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Earth Observing System

Output Data Products and Input Requirements

Version 2.0

Volume II : Analysis of IDS Input Requirements

Science Processing Support Office (SPSO)

Goddard Space Flight Center

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6.0 INTRODUCTION

On January 18, 1991, NASA confirmed 29 Inter-Disciplinary Science (IDS) teams, each involving a group of investigators, to conduct interdisciplinary research using data products from EOS instruments. These studies are multi-discplinary and require output data products from multiple EOS instruments, including both FI and PI instruments. The purpose of this volume is to provide information on output products expected from IDS investigators, required input data, and retrieval algorithms. Also included in this volume is the revised analysis of the "best" and "alternative" match data products for IDS input requirements. The original analysis presented in the August 1991 release of the SPSO Report has been revised to incorporate the restructuring of the EOS platform. As a result of the reduced EOS payload, some of EOS instruments were deselected and their data products would not be available for IDS research. Information on these data products is also presented in this volume.

7.0 INTERDISCIPLINARY STUDIES

7.1 Output Products

IDS output data products proposed by 29 investigators are presented in Appendix J. Many of the IDS data products are model outputs and require output products from EOS instruments as well as non-EOS data sources, including conventional measurements. In the subsequent sections, IDS EOS input requirements are discussed. Non-EOS data needed for IDS studies are described in Volume III of this report.

7.2 Analysis of Input Requirements

Listed in Appendix K are input data products required by IDS investigators for their studies. An independent analysis of earlier IDS input requirements was made by Schier and Way (1990). In their analysis, candidate source instruments were identified for each IDS input data product. SPSO further extended this analysis of the IDS input requirements and identified specific corresponding EOS output data products introducing the concept of best and alternative match (BM and AM) products well as source instruments. A best match data product is defined as an EOS data product that closely matches the IDS input requirements in terms of product definition, accuracy, temporal resolution, horizontal resolution and coverage, and vertical resolution and coverage. An alternative match product is a data product which meets the IDS requirements to a lesser degree, in comparison with a best match product.

Appendix L lists the best and the alternative match EOS data products for each of the required IDS input data products. The listing is organized by IDS input data product, arranged alphabetically by IDS investigator. In Appendix L, characteristics of the IDS input data products are given in *italics* for clarity. They are followed by characteristics of the EOS instrument output data products believed to match the specific IDS input requirement. For each of the best and the alternative match data products, information is

given on instrument, platforms, name(s) of the instrument team member(s) responsible for the output product, product ID number used in the Master Product List, match type, absolute and relative accuracy, temporal resolution, horizontal resolution and domain, and vertical resolution and domain (these attributes are described in Tables A-1 through A-4 in Appendix A of Volume I.)

The table in Appendix M is based on the same analysis used to generate the table in the Appendix L: however, it is organized according to the EOS instrument and investigator (generating the product) arranged alphabetically. For each of the proposed EOS instrument output products, all IDS input requirement "matches" are listed, thereby identifying which IDS investigators may need each listed output product. Information on the EOS instrument, platforms, output product, and product number is shown in *italics* for clarity. Following each EOS output product description, information is given on IDS investigator, IDS product number, match type, accuracy (absolute and relative), temporal resolution, horizontal resolution and coverage, and vertical resolution and coverage.

Table 7-1 presents an analysis of the number of IDS investigators (II's) requiring data products from each of the instruments to be launched on various EOS platforms. Note that the number of II's requiring data from a particular instrument *does not necessarily indicate the importance of that instrument.* Data products from MODIS and AIRS/AMSU-A/MHS are most frequently requested by IDS investigators, followed by those from MIMR, MISR, and ASTER. Twenty IDS investigators require data products from the HIRIS instrument which is not scheduled to fly until the AM-2 platform is launched in 2003. The assignment of HIRIS to the later two satellites of EOS-AM series would impact approximately 71% of the IDS investigators who require the at-launch standard products proposed by the HIRIS team, in that those data products will not become available until 2003.

The SPSO analysis of the IDS input requirement also includes the identification of the IDS input data not available from EOS instruments before 2001. Results of the analysis are presented in Appendix N, which is organized alphabetically by IDS investigator name. The IDS investigator name, required product name, and product number are listed in *italics* for clarity. For each input data product, the table lists the EOS platform, instrument, EOS investigator, product number, and the match type (e.g., BM and AM), accuracy (absolute and relative), temporal resolution, horizontal resolution and coverage, and vertical resolution and coverage for all products not meeting the input requirements before the year 2001. The IDS input products, which are required for the IDS investigation but will not be produced by any of the EOS instrument teams, are identified and listed in Appendix O. Table 7-2 summarizes the analysis of IDS investigators input product requirements. This lists the IDS investigators name, total number of products required, and number and percentages of these products not available prior to 2001. The table also lists the total number and percentage of the products that will not be available from the EOS instruments at any time in the future, according to the *currently* planned instrument output data product sets.

Table 7-1. EOS Instruments Required by IDS Investigators [1]

PLATFORM	INITIAL LAUNCH	INSTRUMENT CLUSTER	No. of IDS Investigators need the data	% of IDS Invsetigators need the data
AM-1	1998	ASTER	21	75%
		CERES	20	71%
		MISR	22	79%
		MODIS	26	93%
		MOPITT	6	21%
AERO	2000 [2]	SAGE III	12	43%
PM	2000 [2]	AIRS	26	93%
		AMSU-A/MHS	18	64%
		CERES	20	71%
		MIMR	22	79%
		MODIS	26	93%
ALT	2002 [2]	ALT	10	36%
		GGI	3	11%
		GLRS-A	18	64%
CHEM	2002 [2]	HIRDLS	10	36%
		SAGE III	12	43%
		STIKSCAT	14	50%
		TES	16	57%
AM-2,-3	2003 [2]	CERES	20	71%
		EOSP	13	46%
		HIRIS	20	71%
		MISR	22	79%
		MODIS	26	93%
Mission of Opportunity (MO)	TBD	ACRIM	1	4%
		SOLSTICE	4	14%
		MLS [3]	9	32%
		SAFIRE [3]	7	25%

1. Not including LeMarshall whose input requirements are unspecified.
2. Subsequent platforms in the series will be launched every 5 years.
3. Descoped beyond 2001 (only one of the instruments will be selected).

Table 7-2. Summary Analysis of IDS Investigators' Input Data Requirements

IDS Investigator	Total No. of Products	No. of Products Not Available Before 2001	% of Products Not Available Before 2001	No. of Products Not Available At All From EOS	% of Products Not Available At All From EOS
Abbott	22	6	27%	2	9%
Barron	120	37	31%	20	17%
Bates	87	23	26%	19	22%
Brewer	30	11	37%	3	10%
Batista, Richey	18	5	28%	0	0%
Cihlar	21	3	14%	4	19%
Dickinson	97	13	13%	19	20%
Dozier	10	6	60%	2	20%
Grose	33	30	91%	2	6%
Hansen	41	21	51%	3	7%
Harris	40	13	33%	4	10%
Hartmann	17	4	24%	1	6%
Isacks	41	14	34%	8	20%
Kerr, Sorooshian	57	19	33%	13	23%
Lau	53	10	19%	20	38%
Liu	11	4	36%	1	9%
Moore	37	20	54%	8	22%
Mouginis-Mark	23	18	78%	1	4%
Murakami	24	7	29%	4	17%
Pyle	33	29	88%	3	9%
Rothrock	20	2	10%	4	20%
Schimel	18	9	50%	2	11%
Schoeberl	47	33	70%	11	23%
Sellers	26	8	31%	2	8%
Simard	30	10	33%	4	13%
Srokosz	23	9	39%	2	9%
Tapley	4	2	50%	1	25%
Wielicki	46	7	15%	2	4%
TOTAL	**1029**	**373**	**36%**	**165**	**16%**

Output Data Products
Listed by
IDS Investigator

Appendix J

Science Processing Support Office (SPSO)

Goddard Space Flight Center

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Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1469	Heat Flux, Latent	Abbott	W/m^2	40 W/m^2 :: TBD	1/wk	50 km :: Ocean [Southern]	:: Sfc
3092	Ocean Current Velocity	Abbott	cm/s		1/day	10 km :: Ocean [Southern]	N/A :: Sfc
3094	Ocean Current Velocity, Geostrophic	Abbott	cm/s		1/mo	:: Ocean [Southern]	N/A :: TOO
3102	Ocean Eddy Kinetic Energy	Abbott	g/cm^2/s^2		1/(3 mo)	:: Ocean [Southern]	:: Sfc
3113	Sea_Level Height-Change	Abbott	cm RMS	4-6cm RMS :: TBD		:: Ocean [Southern]	:: Sfc
2004	Albedo, Planetary Spectral, TOA	Barron	fraction		2/day	4.5 x 7.5 dg :: G	:: TOA
2005	Albedo, Planetary Spectral, TOA	Barron	fraction		2/day	2.8 x 2.8 dg :: G	:: TOA
2779	Bedrock Lithology	Barron			? 5000 yrs	5 km :: 2 sites	
2815	Bedrock Lithology	Barron			1/mission	10 km :: Land/R	
2816	Bedrock Lithology	Barron			1/mission	100 km :: Land	
1786	Cloud Condensation Rate, Total	Barron	kg/m^2/s		2/day	4.5 x 7.5 dg :: G	
1787	Cloud Condensation Rate, Total	Barron	kg/m^2/s		2/day	2.8 x 2.8 dg :: G	
2064	Cloud Cover	Barron	%		1/day	10 km :: R	
2065	Cloud Cover	Barron	%		1/(5 min)	30 km :: [East. U.S.]	
2066	Cloud Cover	Barron	%		1/(5 min)	2 km :: [East. U.S.]	
2089	Cloud Cover	Barron	fraction		2/day	4.5 x 7.5 dg :: G	
2090	Cloud Cover	Barron	fraction		2/day	2.8 x 2.8 dg :: G	
2117	Cloud Emissivity	Barron	fraction		2/day	4.5 x 7.5 dg :: G	
2118	Cloud Emissivity	Barron	fraction		2/day	2.8 x 2.8 dg :: G	
1912	Cloud Liq_water Content	Barron	g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1913	Cloud Liq_water Content	Barron	g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1914	Cloud Liq_water Content	Barron	g/kg		1/hr	20-100 km :: R	
1915	Cloud Liq_water Content	Barron	g/kg		1/hr	1 km :: R	
2770	Erosion Chemical Denudation	Barron	mm/kyr		1/yr	10 km :: Land/R	
2771	Erosion Chemical Denudation	Barron	mm/kyr		1/yr	100 km :: Land	
2782	Erosion Sediment Yield	Barron	kg/km^2		? 5000 yr	5 km :: 2 sites	
2852	Geopotential Gravity Field	Barron	m^2/s^2		2/day	4.5 x 7.5 dg :: G	
2853	Geopotential Gravity Field	Barron	m^2/s^2		2/day	2.8 x 2.8 dg :: G	
2130	Heat Flux	Barron	W/m^2		1/day	200 km :: R	
1494	Heat Flux Convergence, Eddy	Barron	W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1495	Heat Flux Rate, Latent	Barron	m/s ?		2/day	4.5 x 7.5 dg :: G	
1496	Heat Flux Rate, Latent	Barron	m/s ?		2/day	2.8 x 2.8 dg :: G	
1470	Heat Flux, Latent	Barron	W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1480	Heat Flux, Sensible	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	
1481	Heat Flux, Sensible	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	
1482	Heat Flux, Sensible	Barron	W/m^2		1/day	10 km :: R	:: Sfc
1488	Heat Flux, Sfc	Barron	W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1489	Heat Flux, Sfc	Barron	W/m^2		1/(5 min)	30 km :: [East. U.S.]	:: Afc
1490	Heat Flux, Sfc	Barron	W/m^2		1/hr	20-100 km :: R	:: Sfc
1491	Heat Flux, Sfc	Barron	W/m^2		1/(5 min)	500 m :: [East. U.S.]	:: Afc
2132	Heat Flux, Sfc	Barron	W/m^2		1/day	200 km :: R	:: Sfc
3100	Heat Flux, Zonal_mean	Barron	W/m^2		1/(5 day)	2.5 dgZM :: G	10 lvl ::
1450	Heating Rate, LW_Radiative	Barron	K/s		2/day	4.5 x 7.5 dg :: G	
1451	Heating Rate, LW_Radiative	Barron	K/s		2/day	2.8 x 2.8 dg :: G	
1453	Heating Rate, SW Radiative	Barron	K/s		2/day	4.5 x 7.5 dg :: G	:: Sfc

