfc
2537	Land_sfc Temperature-Difference, Day-Night	LR	Huete	MODIS	AM,PM	GSFC	PL	K	1 K :: 1 K	1/day	1 km :: Land/R	N/A :: Sfc
3629	Land_sfc Thermal Anomalies	LR	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
2447	Land_sfc Thermal Change	LR	Kieffer, Christensen, Pieri,	ASTER	AM1	EDC	AL	dimensionless	1-2 K :: 0.5 K		90 m :: Land/R,L	N/A :: Sfc
3633	Land_sfc Water Area	LH	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
2108	Level-1B Backscatter Coef	AR	Freilich	STIKSCAT	CHEM	JPL	AL	dB	:: 0.25 dB		25 km :: G	N/A :: Sfc
2104	Level-1B Backscatter Coef, GLRS	AR	Spinhirne	GLRS-A	ALT	GSFC	AL	/m	10% ::	1/(2-16 day)	1-100 km :: G	75 m ::
3464	Level-1B Backscatter, ALT	AR	Fu	ALT	ALT	JPL		dB				
2398	Level-1B Irradiance, SOLSTICE	AR	Rottman	SOLSTICE	MO	GSFC	AL	W/m^2		1/hr	2 dg :: G	1 km :: Mid_atm
2336	*Level-1B Polarization, EOSP*	AR	Travis	EOSP	AERO,AM2	LaRC	AL	dimensionless	0.2% :: 0.1%	1/day [d]	10-70 km :: G	N/A :: N/A
2286	Level-1B Radiance Mixture-Model, MODIS Spectral-spatial	AR	Huete	MODIS	AM,PM	GSFC	PL	dimensionless	5-10% :: 0.05	1/day	pixel_size :: G	N/A :: Sfc
2347	Level-1B Radiance, AIRS	AR	Chahine	AIRS[AIRS]	PM	GSFC	AL	W/m^2/sr/um	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
2350	Level-1B Radiance, AMSU-A	AR	Chahine	AIRS[AMSU-A]	PM	GSFC	AL	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
2375	Level-1B Radiance, ASTER	AR	Tsu	ASTER	AM1	EDC	AL	W/m^2/sr/um	2-4% :: 1%	1/16 day	15,30,90m :: G	N/A :: at sensor
2359	Level-1B Radiance, CERES	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/sr/um	SW 2%,LW 1% :: 0.005	6/day [d,n]	25 km :: G	N/A :: N/A
2362	Level-1B Radiance, EOSP	AR	Travis	EOSP	AERO,AM2	LaRC	AL	W/m^2/sr/um	5% :: 2%	1/day [d]	10-70 km :: G	N/A :: N/A
2364	Level-1B Radiance, GGI	AR	Melbourne	GGI	ALT	JPL	AL					
2369	Level-1B Radiance, HIRDLS	AR	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	W/m^2/sr/um				
2370	*Level-1B Radiance, HIRIS*	AR	Goetz	HIRIS	AM2	EDC	AL	W/m^2/sr/um				
2384	Level-1B Radiance, LIS	AR	Christian	LIS	TRM	MSFC	AL	W/m^2/sr/um				
2352	Level-1B Radiance, MHS	AR	Chahine	AIRS[MHS]	PM	GSFC	AL	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
3602	Level-1B Radiance, MIMR	AR	TBD	MIMR	PM	MSFC	AL	K		1 day	1 dg :: Global	N/A ::
2386	Level-1B Radiance, MISR	AR	Diner	MISR	AM	LaRC	AL	W/m^2/sr/um	3% :: 1%	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
2387	Level-1B Radiance, MISR	AR	Diner	MISR	AM	LaRC	AL	W/m^2/sr/um	3% :: 1%	1/(5-16 day) [d]	240 m :: R,L	N/A :: TOA
2388	Level-1B Radiance, MLS	AR	Waters	MLS	MO	GSFC	AL	K		2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Trop-150 km
2338	Level-1B Radiance, MODIS<3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	0.5 km :: G	N/A :: N/A
2339	Level-1B Radiance, MODIS<3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
2392	Level-1B Radiance, MODIS<3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	0.25 km :: G	N/A :: N/A
2340	Level-1B Radiance, MODIS>3um	AR	Salomonson	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	1%(1Σ) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
2394	Level-1B Radiance, MOPITT	AR	Drummond	MOPITT	AM1	LaRC	AL	W/m^2/sr/um	2% ::	1/(0.4 s) [?]	22 km :: G	Column :: Atmos
2396	Level-1B Radiance, SAFIRE	AR	Russell	SAFIRE	MO	GSFC	AL					
2402	Level-1B Radiance, TES	AR	Beer	TES	CHEM	LaRC	AL					
2543	Level-1B Transmission, SAGE-III	AR	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	dimensionless	0.05% :: 0.05%	1/(2 min), 30/day	200 x 2.5 km :: G	1-2 km :: 0-90 km
2353	Level-2 Radiance, Atmos_corrected, EOSP	AR	Travis	EOSP	AERO,AM2	LaRC	AL	W/m^2/sr/um	25% :: 15%	1/day [d]	40 km :: G	N/A :: N/A
2378	Level-2 Radiance, Land_leaving	LR	Palluconi et al	ASTER	AM1	EDC	AL	W/m^2/sr/um	TBD :: 0.065-0.085	1/(2-16 day)	90 m :: Land/R,L	N/A :: Sfc
2379	Level-2 Radiance, Land_leaving	LR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	10% :: 5%	1/day	1 km :: Land/R	N/A :: Sfc
2380	Level-2 Radiance, Land_leaving	LR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	10% :: 5%	1/day, 1/mo	10 km :: Land	N/A :: Sfc
2381	Level-2 Radiance, Land_leaving	LR	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	W/m^2/sr/um	10% :: 5%	1/day	0.5 km :: Land/R	N/A :: Sfc
2416	*Level-2 Radiance, Water-leaving*	OR	Gordon et al	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	5% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Sfc

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2417	*Level-2 Radiance, Water-leaving*	OR	Gordon et al	MODIS	AM,PM	GSFC	AL	mW/cm^2/sr/u	5% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
3642	*Lightning Occurrence (Location,Time)*	AE	Christian	LIS	TRM	MSFC	AL		10 km (in 1100km FOV) ::		.07 dg :: G	N/A :: Atmos
3643	*Lightning Radiant Energy*	AE	Christian	LIS	TRM	MSFC	AL				.07 dg :: G	N/A :: Atmos
1756	Lightning Rate	AE	Christian	LIS	TRM	MSFC	AL		:: 5%		.07 dg :: G	N/A :: Atmos
3247	Magnetic Field Strength, DC	SE	Waters	MLS	MO	GSFC	AL	G	:: 2x10-3G	2/day [d,n]	2.5 x 0.2 dg :: 82N-82S	2.5 km :: 80-100 km
2773	Mineral Index	LC	Rowan,Kahle,Gillespie	ASTER	AM1	EDC	AL	dimensionless	10% :: 5%	15 scenes/yr	15,30,90 m :: Land/R,L	N/A :: Sfc
2817	Mineral Maps	LC	Gillespie, Rowan, Kahle	ASTER	AM1	EDC	PL	dimensionless	variable :: variable	50/mission	90 m :: Land/R,L	N/A :: Sfc
2774	Mineral Thermal history	LC	Rowan	HIRIS	AM2	EDC	AL			1/seas	30 m :: Land/L	N/A :: Sfc
2766	Mineral(CO3) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2772	Mineral(Fe) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2776	Mineral(OH) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
2784	Mineral(SO4) Relative Abundance	LC	Rowan, Clark	HIRIS	AM2	EDC	AL	dimensionless	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
1239	*N2O Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
1240	N2O Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
1241	N2O Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 15% (20-35 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 20-40 km
1243	N2O Conc	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 10 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1249	*N2O Total Burden*	AC	Revercomb, Strow	AIRS	PM	GSFC	PL	ppb	20 - 40 :: 15 - 30	2/day [d,n]	Zonal_ave :: G	Column :: Atmos
1254	*N2O5 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
1255	N2O5 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
1256	*NH3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 300 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1266	NO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
1267	*NO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 15 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1268	*NO Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1273	*NO2 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
1274	NO2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
1275	NO2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
1276	*NO2 Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 10-50 km
1277	*NO2 Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-50 km
1278	*NO2 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1282	NO3 Conc	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-55 km
1298	O(3P) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	%	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
1299	O2 Conc	AC	Waters	MLS	MO	GSFC	AL		<=5% :: 1%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [6.5] :: TPSE, 120 km
1300	O2 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	%	:: <2%(10-65 km)	1/(36-72 s) [?]	25 x 1-5 dg :: 86S-86N	3 km :: 10-80 km
1303	O2(NU1) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [6.5] :: 20-80 km
3690	O3 Conc	AC	Susskind	AIRS	PM	GSFC	PL	Dobson unit	10% :: 5%	2/day [d,n]	50 km :: G	variable :: Atmos
1318	*O3 Conc*	AC	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mix ratio	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1319	O3 Conc	AC	Waters	MLS	MO	GSFC	AL		<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
1328	O3 Conc	AC	Waters	MLS	MO	GSFC	AL		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
1320	O3 Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppmv	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
1321	*O3 Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppmv	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1323	*O3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1324	*O3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
1325	*O3 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppb	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
1332	*O3 Total Burden*	AC	Chedin, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	Dobson unit	5 - 15% :: 3 - 10%	2/day [d,n]	50 km :: G	Column :: Atmos
1333	O3 Total Burden	AC	Menzel	MODIS	AM,PM	GSFC	AL	DU	15-20DU :: 10DU	2/day, 1/day	5 km :: G	Column :: Atmos
1334	O3 Total Burden	AC	Menzel	MODIS	AM,PM	GSFC	AL	DU	15-20DU :: 10DU	1/day, 1/mo	0.5 dg :: G	Column :: Atmos
1339	O3(17^OOO) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-50 km
1341	O3(17^OOO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km
1329	O3(NU2) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
1340	O3(O17^OO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 40% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1337	O3(OO^17_O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 100%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 25-45 km
1304	O3(OO^18) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-80 km
1338	O3(OO^18_O) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1344	O3(O^18_OO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
1343	O3(^18OOO) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 20%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1345	O3(^18OOO) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km
1326	O3O3(NU1,3) Conc	AC	Waters	MLS	MO	GSFC	AL		:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
1327	O3O3(NU1,3) Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
2606	Ocean Productivity, Primary	OB	Esaias	MODIS	AM,PM	GSFC	AL	mg/m^3	<35% :: <20%	1/wk, 1/mo, 1/yr	20 km :: Ocean/G,R	N/A :: TOO
2601	Ocean Productivity, Primary,	OB	Davis, Melack et al	HIRIS	AM2	EDC	AL	mg-C/m^2/hr	100% :: 50%	1/(>=2 day)	30-90 m :: Ocean/L	N/A :: TOO
2602	Ocean Productivity, Primary, Near_sfc [via Fluorescence]	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg-C/m^3/day	:: 50-100%	1/day, 1/wk	1 km :: Ocean-I/R,L	N/A :: TOO
2603	Ocean Productivity, Primary, Near_sfc [via Fluorescence]	OB	Abbott	MODIS	AM,PM	GSFC	PL	mg-C/m^3/day	:: 50-100%	1/day, 1/wk	4 km :: Ocean-I/G,R	N/A :: TOO
3121	Ocean Tide, Model	OD	Sanchez	ALT	ALT	JPL	AL	cm	2 cm ::	1/mission	100 km :: Ocean	N/A :: Sfc
2031	Ocean Water Attenuation Coef, PAR	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	1 km :: Ocean-I/L	N/A :: TOO
2032	Ocean Water Attenuation Coef, PAR	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	20 km :: Ocean-I	N/A :: TOO
3199	Ocean Water Attenuation Coef@490nm	OR	Gordon, Clark	MODIS	AM,PM	GSFC	AL	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-I/ R,L	N/A :: TOO
3200	Ocean Water Attenuation Coef@490nm	OR	Gordon, Clark	MODIS	AM,PM	GSFC	AL	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ R,L	N/A :: TOO
3206	Ocean Water Attenuation Coef@520nm, Beam	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	1 km :: Ocean	N/A :: TOO
3207	Ocean Water Attenuation Coef@520nm, Beam	OR	Clark	MODIS	AM,PM	GSFC	PL	/m	35% :: 10%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
2559	Ocean Water Backscatter Coef, Total	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2560	Ocean Water Backscatter Coef, Total	OR	Gordon	MODIS	AM,PM	GSFC	PL	/m	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3210	Ocean Water Backscatter Coef@565nm	OR	Carder, Melack	HIRIS	AM2	EDC	AL	/m	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean/L	N/A :: Sfc
3129	Ocean Wave Height, Along-track	OD	Fu	ALT	ALT	JPL	AL	cm	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
3636	Ocean_Water Temperature-Pattern	OD	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3632	Ocean_Water Turbidity	OR	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
1352	OClO Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
1353	*OClO Conc*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3&ppbv	20% :: 20%	1/(2 min), 30/day	<2 x <1 dg :: G	2 km :: 15-25 km
1360	OH Conc	AC	Russell	SAFIRE	MO	GSFC	AL	ppbv	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
3314	Organic Matter Conc, Dissolved	OB	Carder, Melack	HIRIS	AM2	EDC		mg/m^3	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
2580	Organic Matter Conc, Dissolved	OB	Carder	MODIS	AM,PM	GSFC	PL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2581	Organic Matter Conc, Dissolved	OB	Carder	MODIS	AM,PM	GSFC	PL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2582	Organic Matter Conc, Dissolved	OB	Parslow et al	MODIS	AM,PM	GSFC	AL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2583	Organic Matter Conc, Dissolved	OB	Parslow et al	MODIS	AM,PM	GSFC	AL	mg/m^3	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean [Southern]R,L	N/A :: TOO
2608	Organic Matter Conc, Particulate	OB	Clark	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 30%	1/day, 1/wk	20 km :: Ocean	N/A :: TOO
3664	Organic Matter Conc, Particulate	OB	Clark	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 30%	1/day, 1/wk	1 km :: Ocean-I/L	N/A :: TOO
3662	Organic Matter Degradation_Product Absorption Coef@415nm (DOM+Detritus)	OB	Carder	MODIS	AM,PM	GSFC	AL	/m	40% :: 15%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3663	Organic Matter Degradation_Product Absorption Coef@415nm (DOM+Detritus)	OB	Carder	MODIS	AM,PM	GSFC	AL	/m	40% :: 15%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
3317	*Organic Matter Fluorescence Efficiency, Colored Dissolved [CDOM*	OB	Hoge	MODIS	AM,PM	GSFC	AL	dimensionless	100% :: 50%	1 day,wk,mo	20 km :: Ocean/GR	N/A :: TOO
3318	*Organic Matter Fluorescence Efficiency, Colored Dissolved [CDOM*	OB	Hoge	MODIS	AM,PM	GSFC	AL	dimensionless	100% :: 50%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
2330	PAR	AR	Esaias	MODIS	AM,PM	GSFC	PL	quanta/m^2/s	TBD :: TBD	1/day	N/A :: G	N/A :: Atmos
2029	PAR, Absorbed, Non-vegetative,	AR	Ustin, Wessman	HIRIS	AM2	EDC	AL	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2030	PAR, Absorbed, Vegetative, (APAR)	AR	Ustin, Wessman	HIRIS	AM2	EDC	AL	W/m^2	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2268	PAR, Incident, (IPAR)	AR	Tanre	MODIS	AM,PM	EDC	PL	MJ/m^2	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
2266	PAR, Sfc (IPAR)	AR	Gordon	MODIS	AM,PM	GSFC	AL	quanta/m^2/s	10% :: 5%	1/day [d]	1 km :: Ocean/L	N/A :: Sfc
2267	PAR, Sfc (IPAR)	AR	Gordon	MODIS	AM,PM	GSFC	AL	quanta/m^2/s	10% :: 5%	1/day [d]	1 km :: Ocean	N/A :: Sfc
3216	Particulate Backscatter Coef	OR	Parslow	MODIS	AM,PM	GSFC	PL	/m	:: 30%	1/day	1 km :: Ocean	N/A :: TOO
3217	Particulate Backscatter Coef	OR	Parslow	MODIS	AM,PM	GSFC	PL	/m	:: 30%	1/day	20 km :: Ocean	N/A :: TOO
1514	PBL Height	AD	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
3671	Photogrammetric Camera Model	IC	Muller	MODIS	AM,PM	GSFC	BL				N/A :: N/A	N/A :: N/A
2555	Phytoplankton Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	soft, med, hard		1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
2558	Phytoplankton Backscatter Coef	OR	Gordon	MODIS	AM,PM	GSFC	PL	soft, med, hard		1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3316	Phytoplankton Type	OB	Davis, Melack	HIRIS	AM2	EDC		mg/m^3	100% :: 50%	(>=2)/day	60-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
2591	Pigment Conc	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
2592	Pigment Conc	OB	Gordon, Clark	MODIS	AM,PM	GSFC	AL	mg/m^3	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
2593	Pigment Conc [via Spectral Curv]	OB	Hoge, Esaias	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
2594	Pigment Conc [via Spectral Curv]	OB	Hoge, Esaias	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1/day, 1/wk	20 km :: Ocean/R	N/A :: TOO
3072	Pigment Conc, Accessory	OB	Davis, Melack	HIRIS	AM2	EDC	AL	mg/m^3	100% :: 50%	1/(>=2 day)	60-90 m :: Ocean-I/L	N/A :: TOO
3319	Pigment Conc, Phycobillin [Phycoerythrin, etc.]	OB	Hoge	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1 day,wk,mo	20 km :: Ocean/GR	N/A :: TOO
3320	Pigment Conc, Phycobillin [Phycoerythrin, etc.]	OB	Hoge	MODIS	AM,PM	GSFC	PL	mg/m^3	50% :: 15%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
2588	Pigment Conc, Phytoplankton	OB	Diner	MISR	AM	LaRC	PL	mg/m^3	30% :: 30%	1/(1-2 day) [d]	240 m :: Ocean/R	N/A :: TOO
2589	Pigment Conc, Phytoplankton	OB	Diner	MISR	AM	LaRC	AL	mg/m^3	30% :: 30%	1/(1-2 day) [d]	1.92 km :: Ocean/G,R	N/A :: TOO
3681	Pigment Conc, Phytoplankton	OB	Diner	MISR	AM	LaRC	AL	mg/m^3	30% :: 30%	9,16 day; mo; seas; yr	1.92 km ? :: Ocean/G,R	N/A :: TOO
1869	*Precipitable Water*	AH	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	AL	mm	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
1872	Precipitable Water	AH	Goetz	HIRIS	AM2	EDC	AL	cm	10% :: 3%	1/(1-3 min), 1(2-16 day)	30 m :: L	Column :: Atmos
1873	Precipitable Water	AH	Goetz	HIRIS	AM2	EDC	AL	cm	10% :: 3%	1/(1-3 min), 1/(2-16 day)	30 m :: L	Column :: Trop
3597	*Precipitable Water*	AH	TBD	MIMR	PM	MSFC	AL	g/km^3	0.16 cm ::	1 mo	1 dg :: Ocean	Column :: Trop
3596	Precipitable Water	AH	TBD	MIMR	PM	MSFC	AL	g/km^3			22 km :: Ocean	Column :: Trop
1874	Precipitable Water	AH	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless ?	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3321	Precipitable Water	AH	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless ?	12% :: 8%	1 day, mo	1 km :: Land	N/A :: Atmos
3322	Precipitable Water	AH	Kaufman, Tanre	MODIS	AM,PM	GSFC	AL	dimensionless ?	5% :: 3%	1 day, mo	1 dg :: Land	N/A :: Atmos
1875	Precipitable Water	AH	Menzel	MODIS	AM,PM	GSFC	AL	mm	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
3693	*Precipitable Water, Microwave [see also 1869]*	AH	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	AL	mm	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
1969	Precipitation Index	AH	Susskind	AIRS	PM	GSFC	PL	mm	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
3601	*Precipitation Index*	AH	TBD	MIMR	PM	MSFC	AL			1 mo	1 dg :: Global	N/A :: Sfc
3694	Precipitation Index, Microwave [see also 1969]	AH	Staelin	AIRS[AMSU-A, MHS]	PM	GSFC	PL	mm	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
3600	Precipitation Rate	AH	TBD	MIMR	PM	MSFC	AL	mm/hr?			22 km :: Global	N/A :: Sfc
1524	Pressure	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	mb	0.1% :: 0.1%	2/day [d,n]	4 x 4 dg :: G	0.2 km :: 7-80 km
1525	Pressure	AD	Waters	MLS	MO	GSFC	AL	mb	:: 1%(30-50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
1526	Pressure	AD	Russell	SAFIRE	MO	GSFC	AL	mb	:: <2% (16-70 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
1301	*Pressure*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3	2% :: 2%	1/(2 min), 30/day (Lun.)	<2 x <1 dg :: G	1 km :: 6-55 km
1302	*Pressure*	AC	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	/cm^3	2% :: 2%	1/(2 min), 30/day (Sol.)	<2 x <1 dg :: G	1 km :: 6-70 km
3654	Radiance Error, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3646	Radiance, At-Satellite, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3683	Radiance, Cloud Cleared, Level-2	AR	Chedin, McMillin, Rizzi, Smith, Susskind	AIRS	PM	GSFC	AL					
3650	Radiance, Lunar Reference, MODIS Level-1	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3649	Radiance, Solar Diffuser, MODIS Level-	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
2144	*Radiative Flux Divergence, Clear-sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
2145	*Radiative Flux Divergence, Clear-sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	10% :: 5%	6/day [d,n]	1.25 dg :: G	lyr :: Atmos
2146	*Radiative Flux Divergence, Clear-sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	10% :: 5%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
2147	*Radiative Flux Divergence, Cloudy_sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	25% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
2148	*Radiative Flux Divergence, Cloudy_sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
2149	*Radiative Flux Divergence, Cloudy_sky*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2/km	50% :: 10%	6/day [d,n]	1.25 dg :: G	lyr :: Atmos
2209	*Radiative Flux, LW Spectral*	AR	Gautier ??, Susskind	AIRS	PM	GSFC	PL	W/m^2	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Land	N/A :: Sfc
2210	*Radiative Flux, LW Spectral*	AR	Gautier ??, Susskind	AIRS	PM	GSFC	PL	W/m^2	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
2168	*Radiative Flux, LW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2169	*Radiative Flux, LW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2170	*Radiative Flux, LW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2176	Radiative Flux, LW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
2177	Radiative Flux, LW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
2180	*Radiative Flux, LW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2181	*Radiative Flux, LW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2182	*Radiative Flux, LW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2200	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	3 W/m^2 :: 1 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
2201	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: <7 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
2202	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: <7 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2203	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: <5 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2204	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
2205	*Radiative Flux, LW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	5 W/m^2 :: 2 W/m^2	6/day [d,n]	25 km :: G	N/A :: TOA
3687	Radiative Flux, LW, Up (OLR)	AR	Chedin, Revercomb, Susskind	AIRS	PM	GSFC	PL	W/m^2	5 - TBD :: 3 - TBD	2/day [d,n]	50 km :: G	N/A :: TOA

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2221	*Radiative Flux, SW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2222	*Radiative Flux, SW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2223	*Radiative Flux, SW, Down*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2232	Radiative Flux, SW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
2233	Radiative Flux, SW, Net	AR	Gautier	AIRS	PM	GSFC	PL	W/m^2	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
2229	*Radiative Flux, SW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: Sfc
2230	*Radiative Flux, SW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2231	*Radiative Flux, SW, Net*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2246	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	12 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: TOA
2247	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2248	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
2249	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	12 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
2250	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
2251	*Radiative Flux, SW, Up*	AR	Barkstrom	CERES	TRM,AM,PM	LaRC	AL	W/m^2	7 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
3655	Reflectance Error, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3644	*Reflectance, Bi-directional (BRDF)*	AR	Travis	EOSP	AERO,AM2	LaRC	AL		5% ::	2 day [d]	10 km :: G	NA :: Cloud, Sfc
3647	Reflectance, Exoatmospheric, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3653	Reflectance, Lunar, MODIS Level-2	IC	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
3610	*Sea_Ice Age*	OH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Ocean/Cryo	:: Sfc
3609	Sea_Ice Age	OH	TBD	MIMR	PM	NSIDC	AL				22 km :: Ocean/Cryo	:: Sfc
3624	Sea_Ice Albedo	OR	Welch	ASTER	AM1	EDC	AL				90 m :: Ocean/Cryo	N/A :: Sfc
3630	Sea_Ice Area	OH	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3612	*Sea_Ice Conc*	OH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Ocean/Cryo	N/A :: Sfc
3611	Sea_Ice Conc	OH	TBD	MIMR	PM	NSIDC	AL				22 km :: Ocean/Cryo	N/A :: Sfc
3151	*Sea_Ice Cover*	OH	Chedin, Staelin	AIRS	PM	GSFC	PL	fraction	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
3614	*Sea_Ice Extent*	OH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Ocean/Cryo	N/A :: Sfc
3613	Sea_Ice Extent	OH	TBD	MIMR	PM	NSIDC	AL				22 km :: Ocean/Cryo	N/A :: Sfc
3152	Sea_Ice Fraction	OH	Welch	ASTER	AM1	EDC	AL	fractional area			90 m :: Ocean/Cryo	N/A :: Sfc
3618	Sea_Ice Fraction, New (First-Year)	OH	Welch	ASTER	AM1	EDC	AL	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3622	Sea_Ice Lead (Open Water) Size-distribution	OH	Welch	ASTER	AM1	EDC	AL				90 m :: Ocean/Cryo	N/A :: Sfc
3617	Sea_Ice Lead (Open-Water) Fraction	OH	Welch	ASTER	AM1	EDC	AL	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3153	Sea_Ice Max Extent	OH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
3154	Sea_Ice Max Extent	OH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk, 1/mo	1 km :: Ocean/Cryo,R	N/A :: Sfc
3616	Sea_Ice Meltpond Fraction	OH	Welch	ASTER	AM1	EDC	AL	dimensionless			90 m :: Ocean/Cryo	N/A :: Sfc
3621	Sea_Ice Size-distribution	OH	Welch	ASTER	AM1	EDC	AL				90 m :: Ocean/Cryo	N/A :: Sfc
3619	Sea_Ice Temperature	OH	Welch	ASTER	AM1	EDC	AL	K			90 m :: Ocean/Cryo	N/A :: Sfc
3623	Sea_Ice Thickness	OH	Welch	ASTER	AM1	EDC	AL	m			90 m-1 km :: Ocean/Cryo	N/A :: Sfc
3112	*Sea_Level Height, Along-track*	OD	Fu	ALT	ALT	JPL	AL	cm	10 cm ::		7 km :: Ocean	N/A :: Sfc
3635	Sea_sfc Temperature (SST)	OD	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
3620	Sea_sfc Temperature (SST)	OD	Welch	ASTER	AM1	EDC	AL	K			90 m :: Ocean/Cryo	N/A :: Sfc
3604	*Sea_sfc Temperature (SST)*	OR	TBD	MIMR	PM	MSFC	AL	K	1 K ::	1 mo	1 dg :: Ocean	N/A :: Sfc
3603	Sea_sfc Temperature (SST)	OR	TBD	MIMR	PM	MSFC	AL	K			60 km :: Ocean	N/A :: Sfc
2527	*Sea_sfc Temperature (SST)*	OR	Brown	MODIS	AM,PM	GSFC	AL	K	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
2528	Sea_sfc Temperature (SST)	OR	Brown	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2529	Sea_sfc Temperature (SST)	OR	Brown	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2530	Sea_sfc Temperature (SST)	OR	Brown, Barton	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
2531	Sea_sfc Temperature (SST)	OR	Brown, Barton	MODIS	AM,PM	GSFC	AL	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2532	Sea_sfc Temperature (SST)	OR	Brown, Barton	MODIS	AM,PM	GSFC	AL	K	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
2523	*Sea_sfc Temperature (SST), Skin*	OR	Chedin, Fleming, Revercomb, Smith, Susskind	AIRS	PM	GSFC	PL	K	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
3672	Simulated Data Sets, MODIS	IC	Muller	MODIS	AM,PM	GSFC	BL				0.25-1 km :: L(test sites)	N/A :: Sfc
3673	Simulated Scenes, MODIS, Monte Carlo Ray-Tracing	IC	Muller	MODIS	AM,PM	GSFC	BL				0.25-1 km :: L(test sites)	N/A :: Sfc
3634	Snow Area	LH	Tsu	ASTER	AM1	EDC	TBD		TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
2768	Snow Contaminant Conc	LC	Dozier	HIRIS	AM2	NSIDC	AL	mg/m^3	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
3019	Snow Cover	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
3608	*Snow Cover*	LH	TBD	MIMR	PM	NSIDC	AL			1 mo	1 dg :: Land	N/A :: Sfc
3607	Snow Cover	LH	TBD	MIMR	PM	NSIDC	AL				22 km :: Land	N/A :: Sfc
3020	Snow Cover	LH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
3021	Snow Cover	LH	Salomonson	MODIS	AM,PM	NSIDC	AL	km^2	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
3018	*Snow Cover Index [combined with 2921]*	LH	Staelin	AIRS	PM	GSFC	PL	dimensionless		2/day [d,n]	50 km :: Land	N/A :: Sfc
3025	Snow Cover, Cold	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
3029	Snow Cover, Wet	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
3030	Snow Cover, Wet	LH	Dozier	HIRIS	AM2	NSIDC	AL	km^2	10% :: 10%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
3038	Snow Grain Size	LH	Dozier	HIRIS	AM2	NSIDC	AL	um	200% :: 200%	1/wk, 1/mo	50 [km?] :: Snow/L	N/A :: Sfc
2943	Snow Liq-water Content	LH	Dozier	HIRIS	AM2	NSIDC	AL	mass fraction	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
2440	Snow Reflectance, Spectral	LR	Dozier	HIRIS	AM2	NSIDC	AL	dimensionless	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
1369	SO2 Conc	AC	Waters	MLS	MO	GSFC	AL	mix ratio	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
1370	*SO2 Conc*	AC	Beer	TES	CHEM	LaRC	AL	ppt	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
2047	Soil Brightness Index	LR	Huete	MODIS	AM,PM	EDC	AL	dimensionless	5% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
2095	Soil Color Index	LR	Huete	MODIS	AM,PM	EDC	PL	class	10% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
2801	Soil Index	LC	Gillespie	ASTER	AM1	EDC	AL	dimensionless		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
2803	Soil Maps, Level-4 [Class,Comp,Age,etc.]	LC	Kahle, Gillespie	ASTER	AM1	EDC	PL	varies		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
3606	*Soil Moisture*	LH	TBD	MIMR	PM	MSFC	AL			1 mo	1 dg :: Land	N/A :: Sfc
3605	Soil Moisture	LH	TBD	MIMR	PM	MSFC	AL				60 km :: Land	N/A :: Sfc
3640	*Spectra, UV Stellar Comparison [0.1 nm res.?]*	AR	Rottman	SOLSTICE	MO	GSFC	AL	photons/cm^2/s/nm	<5% :: <1%		N/A :: N/A	N/A :: NA
1559	Stability (Lifted Index), Atmospheric	AD	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	2/day	5 km :: G	N/A :: Atmos
1560	Stability (Lifted Index), Atmospheric	AD	Menzel	MODIS	AM,PM	GSFC	AL	C	2 C :: 1 C	2/day, 1/mo	0.5 dg :: G	N/A :: Atmos
1562	Stratopause Height	AD	Smith	AIRS	PM	GSFC	PL	km	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Mid-atmos
3315	Suspended-Solids Conc, Ocean Water	OB,OC	Carder, Melack	HIRIS	AM2	EDC		mg/m^3	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
3085	Suspended-Solids Conc, Ocean Water	OC	Clark	MODIS	AM,PM	GSFC	AL	g/m^3	50% :: 35%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
3086	Suspended-Solids Conc, Ocean Water	OC	Clark	MODIS	AM,PM	GSFC	AL	g/m^3	50% :: 35%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
1588	*Temperature Profile*	AD	Chedin, Fleming, Smith, Susskind	AIRS	PM	GSFC	AL	K	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
1605	*Temperature Profile*	AD	Melbourne	GGI	ALT	JPL	AL	K	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
1606	Temperature Profile	AD	Melbourne	GGI	ALT	JPL	AL	K	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 2-5/50-60 km