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1454	Heating Rate, SW Radiative	Barron	K/s		2/day	2.8 x 2.8 dg :: G	:: Sfc
1455	Heating Rate, U-horizontal_Diffusive	Barron	K/s		2/day	4.5 x 7.5 dg :: G	
1456	Heating Rate, U-horizontal_Diffusive	Barron	K/s		2/day	2.8 x 2.8 dg :: G	
1457	Heating Rate, U-horizontal_Diffusive	Barron	K/s		2/day	4.5 x 7.5 dg :: G	
1458	Heating Rate, U-horizontal_Diffusive	Barron	K/s		2/day	2.8 x 2.8 dg :: G	
1459	Heating Rate, V-horizontal_Diffusive	Barron	K/s		2/day	4.5 x 7.5 dg :: G	
1460	Heating Rate, V-horizontal_Diffusive	Barron	K/s		2/day	2.8 x 2.8 dg :: G	
1461	Heating Rate, V-horizontal_Diffusive	Barron	K/s		2/day	4.5 x 7.5 dg :: G	
1462	Heating Rate, V-horizontal_Diffusive	Barron	K/s		2/day	2.8 x 2.8 dg :: G	
1443	Heating, Convective	Barron	W/m^3		1/hr	20-100 km :: R	
1444	Heating, Convective	Barron	W/m^3		1/hr	1 km :: R	
1445	Heating, East-West Sfc-stress	Barron	J/m^2/s		2/day	4.5 x 7.5 dg :: G	
1446	Heating, East-West Sfc-stress	Barron	J/m^2/s		2/day	2.8 x 2.8 dg :: G	
1449	Heating, Net_Diabatic	Barron	W/m^2		1/(5 day)	2.5 dg :: G	10 lvl ::
1447	Heating, North-South Sfc-stress	Barron	J/m^2/s		2/day	4.5 x 7.5 dg :: G	
1448	Heating, North-South Sfc-stress	Barron	J/m^2/s		2/day	2.8 x 2.8 dg :: G	
1829	Humidity	Barron	g/kg		1/hr	20-100 km :: R	
1830	Humidity	Barron	g/kg		1/hr	1 km :: R	
1831	Humidity Profile	Barron	g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1880	Humidity Profile, PBL	Barron	g/kg		1/day	10 km :: R	:: PBL
1439	Humidity, Specific	Barron	g/kg		1/(5 min)	30 km :: [East. U.S.]	
1440	Humidity, Specific	Barron	g/kg		1/(5 min)	500 m :: [East. U.S.]	
1882	Humidity, Specific	Barron	kg/kg		2/day	4.5 x 7.5 dg :: G	
1883	Humidity, Specific	Barron	kg/kg		2/day	2.8 x 2.8 dg :: G	
1886	Humidity-Change, Specific, Convective_Adjusted	Barron	kg/kg/s		2/day	4.5 x 7.5 dg :: G	
1887	Humidity-Change, Specific, Convective_Adjusted	Barron	kg/kg/s		2/day	2.8 x 2.8 dg :: G	
1888	Humidity-Tendency, Specific	Barron	kg/kg/s		2/day	4.5 x 7.5 dg :: G	
1889	Humidity-Tendency, Specific	Barron	kg/kg/s		2/day	2.8 x 2.8 dg :: G	
2945	Ice_Sheet Mass balance	Barron	cm/yr		1/yr	100 km :: Antarctica	
2933	Infiltration	Barron	mm/s		1/event, 1/mo, 1/yr	30-90 m :: R	
2934	Infiltration	Barron	mm/s		1/event, 1/mo, 1/yr	900 m :: R	
2935	Infiltration	Barron	mm/s		1/event, 1/mo, 1/yr	18 km :: R	
2486	Land_sfc Temperature	Barron	C		1/(5 min)	30 km :: [East. U.S.]	
2487	Land_sfc Temperature	Barron	C		1/(5 min)	500 m :: [East. U.S.]	
2494	Land_sfc Temperature	Barron	K		2/day	4.5 x 7.5 dg :: G	:: Sfc
2495	Land_sfc Temperature	Barron	K		2/day	2.8 x 2.8 dg :: G	:: Sfc
2813	Mineral Flux, XXX Geochemical	Barron	eq/km^2/yr		1/day	1 km :: Land/R	
2814	Mineral Flux, XXX Geochemical	Barron	eq/km^2/yr		1/day	10 km :: Land	
1847	Moisture Flux	Barron	kg (H2O)/m^2		1/mo	10 x 10 km :: N. Atlantic	
1848	Moisture Flux, Sfc	Barron	W/m^2		1/day	10 km :: R	N/A :: Sfc
1849	Moisture Flux, Sfc	Barron	g/m^2/s		1/(5 min)	30 km :: [East. U.S.]	:: Sfc
1850	Moisture Flux, Sfc	Barron	g/m^2/s		1/hr	20-100 km :: R	:: Sfc
1851	Moisture Flux, Sfc	Barron	g/m^2/s		1/(5 min)	500 m :: [East. U.S.]	:: Sfc
1876	Precipitable Water	Barron	g/kg ?		1/hr	20-100 km :: R	
1877	Precipitable Water	Barron	g/kg ?		1/hr	1 km :: R	

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1946	Precipitation Amount, Convective	Barron	m/s ?		2/day	4.5 x 7.5 dg :: G	
1947	Precipitation Amount, Convective	Barron	m/s ?		2/day	2.8 x 2.8 dg :: G	
1952	Precipitation Amount, Large-scale_stable	Barron	m/s ?		2/day	4.5 x 7.5 dg :: G	
1953	Precipitation Amount, Large-scale_stable	Barron	m/s ?		2/day	2.8 x 2.8 dg :: G	
1956	Precipitation Amount, Rain	Barron	g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
2994	Precipitation Amount, Snow	Barron	m		2/day	4.5 x 7.5 dg :: G	
2995	Precipitation Amount, Snow	Barron	m		2/day	2.8 x 2.8 dg :: G	
1985	Precipitation Amount, Snow, Convective	Barron	m/s		2/day	4.5 x 7.5 dg :: G	
1986	Precipitation Amount, Snow, Convective	Barron	m/s		2/day	2.8 x 2.8 dg :: G	
1987	Precipitation Amount, Snow, Large-scale_Stable	Barron	m/s		2/day	4.5 x 7.5 dg :: G	
1988	Precipitation Amount, Snow, Large-scale_Stable	Barron	m/s		2/day	2.8 x 2.8 dg :: G	
1951	Precipitation Conc, Ice	Barron	g/cm^3		1/(6 hr)	1 dg :: G	15-20 lvl ::
1962	Precipitation Rate	Barron	cm/hr		1/hr	20-100 km :: R	
1980	Precipitation Rate, Rain	Barron	cm/hr		1/(5 min) [?]	30 km :: [East. U.S.]	
1981	Precipitation Rate, Rain	Barron	cm/hr		1/(5 min) [?]	500 m :: [East. U.S.]	
1521	Pressure	Barron	mb		1/hr	20-100 km :: R	
1522	Pressure	Barron	mb		1/hr	1 km :: R	
1534	Pressure, Sfc	Barron	Pa		2/day	4.5 x 7.5 dg :: G	N/A :: Sfc
1535	Pressure, Sfc	Barron	Pa		2/day	2.8 x 2.8 dg :: G	N/A :: Sfc
1538	Pressure-Tendency, Sfc	Barron	Pa/s		2/day	4.5 x 7.5 dg :: G	N/A :: Sfc
1539	Pressure-Tendency, Sfc	Barron	Pa/s		2/day	2.8 x 2.8 dg :: G	N/A :: Sfc
2143	Radiative Flux Convergence	Barron	W/m^2/km		1/(5 day)	2.5 dg :: G	10 lvl ::
2155	Radiative Flux, LW, Average_Net	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	:: TOA
2156	Radiative Flux, LW, Average_Net	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	:: TOA
2159	Radiative Flux, LW, Clear-sky	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	:: Sfc
2160	Radiative Flux, LW, Clear-sky	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	:: Sfc
2161	Radiative Flux, LW, Clear-sky	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	:: TOA
2162	Radiative Flux, LW, Clear-sky	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	:: TOA
2139	Radiative Flux, Net_Down	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	
2140	Radiative Flux, Net_Down	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	
2441	Radiative Flux, Solar, Ave-absorbed	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	
2442	Radiative Flux, Solar, Ave-absorbed	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	
2133	Radiative Flux, Solar, Net_Down	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	:: Sfc
2134	Radiative Flux, Solar, Net_Down	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	:: Sfc
2444	Radiative Flux, Solar, Sfc Clear-sky	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	:: Sfc
2446	Radiative Flux, Solar, Sfc Clear-sky	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	:: Sfc
2443	Radiative Flux, Solar, TOA Clear-sky	Barron	W/m^2		2/day	4.5 x 7.5 dg :: G	:: TOA
2445	Radiative Flux, Solar, TOA Clear-sky	Barron	W/m^2		2/day	2.8 x 2.8 dg :: G	:: TOA
2890	River Discharge	Barron	m^3/s		1/event, 1/mo, 1/yr	30-90 m :: R	
2891	River Discharge	Barron	m^3/s		1/event, 1/mo, 1/yr	900 m :: R	
2892	River Discharge	Barron	m^3/s		1/event, 1/mo, 1/yr	18 km :: R	
2992	Runoff, Soil Moisture	Barron	m/s		2/day	4.5 x 7.5 dg :: G	
2993	Runoff, Soil Moisture	Barron	m/s		2/day	2.8 x 2.8 dg :: G	
3143	Sea_Ice Conc	Barron	%		1/day	50 km :: Ocean/Cryo	
3146	Sea_Ice Conc, GCM	Barron	%		1/day	4.5 x 7.5 dg :: G	