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1608	Temperature Profile	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	K	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1609	Temperature Profile	AD	Waters	MLS	MO	GSFC	AL	K	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
1610	Temperature Profile	AD	Russell	SAFIRE	MO	GSFC	AL	K	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
1611	*Temperature Profile*	AD	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	K	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
1612	*Temperature Profile*	AD	McCormick	SAGE-III	AERO,CHEM	LaRC	AL	K	2 K :: 2 K	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-70 km
1614	Temperature Profile	AD	Beer	TES	CHEM	LaRC	AL	K	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
1615	Temperature Profile	AD	Beer	TES	CHEM	LaRC	AL	K	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
1616	Temperature Profile	AD	Beer	TES	CHEM	LaRC	AL	K	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
3691	Temperature Profile, Microwave [see also 1588]	AD	Rosenkranz	AIRS[AMSU-A, MHS]	PM	GSFC	AL	K	2-4 K :: 2-4 K	2/day [d,n]	50 km :: G	1 km :: Atmos
3658	Texture, MODIS Level-2	IU	Salomonson, Barker	MODIS	AM,PM	GSFC	AL					
3659	Texture, MODIS Level-3	IU	Salomonson, Barker	MODIS	AM,PM	GSFC	PL					
2846	*Topographic Elevation, Land_sfc*	LD	Diner	MISR	AM	LaRC	PL	m	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
2828	Topographic Elevation, Land_sfc,	LD	Kahle, Tsu	ASTER	AM1	EDC	AL	m	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
2831	*Topographic Elevation-Change Rate, Land_sfc*	LD	Cohen, Schutz et al	GLRS-A	ALT	GSFC	AL	mm/day -mm/yr	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
3108	*Topographic Elevaton, Sea_sfc*	OD	Fu	ALT	ALT	JPL	AL	cm	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
3688	Tropopause Height	AD	Smith, Susskind	AIRS	PM	GSFC	PL	km	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Atmos
1643	Tropopause Height, Aerosol_located	AD	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	300 m ::	1/(2-16 day)	200 km :: G	300 m :: Trop
1644	Tropopause Height, Cirrus_located	AD	Spinhirne et al	GLRS-A	ALT	GSFC	AL	m	300 m ::	1/(2-16 day)	10 km :: G	300 m :: Trop
2614	Vegetation Biomass, Dead	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2620	Vegetation Biomass, Green	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	kg/ha	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2648	Vegetation Cellulose Conc	LB	Wessman, Aber	HIRIS	AM2	EDC	AL	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2653	Vegetation Chlorophyll Conc	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	g/ha	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2741	Vegetation Cover	LB	Ustin, Wessman	HIRIS	AM2	EDC	AL	%	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2656	Vegetation Crown Height	LB	Ustin	HIRIS	AM2	EDC	AL	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2657	Vegetation Crown Spacing	LB	Ustin	HIRIS	AM2	EDC	AL	m	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
1791	Vegetation Evapotranspiration (ET)	AH	Schmugge	ASTER	AM1	EDC	AL	mm/day	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
2659	Vegetation Growing_Season Duration	LB	Justice	MODIS	AM,PM	EDC	PL	day	10 day ::	1/yr	1 km :: Land	N/A :: Sfc
2660	Vegetation Growing_Season Duration	LB	Justice	MODIS	AM,PM	EDC	PL	day	10 day ::	1/yr	10 km :: Land	N/A :: Sfc
2746	Vegetation Index	LB	Ustin et al	HIRIS	AM2	EDC	AL	dimensionless	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2749	*Vegetation Index*	LB	Justice, Huete et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
2750	*Vegetation Index*	LB	Justice, Huete et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	0.5 km :: Land/R	N/A :: Sfc
2751	*Vegetation Index*	LB	Justice, Huete et al	MODIS	AM,PM	EDC	AL	dimensionless	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
2747	Vegetation Index (PVI)	LB	Gillespie	ASTER	AM1	EDC	PL	dimensionless			15 m :: Land/R,L	N/A :: Sfc
3703	Vegetation Index Temporal Signal	LB	Huete, Justice	MODIS	AM,PM	EDC	PL	dimensionless	0.02 :: 0.01	1/yr (weekly points)	1 km :: Land/R	N/A :: Sfc
3704	Vegetation Index [Self_Atmospheric-Correcting, TOA]	LB	Huete, Justice, Kaufman, Tanre	MODIS	AM,PM	EDC	AL	dimensionless	0.02 :: 0.01	1/day	1 km :: Land/R	N/A :: TOA
3701	Vegetation Index, Composited, Sfc	LB	Huete, Justice	MODIS	AM,PM	EDC	AL	dimensionless	0.02 :: 0.01	1/wk	1 km :: Land/R	N/A :: Sfc
3700	Vegetation Index, Hemispherical, Sfc	LB	Huete, Justice	MODIS	AM,PM	EDC	PL	dimensionless	0.02 :: 0.01	1 wk, 1 mo	1 km :: Land/R	N/A :: Sfc
3702	Vegetation Index, Integrated Annual	LB	Huete, Justice	MODIS	AM,PM	EDC	PL	dimensionless	0.02 :: 0.01	1/yr	1 km :: Land/R	N/A :: Sfc
2680	*Vegetation Index, Leaf Area, (LAI)*	LB	Running	MODIS	AM,PM	EDC	PL	dimensionless	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
2756	Vegetation Index, Normalized	LB	Diner	MISR	AM	LaRC	AL	dimensionless	2% :: 2%	1/(5-16 day) [d]	1.92 km :: Land	N/A :: Sfc
2757	Vegetation Index, Normalized	LB	Diner	MISR	AM	LaRC	PL	dimensionless	2% :: 2%	1/(5-16 day) [d]	240 m :: Land/R	N/A :: Sfc
3682	Vegetation Index, Normalized	LB	Diner	MISR	AM	LaRC	AL	dimensionless	2% :: 2%	9,16 day; mo; seas; yr	1.92 km ? :: Land	N/A :: Sfc

Appendix F: Output Data Products Listed by Product Name

Prod #	Product Name	Cat	Investigator	Instrument	Platform	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2337	*Vegetation Index, Polarization*	LB	Vanderbilt	MODIS	AM,PM	EDC	PL	dimensionless		1/day	pixel_size :: Land	N/A :: Sfc
3699	Vegetation Index-Directional Reflectances, Atmosphere-Corrected [O3 & molecular scattering]	LB	Huete, Justice	MODIS	AM,PM	EDC	AL	dimensionless	0.02 :: 0.01 [if low aerosols]	1/day	500 m :: Land/R	N/A :: TOA
2761	Vegetation Leaf-tissue Water Content	LB	Wessman, Goetz	HIRIS	AM2	EDC	AL	g/cm^3	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2687	Vegetation Lignin Conc	LB	Wessman, Aber	HIRIS	AM2	EDC	AL	g/ha	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
2703	*Vegetation Productivity, Primary*	LB	Running	MODIS	AM,PM	EDC	PL	Mg/km^2/yr	100 :: 5-30%	1/wk, 1/mo, 1/yr	1 km :: Land/G,R	N/A :: N/A
2723	Vegetation Stress	LB	Runnng, Huete	MODIS	AM,PM	EDC	PL	s/m	200-1000 :: 5-30%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
2644	Vegetation Type	LB	Wessman	HIRIS	AM2	EDC	AL	ha	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
3298	Volcano Age	VO	Pieri, Kahle	ASTER	AM1	EDC	AL	KA	variable :: variable		15,30,90 m :: Land/R,L	N/A ::
3271	*Volcano Deformation(Inflation-Deflation)*	VO	Schutz et al	GLRS-A	ALT	GSFC	AL	mm/day - mm/yr	5/yr-100/d ::	1/day, 1/yr	1 km :: Land/L	:: Sfc
3270	Volcano Deformation(Inflation-Deflation)	VO	Schutz et al	GLRS-A	ALT	GSFC	AL	mm/day - mm/yr	5 mm/yr ::	1/day, 1/yr	100 km :: Land/R	:: Sfc
3299	Volcano-Activity Extent	VO	Rowan, Goetz	HIRIS	AM2	EDC	AL	m^2		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
3294	Volcano-Activity Temperature	VO	Rowan, Goetz	HIRIS	AM2	EDC	AL	C	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
1734	Wind Speed	AD	Waters	MLS	MO	GSFC	AL	m/s	:: 10m/s	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 60-110 km
1735	*Wind Speed, Along-track*	AD	Fu	ALT	ALT	JPL	AL	m/s	2 m/s ::		7 km :: Ocean	N/A :: Sfc
1718	Wind Speed, Sea_sfc	AD	Aumann	AIRS	PM	GSFC	PL	m/s		1/day	50 km :: Ocean	N/A :: Sfc
1746	Wind Stress	AD	Freilich	STIKSCAT	CHEM	JPL	AL				:: Ocean	:: Sfc
3595	*Wind Stress, Sea_sfc*	AD	TBD	MIMR	PM	MSFC	AL	m/s		1 mo	1 dg :: Ocean	N/A :: Sfc
3594	Wind Stress, Sea_sfc	AD	TBD	MIMR	PM	MSFC	AL	m/s			39 km :: Ocean	N/A :: Sfc
1687	Wind Velocity, Geostrophic	AD	Barnett, Gille	HIRDLS	CHEM	GSFC	AL	m/s	3 m/s :: 3 m/s	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
1680	*Wind Velocity, Sea_sfc*	AD	Freilich	STIKSCAT	CHEM	JPL	AL	m/s,dg	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
1679	Wind Velocity, Sea_sfc	AD	Freilich	STIKSCAT	CHEM	JPL	AL	m/s,dg	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
1688	Wind Velocity, Sea_sfc Glint-Pattern	OR	Gordon	MODIS	AM,PM	GSFC	PL	m/s		1/orbit [d]	1 km :: Ocean/R	N/A :: Sfc

Instrument Team Input Requirements

Appendix G

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

"blanks" indicate EOS data products

Appendix G: Instrument Team Input Requirements

Instrument Team	*Input Product Name*	*Prod #*	*Input Type*	*Time frame*	*Source Instrument*	*Platform / Experiment*	*Source DAAC or Institution*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*	*Non-EOS*	*Comments*
CERES	Aerosol Extinction Coef	1012	A	AL	SAGE-III	AERO,CHEM	LaRC	0.05 :: 0.05	1/mo	5 dg :: G	N/A :: Strat		
	Aerosol Optical Depth	2297	A	AL	EOSP	AERO,AM2	LaRC	0.10 :: 0.10	1/day [d,n]	1.25 dg :: G	3 km :: Strat		
	Aerosol Optical Depth, Spectral	2294	A	AL	MODIS	AM,PM	GSFC	0.10 :: 0.10	1/day [d,n]	1.25 dg :: G	3 km :: Trop		
	Aerosol Optical Depth, Spectral	2293	A	AL	MODIS	AM,PM	GSFC	0.10 :: 0.10	1/day [d,n]	1.25 dg :: G	3 km :: Trop		
	Albedo, Aerosol	2003	A	PL	MODIS	AM,PM	GSFC		1/day [d,n]	1.25 dg :: G	3 km :: Trop		
	CH4 Conc	1085	A	AL	HIRDLS	CHEM	GSFC		1/seas				
	Cloud Liq_water Total Column	3598	A	AL	MIMR	PM1	MSFC	10% :: 10%	2/day [d,n]	12 km :: Ocean	N/A :: Atmos		
	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						
	Land_sfc Emissivity	2111	A	PL	MODIS	AM,PM	EDC	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc		
	Land_sfc Emissivity, Spectral	2113	A	PL	AIRS	PM	GSFC	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc		
	Land_sfc Temperature	2485	A	AL	MODIS	AM,PM	EDC	1.0 K :: 0.5 K	4/day [d,n]	1.25 dg :: Land	N/A :: Sfc		
	aerosol optical depth	350	D	BL	AVHRR	NOAA	NESDIS	0.20 :: 0.20	1/wk [d,n]	1.25 dg :: Ocean	N/A :: Atmos	X	
	cloud liquid water path	351	D	BL	MSU	NOAA	NESDIS		2/day[d,n], 7 mo	150 km :: G	N/A :: Atmos	X	Full res. 10 channels: 1,6,7,20,29,31-35

Input Data Product Use:

A.....Ancillary
C.....Correlative
D.....Algorithm Development
R.....Specialized Research

Time-frame when products are required:

BL....Before-Launch
AL.....At-Launch
PL.....Post-Launch

Source Data Center for specified input requirement

Non-EOS products labeled "X" are expected to be provided by EOSDIS. Those labeled "Y" are to be provided by the instrument investigators themselves.

Legend for Appendix G: Instrument Team Input Requirements

NOTE:

Except for CERES and MODIS, instrument team input data requirements have not been provided in as full detail as information on instrument output data products, especially when non-EOS data is involved. This table does display the full set of product attribute fields in order to conveniently list the CERES and MODIS team requirements; however, such detailed information is lacking for most instrument teams. Also in many cases the input data requirements are not fully specified, e.g. "meteorological data". For this reason, these product names have not been fully integrated into the standard product naming conventions for EOS products.