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3147	Sea_Ice Conc, GCM	Barron	%		1/day	2.8 x 2.8 dg :: G	
3176	Sea_Ice Conc, Multi-year	Barron	%		1/seas	50 km ::	
3179	Sea_Ice Cover	Barron	%		1/day	50 km :: Ocean/Cryo	
3185	Sea_Ice Cover	Barron	cm		1/day	4.5 x 7.5 dg :: G	
3184	Sea_Ice Fraction, Open-water	Barron	m		[ice response]	[crit feat] :: [modern ice]	N/A :: Sfc
3186	Sea_Ice Max Extent	Barron	cm		1/day	2.8 x 2.8 dg :: G	
3114	Sea_Level Height-Change	Barron	m		[ice response]	G ave :: G	N/A :: Sfc
2454	Sea_sfc Brightness Temperature (Radiance)	Barron	K		1/(5 day)	2.5 dg :: G	
2969	Soil Moisture	Barron	mm		1/event, 1/mo, 1/yr	30-90 m :: R	
2970	Soil Moisture	Barron	mm		1/event, 1/mo, 1/yr	900 m :: R	
2971	Soil Moisture	Barron	mm		1/event, 1/mo, 1/yr	18 km :: R	
3067	Soil Moisture	Barron	m		2/day	4.5 x 7.5 dg :: Land	N/A :: Sfc
3068	Soil Moisture	Barron	m		2/day	2.8 x 2.8 dg :: Land	N/A :: Sfc
2955	Surface Water Saturated Area	Barron			1/event, 1/mo, 1/yr	30-90 m :: R	
2956	Surface Water Saturated Area	Barron			1/event, 1/mo, 1/yr	900 m :: R	
2957	Surface Water Saturated Area	Barron			1/event, 1/mo, 1/yr	18 km :: R	
1589	Temperature Profile	Barron	K		2/day	4.5 x 7.5 dg :: G	
1590	Temperature Profile	Barron	C		1/(5 min)	30 km :: [East. U.S.]	
1591	Temperature Profile	Barron	K		1/hr	20-100 km :: R	
1592	Temperature Profile	Barron	K		2/day	2.8 x 2.8 dg :: G	
1593	Temperature Profile	Barron	C		1/(5 min)	500 m :: [East. U.S.]	
1594	Temperature Profile	Barron	K		1/hr	1 km :: R	
1628	Temperature, Dry-bulb, PBL	Barron	K		1/day	10 km :: R	:: PBL
1634	Temperature-Change, Convective_Adjustment	Barron	K/s		2/day	4.5 x 7.5 dg :: G	
1635	Temperature-Change, Convective_Adjustment	Barron	K/s		2/day	2.8 x 2.8 dg :: G	
1636	Temperature-Tendency	Barron	K/s		2/day	4.5 x 7.5 dg :: G	
1637	Temperature-Tendency	Barron	K/s		2/day	2.8 x 2.8 dg :: G	
2840	Topographic Elevation, Land_sfc	Barron	km		? 5000 yr	5 km :: 2 sites	
1792	Vegetation Evapotrans	Barron	W/m^2 ?		1/event, 1/mo, 1/yr	30-90 m :: R	
1793	Vegetation Evapotrans	Barron	W/m^2 ?		1/event, 1/mo, 1/yr	900 m :: R	
1794	Vegetation Evapotrans	Barron	W/m^2 ?		1/event, 1/mo, 1/yr	18 km :: R	
1506	Vertical Motion	Barron	cm/s		1/hr	1 km :: R	
1507	Vertical Motion	Barron	cm/s		1/hr	20-100 km :: R	
1504	Vertical Motion, Omega	Barron	Pa/s		2/day	2.8 x 2.8 dg :: G	
1505	Vertical Motion, Omega	Barron	Pa/s		2/day	4.5 x 7.5 dg :: G	
1508	Vertical Motion, Omega	Barron	Pa/s		1/(6 hr)	1 dg :: G	15-20 lvl ::
1704	Wind Direction	Barron	dg		1/(5 min)	30 km :: [East. U.S.]	
1705	Wind Direction	Barron	dg		1/(5 min)	500 m :: [East. U.S.]	
1721	Wind Speed	Barron	m/s		1/(5 min)	30 km :: [East. U.S.]	
1722	Wind Speed	Barron	m/s		1/(5 min)	500 m :: [East. U.S.]	
1723	Wind Speed	Barron	m/s		1/hr	20-100 km :: R	
1724	Wind Speed	Barron	m/s		1/hr	1 km :: R	
1736	Wind Speed, Meridional	Barron	m/s		2/day	4.5 x 7.5 dg :: G	
1737	Wind Speed, Meridional	Barron	m/s		2/day	2.8 x 2.8 dg :: G	
1740	Wind Speed, Zonal	Barron	m/s		2/day	4.5 x 7.5 dg :: G	

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	*Product Name*	*Investigator*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol. :: Cover.*	*Vertical Resol. :: Cover.*
1741	Wind Speed, Zonal	Barron	m/s		2/day	2.8 x 2.8 dg :: G	
1558	Wind Stress, Meridional	Barron	N/m^2		2/day	2.8 x 2.8 dg :: G	Sfc ::
1750	Wind Stress, Meridional	Barron	N/m^2		2/day	4.5 x 7.5 dg :: G	Sfc ::
1747	Wind Stress, Zonal	Barron	N/m^2		2/day	4.5 x 7.5 dg :: G	Sfc ::
1748	Wind Stress, Zonal	Barron	N/m^2		2/day	2.8 x 2.8 dg :: G	Sfc ::
1696	Wind U Tendency	Barron	m/s^2		2/day	2.8 x 2.8 dg :: G	
1698	Wind U Tendency	Barron	m/s^2		2/day	4.5 x 7.5 dg :: G	
1647	Wind V Tendency	Barron	m/s^2		2/day	4.5 x 7.5 dg :: G	
1648	Wind V Tendency	Barron	m/s^2		2/day	2.8 x 2.8 dg :: G	
3163	Wind Velocity	Barron	km		[ice response]	[crit feat] :: [modern ice]	N/A :: Sfc
1377	Acceleration, Diffusive_Meridional	Bates	m/s^2		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1376	Acceleration, Diffusive_Zonal	Bates	m/s^2		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
2083	Cloud Cover, Cirrus	Bates	dimensionless		1/(20 min)	50 km :: G	N/A :: High_cloud
2085	Cloud Cover, Low-level	Bates	dimensionless		1/(20 min)	50 km :: G	N/A :: Low_Cloud
2084	Cloud Cover, Mid-level	Bates	dimensionless		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
1396	Cloud Height, Base, Cirrus	Bates	mb		1/(20 min)	50 km :: G	N/A :: High_cloud
1397	Cloud Height, Base, Low-level	Bates	mb		1/(20 min)	50 km :: G	N/A :: Low_Cloud
1398	Cloud Height, Base, Mid-level	Bates	mb		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
1434	Cloud Height, Top, Cirrus	Bates	mb		1/(20 min)	50 km :: G	N/A :: High_cloud
1435	Cloud Height, Top, Low-level	Bates	mb		1/(20 min)	50 km :: G	N/A :: Low_Cloud
1436	Cloud Height, Top, Mid-level	Bates	mb		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
2468	Cloud Temperature, Top	Bates	K		1/(20 min)	50 km :: G	N/A :: Low_Cloud
2469	Cloud Temperature, Top	Bates	K		1/(20 min)	50 km :: G	N/A :: Mid_Cloud
2470	Cloud Temperature, Top	Bates	K		1/(20 min)	50 km :: G	N/A :: High_cloud
1498	Geopotential Height	Bates	m		1/(20 min)	50 km :: G	50 lvl :: 1000-0.1 mb
1540	Geopotential Height RMSE	Bates	m		1/(20 min)	100 km :: G	25 lvl :: 1000-0.1 mb
1471	Heat Flux, Latent	Bates	W/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1483	Heat Flux, Sensible	Bates	W/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1441	Heating Rate, Convective	Bates	K/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1442	Heating Rate, Diffusive	Bates	K/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1452	Heating Rate, LW_Radiative	Bates	K/s		1/(4-6 hr)	50 km :: G	N/A :: 1000-0.1 mb
1879	Humidity Profile, Specific	Bates	g/kg		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1884	Humidity, Specific, Near_sfc	Bates	g/kg		1/(20 min)	25 km :: G	N/A :: Near_sfc
1885	Humidity, Specific, Near_sfc	Bates	g/kg		1/(20 min)	50 km :: G	N/A :: Near_sfc
1982	Humidity-RMSE, Specific	Bates	g/kg		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
2499	Land_sfc Temperature, Skin	Bates	K		1/(20 min)	50 km :: Land	N/A :: Sfc
1924	Moistening, Convective	Bates	g/kg/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
1925	Moistening, Diffusive	Bates	g/kg/s		1/(4-6 hr)	50 km :: G	25 lyr :: 1000-0.1 mb
3096	Ocean Current Velocity, Meridional	Bates	cm/s			:: Ocean	200 m :: 0-4500 m
3097	Ocean Current Velocity, Zonal	Bates	cm/s			:: Ocean	200 m :: 0-4500 m
3078	Ocean Water Salinity	Bates	o/oo			:: Ocean	200 m :: 0-4500 m
3118	Ocean Water Temperature, Internal	Bates	K			:: Ocean	200 m :: 0-4500 m
2843	Orography, Model	Bates	m			50 km :: G	N/A :: Sfc
1638	PBL Thickness	Bates	m		1/(20 min)	25 km :: G	N/A :: PBL
1639	PBL Thickness	Bates	m		1/(20 min)	50 km :: G	N/A :: PBL

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1942	Precipitation Amount	Bates	mm		1/(4-6 hr)	50 km :: G	N/A :: Sfc
1948	Precipitation Amount, Convective	Bates	mm		1/(4-6 hr)	50 km :: G	N/A :: Sfc
1532	Pressure, Sfc	Bates	mb	1 :: 0.5	1/(20 min)	50 km :: G	N/A :: Sfc [Sea_lvl]
1536	Pressure, Sfc	Bates	mb	1 :: 0.5	1/(20 min)	50 km :: G	N/A :: Sfc
1537	Pressure, Tropopause	Bates	mb		1/(20 min)	50 km :: G	N/A :: Tropopause
1541	Pressure-RMSE, Sfc	Bates	mb		1/(20 min)	100 km :: G	N/A :: Sfc
2166	Radiative Flux, LW, Down	Bates	W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
2184	Radiative Flux, LW, Up	Bates	W/m^2		1/(20 min)	50 km :: Land	N/A :: TOA
2197	Radiative Flux, LW, Up	Bates	W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
2219	Radiative Flux, SW, Down	Bates	W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
2235	Radiative Flux, SW, Up	Bates			1/(20 min)	50 km :: Land	N/A :: TOA
2243	Radiative Flux, SW, Up	Bates	W/m^2		1/(20 min)	50 km :: Land	N/A :: Sfc
3109	Sea_Level Height	Bates	cm			:: Ocean	N/A :: Sfc
3134	Sea_sfc State	Bates			1/hr	25 km :: Ocean	N/A :: Sfc
3035	Snow Depth	Bates	m		1/(20 min)	50 km :: Land	N/A :: Sfc
2972	Soil Moisture	Bates	g/cm^2		1/(20 min)	50 km :: Land	N/A ::
1626	Temperature Profile	Bates	K	0.8K :: TBD	1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1617	Temperature, Dry-bulb, Near_sfc	Bates	K		1/(20 min)	25 km :: G	N/A :: 10 m
1619	Temperature, Dry-bulb, Near_sfc	Bates	K		1/(20 min)	50 km :: G	N/A :: 10 m
1620	Temperature, Dry-bulb, Near_sfc	Bates			1/(20 min)	50 km :: G	N/A :: Near_sfc
1623	Temperature, Dry-bulb, Near_sfc	Bates	K		1/(20 min)	50 km :: G	N/A :: Near_sfc
1618	Temperature, Dry-bulb, PBL	Bates	K		1/(20 min)	50 km :: G	N/A :: PBL [top of]
1621	Temperature, Stratospheric	Bates	K		1/(20 min)	25 km :: G	N/A :: PBL [Top of]
1622	Temperature, Tropospheric	Bates	K		1/(20 min)	50 km :: G	N/A :: Tropopause
1542	Temperature-RMSE	Bates	K		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
2954	Vegetation Moisture, Root-zone	Bates	g/cm^2		1/(20 min)	50 km :: Land	N/A ::
1692	Vertical Motion	Bates	mb/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1543	Wind Speed RMSE, Mean_Meridional	Bates	m/s		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
1544	Wind Speed RMSE, Mean_Zonal	Bates	m/s		1/(20 min)	100 km :: G	25 lyr :: 1000-0.1 mb
1691	Wind Speed, Mean Meridional	Bates	m/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1693	Wind Speed, Mean Zonal	Bates	m/s		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1694	Wind Speed, Meridional	Bates	m/s		1/(20 min)	50 km :: G	N/A :: Near_sfc
1701	Wind Speed, Meridional	Bates	m/s		1/(20 min)	25 km :: G	N/A :: Near_sfc
1699	Wind Speed, Zonal	Bates	m/s		1/(20 min)	50 km :: G	N/A :: Near_sfc
1700	Wind Speed, Zonal	Bates	m/s		1/(20 min)	25 km :: G	N/A :: Near_sfc
1649	Wind Stress, Meridional	Bates	N/m^2		1/(20 min)	25 km :: G	N/A :: Sfc
1749	Wind Stress, Meridional	Bates	N/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1751	Wind Stress, Zonal	Bates	N/m^2		1/(20 min)	25 km :: G	N/A :: Sfc
1752	Wind Stress, Zonal	Bates	N/m^2		1/(20 min)	50 km :: G	N/A :: Sfc
1695	Wind Trajectories	Bates	dg (lat,lon),mb-pre		1/(20 min)	50 km :: G	50 lyr :: 1000-0.1 mb
1134	CO Flux	Brewer	mol-CO/m^2/s	30% :: 20%	1/day	20 km :: Ocean	N/A :: Sfc
1135	CO Flux	Brewer	mol-CO/m^2/s	30% :: 20%	1/day	30 m :: Ocean/L	N/A :: Sfc
1148	CO2 Flux	Brewer	mol-CO2/m^2/s		1/day	30 m :: Ocean/L	N/A :: TOO
1149	CO2 Flux	Brewer	mol-CO2/m^2/s		1/day	20 km :: Ocean	N/A :: TOO
1153	COF2 Conc	Brewer	mix ratio	30% :: 20%	1/day	:: L	:: PBL

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1154	COS Conc	Brewer	mix ratio	30% :: 20%	1/day	:: G	:: PBL
1156	CS2 Conc	Brewer	mix ratio	30% :: 20%	1/day	:: G	:: PBL
1157	CS2 Conc	Brewer	mix ratio	30% :: 20%	1/day	:: L	:: PBL
1159	DMS Conc	Brewer	mix ratio	30% :: 20%	1/day	:: L	:: PBL
1160	DMS Conc	Brewer	mix ratio	30% :: 20%	1/day	:: G	:: PBL
1161	DMS Flux	Brewer	mol/m^2/s	30% :: 20%	1/day	20 km :: Ocean	N/A :: Sfc
1162	DMS Flux	Brewer	mol/m^2/s	30% :: 20%	1/day	30 m :: Ocean/L	N/A :: Sfc
1173	H2S Conc	Brewer	mix ratio	30% :: 20%	1/day	:: L	:: PBL
1174	H2S Conc	Brewer	mix ratio	30% :: 20%	1/day	:: G	:: PBL
3073	Oil_Slick Cover	Brewer	% surface		1/day	20 km :: Ocean	N/A :: TOO
3074	Oil_Slick Cover	Brewer	% surface		1/day	30 m :: Ocean/L	N/A :: TOO
2595	Phytoplankton Type	Brewer	%		1/day	30 m :: Ocean/L	N/A :: TOO
2596	Phytoplankton Type	Brewer	%		1/day	20 km :: Ocean	N/A :: TOO
1367	SO2 Conc	Brewer	mix ratio	30% :: 20%	1/day	:: L	:: PBL
1368	SO2 Conc	Brewer	mix ratio	30% :: 20%	1/day	:: G	:: PBL
3088	Trace Gas Transfer Coef	Brewer	m/s		1/day, 1/seas	25 km :: Ocean/G,L	N/A :: TOO
2547	C Budget, Global	Cihlar	kg/ha/yr	:: 0.1	1/yr	1 km :: Land/R	N/A :: Sfc
2713	Vegetation Change	Cihlar	veg change classes	1 class	1/yr	1 km :: Land/R	N/A :: Scf
2661	Vegetation Growing_Season Duration	Cihlar	day	10 dy :: 1dy	1/yr	1 km :: Land/R	N/A :: Sfc
2706	Vegetation Index	Cihlar	various indices	.05 :: 0.001	1/(10 day)	1 km :: Land/R	N/A :: Sfc
2694	Vegetation Phytomass	Cihlar	kg/ha	:: 10%	1/yr	1 km :: Land/R	N/A :: Sfc
2727	Vegetation Succession	Cihlar	vegetation change	:: 1 class	1/(2 yr)	1 km :: Land/R	N/A :: Sfc
2737	Vegetation Type	Cihlar	classes	[1 km] :: 1 class	1/yr	1 km :: Land/R	N/A :: Sfc
3525	Albedo, Cloud	Dickinson				0.5-1 dg :: G	
3521	Cloud Cover	Dickinson				0.5-1 dg :: G	
3528	Cloud Drop Size	Dickinson				0.5-1 dg :: G	
3527	Cloud Liq_Water Content	Dickinson				0.5-1 dg :: G	
3526	Cloud Optical Depth	Dickinson				0.5-1 dg :: G	
3524	Cloud Phase	Dickinson				0.5-1 dg :: G	
3523	Cloud Pressure	Dickinson				0.5-1 dg :: G	
3522	Cloud Temperature, Top	Dickinson				0.5-1 dg :: G	
3537	Energy Flux, Net	Dickinson			1/mo	1 x 1 dg ::	
3531	Heat Flux, Latent	Dickinson			1/mo	1 x 1 dg ::	
3530	Heat Flux, Sensible	Dickinson			1/mo	1 x 1 dg ::	
3534	Heat Transport	Dickinson			1/mo	1 x 1 dg ::	
3535	Moisture Transport	Dickinson			1/mo	1 x 1 dg ::	
3536	Momentum Transport	Dickinson			1/mo	1 x 1 dg ::	
3533	Radiative Flux, LW	Dickinson			1/mo	1 x 1 dg ::	
3532	Radiative Flux, Solar	Dickinson			1/mo	1 x 1 dg ::	
3529	Vegetation Reflectance, Bi-directional, (BRDF)	Dickinson					
2811	Land Geochemical Analysis	Dozier	N/A		1/day	50 m :: L	
2553	Land_sfc Biochemical Analysis	Dozier	N/A		1/day	50 m :: L	
2989	Runoff	Dozier	m^3/km^2/s	50% :: 50%	1/day	50 m :: L	
3070	Runoff_Chemistry	Dozier	eq/m^2/s	100% :: 100%	1/day	50 m :: L	
3002	Snow Chemistry	Dozier	m-eq/m^2	50% :: 50%	1/wk, 1/mo	50 m :: Snow/L	

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3041	Snow Melt Area, Distributed	Dozier	mm/hr	50 :: 50	1/day	50 m :: L	
3042	Snow Melt Chemistry	Dozier	m-eq/m^2	100% :: 100%	1/1wk, 1/mo	50 m :: L	
1068	CH3Cl Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1090	CH4 Budget	Grose			1/mo	~6 x 6 dg :: G	
1080	CH4 Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1371	Chemistry Diagnostics, Seasonal	Grose			1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1112	ClOy Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1113	ClOy Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1114	ClOy Conc	Grose	mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1832	H2O Conc	Grose	mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1185	HCl Conc	Grose	mix ratio		1/seas	~6 x 6 dg :: G	24 lvl :: 0-90 km
1224	HOy Conc	Grose			1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1225	HOy Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1226	HOy Conc	Grose	mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1845	Moisture Budget	Grose			1/mo	~6 x 6 dg :: G	
1244	N2O Budget	Grose			1/mo	~6 x 6 dg :: G	
1234	N2O Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1235	N2O Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1291	NOy Budget	Grose			1/mo	~6 x 6 dg :: G	
1287	NOy Conc	Grose			1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1288	NOy Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1289	NOy Conc	Grose	mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1292	NOy Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1330	O3 Budget	Grose			1/mo	~6 x 6 dg :: G	
1361	Ox Conc	Grose	mix ratio		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1362	Ox Conc	Grose			1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1363	Ox Conc	Grose	mix ratio		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1515	Planetary Wave Structure	Grose			1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
1595	Temperature Profile	Grose	K		1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
1596	Temperature Profile	Grose	K		48/day [for 10 day]	~6 x 6 dg :: G	24 lvl :: 0-90 km
1597	Temperature Profile	Grose	K		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1375	Trace Gas Conc, Non-diurnally-varying	Grose	mix ratio		1/day	~6 x 6 dg :: G	24 lvl :: 0-90 km
1755	Trace Gas Transport Diagnostics	Grose			1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
1645	Vorticity, Potential	Grose			1/day	~6 x 6 dg :: G	1 lvl :: 0-30 km
1676	Wind Velocity	Grose	m/s,dg		48/day	~6 x 6 dg :: G	[24 lvl] :: 0-90 km
1677	Wind Velocity	Grose	m/s,dg		1/mo	~6 x 6 dg :: G	24 lvl :: 0-90 km
2548	C Flux, Global	Hansen	g-C/m^2/s		1/wk	500 km ::	
2554	C-Cycle Diagnostic Data	Hansen			1/wk	500 km :: G	:: Trop
2545	Climatology Diagnostic Data	Hansen			1/wk	500 km :: G	:: Atmos
2422	Cloud Radiative Forcing	Hansen	W/m^2		1/wk	500 km :: G	:: Atmos
2135	Heat Flux, Feedback,	Hansen	W/m^2		1/wk	500 km :: G	:: Atmos
3571	C Flux	Harris				:: Ocean	
3570	Fish-stock Abundance	Harris			seas, yr	:: Ocean / R(Australia-STC)	
3565	Ocean Color/Temperature Maps, Composite	Harris				:: Ocean / R(Australia-STC)	
3569	Ocean Productivity-Variability	Harris			seas, yr	:: Ocean / R(Australia-STC)	