Appendix G: Instrument Team Input Requirements

Instrument Team	Input Product Name	Input #	Input Type	Time Frame	Source Instrument	Source Platform / Experiment	Source DAAC or Institution	Accuracy	Temporal Res	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.	Non-EOS	Comments
AIRS	Atmospheric Temperature (not a proposed output product for MIMR)	9003	A		MIMR	PM1	MSFC						Selected sets
	Cloud Cover	2086	R	AL	CERES	TRM,AM,PM	LaRC						Selected sets
	Cloud Cover	2081	R	AL	MODIS	AM,PM	GSFC						Selected sets
	Cloud Height, Top	1429	R	AL	CERES	TRM,AM,PM	LaRC						Selected sets
	Cloud Pressure, Top	1531	R	AL	HIRDLS	CHEM	GSFC						Selected sets
	Cloud Pressure, Top	1530	R	AL	EOSP	AERO,AM2	LaRC						Selected sets
	Cloud Pressure, Top	1528	R	AL	MODIS	AM,PM	GSFC						Selected sets
	Cloud Temperature, Top	2467	R	AL	MODIS	AM,PM	GSFC						Selected sets
	H2O Conc	1837	R	AL	HIRDLS	CHEM	GSFC						Selected sets
	Land_sfc Temperature	2485	R	AL	MODIS	AM,PM	EDC						Selected sets
	Land_sfc Temperature (not a proposed output product for MIMR)	9004	A		MIMR	PM1	MSFC						Selected sets
	Level-1B Radiance, CERES	2359	C	AL	CERES	TRM,AM,PM	LaRC						Selected sets
	Level-1B Radiance, EOSP	2362	C	AL	EOSP	AERO,AM2	LaRC						Selected sets
	Level-1B Radiance, MODIS<3um	2392	C	AL	MODIS	AM,PM	GSFC						Selected sets
	Level-1B Radiance, MODIS<3um	2339	C	AL	MODIS	AM,PM	GSFC						Selected sets
	Level-1B Radiance, MODIS<3um	2338	C	AL	MODIS	AM,PM	GSFC						Selected sets
	Level-1B Radiance, MODIS>3um	2340	C	AL	MODIS	AM,PM	GSFC						Selected sets
	Precipitable Water	1875	R	AL	MODIS	AM,PM	GSFC						Selected sets
	Sea_sfc Temperature (SST)	3603	R	AL	MIMR	PM1	MSFC						Selected sets
	Sea_sfc Temperature (SST)	2527	R	AL	MODIS	AM,PM	GSFC						Selected sets
	Temperature Profile	1608	R	AL	HIRDLS	CHEM	GSFC						Selected sets
	O3 data	338	A		GOMR	NOAA						X	
	O3 total column	551	A		TOVS	NOAA						X	
	column water vapor	745	C	BL, PL		in situ (radiosonde)	NCDC					X	For quality assurance
	digital elevation model	340	A			in situ	CIA			0.5 x 0.5 km ::		X	
	geophysical data	47	A	BL		in situ (ship)	NCDC					X	
	humidity profiles	749	C	BL		in situ (radiosonde)	NMC					X	
	humidity profiles	744	C	BL, PL		in situ (radiosonde)	NCDC					X	
	land_ice cover	337	A			in situ						X	
	radiance	248	A	BL	AMSU	NOAA-11	NESDIS					X	
	radiance	167	A		HIRS	NOAA	NESDIS	SW5%,LW.2K :: SW1%,LW.2K	2/day [d,n]	15 km :: R	N/A :: Atmos	X	
	radiance	120	A	BL	MSU	NOAA	NESDIS					X	
	radiance	56	A	BL	HIRS2	NOAA	NESDIS					X	
	snow cover	336	A			in situ						X	
	soil / terrain map	339	A			in situ						X	Best available
	sounding data	28	A	BL	TOVS	NOAA	NESDIS					X	
	temperature profiles	84	A	BL		in situ (radiosonde)	NMC					X	
	temperature profiles	46	A	BL, PL		in situ (radiosonde)	NCDC					X	
ALT	Geodetic EOS-platform Position	2862	A	AL	GGI	ALT	JPL						
	Precipitable Water	3597	A	AL	MIMR	PM1	MSFC						
	surface pressure	341	A			in situ	FNOC					X	
	tide gauge sea level values	87	A	BL		in situ	IERS					X	
ASTER	Aerosol Optical Depth	2298	A		MISR	AM	LaRC						Atmospheric correction
	Biomass, Above_sfc (not a proposed MISR product)	9010	C		MISR	AM	LaRC						Algorithm validation
	Brightness Temperature (at Sensor)	2452	A	AL	ASTER	AM1	EDC						
	CO2 Total Burden (Mixing Ratio)	1151	A	PL	AIRS	PM	GSFC						Atmospheric correction

Appendix G: Instrument Team Input Requirements

Instrument Team	Input Product Name	Input #	Input Type	Time Frame	Source Instrument	Source Platform / Experiment	Source DAAC or Institution	Accuracy	Temporal Res	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.	Non-EOS	Comments
ASTER	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						Atmospheric correction
	Level-1B Radiance, HIRIS	2370	A	AL	HIRIS	AM2	EDC						
	Level-1B Radiance, MISR	2386	A	AL	MISR	AM	LaRC						
	Level-1B Radiance, MODIS<3um	2392	A	AL	MODIS	AM,PM	GSFC						
	Level-1B Radiance, MODIS<3um	2339	A	AL	MODIS	AM,PM	GSFC						
	Level-1B Radiance, MODIS<3um	2338	A	AL	MODIS	AM,PM	GSFC						
	Level-1B Radiance, MODIS>3um	2340	A	AL	MODIS	AM,PM	GSFC						
	O2_Total Column (pressure profile from O2 spectra determined by MLS)	9007	A		MLS	MO	GSFC						Atmospheric correction
	O3 Total Burden	1333	A	AL	MODIS	AM,PM	GSFC						Atmospheric correction
	O3 Total Burden	1332	A	PL	AIRS	PM	GSFC						Atmospheric correction
	Precipitable Water	1869	A	AL	AIRS	PM	GSFC						Atmospheric correction
	Temperature Profile	1588	A	AL	AIRS	PM	GSFC						Atmospheric correction
	O2 profile (atmospheric pressure)	342	A			TBD	NMC					X	Atmospheric correction
	calibration data for ASTER	183	A		spectrometer	in situ (helicopter)	NASA					X	
	calibration data for ASTER	182	A		SWIR	in situ	NASA					X	
	cloud data	109	C		VISSR	GOES	NESDIS					X	Algorithm validation
	digital elevation model	113	C	BL, AL		SPOT	CNES					X	Best available supplemented by ASTER at launch
	emissivity data	181	C			in situ	TBD					X	
	evapotranspiration	713	C	BL	AMRIR ?	NOAA	NOAA					X	
	geophysical data	94	D	BL	TIMS	in situ (aircraft)	Geology MAC					X	
	geophysical data	38	C	BL	SAR	in situ (aircraft)	JPL					X	
	geophysical data	17	C	BL		Meteosat	ESA					X	
	geophysical data	2	A	BL	AVIRIS	in situ (aircraft)	PLDS					X	
	global cloud climatology scenes	179	C			Japansat	NASDA?					X	
	global cloud climatology scenes	178	C			JAS	NASDA?					X	
	precision control point Chip files	343	A			in situ						X	ground registration
	radiance	165	C	AL	AVHRR-LAC	NOAA	NESDIS					X	
	radiance based calibration	177	A			ER-2						X	
	scene radiances	33	C	BL, AL,		SPOT	CNES					X	
	scene radiances	16	C	BL	TM	Landsat	EDC, EOSAT					X	
	snow cover	336	A			in situ						X	Algorithm validation
	sounding data	14	C	BL, PL	VAS	GOES	NESDIS					X	
CERES	Aerosol Extinction Coef	1012	A	AL	SAGE-III	AERO,CHEM	LaRC	0.05 :: 0.05	1/mo	5 dg :: G	N/A :: Strat		
	Aerosol Optical Depth	2297	A	AL	EOSP	AERO,AM2	LaRC	0.10 :: 0.10	1/day [d,n]	1.25 dg :: G	3 km :: Strat		
	Aerosol Optical Depth, Spectral	2294	A	AL	MODIS	AM,PM	GSFC	0.10 :: 0.10	1/day [d,n]	1.25 dg :: G	3 km :: Trop		
	Aerosol Optical Depth, Spectral	2293	A	AL	MODIS	AM,PM	GSFC	0.10 :: 0.10	1/day [d,n]	1.25 dg :: G	3 km :: Trop		
	Albedo, Aerosol	2003	A	PL	MODIS	AM,PM	GSFC		1/day [d,n]	1.25 dg :: G	3 km :: Trop		
	CH4 Conc	1085	A	AL	HIRDLS	CHEM	GSFC		1/seas				
	Cloud Liq_water Total Column	3598	A	AL	MIMR	PM1	MSFC	10% :: 10%	2/day [d,n]	12 km :: Ocean	N/A :: Atmos		
	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						
	Land_sfc Emissivity	2111	A	PL	MODIS	AM,PM	EDC	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc		
	Land_sfc Emissivity, Spectral	2113	A	PL	AIRS	PM	GSFC	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc		
	Land_sfc Temperature	2485	A	AL	MODIS	AM,PM	EDC	1.0 K :: 0.5 K	4/day [d,n]	1.25 dg :: Land	N/A :: Sfc		
	Land_sfc Temperature, Skin	2481	A	AL	AIRS	PM	GSFC	1.0 K :: 0.5 K	4/day [d,n]	1.25 dg :: Land	N/A :: Sfc		
	Level-1B Radiance, MODIS<3um	2392	A	AL	MODIS	AM,PM	GSFC	SW5%,LW.2K :: SW1%,LW.1K	2/day [d,n]	0.25 km :: G	N/A :: Atmos		Ch.1 subsampled 2x2 pixel sets, 1 set/4 km

Appendix G: Instrument Team Input Requirements

Instrument Team	Input Product Name	Input #	Input Type	Time Frame	Source Instrument	Source Platform / Experiment	Source DAAC or Institution	Accuracy	Temporal Res	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.	Non-EOS	Comments
CERES	Level-1B Radiance, MODIS<3um	2338	A	AL	MODIS	AM,PM	GSFC	SW5%,LW.2K :: SW1%,LW.1K	2/day [d,n]	0.5 km :: G	N/A :: Atmos		Ch.6,7: subsampled 2x2 pixel sets, 1 set/4 km. Ch.1 averaged to .5 km, subsampled as above.
	Level-1B Radiance, MODIS<3um	2339	A	AL	MODIS	AM,PM	GSFC	SW5%,LW.2K :: SW1%,LW.1K	2/day [d,n]	1 km :: G	N/A :: Atmos		Ch.6,7:averaged to 1 km, subsampled 2 x 2 pixel sets
	Level-1B Radiance, MODIS>3um	2340	A	AL	MODIS	AM,PM	GSFC	SW5%,LW.2K :: SW1%,LW.1K	2/day [d,n]	1 km :: G	N/A :: Atmos		Ch.20,29,31-35 subsampled 2x2 pixel sets, 1 set/4km.
	Level-1B Radiance, MODIS	2338 +	A	AL	MODIS	AM,PM	GSFC	SW5%,LW.2K :: SW1%,LW.1K	2/day [d,n]	0.25 -1.0 km :: R (30 regions)	N/A :: Atmos		Full res. 10 channels: 1, 6, 7, 20, 29, 31-35
	Level-2 Radiance, Water-leaving	2416	A	AL	MODIS	AM,PM	GSFC	5% :: 5%		:: Ocean			
	N2O Conc	1239	A	AL	HIRDLS	CHEM	GSFC						
	O3 Conc	1321	A	AL	SAGE-III	AERO,CHEM	LaRC		1/day [d,n]	1.25 dg :: G	6 km :: Atmos		
	O3 Conc	1318	A	AL	HIRDLS	CHEM	GSFC		1/day [d,n]	1.25 dg :: G	6 km :: Atmos		
	O3 Total Burden	1332	A	PL	AIRS	PM	GSFC						
	Precipitation Rate	3600	A	AL	MIMR	PM1	MSFC	50% ::25%	2/day [d,n]	22 km :: G	N/A :: Atmos		
	Sea_Ice Conc	3611	A	AL	MIMR	PM1	NSIDC	10% :: 5%	1/day	50 km :: Ocean/Cryo	N/A :: Sfc		
	Sea_sfc Temperature (SST)	2532	A	AL	MODIS	AM,PM	GSFC	1.0 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc		
	Snow Cover	3607	A	AL	MIMR	PM1	NSIDC	10% :: 5%	1/day	50 km :: Land	N/A :: Sfc		
	Temperature Profile	1588	A	AL	AIRS	PM	GSFC		2/day [d,n]				
	CO2 conc	365	D	AL			NESDIS	1% :: 1%	1/yr	:: G	N/A :: Atmos	X	
	O3 profiles	801	D	BL		INSAT, METEOSAT, NOA	NCDS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	O3 profiles	798	D	BL		GMS, GOES / ISCCP	GISS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	aerosol optical depth	350	D	BL	AVHRR	NOAA	NESDIS	0.20 :: 0.20	1/wk [d,n]	1.25 dg :: Ocean	N/A :: Atmos	X	
	cloud data	802	D	BL		INSAT, METEOSAT, NOA	NCDS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	cloud data	799	D	BL		GMS, GOES / ISCCP	GISS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	cloud data (TRMM)	369	D	AL		INSAT, METEOSAT, NOA	NCDS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	cloud data (TRMM)	368	D	AL		GMS, GOES / ISCCP	GISS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	cloud liquid water path	364	D	AL	TMI	TRMM	GSFC	10% :: 10%	2/day[d,n]	25 km :: G	N/A :: Atmos	X	
	cloud liquid water path	352	D	BL	SSM/I	DMSP	DMSP		2/day[d,n], 7 mo	2-5 dg :: Ocean	N/A :: Atmos	X	
	cloud liquid water path	351	D	BL	MSU	NOAA	NESDIS		2/day[d,n], 7 mo	150 km :: G	N/A :: Atmos	X	
	cloudiness properties	353	D	BL		model	NWP					X	
	geopotential	366	D	AL		in situ	NMC		4/day[d,n]	1.25 dg :: G	1 km :: Atmos	X	
	humidity (q) profiles	800	D	BL		INSAT, METEOSAT, NOA	NCDS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	humidity (q) profiles	797	D	BL		GMS, GOES / ISCCP	GISS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	humidity profile	367	A	AL		in situ	NMC	20% :: 10%	4/day[d,n]	1.25 dg :: G	2 km :: Atmos	X	
	land surface skin temperature	356	D	BL		in situ	NESDIS	1.0 K :: 0.5 K	4/day[d,n]	1.25 dg :: Land	N/A :: Sfc	X	
	land surface temperature, skin	370	D	AL	HIRS	ESA	NESDIS	1 K :: 0.5 K	4/day[d,n]	1.25 dg :: Land	N/A :: Sfc	X	
	land surface temperature, skin (TRMM)	371	D	AL	HIRS	NOAA	NESDIS	1 K :: 0.5 K	4/day[d,n]	1.25 dg :: Land	N/A :: Sfc	X	
	planetary boundary height	361	D	BL		model	NWP					X	
	precipitation rate	377	D	AL	TMI	TRMM	MSFC	50% :: 25%	2/day [d,n]	22 km :: G	N/A :: Atmos	X	
	precipitation rate	362	D	BL	SSM/I	NOAA	DMSP	50% :: 25%	2/day [d,n], 7 mo	150 km :: G	N/A :: Atmos	X	
	radiance	376	D	AL	VAS/VISSR	GOES	NESDIS	SW5%, LW.2K :: SW1%, LW0.2K	12/day[d,n]	4 km :: R [30 - 10x10dg region	N/A :: Atmos	X	
	radiance	375	D	AL	HIRS	NOAA / TRMM	NESDIS	LW.2K :: LW.1K	2/day[d,n]	17 km :: G	N/A :: Atmos	X	
	radiance	374	D	AL	HIRS	ESA	NESDIS	LW.2K :: LW.1K	2/day[d,n]	17 km :: G	N/A :: Atmos	X	
	radiance	373	D	AL	AVHRR-GAC	TRMM	GSFC	SW5%, LW.2K :: SW1%, LW0.1K	2/day[d,n]	2 km :: G	N/A :: Atmos	X	

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Instrument Team	*Input Product Name*	*Input #*	*Input Type*	*Time Frame*	*Source Instrument*	*Source Platform / Experiment*	*Source DAAC or Institution*	*Accuracy*	*Temporal Res*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*	*Non-EOS*	*Comments*
CERES	radiance	372	D	AL	AVHRR-LAC	ESA	NESDIS	SW5%, LW.2K :: SW1%, LW0.1K	2/day[d,n]	1 km :: G; subsampled 2x2 pix	N/A :: Atmos	X	
	radiance	360	D	BL	TM	Landsat	EOSAT	SW5%, LW.2K :: SW1%, LW0.1K	100 scenes	30 m :: R	N/A :: Atmos	X	
	radiance	359	D	BL	HIRS	NOAA	NESDIS	LW.2K :: LW.1K	2/day[d,n], 7 mo	17 km :: G	N/A :: Atmos	X	
	radiance: 5 channels	358	D	BL	AVHRR-GAC	NOAA	NESDIS	SW5%, LW.2K :: SW1%, LW0.1K	2/day[d,n], 7 sel. mo	4.0 km :: G	N/A :: Atmos	X	
	radiance: 5 channels	357	D	BL	AVHRR-LAC	NOAA	NESDIS	SW5%, LW.2K :: SW1%, LW0.1K	1/day [d,n], 1 yr	1 km :: Polar (65-90 dg, N/S)	N/A :: Atmos	X	
	sea surface temperature (SST)	846	D	BL	AVHRR	NOAA	NESDIS	1 K :: 0.5K	1/wk, 7 sel. mo	100 km :: Ocean	N/A :: Sfc	X	
	sea surface temperature (SST)	378	D	AL	AVHRR	TRMM	NESDIS	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc	X	
	temperature profile	379	A	AL		in situ	NMC	1 K :: 1 K	4/day[d,n]	1.25 dg :: G	1 km :: Atmos	X	
	temperature profile (TRMM)	380	D	AL		in situ	NMC	1 K :: 1 K	4/day[d,n]	1.25 dg :: G	1 km :: Atmos	X	
	temperature profiles	355	D	BL		INSAT, METEOSAT, NOA	NCDS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	temperature profiles	354	D	BL		GMS, GOES / ISCCP	GISS		8/day[d,n]	280 km :: G	3 km :: Atmos	X	
	topographic elevation	381	A	AL		in situ		200 m :: 200 m	1/mission	10 km :: Land	N/A :: Sfc	X	
	water vapor	363	D	BL		model	NWP					X	
	wind velocity	382	D	AL		in situ	NMC	5 m/s :: 2 m/s	4/day[d,n]	1.25 dg :: G	1 km :: Atmos	X	
EOSP	Aerosol Extinction Coef	1012	C	AL	SAGE-III	AERO,CHEM	LaRC						Standard product, not until 2002 CHEM platform
	Aerosol Optical Depth	2299	C	AL	MISR	AM	LaRC			15 km ::			Standard product
	Aerosol Optical Depth, Spectral	2293	C	AL	MODIS	AM,PM	GSFC			5 km ::			Standard product
	Aerosol Size-distribution	1993	C	AL	MISR	AM	LaRC			15 km ::			Standard product
	Cloud Cover	2086	C	AL	CERES	TRM,AM,PM	LaRC			25 km ::			Standard product
	Cloud Cover	2081	C	AL	MODIS	AM,PM	GSFC			0.5 km ::			Standard product
	Cloud Drop Phase	1767	C	AL	CERES	TRM,AM,PM	LaRC			25 km ::			Standard product
	Cloud Drop Phase	1763	C	AL	ASTER	AM1	EDC						Standard product
	Cloud Drop Size(Effective Radius)	1782	C	AL	CERES	TRM,AM,PM	LaRC			25 km ::			Standard product
	Cloud Drop Size(Effective Radius)	1780	C	AL	MODIS	AM,PM	GSFC			5 km ::			Standard product
	Cloud Height, Top	1427	C	AL	ASTER	AM1	EDC						Standard product
	Cloud Height, Top	1423	C	PL	AIRS	PM	GSFC			50 km ::			Standard AIRS product
	Cloud Optical Depth	2311	C	AL	MODIS	AM,PM	GSFC			5 km ::			Standard product
	Cloud Optical Depth	2310	C	AL	ASTER	AM1	EDC						Standard product
	Cloud Optical Depth, SW	2321	C	AL	CERES	TRM,AM,PM	LaRC			25 km ::			Standard product
	Level-1B Radiance, AIRS	2347	C	AL	AIRS[AIRS]	PM	GSFC			15 km ::			Selected channels
	Level-1B Radiance, MODIS<3um	2392	C	AL	MODIS	AM,PM	GSFC						Selected channels
	Temperature Profile	1588	C	AL	AIRS	PM	GSFC			50 km ::			Standard product
	digital elevation model (5 km resolution)	655	A	AL			EDC			5 km :: Land		X	Topography at 5 km resolution
GGI	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						
	Platform POD Data (not a proposed official EOS output product for ALT)	9008	A		ALT	ALT	JPL						
	Platform POD Data (not a proposed official EOS output product for GLRS	9009	A		GLRS-A	ALT	GSFC						
	Temperature Profile	1588	A	AL	AIRS	PM	GSFC						
	O3 data	338	A		GOMR	NOAA						X	
GGI	down-looking dual frequency radio data	95	A	BL		PRARE						X	
	geophysical records with reference ephemeris	81	A	BL		GPS						X	
	solar acitvity (sunspot, flare)	97	A	BL		SMM	NASA					X	

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Instrument Team	*Input Product Name*	*Input #*	*Input Type*	*Time Frame*	*Source Instrument*	*Source Platform / Experiment*	*Source DAAC or Institution*	*Accuracy*	*Temporal Res*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*	*Non-EOS*	*Comments*
GLRS-A	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						
	altimetry	63	A	BL	laser	Shuttle	JPL					X	
	altimetry	62	A	BL	laser	in situ (aircraft)						X	
	geophysical records with reference ephemeris	81	A	BL		GPS						X	
	glaciological data (elevation)	40	A	BL			NSF/DPP					X	
	ice sheet topography	61	A	BL								X	
HIRDLS	Aerosol Extinction Coef	1012	C	AL	SAGE-III	AERO,CHEM	LaRC						All data
	Aerosol Size-distribution	1993	C	AL	MISR	AM	LaRC						All data
	Cloud Cover	2062	C	AL	AIRS	PM	GSFC						Primary interest upper level clouds
	Cloud Drop Phase	1770	C	AL	EOSP	AERO,AM2	LaRC						All data
	Cloud Drop Size	1774	C	AL	EOSP	AERO,AM2	LaRC						All data
	Cloud Height, Top	1423	C	PL	AIRS	PM	GSFC				:: upper level clouds		Primary interest upper level clouds
	Cloud Temperature, Top	2463	C	AL	AIRS	PM	GSFC						Primary interest upper level clouds
	Humidity Profile	1828	C	AL	AIRS	PM	GSFC		1/day, 1/wk		:: >500 mb		
	Level-1B Radiance, AIRS	2347	R	AL	AIRS[AIRS]	PM	GSFC						All radiances
	Level-1B Radiance, AMSU-A	2350	C	AL	AIRS[AMSU-A]	PM	GSFC						All radiances
	Level-1B Radiance, MHS	2352	C	AL	AIRS [MHS]	PM	GSFC						All radiances
	Level-1B Radiance, MODIS>3um	2340	C	AL	MODIS	AM,PM	GSFC						6.7 um radiance, all data
	Temperature Profile	1588	C	AL	AIRS	PM	GSFC		1/day, 1/wk		:: >500 mb		
	atmospheric composition data	344	C			in situ (balloon, ai						X	
	geopotential height analysis	158	A			model	NMC,ECMWF			:: G	:: all levels	X	Also surface pressure
	temperature analysis fields	157	D,A			model	NMC,ECMWF			:: G	:: all levels	X	Also surface pressure
HIRIS	Cloud Height, Top	1427	C	AL	ASTER	AM1	EDC						
	Cloud Pressure, Top	1528	C	AL	MODIS	AM,PM	GSFC						
	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						
	Level-1B Radiance, AIRS	2347	A	AL	AIRS[AIRS]	PM	GSFC						
	Level-1B Radiance, ASTER	2375	A	AL	ASTER	AM1	EDC						
	Level-1B Radiance, MISR	2387	A	AL	MISR	AM	LaRC						
	Level-1B Radiance, MODIS<3um	2392	A	AL	MODIS	AM,PM	GSFC						
	Temperature Profile	1588	A	AL	AIRS	PM	GSFC						
	aerosol climatology	839	A	BL, PL	sun photometer	in situ (ground)						X	
	calibration data	810	A	BL	field spectrometer	in situ						X	
	calibration data for ASTER	183	A		spectrometer	in situ (helicopter)	NASA					X	
	calibration data for ASTER	182	A		SWIR	in situ	NASA					X	
	calibration/verification optical data	811	C	PL		in situ (ship)						X	
	canopy chemistry/biophysics data	812	A	BL	AVIRIS	in situ (aircraft)						X	
	cloud data	814	A	BL		in situ / STORM						X	
	cloud data	813	A	BL		in situ / FIRE						X	
	cloud data	24	A	PL	AVHRR	NOAA	NESDIS					X	
	cloud imagery	815	A	BL	AVIRIS							X	
	cloud reflectance, bi-directional, (BRDF)	816	A	BL	Personal Spectromete	in situ (aircraft)						X	
	digital elevation model (surface topography)	187	A	AL			DMA		one time only	0.1 dg		X	
	digital elevation model-7.5 min (DEM)	817	A	BL		in situ				7.5 min :: L		X	
	field data (pigments, phytoplankton abundance & species, photosyntheti	818	A	BL		in situ						X	

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HIRIS	field data in snow regions	819	C	BL, PL		in situ						X	
	forest ecosystem products (foliar canopy mass, foliar chemistry-N, lig	820	A	BL		in situ						X	
	geophysical data	2	A	BL	AVIRIS	in situ (aircraft)	PLDS					X	
	inorganic suspended matter concentration	151	D	AL		in situ (ship)		10% :: 5%		5 m :: Ocean/L	:: Sfc	X	
	ocean color / chloropyll data	18	A	BL	CZCS	Nimbus-7	NSSDC					X	
	ocean color / temperature data	335	A		OCTS	ADEOS						X	
	ocean color data	821	A	BL, AL	AVIRIS	in situ (aircraft)						X	
	ocean color data	32	A	BL, PL	SeaWiFS	Seastar	NSSDC					X	
	ocean physics and biological data	822	C	BL		in situ						X	
	optical and constituent data sets	192	C			in situ						X	
	organic suspended matter concentration	150	D	AL		in situ (ship)		10% :: 5%		5 m :: Ocean/L	:: Sfc	X	
	radiance based calibration	177	A			ER-2						X	
	radiance, upwelling / downwelling	823	C	BL		in situ						X	
	scene radiance, vegetation	826	A	BL	AVIRIS	in situ (aircraft)						X	
	scene radiance, vegetation	825	A	BL	ASAS	in situ (aircraft)						X	
	scene radiances	33	A	BL, AL,		SPOT	CNES					X	
	scene radiances	16	A	BL	TM	Landsat	EDC, EOSAT					X	
	snow contaminants	396	A	BL, AL		SPOT		20% :: 20%	1 wk - 1 mo	50 m :: Land/L		X	
	snow covered area	404	A	BL, AL		SPOT		10% :: 10%	1 wk - 1 mo	50 m :: Land/L		X	
	snow covered area	402	A	BL	AVIRIS	in situ (aircraft)		10% :: 10%	1 wk - 1 mo	50 m :: Land/L		X	
	soil spectral data	838	A	BL	field spectrometer	in situ						X	
	soil spectral data	828	A	BL	AVIRIS	in situ (aircraft)						X	
	spectral albedo	399	A	BL	AVIRIS	in situ (aircraft)		5% :: 1%	1 wk - 1 mo	50 m :: Land/L		X	
	spectral data in snow regions	829	A	BL, PL	AVIRIS	in situ (aircraft)						X	
	spectral reflectance	836	A	BL	VNIR portable spectr	in situ						X	
	spectral reflectance	835	A	BL	TIMS	in situ (aircraft)						X	
	spectral reflectance	834	A	BL	PIDAS	in situ						X	
	spectral reflectance	833	A	BL	AVIRIS	in situ (aircraft)						X	
	spectral reflectance, geologic mapping	824	A	BL	AVIRIS	in situ (aircraft)						X	
	spectral reflectance, mineral	832	A	BL, PL	VNIR portable spectr	in situ						X	
	spectral reflectance, mineral	831	A	BL, PL	TIMS	in situ (aircraft)						X	
	spectral reflectance, mineral	830	A	BL, PL	AVIRIS	in situ (aircraft)						X	
	stereoscopic images	837	A	BL, PL		SPOT						X	
	surface elevation	383	A	BL, AL		SPOT		1 m :: 20 m	N/A	20 m :: Land/L		X	
	total suspended matter concentration	149	D	AL		in situ (ship)		10% :: 5%		5 m :: Ocean/L	:: Sfc	X	
	visible and IR images	652	A	AL	VISSR	GOES	NESDIS					X	
	water vapor	767	A		AVIRIS	in situ (aircraft)						X	
LIS	Cloud Cover	2081	A	AL	MODIS	AM,PM	GSFC		2/day [d,n], 1/mo				
	Cloud Height, Top	1425	A	AL	GLRS-A	ALT	GSFC		1/(2-16 day)				
	Electron Precipitation Events (product from deselected instrument)	9005	A		XIE	PM1							
	Humidity Profile	1828	A	AL	AIRS	PM	GSFC		2/day [d,n]				
	Precipitation Rate	3600	A	AL	MIMR	PM1	MSFC						
	Temperature Profile	1588	A	AL	AIRS	PM	GSFC		2/day [d,n]				
	lightning observations (National Lightning Network)	651	C	BL, AL		in situ	NLN					X	Cloud to ground lightning observations
	radar data	650	C	BL, AL	NEXRAD	in situ	NWS					X	
	visible and IR images	652	C	AL	VISSR	GOES	NESDIS					X	