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
3566	Phytoplankton Biomass	Harris				:: Ocean / R(Australia-STC)	
3567	Phytoplankton Species Composition	Harris				:: Ocean / R(Australia-STC)	
3568	Temperature, Dry-bulb, Tropopause	Harris				:: Ocean / R(Australia-STC)	
1891	Cloud Ice Content	Hartmann	kg/m^2	0.02 :: 0.02	1/day	10 km :: G	
1923	Cloud Liq_water Total Column	Hartmann	kg/m^2	0.05 :: 0.05	1/day	10 km :: G	Column :: Trop
1411	Cloud Structure, Mesoscale	Hartmann			1/day	100 km :: Sites	
1472	Heat Flux, Latent	Hartmann	W/m^2	10 :: 10	1/day	100 km :: Ocean	Sfc ::
1945	Precipitation Amount	Hartmann	mm/day	10 :: 10	1/day	10 km :: Ocean	
3588	Crustal Motion	Isacks				:: Land/R(Andes)	
3584	Dust Composition	Isacks				:: Land/R(Andes)	
3580	Dust Conc	Isacks				:: Land/R(Andes)	
3583	Dust Size	Isacks				:: Land/R(Andes)	
3582	Dust Source	Isacks				:: Land/R(Andes)	
3581	Dust Spatial Distribution	Isacks				:: Land/R(Andes)	
3589	Erosion-Deposition Events	Isacks				:: Land/R(Andes)	
3590	Landform Face Freshness	Isacks				:: Land/R(Andes)	
3591	Landform Stratigraphy	Isacks				:: Land/R(Andes)	
3592	Landform Structures(Relief/Lithology-Change)	Isacks				:: Land/R(Andes)	
3587	Land_sfc Roughness	Isacks				:: Land/R(Andes)	
3577	Land_sfc Temperature, Average	Isacks				:: Land/R(Andes)	
3578	Land_sfc Temperature-Variability(&Extrema)	Isacks				:: Land/R(Andes)	
3572	Precipitation Amount, Average	Isacks				:: Land/R(Andes)	
3573	Precipitation Variability(&Extrema)	Isacks				:: Land/R(Andes)	
3576	Sediment Conc	Isacks				:: Land/R(Andes)	
3574	Snow&Ice Content	Isacks				:: Land/R(Andes)	
3575	Surface Water Content (Soil Moisture+Lakes+Rivers)	Isacks				:: Land/R(Andes)	
3586	Vegetation Class(Type)	Isacks				:: Land/R(Andes)	
3585	Vegetation Density	Isacks				:: Land/R(Andes)	
3579	Wind Velocity, Prevailing	Isacks				:: Land/R(Andes)	
2886	Drainage_Basin Boundary	Kerr, Sorooshian	km^2	10000 [?] ::	1/mission	30 m :: Land/R	:: Sfc
2136	Heat Flux, Horizontal	Kerr, Sorooshian	W/m^2/um			10 km :: Land/R	:: Trop
1473	Heat Flux, Latent	Kerr, Sorooshian	W/m^2	10% :: 10%	1/day	500 m :: Land	N/A :: Sfc
1484	Heat Flux, Sensible	Kerr, Sorooshian	W/m^2	10% :: 10%	1/hr	500 km :: Land/R	N/A :: Sfc
1485	Heat Flux, Sensible	Kerr, Sorooshian	W/m^2	10% :: 10%	1/hr	500 m :: Land/R	N/A :: Sfc
2270	Irradiance, Total	Kerr, Sorooshian	W/m^2	50 :: 25		500 m :: Land/R	N/A :: Sfc
2331	PAR	Kerr, Sorooshian	W/m^2	100 :: 100	1/day	500 m :: Land/R	N/A :: Sfc
2138	Radiative Flux, Net	Kerr, Sorooshian	W/m^2	15% :: 15%	[diurnal]	1 km :: Land/R	N/A :: Sfc
3050	River Channel Geometry, Major-stream	Kerr, Sorooshian	m^2	10 :: 10	1/seas	30 m :: Land/R	:: Sfc
2901	Runoff_Contributing-area	Kerr, Sorooshian	km^2	5 :: 5	1/mission	500 m :: Land/R	N/A :: Sfc
2991	Runoff_Contributing-area	Kerr, Sorooshian	km^2	5 :: 5	1/mission	500 m :: Land/R	
2048	Soil Brightness Index	Kerr, Sorooshian	%	5% :: 10%	1/(2 mo)	30 m :: Land/R	
2793	Soil Class	Kerr, Sorooshian	class		1/yr	30 m :: Land/R	
2973	Soil Moisture	Kerr, Sorooshian	% vol	25% :: 15%	1/day	500 m :: Land/R	:: Sfc
2789	Soil Proportion, Bare	Kerr, Sorooshian	%	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
2503	Soil Temperature	Kerr, Sorooshian	K	0.5 K :: 0.5	2/day [d,n]	500 m :: Land/R	:: Sfc

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2609	Vegetation Biomass, Above_sfc	Kerr, Sorooshian	kg/m^2	20% ::	1/seas	60 m :: Land/R	:: Sfc
2714	Vegetation Condition	Kerr, Sorooshian	N/A	10% :: 10%	1/wk	500 m :: Land/R	N/A :: Sfc
2752	Vegetation Index	Kerr, Sorooshian	%	.01 :: .01	1/(2 wk)	30 m :: Land/R	:: Sfc
2682	Vegetation Index, Leaf Area, (LAI)	Kerr, Sorooshian	%	10% :: 5%	1/mo	30 m :: Land/R	:: Sfc
2621	Vegetation Litter Biomass	Kerr, Sorooshian	kg/km^2			30 m :: Land/R	:: Sfc
2699	Vegetation Production, Net Primary, (NPP)	Kerr, Sorooshian	t/yr	20% :: 10%	1/yr	500 m :: Land	N/A :: Sfc
2704	Vegetation Productivity	Kerr, Sorooshian	annual %			30 m :: Land/R	:: Sfc
3065	Vegetation Stress Index, Water	Kerr, Sorooshian	%change	5% :: 5%	1/(2 mo)	500 m :: Land/R	
3507	Evaporation, Land_sfc	Lau				:: G	N/A :: Sfc
3511	Heating, Latent	Lau					:: Atmos
3513	Moisture Budget	Lau				:: R	:: Upper_atmos
3512	Moisture Transport Statistics	Lau				:: G	:: Atmos
3506	Precipitable Water	Lau				:: G	N/A :: Sfc
3505	Precipitation Amount, Rain	Lau			1/mo	:: Land/R(Andes)	N/A :: Sfc
3514	Precipitation Sampling statistics, Rain	Lau					N/A :: Sfc
3515	Radiative Flux Divergence, Clear-sky	Lau					
3516	Radiative Flux Divergence, Cloudy-sky	Lau					
3508	Soil Moisture	Lau				:: G	N/A :: Sfc
3509	Vegetation Evapotrans	Lau				:: G	N/A :: Sfc
3510	Vegetation Index	Lau				:: G	N/A :: Sfc
3593	Level-2 Data Comparisons, EOS_Instrument	Le Marshall				:: R (Tropics,So.Hemis)	
3517	Heat Flux, Latent	Liu			3 day	1 x 1 dg :: Ocean	N/A :: Sfc
3518	Heat Flux, Sensible	Liu			3 day	1 x 1 dg :: Ocean	N/A :: Sfc
3519	Ocean Circulation, Model Eddy-Resolving	Liu			3 day	1/3 dg :: Ocean	30 level ::
3520	Sea_Level Height	Liu			10 day	1/3 dg :: Ocean	N/A :: Sfc
1091	CH4 Emission	Moore	g/ha/timestep	30%? :: 5-10%?	1/mo	1 km :: Land	:: Sfc
1092	CH4 Emission	Moore	g/ha/timestep	30%? :: 5-10%?	1/mo	.030-1 km :: Land/R,L	:: Sfc
1143	CO2 Exchange	Moore	various			Mult :: Land/R	
1144	CO2 Exchange	Moore	various			Mult :: Land	
2633	Fire Burning Index	Moore	ha		1/yr	1 km :: Land	
3069	Hydrological Parameter, XXX	Moore	% saturation		1/wk	1 km :: Land	
2937	Inundation Depth	Moore	m		1/wk	1 km :: Land	
2941	Inundation Extent	Moore	ha/km^2		1/wk	1 km :: Land	
1245	N2O Emission	Moore	g/ha/mo	30% :: 5-10%	1/mo, 1/yr	.030-1 km :: Land/L,R	
1246	N2O Emission	Moore	g/ha/mo	30% :: 5-10%	1/mo, 1/yr	1 km :: Land	
2332	PAR	Moore	W/m^2	100 :: 100	1/day	.030-1 km :: Land/R,L	
2333	PAR	Moore	W/m^2	100 :: 100	1/day	1 km :: Land	
2893	River Discharge	Moore	m^3/s		1/wk	1 km :: Land	
2990	Runoff	Moore	mm-H2O/wk		1/wk	1 km :: Land	
2769	Sediment(C) Constituent Flux	Moore	kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
2775	Sediment(N) Constituent Flux	Moore	kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
2777	Sediment(P) Constituent Flux	Moore	kg/wk/TBD-area		1/wk	1 km :: Sel_basins	N/A :: Sfc
2974	Soil Moisture	Moore	kg/m^2	20% :: 20%	1/(1-2 wk)	.030-1 km :: Land/R,L	
2975	Soil Moisture	Moore	kg/m^2	20% :: 20%	1/(1-2 wk)	1 km :: Land	
2549	Soil N Turnover	Moore	kg/ha per t-step	30% :: 1%	1/mo, 1/yr	Mult :: Land/R,L	