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Instrument Team	Input Product Name	Input #	Input Type	Time Frame	Source Instrument	Source Platform / Experiment	Source DAAC or Institution	Accuracy	Temporal Res	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.	Non-EOS	Comments
MIMR	Temperature Profile	1588	A	AL	AIRS	PM	GSFC						
	geophysical data	48	C	BL, PL		in situ (ship)	FNOC					X	
	geophysical data	47	C	BL		in situ (ship)	NCDC					X	
	humidity profiles	749	C	BL		in situ (radiosonde)	NMC					X	
	other level 2 data	750	C	BL		in situ (radiosonde)	NMC					X	
	sea surface temperature (SST)	746	C	BL		in situ (buoy)	NOAA DBC					X	
	sea surface temperature (SST)	27	C	BL, PL	AVHRR	NOAA	NESDIS					X	
	snow cover	349	D		SSM/I	DMSP						X	
	temperature profiles	84	C	BL		in situ (radiosonde)	NMC					X	
	wind climatology	52	C	BL			NOAA/WPL					X	
	wind speed	53	C	BL		in situ (buoy)	NOAA DBC					X	
MISR	Aerosol Mass Loading	1017	C	AL	MODIS	AM,PM	GSFC						
	Aerosol Optical Depth	2297	C	AL	EOSP	AERO,AM2	LaRC						
	Aerosol Optical Depth	2292	C	AL	HIRIS	AM2	EDC						Correlate with local mode data
	Aerosol Optical Depth, Spectral	2294	C	AL	MODIS	AM,PM	GSFC						
	Aerosol Optical Depth, Spectral	2293	C	AL	MODIS	AM,PM	GSFC						
	Aerosol Size-distribution (Radius-Dispersion)	1022	C	AL	MODIS	AM,PM	GSFC						
	Albedo, Aerosol	2003	A	PL	MODIS	AM,PM	GSFC						
	Cloud Field Structure	1503	C	AL	HIRIS	AM2	EDC						Correlate with local mode data
	Cloud Pressure, Top	1530	C	AL	EOSP	AERO,AM2	LaRC						
	Cloud Pressure, Top	1528	C	AL	MODIS	AM,PM	GSFC						
	Cloud Reflectance, Bidirectional,	3698	C,R	AL	CERES	TRM,AM,PM	LaRC						
	Cloud Temperature, Top	2467	C	AL	MODIS	AM,PM	GSFC						
	Cloud Temperature, Top	2465	C	AL	ASTER	AM1	EDC						
	Land_sfc Reflectance, Bi-directional, (BRDF)	2035	C	AL	HIRIS	AM2	EDC						Correlate with local mode data
	Land_sfc Reflectance, Directional	2431	C	AL	MODIS	AM,PM	EDC						
	Land_sfc Reflectance, Directional	2430	C	AL	MODIS	AM,PM	EDC						
	Land_sfc Reflectance, Directional	2429	C	AL	MODIS	AM,PM	EDC						
	O3 Total Burden	1333	A	AL	MODIS	AM,PM	GSFC						Atmospheric correction
	PAR, Absorbed, Non-vegetative, (APAR)	2029	C	AL	HIRIS	AM2	EDC						Correlate with local mode data
	PAR, Absorbed, Vegetative, (APAR)	2030	C	AL	HIRIS	AM2	EDC						Correlate with local mode data
	Precipitable Water	1875	A	AL	MODIS	AM,PM	GSFC						Atmospheric correction
	Radiative Flux, SW, Up	2247	C	AL	CERES	TRM,AM,PM	LaRC						
	Vegetation Cover	2741	C	AL	HIRIS	AM2	EDC						Correlate with local mode data
MISR	Wind Velocity, Sea_sfc	1680	A	AL	STIKSCAT	CHEM	JPL						
	O3 conc	554	C		SBUV/2	NOAA						X	
	O3 conc	553	C		SSBUV	Shuttle						X	
	O3 total column	552	C		TOMS	ADEOS						X	
	atmospheric optical depth	345	C		photometer	in situ						X	sun photometry
	geophysical data	58	D	BL	MISR simulator	in situ (aircraft)						X	
	radiance, multi-angle images	347	C		ASAS	in situ (aircraft)						X	data should be radiometrically calibrated and co-registered
	scene radiances	33	C	BL, AL,		SPOT	CNES					X	For semi-annual ground calibration
	scene radiances	16	C	BL	TM	Landsat	EDC, EOSAT					X	For semi-annual ground calibration
	sea ice data	555	C		SAR	in situ (aircraft)	NASA					X	
	surface BRDF's	346	C		Deering Parabola	in situ						X	Data needed for a variety of surface types

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MODIS	Aerosol Optical Depth	2298	C	PL	MISR	AM	LaRC			15.4 or 1.92 km :: G or R			
	Aerosol Phase Function, Asymmetric	2335	A	PL	MISR	AM	LaRC			15.4 or 1.92 km :: G or R			
	Cloud Cover	2088	A	AL	CERES	TRM,AM,PM	LaRC	2-4%		1.25 dg :: G			
	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						
	Land_sfc Reflectance, Bi-directional, (BRDF)	2632	A	AL	MISR	AM	LaRC						
	Land_sfc Reflectance, Bi-directional, (BRDF)	2631	A	AL	MISR	AM	LaRC						
	Land_sfc Temperature, Skin	2481	A	AL	AIRS	PM	GSFC		2/day [d,n]				
	Level-1B Polarization, POLDER	7002	A		POLDER	EPOP	Atmos.Opt.Lab-Lille,FR						
	Level-1B Radiance, AMSU-A	2350	A	AL	AIRS[AMSU-A]	PM	GSFC			15 or 40 km ::			Wan
	Level-1B Radiance, MHS	2352	A	AL	AIRS [MHS]	PM	GSFC						
	Level-1B Radiance, MISR	2386	A	AL	MISR	AM	LaRC			:: R (Equatorial)			Evans
	Level-1B Radiance, POLDER	7001	A		POLDER	EPOP	Atmos.Opt.Lab-Lille,FR						
	O3 Total Burden	1332	A	PL	AIRS	PM	GSFC	10-15% ::	2/day [d,n]	50 km ::			
	Precipitable Water	1869	A	AL	AIRS	PM	GSFC		2/day [d,n]	50 km ::			Atmospheric correction
	Sea_sfc Temperature (SST), Skin	2523	A	PL	AIRS	PM	GSFC		2/day [d,n]				
	Temperature Profile	1588	A	AL	AIRS	PM	GSFC		2/day [d,n]				
	Topographic Elevation, Land_sfc	2846	A	PL	MISR	AM	LaRC		1/mission				
	Topographic Elevation, Land_sfc, (DEM)	2828	A	AL	ASTER	AM1	EDC	15-30 m	1/mission	15-30 m ::			
	Vegetation Chlorophyll Conc	2653	A	AL	HIRIS	AM2	EDC		1/(2-16 day)	30 m :: Land			
	Wind Speed, Along-track	1735	A	AL	ALT	ALT	JPL	2 m/s		7 km :: Ocean			
	Wind Stress, Sea_sfc	3594	A	AL	MIMR	PM1	MSFC	0.44m/sec (4.4%)		8 km ::			
	Wind Velocity, Sea_sfc	1680	A	AL	STIKSCAT	CHEM	JPL	10%, 20 dg		25 km ::			
	BRDFs	199	D			LTER	Univ. of Montana					X	
	IR surface brightness temperatures	147	C	AL		in situ (ship)		0.5 K :: 0.1 K		1 m :: Ocean/L	:: Sfc	X	
	O3 data	338	A		GOMR	NOAA				100 km ::		X	
	O3 data	23	A	BL	TOMS	Nimbus-7	NSSDC		50 scenes/yr	100 km ::		X	
	PAR (400 - 700 nm)	145	C	AL		in situ (ship, buoy)		5% :: 2%		:: Ocean/L	:: Sfc	Y	Clark
	aerosol radiation	185	A			in situ						X	
	backscattering coefficient	137	C	AL		in situ (ship)		7% :: 4%		:: Ocean/L	1 m ::	Y	Carder
	biome discrimination	753	D			LTER	Univ. of Montana					X	
	calibration/verification optical data	194	C			in situ						Y	Carder
	chlorophyll concentration and others (mid-Atlantic Bight)	142	C	AL		in situ (ship)		10% :: 2%		:: Ocean/L	:: Site	Y	Hoge
	chlorophyll fluorescence (mid-Atlantic Bight)	144	C	AL		in situ (ship)		10% :: 2%		:: Ocean/L	:: Sfc	Y	Hoge
	chlorophyll specific absorption	840	C	BL, PL		in situ (ship/buoy)				:: Ocean/R,L		X	
	chlorophyll, phycoerythrin, and dissolved organic matter fluorescence	152	A	BL	AOL	in situ (aircraft)		15% :: 8%	each pass	10 m :: Ocean/R	:: Sfc	Y	Hoge
	climate data	200	D	AL, PL		in situ				:: Land/R		X	
	cloud data	13	A	BL		in situ	NESDIS					X	
	cloud liquid/ice content	122	C	AL		in situ (aircraft)				:: Local	:: Cloud	X	
	cloud optical thickness	121	C	AL		in situ (aircraft)				:: Local	:: Cloud	X	
	column water vapor	745	C	BL, PL		in situ (radiosonde)	NCDC					X	
	detached coccolith concentration	148	C	AL		in situ (ship)				:: Ocean/L	:: Sfc	Y	Clark
	detritus absorption coefficient	136	C	AL		in situ (ship)		15% :: 6%		:: Ocean/L	1 m ::	Y	Carder

Appendix G: Instrument Team Input Requirements

Instrument Team	*Input Product Name*	*Input #*	*Input Type*	*Time Frame*	*Source Instrument*	*Source Platform / Experiment*	*Source DAAC or Institution*	*Accuracy*	*Temporal Res*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*	*Non-EOS*	*Comments*
MODIS	diffuse attenuation coefficient-downwelling radiation	128	C	AL		in situ (ship, buoy)		5% :: 2%		:: Ocean/L	1 m :: 0-150 m	Y	Clark
	diffuse attenuation coefficient-upwelling radiation	129	C	AL		in situ (ship, buoy)		5% :: 2%		:: Ocean/L	1 m :: 0-150 m	Y	Clark
	digital elevation model	115	A	BL, AL		JERS-1	NASDA					X	
	digital elevation model	114	A	BL, AL		ERS-1	ESA					X	
	digital elevation model	113	A	BL, AL		SPOT	CNES					X	
	digital elevation model; DTED-1, DCW	847	A	AL						various :: Land	N/A :: Sfc	X	
	directional radiance, spectral irradiance, etc.	186	A			in situ						X	
	downwelling spectral radiance	124	C	AL		in situ (ship, buoy)		5% :: 1-2 %		:: Ocean/L	1 m :: 0-150 m	Y	Clark
	fluorescence and other data	140	C	BL, AL,	AOL	in situ (aircraft)		15% :: 8%		:: Ocean/L	:: Sfc	X	
	fluorescence efficiency	841	C	BL, PL		in situ (ship/buoy)				:: Ocean/R,L		X	
	fluorescence line height (FLH)	193	C	BL	FLI/CASI		Borstad/Gower					Y	Abbott
	fluorescence line magnitude @685 um	143	C	AL		in situ (ship)		10% :: 4%		:: Ocean/L	1 m :: 0-150 m	Y	Clark
	geophysical data	101	A	BL		JGOFS						X	
	geophysical data	47	C	BL		in situ (ship)	NCDC					X	
	ground data	197	D		transmissionometer	in situ	GSFC					X	
	ground radiances	203	D		MMR	in situ	GSFC					X	
	ground radiances	202	D	BL, AL,		in situ						X	
	humic and fulvic acids	134	C	AL		in situ (ship)		10% :: 3%		:: Ocean/L		Y	Carder
	humidity profiles	744	C	BL, PL		in situ (radiosonde)	NCDC					X	
	incident spectral irradiance	123	C	AL		in situ (ship, buoy)		5% :: 1-2 %		:: Ocean/L	:: Sfc	Y	Clark
	land surface temperature	75	A	BL								X	
	mixed layer depth	843	C	BL, PL		in situ (ship/buoy)				:: Ocean/R,L		X	
	model output/analysis (Surf.temp, pressure, wind)	44	A	BL			NMC, ECMWF, GSFC					X	
	multispectral scanner data	54	A	BL	MAS	in situ (aircraft)	GSFC					X	
	ocean color / chloropyll data	18	A	BL	CZCS	Nimbus-7	NSSDC					X	
	ocean color data	592	C		CZCS	Nimbus-7				:: Ocean/Coastal		X	
	ocean color data	32	A	BL, PL	SeaWiFS	Seastar	NSSDC					X	
	ocean density profiles	844	C	BL, PL		in situ (ship/buoy)				:: Ocean/R,L		X	
	optical and constituent data sets	192	C			in situ						Y	Carder
	particle absorption coeffient	135	C	AL		in situ (ship)		10% :: 4%		:: Ocean/L	1 m ::	Y	Carder
	phycobilipigments	130	C	AL		in situ (ship)				:: Ocean/L	5 m ::	X	
	phytoplankton pigment	133	C	AL		in situ (ship)		5% :: 1-2%		:: Ocean/L	5 m ::	Y	
	phytoplankton pigment: chlorophyll-a and phaeopigment-a	132	C	AL		in situ (ship)		15% :: 10%		:: Ocean/L	5 m ::	Y	Clark
	primary productivity (14-C)	146	C	AL		in situ (ship, buoy)		20-100 % :: 5-10 %		:: Ocean/L	:: Sfc	Y	Clark
	primary productivity vs irradiance data	842	C	BL, PL		in situ (ship)				:: Ocean/R,L		X	
	radiance	348	C		OCTS	ADEOS						X	
	radiance	42	A	BL, PL		in situ						X	
	radiance	25	A	BL	AVHRR-GAC	NOAA	NESDIS					X	
	radiances for SST	191	D	PL	ATSR							Y	Barton
	radiances-0.41 to 0.75 um	141	C	AL		in situ (aircraft)		10% :: 5%		:: Ocean/L	:: Sfc	Y	Hoge
	radiation budget components in snow covered regions	184	A				NASA?					X	
	scene radiances	33	D	BL, AL,		SPOT	CNES					X	
	sea surface temperature (SST)	746	C	BL		in situ (buoy)	NOAA DBC					X	
	sky radiance data (SBRDF)	112	D	BL			UCL					X	

Appendix G: Instrument Team Input Requirements

Instrument Team	*Input Product Name*	*Input #*	*Input Type*	*Time Frame*	*Source Instrument*	*Source Platform / Experiment*	*Source DAAC or Institution*	*Accuracy*	*Temporal Res*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*	*Non-EOS*	*Comments*
MODIS	snow cover	336	A			in situ						X	
	snow reflectance	201	D	BL								X	
	spectral beam attenuation coefficient	127	C	AL		in situ (ship, buoy)		5% :: 1-2%		:: Ocean/L	1 m :: 0-150 m	Y	Clark
	spectral reflectance factor	131	C	AL		in situ (ship)		5% :: 2%		:: Ocean/L	1 m :: 0-150 m	Y	Clark
	spectral solar atmospheric transmission	139	C	AL		in situ (ship, station)		:: 1%		:: Ocean/L		X	
	surface air pressure	50	A	BL, PL			NMC					X	
	surface wind speed	51	A	PL		in situ	NMC					X	
	temperature profiles	46	C	BL, PL		in situ (radiosonde)	NCDC					X	
	thermal data	198	A			in situ (aircraft)						X	
	total dissolved organic carbon	138	C	AL		in situ (ship)				:: Ocean/L		Y	Carder
	turbulence dissipation rate	845	C	BL, PL		in situ (ship/buoy)				:: Ocean/R,L		X	
	upwelling spectral radiances	125	C	AL		in situ (ship, buoy)		5% :: 1-2 %		:: Ocean/L	1 m :: 0-150 m	Y	Clark
	water leaving radiances	153	A	BL		in situ (aircraft)		5% :: 4%	each pass	10 m :: Ocean/R	:: Sfc	Y	Hoge
	water-leaving radiances	126	C	AL		in situ (ship, buoy)		8% :: 3%		:: Ocean/L	1 m ::	Y	Clark
	wind speed	53	C	BL		in situ (buoy)	NOAA DBC					X	
MOPITT	Cloud Cover	2086	A	AL	CERES	TRM,AM,PM	LaRC						
	Humidity Profile	1828	A	AL	AIRS	PM	GSFC						
	Level-1B Radiance, AIRS	2347	A	AL	AIRS[AIRS]	PM	GSFC						
	Level-1B Radiance, ASTER	2375	A	AL	ASTER	AM1	EDC						
	Level-1B Radiance, MODIS>3um	2340	A	AL	MODIS	AM,PM	GSFC						
	Temperature Profile	1588	A	AL	AIRS	PM	GSFC						
	CO observations	334	C			in situ (aircraft)						X	
	CO observations	333	C			in situ (ground)						X	
	model output/analysis	44	A	BL			NMC, ECMWF, GSFC					X	
SAFIRE	pressure-height field	72	A	AL		model analysis (NMC)	NMC					X	
SOLSTICE	model output/analysis	44	A	BL			NMC, ECMWF, GSFC					X	
STIKSCAT	Atmospheric Correction for STIKSCAT (originally an AMSR proposed profile)	9006	A		TBD	N/A							For radiance correction
	Cloud Liq_water Total Column	3598	A	AL	MIMR	PM1	MSFC						
	Cloud Liq_water Total Column	1900	A	AL	CERES	TRM,AM,PM	LaRC						
	Level-1B Radiance, MIMR	3602	A	AL	MIMR	PM1	MSFC						For attenuation correction and ice
	Precipitable Water	3596	A	AL	MIMR	PM1	MSFC						
	Precipitable Water	1869	A	AL	AIRS	PM	GSFC						
	Radiative Flux, LW, Net	2181	A	AL	CERES	TRM,AM,PM	LaRC						All fluxes for input to PL
	Radiative Flux, SW, Net	2230	A	AL	CERES	TRM,AM,PM	LaRC						All fluxes for input to PL
	Sea_Ice Conc	3611	A	AL	MIMR	PM1	NSIDC						Boundary of sea ice
	Sea_sfc Temperature (SST)	3603	A	AL	MIMR	PM1	MSFC						For possible estimation algorithm
	Sea_sfc Temperature (SST)	2528	A	AL	MODIS	AM,PM	GSFC						
	Wind Stress, Sea_sfc	3594	C	AL	MIMR	PM1	MSFC	4%					
	geophysical data	48	D	BL, PL		in situ (ship)	FNOC					X	
	geophysical data	47	D	BL		in situ (ship)	NCDC					X	
	ocean wave data	653	D	BL, AL		in situ (buoy)	NOAA/DBC					X	All moored and drifting buoys
	sea surface temperature (SST)	746	D	BL		in situ (buoy)	NOAA DBC					X	All moored and drifting buoys
	surface analysis fields	654	C	AL		model	NMC / ECMWF / FNOC		6-12 hr	2.5 x 2.5 dg :: Ocean/G	N/A :: Sfc	X	
	wind speed	53	D	BL		in situ (buoy)	NOAA DBC					X	All moored and drifting buoys

Appendix G: Instrument Team Input Requirements

Instrument Team	*Input Product Name*	*Input #*	*Input Type*	*Time Frame*	*Source Instrument*	*Source Platform / Experiment*	*Source DAAC or Institution*	*Accuracy*	*Temporal Res*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*	*Non-EOS*	*Comments*
TES	Aerosol Layer Boundary Height	1014	A	AL	GLRS-A	ALT	GSFC						
	Aerosol Optical Depth	2291	A	AL	GLRS-A	ALT	GSFC						
	Cloud Cover	2081	A	AL	MODIS	AM,PM	GSFC						
	Cloud Pressure, Top	1528	A	AL	MODIS	AM,PM	GSFC						
	Cloud Temperature, Top	2467	A	AL	MODIS	AM,PM	GSFC						
	Level-1B Radiance, TES	2402	A	AL	TES	CHEM	LaRC						
	wind analysis	159	A				NMC,ECMWF					X	

Products from Deselected Instruments

Appendix H

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix H: Products from Deselected Instruments

Prod #	Product Name	Instrument	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2864	Geodetic Site Position, Horizontal	GLRS-R	GSFC	AL	mm	3 mm ::		:: G	:: Sfc
2866	Geodetic Site Position, Vertical	GLRS-R	GSFC	AL	mm	5 mm ::		:: G	:: Sfc
2878	Geodetic Site Velocity, Post_seismic	GLRS-R	GSFC	AL	mm/mo	5 mm/mo ::	1/mo	100-900 km :: G	:: Sfc
2879	Geodetic Site Velocity, Post_seismic	GLRS-R	GSFC	AL	mm/wk	10 mm/wk ::	1/yr	100-900 km :: G	:: Sfc
2880	Geodetic Site Velocity, Relative	GLRS-R	GSFC	AL	mm/wk-mm/yr	1 mm/yr ::		:: G	:: Sfc
2881	Geodetic Site Velocity, Secular	GLRS-R	GSFC	AL	mm/yr	1 mm/yr ::	1/yr	1000-9000 km :: G	:: Sfc
2871	Land_Crustal Strain Rate	GLRS-R	GSFC	AL	u-strain/yr	0.1/yr ::	1/yr	1 km :: Land/L	:: Sfc
2872	Land_Crustal Strain Rate	GLRS-R	GSFC	AL	u-strain/yr	0.1/yr ::	1/yr	100 km :: Land/R	:: Sfc
2820	Ocean Crust Deformation	GLRS-R	GSFC	AL	mm/yr	1 mm/yr ::	1/yr	100-900 km :: Ocean	N/A :: Sfc
3223	Electric Field Strength, AC	GOS	GSFC	AL	mV/m	:: 1%	1/(0.8 s) [?]	point :: G	N/A :: In_situ
3224	Electric Field Strength, DC	GOS	GSFC	AL	mV/m	:: 3 mV/m	1/(0.2 s) [?]	point :: G	N/A :: In_situ
2367	Level-1B Radiance, GOS	GOS	GSFC	AL					
3248	Magnetic Field Strength, AC	GOS	GSFC	AL	Tesla	:: 1%	1/(0.8 s) [?]	point :: G	N/A :: In_situ
3249	Magnetic Field Strength, DC	GOS	GSFC	AL	Tesla	2.0 nT :: 0.1 nT	1/(0.02 s) [?]	point :: G	N/A :: In_situ
3250	Magnetic Field Strength, DC	GOS	GSFC	AL	Tesla	1.6 nT :: 0.1 nT	1/(0.5 s) [?]	point :: G	N/A :: In_situ
3252	Electric Field Potential Difference, DC, Ionosphere	IPEI	GSFC	AL	dimensionless		2/orbit	:: G	N/A :: Ionos
3253	Electric Field Potential Drop, DC, High-latitude	IPEI	GSFC	AL	kV		2/orbit	:: [High_lat]	N/A :: 700 km
3225	Electric Field Strength, DC	IPEI	GSFC	AL	dimensionless		2/orbit	:: High_lat	N/A :: 700 km
3230	Electron Temperature	IPEI	GSFC	AL	K	:: 5%	1/(2 s) [?]	22 x 0.1 dg :: G	N/A :: 700 km
3246	Energetic-particle Joule Dissipation	IPEI	GSFC	AL	Joule/s		2/orbit	:: [High_lat]	N/A :: 700 km
3236	Ion Conc	IPEI	GSFC	AL	/m^3	:: 2%	1/(2 s) [?]	22 x 0.1 dg :: G	N/A :: 700 km
3238	Ion Drift, Along-track	IPEI	GSFC	AL	m/s	:: 5%	1/(2 s) [?]	22 x 0.1 dg :: G	N/A :: 700 km
3239	Ion Drift, Cross-track	IPEI	GSFC	AL	m/s	:: 5%	1/(2 s) [?]	22 x 0.1 dg :: G	N/A :: 700 km
3240	Ion Drift, Vertical	IPEI	GSFC	AL	m/s	:: 5%	1/(2 s) [?]	22 x 0.1 dg :: G	N/A :: 700 km
3245	Ion Temperature	IPEI	GSFC	AL	K	:: 8%	1/(2 s) [?]	22 x 0.1 dg :: G	N/A :: 700 km
2373	Level-1B Radiance, IPEI	IPEI	GSFC	AL					
1011	Aerosol XXX	LAWS	GSFC	AL	/m/sr		1/(1-3 day) [few day]	100 km :: G	1 km :: Atmos
2071	Cloud Cover, Cirrus	LAWS	GSFC	AL	/m/sr		1/day	100 km :: G	0.5 km :: Trop
1403	Cloud Height, Cirrus	LAWS	GSFC	AL	m	50 m ::	2/day	50 km :: G	N/A :: Cloud
1407	Cloud Height, Stratoform	LAWS	GSFC	AL	m	50 m ::	2/day	50 km :: G	N/A :: Cloud
1675	Wind Velocity	LAWS	GSFC	AL	m/s,dg	1-5 m/s ::	2/day	100 km :: G	1 km :: Atmos
3486	Wind Velocity, High-res	LAWS	GSFC	AL	m/s,dg	1-5 m/s ::	2/day	few km :: G	100 lev(<0.5 km) :: Atmos
2383	Wind Velocity, LAWS Line-of-sight (Level-1B)	LAWS	GSFC	AL					
1689	Wind Velocity, Line-of-sight	LAWS	GSFC	AL	m/s,dg	1 - 5 m/s ::	2/day	100 km :: G	1 km ::
2285	Cloud Masking-shadowing	MODIS-T	GSFC	AL	dimensionless	10% ::	1/day	1.1 km :: G	N/A :: Sfc
2040	Land_sfc Reflectance, Bi-directional, (BRDF)	MODIS-T	EDC	AL	fraction	10% :: 5%	1/mo	1.1 km :: Land/R	N/A :: Sfc
2393	Level-1B Radiance, MODIS-T	MODIS-T	GSFC	AL	W/m^2/sr/um	5%(1Σ) :: RMS<NEdL	1/day	1.1 km :: G	N/A :: TOA
2585	Pigment Conc, Phycoerythrin	MODIS-T	GSFC	AL	mg/m^3	200% :: 50%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
2586	Pigment Conc, Phycoerythrin	MODIS-T	GSFC	AL	mg/m^3	200% :: 50%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
2885	Drainage_Basin Boundary	SAR	EDC	AL	km^2	100 m^2 :: 100 m^2	1/mission	10 m :: Land/L	N/A :: Sfc
2903	Drainage_Network Structure	SAR	EDC	AL	m (linear extent)	20 m :: 20 m	1/mission	30 m :: Land/R	N/A :: Sfc
2848	Erosion XXX	SAR	EDC	AL	m^2	(60m)^2 :: (30m)^2	2/yr	60 m :: Land/R	N/A :: Sfc
2667	Forest Boundaries	SAR	EDC	AL	m^2	(60m)^2, :: (60m)^2	1/mo	60 m :: Land/R	N/A :: Sfc
2668	Forest Deforestation	SAR	EDC	AL	m^2	(60m)^2, :: (60m)^2	1/mo	60 m :: Land/R	N/A :: Sfc
2924	Ice_Sheet Cover	SAR	ASF	AL	lat, lon	60 m :: 60 m	1/(5 day)	60 m :: Land/Cryo	N/A :: Sfc
2898	Ice_Sheet Displacement	SAR	ASF	AL	m/yr	0.5 km/day :: 0.5 km/day	1/wk	30 m :: Land/Cryo	N/A :: Sfc
2900	Ice_Sheet Displacement	SAR	ASF	AL	m/yr	0.5 km/day :: 0.5 km/day	1/wk	30 m :: Land/Cryo	N/A :: Sfc

Appendix H: Products from Deselected Instruments

Prod #	Product Name	Instrument	DAAC	Time frame	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2940	Inundation Extent	SAR	EDC	AL	m^2	(30m)^2 :: 10%	1/(3 day) var	30 m :: Land/L	N/A :: Sfc
2925	Lake Ice Cover	SAR	ASF	AL	lat, lon	60 m :: 60 m	1/(5 day)	60 m :: Land/Cryo	N/A :: Sfc
2870	Land Scattering, Sub_sfc	SAR	EDC	AL	m^2	(60m)^2 :: (30m)^2	2/yr	50-75 m :: Land/R	N/A :: Sub_Sfc
2859	Landform Patterns	SAR	EDC	AL	m^2	(60m)^2 :: (30m)^2	1/mission	60 m :: Land/R	N/A :: Sfc
2783	Land_Cover Material boundaries, Sfc	SAR	EDC	AL	m^2		1/mission	60 m :: Land/R	N/A :: Sfc
1548	Land_sfc Roughness	SAR	EDC	AL	m	.1 m :: .05 m	2/yr	60 m :: Land/R	N/A :: Sfc
2397	Level-1B Radiance, SAR	SAR	EDC	AL	dB	3 :: 1		30 [?] ::	
3095	Ocean Current Location	SAR	JPL	AL	lat,lon		1/wk	:: Ocean/R,L	N/A :: Sfc
3093	Ocean Current Velocity, Boundary	SAR	JPL	AL	m/s		1/wk	1 km :: Ocean/R,L	N/A :: Sfc
3127	Ocean Wave Height	SAR	JPL	AL	m	20% :: 20%	1/day	50-75 m :: Ocean	N/A :: Sfc
3101	Ocean Wave Height, Internal	SAR	JPL	AL	lat,lon		1/wk	1 km :: Ocean/R,L	N/A :: Sub_Sfc
2926	River Ice Cover	SAR	ASF	AL	lat, lon	60 m :: 60 m	1/(5 day)	60 m :: Land/Cryo	N/A :: Sfc
2986	Runoff	SAR	EDC	AL	m^3/s	5% :: 5%	1/day	N/A :: Land/L	N/A :: Sfc
2781	Sand Depth	SAR	EDC	AL	m	0.5 m :: 0.5 m	2/yr	50-75 m :: Land/R	N/A :: Sfc
3139	Sea_Ice Conc	SAR	ASF	AL	fraction	5-10% :: 5-10%	1/(5 day)	5 km :: Ocean/Cryo	N/A :: Sfc
3155	Sea_Ice Cover	SAR	ASF	AL	lat,lon (location)	1 km :: 1 km	1/(5 day)	5 km :: Ocean/Cryo	N/A :: Sfc
3192	Sea_Ice Edge	SAR	ASF	AL	fraction (5-10type)	5-10% :: 5-10%	1/(5 day)	5 km :: Ocean/Cryo	N/A :: Sfc
3104	Sea_Ice Motion	SAR	ASF	AL	km/day	0.5 km/day :: 0.5 km/day		5 km :: Ocean/Cryo	N/A :: Sfc
3022	Snow Cover	SAR	ASF	AL	m^2	0.5-2km :: 5%		30 m :: Land/L	N/A :: Sfc
3047	Snow Water Equivalent	SAR	ASF	AL	cm (height)	20% :: 20%		30 m :: Land/L	N/A :: Sfc
2968	Soil Moisture	SAR	EDC	AL	g/cm^3	10-25% :: 5-10%	1/(3 day), 1/wk	60-100 m :: Land	N/A :: Sfc
2829	Topographic Elevation, Land_sfc	SAR	EDC	AL	m (height)	60 m :: 10 m	1/mission	30 m :: Land	N/A :: Sfc
2836	Topographic Elevation, Land_sfc, (DEM)	SAR	EDC	AL	m	1.0 m :: 1.0 m	1/mission	10 m :: Land/L	1 m :: Sfc
2629	Vegetation Biomass, Above_sfc	SAR	EDC	AL	kg/ha	20% :: TBD	1/seas, 1/yr	60 m :: Land	N/A :: Sfc
2645	Vegetation Geometry	SAR	EDC	AL	deg,m		1/seas	60-250 m :: Land/L	N/A :: Sfc
2681	Vegetation Index, Leaf Area, (LAI)	SAR	EDC	AL	area fraction	20% :: 20%	1/mo	60 m :: Land	N/A :: Sfc
2692	Vegetation Phenologic State	SAR	EDC	AL	N/A		1/wk	60 m :: Land	N/A :: Sfc
2646	Vegetation State	SAR	EDC	AL	type	5% ::	1/mo	60-250 m :: Land/L	N/A :: Sfc
2759	Vegetation Water Content	SAR	EDC	AL	kg/ha	:: 30%	1/(16 day)	60-250 m :: Land	N/A :: Sfc
2763	Vegetation Water Potential	SAR	EDC	AL	bars		1/day, 2/wk	60-250 m :: Land	N/A :: Sfc
3133	Wind Velocity, Sea_sfc	SAR	JPL	AL	m/s ?		2/wk	1 km :: Ocean/R,L	N/A :: Sfc
2401	Level-1B Radiance, SWIRLS	SWIRLS	GSFC	AL	W/sr/cm^2/cm^-1				
1242	N2O Conc	SWIRLS	GSFC	AL	mix Ratio	:: 10%	1/(2 s) [?]	1.8 x .16 dg :: G	3 km :: 20-60 km
1322	O3 Conc	SWIRLS	GSFC	AL	mix ratio	:: 10%	1/(2 s) [?]	1.8 x .16 dg :: G	3 km :: 20-60 km
1613	Temperature Profile	SWIRLS	GSFC	AL	K	:: 1-2K	1/(2 s) [?]	1.8 x .16 dg :: G	3 km :: 20-60 km
1681	Wind Velocity	SWIRLS	GSFC	AL	m/s,dg	<2m/s :: <2 m/s	1/(40 s) [?]	3.1 x 1.8 dg :: G	3 km :: 38-60 km
1682	Wind Velocity	SWIRLS	GSFC	AL	m/s,dg	<2m/s :: <5 m/s	1/(40 s) [?]	3.1 x 1.8 dg :: G	3 km :: 20-38 km
3227	Electron Energy Spectra	XIE	GSFC	AL		:: 1%	1/(6 s) [?]	50 km :: G	7 km :: 50-700 km
2418	Level-1B Radiance, XIE	XIE	GSFC	AL					
3256	Proton Energy Spectra	XIE	GSFC	AL		:: 1%	1/(0.1 min)	50 km :: G	7 km :: 50-700 km
3259	X-Ray Energy Spectra	XIE	GSFC	AL		:: 3%	? 1/(0.1 min)	50 km :: G	15 km :: 15-110 km
3257	X-Ray Images	XIE	GSFC	AL		:: 3%	1/(0.1 min)	50 km :: G	15 km :: 15-100 km