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
2550	Soil N Turnover	Moore	kg/ha per t-step	30% :: 1%	1/mo, 1/yr	Mult :: Land	
2705	Soil Proportion, Bare	Moore	%	10% :: 10%	1/mo	1 km :: Land	
2610	Vegetation Biomass, Above_sfc	Moore	kg/ha		1/(1-3 yrs) [few yrs]	.030-1 km :: Land/R	
2611	Vegetation Biomass, Above_sfc	Moore	kg/ha		1/(1-3 yr) [few yr]	.030-1 km :: Land	
2625	Vegetation Biomass, Sub_sfc	Moore	kg/ha		1/(1-3 yr) [few yr]	:: Land/R	
2626	Vegetation Biomass, Sub_sfc	Moore	kg/ha		1/(1-3 yr) [few yr]	:: Land	
1797	Vegetation Evapotrans	Moore	mm/day	1 :: 1	1/day, 1/wk	.030-1 km :: Land/R,L	
1798	Vegetation Evapotrans	Moore	mm/day	1 :: 1	1/day, 1/wk	1 km :: Land	
2635	Vegetation Extent	Moore	ha	15% :: 15%	1/yr	1 km :: Land	
2753	Vegetation Index	Moore	dimensionless		1/mo, 1/yr	.030-1 km :: Land/R,L	
2754	Vegetation Index	Moore	dimensionless		1/mo, 1/yr	1 km :: Land	
2683	Vegetation Index, Leaf Area, (LAI)	Moore	%	10 :: 5	1/(1-3 mo) [few mo]	30 m :: Land/L,R	
2622	Vegetation Litter Biomass	Moore	kg/ha		1/(1-3 yr) [few yr]	:: Land/R,L	
2623	Vegetation Litter Biomass	Moore	kg/ha		1/(1-3 yr) [few yr]	:: Land	
2697	Vegetation Production, Net Ecosystem, (NEP)	Moore	t/yr/km^2	25% :: 10%	1/yr	km [?] :: Land	
2700	Vegetation Production, Net Primary, (NPP)	Moore	t/yr/km^2	25% :: 10%	1/yr	1 km :: Land	
2725	Vegetation Stress Index, XXX	Moore			1/mo	30 m :: Land/R,L	
2738	Vegetation Type	Moore	classes		1/(3 yr)	1 km :: Land	
3265	Aerosol Dispersal, Eruption_Plume	Mouginis-Mark	kg-sulfate/day		1/event	1 km :: G	:: Plume_col
3267	Eruption-Plume Dispersal	Mouginis-Mark	km/day		1/event	1 km :: R	N/A :: Sfc
3281	Eruption_Plume SO2 Eruption Rate, Mass	Mouginis-Mark	kg/day		1/day, 1/wk	1 km :: G	N/A :: Sfc
3268	Lava-Flow Cooling Rate	Mouginis-Mark	C/day	5 C/dy ::	1/event	30 m :: Land/L	N/A :: Sfc
3280	Lava-Flow Eruption Rate, Mass,	Mouginis-Mark	kg/day	10^5 kg ::	1/day, 1/wk	30 m :: Land/L	N/A :: Sfc
3272	Volcano Cone Deformation	Mouginis-Mark	cm/mo	1 cm (ver) ::	(~10)/event	30 m :: Land/L	cm :: Sfc
3275	Volcano Elevation	Mouginis-Mark	cm	10 m (ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
3277	Volcano Elevation, Reference	Mouginis-Mark	cm	10 m (ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
3279	Volcano Emissions, Eruption	Mouginis-Mark	SO2 rlse in kton		1/yr	20 km :: G	N/A :: Plume_top
3296	Volcano Temperature-Change	Mouginis-Mark	C/yr	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
3300	Volcano Volume-Change	Mouginis-Mark	m^3	1000 m^3 ::	1/event	30 m :: Land/L	N/A :: Sfc
3563	Heat Flux, Latent	Murakami				:: Ocean/R(~Pacific)	
3556	O3 Conc	Murakami				5 dg :: G	2 km :: Atmos
3559	Precipitable Water	Murakami				:: Ocean/R(~Pacific)	
3558	Precipitation Amount	Murakami				:: Ocean/R(~Pacific)	
3561	Sea_Level Height	Murakami				:: Ocean/R(~Pacific)	
3564	Sea_sfc Temperature (SST)	Murakami				:: Ocean/R(~Pacific)	
3557	Trace Gas Total Burden, Greenhouse	Murakami				5 dg :: G	NA :: Atmos
3562	Wind Velocity, Sea_sfc	Murakami				:: Ocean/R(~Pacific)	
3560	Wind Velocity, Tropospheric 3-D	Murakami				:: Ocean/R(~Pacific)	
1033	BrOy Conc	Pyle					
1181	CFC-XXX (HCFCs) Conc	Pyle					
1058	CFC-XXX Conc	Pyle					
1081	CH4 Conc	Pyle					
1115	ClOy Conc	Pyle					
1833	H2O Conc	Pyle					
1175	Halons Conc	Pyle					

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1227	HOy Conc	Pyle					
1236	N2O Conc	Pyle					
1290	NOy Conc	Pyle					
1364	Ox Conc	Pyle					
1598	Temperature Profile	Pyle					
1646	Vorticity, Potential	Pyle					
1683	Wind Velocity, 3-D	Pyle					
1093	CH4 Flux	Richey, Batista	g/ha/day	20% :: 20%	1/day	1 km :: Land/R	:: Sfc
1094	CH4 Flux	Richey, Batista	g/ha/day	20% :: 20%	1/day	1 km :: Land/R	
1147	CO2 Flux	Richey, Batista	kg/ha/hr	20% :: 20%	1/day	1 km :: Land/R	:: Sfc
1155	COS Flux	Richey, Batista	kg/ha/hr	20% :: 20%	1/day	1 km :: Land/R	
2710	Ground Water Sum Routing	Richey, Batista	g/ha/day	20% :: 20%	1/mo	1 km :: Land/R	
1943	Precipitation Amount	Richey, Batista	mm/mo	10% :: 10%	1/wk	1 km :: Land/R	:: Sfc
1944	Precipitation Amount	Richey, Batista	mm/mo	10% :: 10%	1/wk	1 km :: R	
2987	Runoff	Richey, Batista	m^3/s	5% :: 5%	1/wk	1 km :: Land/R	:: Sfc
2988	Runoff	Richey, Batista	m^3/s	5% :: 5%	1/wk	1 km :: Land/R	
1795	Vegetation Evapotrans	Richey, Batista	mm/mo	5% :: 5%	1/mo	1 km :: Land/R	:: Sfc
1796	Vegetation Evapotrans	Richey, Batista	mm/mo	5% :: 5%	1/mo	1 km :: Land/R	
1474	Heat Flux, Latent	Rothrock	W/m^2	20% :: 20%	1/(3 day)	100 km :: > 60 dgLAT	
1486	Heat Flux, Sensible	Rothrock	W/m^2	20% :: 20%	1/day, 1/wk	100 km :: > 60 dgLAT	
2607	Ocean Productivity, Primary	Rothrock	g-C/m^2/day		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3198	Ocean Water Attenuation Coef, Diffuse	Rothrock	/m		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3082	Ocean Water Salinity	Rothrock	o/oo		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3084	Ocean Water Salt Flux	Rothrock	kg/m^2/day	20% :: 20%	1/day	100 km :: > 60 dgLAT	:: TOO
3119	Ocean Water Temperature, Internal	Rothrock	K		1/(3 day)	100 km :: > 60 dgLAT	lvl :: TOO
3076	Pigment Conc	Rothrock	mg/m^3		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
1523	Pressure, Sfc	Rothrock	mb		1/(3 day)	100 km :: > 60 dgLAT	N/A :: Sfc
2406	Radiance, Total	Rothrock	mW/m^2		1/(3 day)	100 km :: > 60 dgLAT	
2178	Radiative Flux, LW, Net	Rothrock	W/m^2	10% :: 10%	1/day	100 km :: > 60 dgLAT	
2227	Radiative Flux, SW, Net	Rothrock	W/m^2	15% :: 15%	1/day, 1/wk	100 km :: > 60 dgLAT	
3194	Sea_Ice Extent	Rothrock	fraction	0.05 :: 0.05	1/(3 day)	100 km :: > 60 dgLAT	:: Sfc
3187	Sea_Ice Max Extent	Rothrock	fraction		1/(3 day)	100 km :: > 60 dgLAT	:: Sfc
3132	Wind Velocity	Rothrock	cm/s,dg		1/(3 day)	100 km :: > 60 dgLAT	:: Trop
1686	Wind Velocity, Geostrophic	Rothrock	m/s		1/(3 day)	100 km :: > 60 dgLAT	
1678	Wind Velocity, Sea_sfc	Rothrock	m/s,dg		1/(3 day)	100 km :: > 60 dgLAT	
2002	Albedo, Land_sfc	Schimel	%	10% :: 1%	1/day, 1/wk	[multiple] :: 6 sites/L	
2887	Bowen Ratio	Schimel	ratio	20% :: 1%	1/day	500 m :: 6 sites/L	:: Sfc
1098	CH4 Uptake	Schimel	g/ha/mo	30% :: 5%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1099	CH4 Uptake	Schimel	g/ha/mo	30% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1100	CH4 Uptake Time-derivative	Schimel	g/ha/mo^2	30% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1145	CO2 Exchange	Schimel	g/ha/hr	25% :: 1%	1/day	Mult :: 6 sites/L	:: Sfc
1146	CO2 Exchange Time-deriv	Schimel	g/ha/hr^2	25% :: 1%	1/day	Mult :: 6 sites/L	:: Sfc
1247	N2O Emission	Schimel	g/ha/mo	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1248	N2O Emission Time-deriv	Schimel	g/ha/mo^2	50% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1257	NH4 Exchange	Schimel	g/ha/mo	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1258	NH4 Exchange Time-deriv	Schimel	g/ha/mo^2	25% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1259	NMHC Flux	Schimel	g/ha/mo	50% :: 5%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1260	NMHC Flux	Schimel	g/ha/mo	50% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1261	NMHC Flux Time-deriv	Schimel	g/ha/mo^2	50% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1284	NOx Emission	Schimel	g/ha/mo	25% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
1285	NOx Emission	Schimel	g/ha/mo	25% :: 5%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1286	NOx Emission Time-deriv	Schimel	g/ha/mo^2	25% :: 1%	1/seas	30 m :: 6 sites/L	:: Sfc
2976	Soil Moisture	Schimel	cm	25% :: 5%	1/wk	30 m :: 6 sites/L	:: Sfc
2551	Soil N Turnover	Schimel	kg/ha	25% :: 1%	1/seas	Mult :: 6 sites/L	:: Sfc
2552	Soil N Turnover Time-deriv	Schimel	kg/ha	25% :: 1%	1/seas	Mult :: 6 sites/L	:: Sfc
2790	Soil Proportion, Bare	Schimel	%	15% :: 5%	1/mo	500 m :: 6 sites/L	:: Sfc
1799	Vegetation Evapotrans	Schimel	cm/day	20% :: 1%	1/day	[multiple] :: 6 sites/L	:: Sfc
1803	Vegetation Evapotrans Time-deriv, Annual	Schimel	cm ?	20% :: 1%	1/day	[multiple] :: 6 sites/L	:: Sfc
2637	Vegetation Height	Schimel	m	20% :: 5%	1/yr	500 m :: 6 sites/L	:: Sfc
2702	Vegetation Production Time-deriv, Net Primary, (dNPP/dt)	Schimel	kg/ha ?	20% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
2701	Vegetation Production, Net Primary, (NPP)	Schimel	kg/ha	20% :: 1%	1/seas	[multiple] :: 6 sites/L	:: Sfc
1025	Br Conc	Schoeberl	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1029	BrO Conc	Schoeberl	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1032	BrONO2 Conc	Schoeberl	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1038	CBrClF2 Conc	Schoeberl	ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1039	CCl4 Conc	Schoeberl	ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1041	CCl4 Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1053	CFC-11(CFCl3) Conc	Schoeberl	ppb	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1054	CFC-11(CFCl3) Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1035	CFC-113(C2Cl3F3) Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1034	CFC-114(C2Cl2F4) Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1036	CFC-115(C2ClF5) Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1045	CFC-12(CF2Cl2) Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1046	CFC-12(CF2Cl2) Conc	Schoeberl	ppb	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1056	CFClO Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1060	CH3 Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1063	CH3Br Conc	Schoeberl	ppt	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1064	CH3CCl3 Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1069	CH3Cl Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1071	CH3O Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1072	CH3O2 Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1073	CH3OOH Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1082	CH4 Conc	Schoeberl	ppm	15% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1083	CH4 Conc	Schoeberl	ppm	10% :: 10%	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1084	CH4 Conc	Schoeberl	ppm	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1101	CHO Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1102	Cl Conc	Schoeberl	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1106	ClO Conc	Schoeberl	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1111	ClONO2 Conc	Schoeberl	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1123	CO Conc	Schoeberl	ppb	20% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1152	COF2 Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1163	H Conc	Schoeberl	ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1164	H2 Conc	Schoeberl	ppm	15% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1059	H2CO Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1834	H2O Conc	Schoeberl	ppm	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1835	H2O Conc	Schoeberl	ppm	15% :: 10%	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1169	H2O2 Conc	Schoeberl	ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1170	H2O2 Conc	Schoeberl	ppb	30% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1179	HBr Conc	Schoeberl	ppt	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1186	HCl Conc	Schoeberl	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1196	HF Conc	Schoeberl	ppb	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1201	HNO3 Conc	Schoeberl	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1209	HNO4 Conc	Schoeberl	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1215	HO2 Conc	Schoeberl	ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1221	HOCl Conc	Schoeberl	ppb	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1228	N Conc	Schoeberl	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1237	N2O Conc	Schoeberl	ppb	15% ::	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1238	N2O Conc	Schoeberl	ppb	25% :: 10%	1/mo	10 dgZM :: G	2 km :: 0-90 km
1253	N2O5 Conc	Schoeberl	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1265	NO Conc	Schoeberl	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1272	NO2 Conc	Schoeberl	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1281	NO3 Conc	Schoeberl	ppm	25% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1283	NOx Conc	Schoeberl	ppt	30% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1293	O(1D) Conc	Schoeberl	ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1297	O(3P) Conc	Schoeberl	ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1315	O3 Conc	Schoeberl	ppm	20% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
1316	O3 Conc	Schoeberl	ppm	10% :: 10%	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1317	O3 Conc	Schoeberl	ppb	20% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1346	O3 Conc, SBUV-2_Corrected	Schoeberl	ppm	0.5 :: 0.2	1/day	8 x 10 dg :: G	5 km :: Atmos
1347	O3 Conc, SBUV-2_Follow-on	Schoeberl	ppm	0.5 :: 0.2	1/day	8 x 10 dg :: G	5 km :: Atmos
1348	O3 Conc, SBUV_Corrected	Schoeberl	ppm	0.5 :: 0.2	1/day	8 x 10 dg :: R	5 km :: Atmos
1335	O3 Total Burden, TOMS_Follow-on	Schoeberl	DU	5 :: 2	1/day	1 x 1 dg :: G	Column :: Atmos
1336	O3 Total Burden, TOMS_Version-6	Schoeberl	DU	5 DU :: 2	1/day	1 x 1 dg :: R	Column :: Atmos
1357	OH Conc	Schoeberl	no/cm^3	30% ::	1/(3 mo)	6 regions :: R	1 km :: 0-15 km
1358	OH Conc	Schoeberl	no/cm^3	15% :: 10%	1/mo	2 x 3 dg :: G	2 km :: Trop
1359	OH Conc	Schoeberl	ppb	30% ::	1/mo	10 dgZM :: G	2 km :: 0-90 km
2412	Radiation Intensity, UV	Schoeberl	photons/cm^2/s/nm	20% :: 15%	1/day	2 x 3 dg :: G	2 km :: Trop
1599	Temperature Profile	Schoeberl	K	2 K :: 2	(1-4)/day	2 x 3 dg :: 1-3 sites [few sites]	2 km :: Atmos
1600	Temperature Profile	Schoeberl	K	2K :: 2 K	1/day	4 x 5 dg :: G	3.8 km :: Strat
1601	Temperature Profile	Schoeberl	K	2K :: 2 K	1/day	4 x 5 dg :: G	110 mb :: Trop
1602	Temperature Profile	Schoeberl	K	2K :: 2 K	1/day	4 x 5 dg :: G	3.8 km :: Strat
1603	Temperature Profile	Schoeberl	K	2K :: 2 K	1/day	4 x 5 dg :: G	110 mb :: Trop
1604	Temperature Profile	Schoeberl	K	2 K :: 2 K	1/day	2 x 3 dg :: G	2 km ::
1624	Temperature Profile	Schoeberl	K	2K :: 1K	1/day	2 x 2 dg :: R	2 km :: Atmos
1625	Temperature Profile	Schoeberl	K	2 K :: 1K	1/day	2 x 2 dg :: G	2 km :: Atmos