Requirements Analysis Tables

Appendix I

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix I: Table I-1. Daily Data Volume

Platform	Launch Date	Instrument	Avg. Data Rate (Kbps)	Daily Data Volume (GB/day)					Total (L0 - L3)
				L-0	L-1A	L-1B	L-2	L-3	
AM-1	Jun-1998	CERES	20.000	0.216	0.317	0.317	0.465	0.454	1.768
		MODIS	5400.000	58.320	85.536	85.536	34.938	14.192	278.522
		MISR	1270.000	13.716	20.117	20.117	1.163	0.911	56.023
		ASTER *	8300.000	89.640	131.472	131.472	0.809	1.133	354.526
		MOPITT	5.000	0.054	0.079	0.079	0.006	0.001	0.219
		Total	14995.000	161.946	237.521	237.521	37.381	16.690	691.059
AERO	Jun-2000	SAGE III	14.075	0.152	0.223	0.223	0.550	0.275	1.423
PM-1	Dec-2000	CERES	20.000	0.216	0.317	0.317	0.465	0.454	1.768
		MODIS	5400.000	58.320	85.536	85.536	34.938	14.192	278.522
		AIRS	2000.000	21.600	31.680	31.680	0.102	0.096	85.157
		AMSU-A	3.200	0.035	0.051	0.051			0.136
		MHS	4.200	0.045	0.067	0.067			0.178
		MIMR	62.000	0.670	0.982	0.982	0.031	0.002	2.667
		Total	7489.400	80.886	118.632	118.632	35.535	14.744	368.429
ALT	Jun-2002	ALT	85.000	0.918	1.346	1.346	0.001	0.000	3.612
		GGI	50.000	0.540	0.792	0.792	0.079	0.043	2.246
		GLRS-A	400.000	4.320	6.336	6.336	0.053	0.011	17.056
		Total	535.000	5.778	8.474	8.474	0.133	0.054	22.914
CHEM	Jun-2002	HIRDLS	40.000	0.432	0.634	0.634	0.028	0.007	1.733
		TES	406.000	4.385	6.431	6.431	0.011	0.006	17.263
		SAGE III	14.075	0.152	0.223	0.223	0.550	0.275	1.423
		STIKSCAT	5.200	0.056	0.082	0.082	0.007	0.000	0.228
		Total	465.275	5.025	7.370	7.370	0.595	0.287	20.648
AM-2	Jun-2003	CERES	20.000	0.216	0.317	0.317	0.465	0.454	1.768
		MODIS	5400.000	58.320	85.536	85.536	34.938	14.192	278.522
		MISR	1270.000	13.716	20.117	20.117	1.163	0.911	56.023
		HIRIS	3000.000	32.400	47.520	47.520	11.684	1.091	140.214
		EOSP	44.000	0.475	0.697	0.697	0.772	0.012	2.653
		Total	9734.000	105.127	154.187	154.187	49.021	16.660	479.181

* Many of ASTER L2 products are on-demand products which will not be archived but will be regenerated each time as requested. Volume estimates for these data products are not included in the table.

Appendix I: Table I-2. Data Volume by DAAC and Platform

Level	Platform	DAACs						Total (GB/day)
		EDC	GSFC	JPL	LaRC	MSFC	NSIDC	
Level 1	AM-1	262.944	171.072		41.026			475.042
	AERO				0.446			0.446
	PM-1		234.666		0.634	1.964		237.264
	ALT		12.672	4.277				16.949
	CHEM		1.267	0.165	13.308			14.740
	AM-2	95.040	171.072		42.261			308.373
	Total	**357.984**	**590.750**	**4.442**	**97.674**	**1.964**		**1052.814**
Level 2	AM-1	4.112	31.366		1.633		0.270	37.381
	AERO				0.550			0.550
	PM-1	3.303	31.468		0.465	0.025	0.275	35.535
	ALT		0.015	0.080			0.039	0.133
	CHEM		0.028	0.007	0.561			0.595
	AM-2	14.742	31.584		2.399		0.296	49.021
	Total	**22.156**	**94.460**	**0.087**	**5.609**	**0.025**	**0.880**	**123.216**
Level 3	AM-1	4.864	10.388		1.366		0.072	16.690
	AERO				0.275			0.275
	PM-1	3.732	10.483		0.454	0.002	0.073	14.744
	ALT		0.011	0.044				0.054
	CHEM		0.007	0.000	0.281			0.287
	AM-2	4.801	10.408		1.377		0.074	16.660
	Total	**13.397**	**31.297**	**0.044**	**3.752**	**0.002**	**0.219**	**48.711**
TOTAL (Level 1-3)	AM-1	271.920	212.826		44.025		0.342	529.113
	AERO				1.271			1.271
	PM-1	7.035	276.617		1.552	1.991	0.348	287.543
	ALT		12.697	4.400			0.039	17.136
	CHEM		1.301	0.172	14.149			15.623
	AM-2	114.582	213.064		46.037		0.370	374.054
	Total	**393.537**	**716.506**	**4.572**	**107.035**	**1.991**	**1.099**	**1224.740**

Appendix I: Table I-3. Processing Load Estimates

Platform	Launch Date	Instrument	Processing Load (MFLOPS)				Total
			L-1	L-2	L-3	Others *	
AM-1	Jun-1998	CERES	0.093	12.153	0.231	11.000	23.477
		MODIS	36.407	35.136	1.251		72.795
		MISR	5.522	15.776	0.789		22.087
		ASTER	N/A	60.520	0.526		61.046
		MOPITT	0.117	0.469	0.039		0.625
		Total	42.138	124.054	2.837	11.000	180.030
AERO	Jun-2000	SAGE III	0.162	0.116	0.023		0.301
PM-1	Dec-2000	CERES	0.093	12.153	0.231	11.000	23.477
		MODIS	36.407	35.136	1.251		72.795
		AIRS	7.301	9.032	0.015	11.700	28.048
		AMSU-A	0.014				0.014
		MHS	0.041				0.041
		MIMR	0.093	0.000	0.001		0.094
		Total	43.948	56.321	1.499	22.700	124.469
ALT	Jun-2002	ALT	0.000	0.003	0.000		0.003
		GGI	3.600	20.400			24.000
		GLRS-A	6.100	0.150	0.032		6.282
		Total	9.700	20.553	0.032		30.285
CHEM	Jun-2002	HIRDLS	12.731	6.366	1.273		20.370
		TES	30.000	90.000	9.000		129.000
		SAGE III	0.162	0.116	0.023		0.301
		STIKSCAT	0.100	0.700	0.100		0.900
		Total	42.994	97.181	10.396		150.571
AM-2	Jun-2003	CERES	0.093	12.153	0.231	11.000	23.477
		MODIS	36.407	35.136	1.251		72.795
		MISR	5.522	15.776	0.789		22.087
		HIRIS	15.573	15.583	0.239		31.395
		EOSP	0.200	20.500	0.001		20.701
		Total	57.795	99.148	2.511	11.000	170.454

* *Including those required for analysis*

Appendix I: Table I-4. Processing Load by DAAC and Platform

Level	Platform	DAACs						Total (MFLOPS)
		EDC	GSFC	JPL	LaRC	MSFC	NSIDC	
Level 1	AM-1	N/A	36.407		5.731			42.138
	AERO				0.162			0.162
	PM-1		43.763		0.093	0.093		43.949
	ALT		6.100	3.600				9.700
	CHEM		12.731	0.100	30.162			42.994
	AM-2	15.573	36.407		5.814			57.795
	Total	15.573	135.409	3.700	41.962	0.093		196.738
Level 2	AM-1	62.345	33.240		28.398		0.071	124.054
	AERO				0.116			0.116
	PM-1	1.825	42.271		12.153	0.000	0.071	56.321
	ALT		0.049	20.403			0.102	20.553
	CHEM		6.366	0.700	90.116			97.181
	AM-2	17.402	33.243		48.429		0.074	99.148
	Total	81.572	115.168	21.103	179.212	0.000	0.318	397.373
Level 3	AM-1	0.849	0.923		1.059		0.006	2.837
	AERO				0.023			0.023
	PM-1	0.322	0.938		0.231	0.001	0.006	1.499
	ALT		0.032	0.000				0.032
	CHEM		1.273	0.100	9.023			10.396
	AM-2	0.551	0.930		1.021		0.009	2.511
	Total	1.722	4.096	0.100	11.358	0.001	0.022	17.299
Others *	AM-1				11.000			11.000
	AERO							
	PM-1				22.700			22.700
	ALT							
	CHEM							
	AM-2				11.000			11.000
	Total				44.700			44.700
TOTAL	AM-1	63.194	70.570		46.189		0.077	180.030
	AERO				0.301			0.301
	PM-1	2.148	86.973		35.177	0.094	0.077	124.469
	ALT		6.181	24.003			0.102	30.285
	CHEM		20.370	0.900	129.301			150.571
	AM-2	33.526	70.580		66.265		0.084	170.454
	Total	98.867	254.673	24.903	277.232	0.094	0.340	656.110

** Including those required for analysis*

Appendix I: Table I-5. Level 1B Data Traffic

PLATFORM (LAUNCH)	DESTINATION DAACs	EOS SOURCE DATA CENTERS							EOS TOTAL (GB/Day)
		ASF	EDC	GSFC	JPL	LaRC	MSFC	NSIDC	
AM-1(1998)	ASF	NA							
	EDC		NA						
	GSFC			NA		4.023			4.023
	JPL				NA				
	LaRC			18.244		NA			18.244
	MSFC						NA		
	NSIDC							NA	
	TOTAL			18.244		4.023			22.268
AERO(2000)	ASF	NA							
	EDC		NA						
	GSFC			NA					
	JPL				NA				
	LaRC					NA			
	MSFC						NA		
	NSIDC							NA	
	TOTAL								
PM-1(2000)	ASF	NA							
	EDC		NA						
	GSFC			NA		4.720			4.720
	JPL				NA				
	LaRC			17.072		NA			17.072
	MSFC						NA		
	NSIDC							NA	
	TOTAL			17.072		4.720			21.792
ALT(2002)	ASF	NA							
	EDC		NA						
	GSFC			NA					
	JPL				NA				
	LaRC					NA			
	MSFC						NA		
	NSIDC							NA	
	TOTAL								
CHEM(2002)	ASF	NA							
	EDC		NA						
	GSFC			NA					
	JPL				NA				
	LaRC					NA			
	MSFC						NA		
	NSIDC							NA	
	TOTAL								
AM-2(2003)	ASF	NA							
	EDC		NA	3.079					3.079
	GSFC			NA		4.023			4.023
	JPL				NA				
	LaRC			17.927		NA			17.927
	MSFC						NA		
	NSIDC							NA	
	TOTAL			21.007		4.023			25.030

Appendix I: Table I-6. Level 2/3 Data Traffic

PLATFORM (LAUNCH)	DESTINATION DAACs	EOS SOURCE DATA CENTERS							EOS TOTAL (GB/Day)
		ASF	EDC	GSFC	JPL	LaRC	MSFC	NSIDC	
AM-1(1998)	ASF	NA							
	EDC		NA	3.311		0.106			3.417
	GSFC			NA	0.003	0.757	0.002		0.763
	JPL				NA				
	LaRC		0.006	5.031	0.003	NA			5.040
	MSFC						NA		
	NSIDC							NA	
	TOTAL		0.006	8.342	0.007	0.863	0.002		9.219
AERO(2000)	ASF	NA							
	EDC		NA						
	GSFC			NA					
	JPL				NA				
	LaRC					NA			
	MSFC						NA		
	NSIDC							NA	
	TOTAL								
PM-1(2000)	ASF	NA							
	EDC		NA	3.303					3.303
	GSFC			NA	0.003	0.773	0.002		0.778
	JPL				NA				
	LaRC			1.121		NA			1.121
	MSFC						NA		
	NSIDC							NA	
	TOTAL			4.424	0.003	0.773	0.002		5.202
ALT(2002)	ASF	NA							
	EDC		NA						
	GSFC			NA					
	JPL			0.319	NA		0.006		0.325
	LaRC					NA			
	MSFC						NA		
	NSIDC							NA	
	TOTAL			0.319			0.006		0.325
CHEM(2002)	ASF	NA							
	EDC		NA						
	GSFC			NA		0.021			0.021
	JPL			0.007	NA	0.022	0.010		0.039
	LaRC			0.001		NA			0.001
	MSFC						NA		
	NSIDC							NA	
	TOTAL			0.008		0.043	0.010		0.061
AM-2(2003)	ASF	NA							
	EDC		NA	3.310		0.724			4.034
	GSFC			NA	0.003	0.757	0.002		0.763
	JPL				NA				
	LaRC		0.006	5.262	0.003	NA			5.271
	MSFC						NA		
	NSIDC							NA	
	TOTAL		0.006	8.572	0.007	1.481	0.002		10.067

Quick Reference for Appendices

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