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1373	Trace Gas Total Burden	Schoeberl	column density	25% :: 15%	[irreg]	N/A :: R	Column :: Atmos
1725	Wind Speed	Schoeberl	m/s	2 m/s :: 2 m/s	(1-4)/day	2 x 3 dg :: G	2 km :: Atmos
1726	Wind Speed	Schoeberl	m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	3.8 km :: Strat
1727	Wind Speed	Schoeberl	m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	110 mb :: Trop
1728	Wind Speed	Schoeberl	m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	3.8 km :: Strat
1729	Wind Speed	Schoeberl	m/s	2 m/s :: 2 m/s	1/day	4 x 5 dg :: G	110 mb :: Trop
1730	Wind Speed	Schoeberl	m/s	2 m/s :: 2 m/s	1/day	2 x 3 dg :: G	2 km ::
1150	CO2 Flux	Sellers	mmol/m^2/s		1/hr	1 dg ::	
1487	Heat Flux, Sensible	Sellers	W/m^2		4/day	1 dg ::	
1846	Moisture Flux	Sellers	kg/m^2/s		4/day	1 dg ::	
2712	Vegetation Phenologic State, AVHRR	Sellers			1/mo	20 km ::	
2927	Ice_Sheet Accumulation	Simard		20% ::	1/yr	:: Canada/R	:: Sfc
2928	Ice_Sheet Boundary (Margin)	Simard		20% ::	1/yr	:: Canada/R	:: Sfc
2899	Ice_Sheet Displacement	Simard	cm	10 cm ::	1/yr	:: Canada/R	:: Sfc
2979	Permafrost Distribution	Simard	km	1 km ::	1/(3 yr)	:: Canada/R	:: Sfc
2980	Permafrost Sensitivity	Simard		1 km ::	1/(3 yr)	:: Canada/R	:: Sfc
3144	Sea_Ice Conc	Simard	% cover	10 km/10% ::	1/(2 wk)	10 km :: Canada/R	:: Sfc
3169	Sea_Ice Conc	Simard	km	500 m ::	1/(2 wk)	500 m :: Canada/R	:: Sfc
3172	Sea_Ice Conc	Simard	km/day	500 m ::	1/wk	500 m :: Canada/R	:: Sfc
3135	Sea_Ice Duration, Ice-free_Season	Simard	day	1 km [?] ::	1/yr [?]	:: Canada/R	:: Sfc
3159	Sea_Ice Edge	Simard	km	500 m ::	1/(2 wk)	500 m :: Canada/R	:: Sfc
3193	Sea_Ice Extent	Simard		500 m ::	1/(2 wk)	500 m :: Canada/R	:: Sfc
3023	Snow Cover	Simard	km	10 km ::	1/wk	10 km :: Canada/R	:: Sfc
3036	Snow Depth	Simard	cm	5 cm/10% ::	1/wk	10 km :: Canada/R	:: Sfc
3044	Snow State	Simard	wet or dry			:: Canada/R	:: Sfc
3001	Snow Water Equivalent	Simard	mm	10 mm/10% ::	1/wk	10 km :: Canada/R	:: Sfc
3164	Wind Velocity, Sea_sfc	Simard	km	25 km ::	1/wk	25 km :: Canada/R	:: Sfc
3539	Heat Flux, Latent	Srokocz			1/mo	>= 1 dg (Select) ::	
3540	Heat Flux, Sensible	Srokocz			1/mo	>= 1 dg (Select) ::	
3545	Heat Flux-Change Statistics, Latent	Srokocz			1/mo	>= 1 dg (Select) ::	
3546	Heat Flux-Change Statistics, Sensible	Srokocz			1/mo	>= 1 dg (Select) ::	
3541	Moisture Flux, Net	Srokocz			1/mo	>= 1 dg (Select) ::	
3547	Moisture Flux-Change Statistics , Net	Srokocz			1/mo	>= 1 dg (Select) ::	
3538	Momentum	Srokocz			1/mo	>= 1 dg (Select) ::	
3544	Momentum-Change Statistics	Srokocz			1/mo	>= 1 dg (Select) ::	
3543	Radiative Flux, LW	Srokocz			1/mo	>= 1 dg (Select) ::	
3542	Radiative Flux, Solar	Srokocz			1/mo	>= 1 dg (Select) ::	
3549	Radiative Flux-Change Statistics , LW	Srokocz			1/mo	>= 1 dg (Select) ::	
3548	Radiative Flux-Change Statistics , Solar	Srokocz			1/mo	>= 1 dg (Select) ::	
3551	Sea_Level Height-Change Statistics	Srokocz			5 yr (yr,seas,<seas)	1 x 1 dg :: Ocean /R	
3550	Sea_Level Height-Variability, RMS	Srokocz			1/seas	1 x 1 dg ::	
3554	Sea_sfc Feature-Occurence Statistics	Srokocz			occasional	1 km ::	
3555	Sea_sfc Gradient-Changes Statistics	Srokocz			occasional	1 km ::	
3552	Sea_sfc Temperature Statistics	Srokocz			1/mo	1 km ::	
3553	Sea_sfc Temperature-Change Statistics	Srokocz			1/5yr	1 x 1 dg ::	

Appendix J: Output Data Products Listed by IDS Investigator

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol. :: Cover.	Vertical Resol. :: Cover.
1379	Angular Momentum	Tapley	kg m^2/s	1% ::	4/day	:: G	:: Atmos
2857	Geodetic Location, Reference	Tapley	cm	< 2 cm :: <1 cm		N/A :: G	N/A :: Sfc
2860	Geodetic Orientation	Tapley	mas (m-arc_sec),ms	1mas,0.1ms ::	1/day	N/A :: G	N/A :: N/A
2868	Land_sfc Rebound, Post-Glacial,	Tapley	/yr	5% ::	1/(~10 yr)	N/A :: G	ns [?] :: Global
2854	Lithosphere Gravity Field	Tapley	mgal	10% ::		200 km :: Ocean	N/A :: Ocean
3089	Ocean Angular Momentum	Tapley	kg m^2/s^2	10% ::	1/day	:: Ocean	:: Ocean
3090	Ocean Current Circulation, Large-scale	Tapley	m	10% ::	1/(1-3 mo) [few mo]	4000 km :: Ocean	N/A :: Sfc
3110	Sea_Level Height	Tapley	cm	1-2 cm ::	1/yr	2 x 2 dg :: Ocean	N/A :: Sfc
3124	Sea_Level Height	Tapley	mm	10% ::	1/mo	2 x 2 dg :: Ocean	N/A :: Sfc
1641	Torque, Friction	Tapley	kg m^2/s^2	5% ::	4/day	50 km :: G	N/A :: Sfc
2875	Torque, Mountain,	Tapley	kg m^2/s^2	5% ::	4/day	50 km :: Land	N/A :: Sfc
2876	Torque, Ocean-Land	Tapley	kg m^2/s^2	10% ::	4/day	50 km :: G	N/A :: Sfc
2067	Cloud Cover	Wielicki	fraction	5% :: 1%	18/day [d,n]	25 km :: R	N/A :: Atmos
1766	Cloud Drop Phase	Wielicki	water/ice	90% Conf :: 90% Conf	18/day [d,n]	25 km :: R	N/A :: Atmos
1773	Cloud Drop Size	Wielicki	um	30% :: 10%	18/day [d,n]	25 km :: R	N/A :: Atmos
1392	Cloud Height, Base	Wielicki	km	1.0 km :: 0.1 km	18/day [d,n]	25 km :: R	0.1 km :: Atmos
1428	Cloud Height, Top	Wielicki	km	0.5 km :: 0.1 km	18/day [d,n]	25 km :: R	0.1 km :: Atmos
1916	Cloud Liq_water Content	Wielicki	g/m^2	30% :: 10%	18/day [d,n]	25 km :: R	N/A :: Atmos
2315	Cloud Optical Depth, LW	Wielicki	dimensionless	25% :: 10%	18/day [d,n]	25 km :: R	N/A :: Atmos
2320	Cloud Optical Depth, SW	Wielicki	dimensionless	25% :: 10%	9/day [d]	25 km :: R	N/A :: Atmos
2151	Radiative Flux Divergence, LW	Wielicki	W/m^2/km	10%clr,25%cld :: 5%clr,10%cld	18/day [d,n]	25 km :: R	N/A :: Atmos
2153	Radiative Flux Divergence, SW	Wielicki	W/m^2/km	10%clr,25%cld :: 5%clr,10%cld	9/day [d]	25 km :: R	:: Atmos
2167	Radiative Flux, LW, Down	Wielicki	W/m^2	7 W/m^2 :: 2 W/m^2	18/day [d,n]	25 km :: R	N/A :: Sfc
2179	Radiative Flux, LW, Net	Wielicki	W/m^2	7 W/m^2 :: 2 W/m^2	18/day [d,n]	25 km :: R	N/A :: Sfc
2198	Radiative Flux, LW, Up	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	Wielicki	W/m^2	7 W/m^2 :: 2 W/m^2	18/day [d,n]	25 km :: R	N/A :: Sfc
2220	Radiative Flux, SW, Down	Wielicki	W/m^2	15 W/m^2 :: 2 W/m^2	9/day [d]	25 km :: R	N/A :: Sfc
2228	Radiative Flux, SW, Net	Wielicki	W/m^2	15 W/m^2 :: 2 W/m^2	9/day [d]	25 km :: R	N/A :: Sfc
2244	Radiative Flux, SW, Up	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	Wielicki	W/m^2	10 W/m^2 :: 2 W/m^2	9/day [d]	25 km :: R	N/A :: TOA

IDS Input Requirements Listed by Product Name

Appendix K

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3442	Aerosol Angstrom Exponent	Harris		15% :: 5%	1/day	1-20 km :: Ocean/R	
3368	Aerosol Backscatter	Dickinson				<0.5-1 deg :: G	
2105	Aerosol Backscatter	Murakami	/km/sr	10-50% ::			
1006	Aerosol Conc	Grose	no/cm^3	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
1007	Aerosol Conc	Kerr, Sorooshian	type,amount	5% :: 5%	1/day	25 km :: Land	3 km :: Atmos
1008	Aerosol Conc	Moore	mg/cm^3	50% ::	1/(2 day)	1 km :: G	
1009	Aerosol Conc	Moore	mg/cm^3	50% ::	1/(2 day)	30 m :: L	
1010	Aerosol Conc	Schoeberl	no/cm^3	10% :: 5%	1/day	200 km :: G	1 km :: Strat
3263	Aerosol Conc, Stratospheric	Mouginis-Mark			1/wk	:: G	:: Strat
3264	Aerosol Conc, Tropospheric	Mouginis-Mark			1/wk	:: G	:: Trop
3374	Aerosol Extinction	Dickinson				<0.5-1 deg :: G	
2327	Aerosol Extinction Coef	Murakami	/km	5-10% ::		:: G	N/A :: Atmos
1013	Aerosol Layer Boundary Height	Bates	m	75 m ::		2-200 km :: G	75 m :: Atmos
1015	Aerosol Layer Boundary Height	Isacks	m	75 m ::	1/event, 1/mo	2 km :: Land/R	75 m :: Atmos
3424	Aerosol Mass Loading	Harris	g/m^2	1% :: 1%	1/day	50 km :: Ocean/R	
1016	Aerosol Mass Loading	Isacks	g/m^2	30% :: 10%	1/wk	1-10 km :: Land/R	N/A :: Atmos
1001	Aerosol Optical Depth	Hansen		tau=0.02 ::	1/wk	500 km :: G	:: Trop
2287	Aerosol Optical Depth	Hansen		tau=0.02 ::	1/wk	500 km :: G	:: Strat
3444	Aerosol Optical Depth	Harris	eq.atm	10%,0.05 :: 5%,0.02	2/day-1/day	20-50 km :: Ocean/R	
1002	Aerosol Optical Depth	Hartmann		tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
2288	Aerosol Optical Depth	Sellers		::			
2289	Aerosol Optical Depth	Wielicki	dimensionless	0.10 :: 0.10	1/day	1.25 dg :: G	N/A :: Atmos
3446	Aerosol Radiance, Single_scattering	Harris	mW/(cm^2-sr-um)	10% :: 5%	1/day	1-20 km :: Ocean/R	
1019	Aerosol Size-distribution	Bates	dimensionless	:: 20%	1/(5-16 day)	15.4 km :: G	Column :: Atmos
1020	Aerosol Size-distribution	Hartmann	um	20% :: 20%	1/day	20 km :: G	N/A :: 0-15 [?]
1024	Aerosol Size-distribution	Isacks		:: 20%	1/wk	2-15 km ::	Column :: Atmos
1021	Aerosol Size-distribution	Schoeberl	no/cm^3/um	10% :: 5%	1/day	200 km :: G	1 km :: Strat
3423	Aerosol Size-distribution (Radius-Dispersion)	Harris	um	0.1 :: 0.05	1/day	50 km :: Ocean/R	
1005	Aerosol XXX	Bates	/m/sr		1/(1-3 day) [few day]	100 km :: G	1 km :: Atmos
1003	Aerosol XXX	Pyle			2/day	:: G	:: Strat
1004	Aerosol XXX	Sellers					
3361	Albedo, Cloud	Dickinson				<0.5-1 deg :: G	
2006	Albedo, Cloud	Kerr, Sorooshian	%	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
2007	Albedo, Cloud	Sellers					
2013	Albedo, Land_sfc	Barron	%	1% :: 1%	1/wk	10 km :: G	N/A :: Sfc
1995	Albedo, Land_sfc	Bates	dimensionless		1/day	50 km :: Land	N/A :: Sfc
3363	Albedo, Land_sfc	Dickinson				<0.5-1 deg :: G	
1997	Albedo, Land_sfc	Hartmann	dimensionless	1% :: 0.5%	1/day	20 km :: G	N/A ::
1998	Albedo, Land_sfc	Isacks		:: 3%	1/wk	250 m :: Land/R	N/A :: Sfc
2014	Albedo, Land_sfc	Kerr, Sorooshian	%	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
1999	Albedo, Land_sfc	Sellers		1% :: 10%	1/(5 day)	100 km :: Land	
2009	Albedo, Planetary Spectral, TOA	Kerr, Sorooshian	%	10% :: 10%	1/day	25 km :: Land/R	:: TOA
3362	Albedo, Sea_Ice	Dickinson				<0.5-1 deg :: Ocean/Cryo	
2012	Albedo, Sea_Ice	Rothrock	fraction	0.05 :: 0.05	1/(3 day)	25 km :: Polar	N/A :: Sfc
3364	Albedo, Snow	Dickinson				High_res :: Land	
2017	Albedo, Snow	Hansen		0.02 ::	1/wk	500 km :: Land	:: Sfc
2018	Albedo, Snow	Lau	%	10% :: 10%	1/wk	100 m :: Land/R	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
2019	Albedo, Snow	Simard		2% ::		:: Canada/R	N/A :: Sfc
2020	Albedo, Spectral, Land_sfc	Dozier	dimensionless	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	
2023	Albedo, TOA	Barron	%	3 ::	1/day	100 km :: G	N/A :: TOA
3365	Albedo, TOA	Dickinson				<0.5-1 deg :: G	
3366	Albedo, Vegetation	Dickinson				High_res :: Land	
3367	Albedo, Vegetation	Dickinson				High_res :: Land	
2024	Albedo, Vegetation	Hansen		0.02 ::	1/wk	500 km :: Land	:: Sfc
1378	Angular Momentum	Bates	kg m^2/s	1% ::		:: G	:: Atmos
2025	Anisotropy, LW_broadband, Clear-sky	Wielicki	fraction	2% :: 1%		10 dg [Angle] :: G/clr	N/A :: Sfc, Atmos
2026	Anisotropy, LW_broadband, Cloudy-sky	Wielicki	fraction	2% :: 1%		10 dg [Angle] :: G/cld	N/A :: Sfc, Atmos
1026	BrO Conc	Grose	mix ratio	20% :: 15%	1/wk	30 x 4 dg :: G	3 km :: Strat
1027	BrO Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1028	BrO Conc	Schoeberl	ppt	20% :: 1	1/wk	8 x 10 dg :: G	2 km :: Strat
1031	BrONO2 Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1037	C2H6 Conc	Schoeberl	ppb	20% :: 0.2	1/wk	8 x 10 dg :: G	3 km :: Strat
1050	CFC-11(CFCl3) Conc	Grose	mix ratio	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
1051	CFC-11(CFCl3) Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1052	CFC-11(CFCl3) Conc	Schoeberl	ppt	15% :: 10	1/day	2 x 3 dg :: G	1.5 km :: Strat
1042	CFC-12(CF2Cl2) Conc	Grose	mix ratio	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
1043	CFC-12(CF2Cl2) Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1044	CFC-12(CF2Cl2) Conc	Schoeberl	ppb	15% :: 10	1/day	2 x 3 dg :: G	1.5 km :: Strat
1057	CFC-XXX Conc	Hansen	mix ratio		1/wk	500 km :: G	:: Trop
1061	CH3Br Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1062	CH3Br Conc	Schoeberl	ppt	20% :: 2	1/wk	8 x 10 dg :: G	3 km :: Strat
1065	CH3Cl Conc	Grose	mix ratio	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
1066	CH3Cl Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1067	CH3Cl Conc	Schoeberl	ppt	15% :: 20	1/wk	8 x 10 dg :: G	3 km :: Strat
1074	CH4 Conc	Grose	mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1075	CH4 Conc	Hansen	mix ratio	0.10% ::	1/wk	500 km :: Wetlands	:: Trop
1076	CH4 Conc	Hansen	mix ratio		1/wk	500 km :: G	:: Trop
1077	CH4 Conc	Pyle	mix ratio (-log10)	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1078	CH4 Conc	Schoeberl	ppm	15% :: 0.05	1/day	2 x 3 dg :: G	1.5 km :: Strat
3325	CO Conc	Dickinson					
1116	CO Conc	Grose	mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1117	CO Conc	Hansen	mix ratio	0.10% ::	1/wk	500 km ::	:: Trop
1118	CO Conc	Moore	ppmv	25% :: 10%	1/day	100 km :: G	:: Trop
1119	CO Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	2 km :: Strat
1120	CO Conc	Schoeberl	ppb	15% :: 5	1/day	2 x 3 dg :: G	2 km :: Trop
1121	CO Conc	Schoeberl	ppb	15% :: 5	1/day	8 x 10 dg :: G	3 km :: Mid-atmos
1138	CO2 Conc	Grose	mix ratio	1% :: 0.5%	1/mo	ZM :: G	10 km :: Mid-atmos
1139	CO2 Conc	Hansen	mix ratio	0.2 ppm ::	1/wk	500 km :: G	:: Trop
1140	CO2 Conc	Kerr, Sorooshian	ppm	15% :: 15%	1/day	50 km :: G	1 km :: Atmos
1141	CO2 Conc	Sellers					
3075	CO2 Partial Pressure	Hansen		2% ::	1/wk	500 km :: Ocean	:: TOO
2563	Chlorophyll Conc	Srokosz	ug/l	10% :: 0.1mg	1/day	1 km :: Ocean [South Atlan]	N/A :: Sfc
3462	Chlorophyll Fluorescence	Harris	mW/(cm^2-sr-um)	25% :: 5%	1/day	1-20 km :: Ocean/R	
3454	Chlorophyll_a Conc	Harris	mg/m^3	40% :: 20%	2-10 days	0.25-1 km:: Ocean/R	

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3455	Chlorophyll_a Conc	Harris	mg/m^3	20-30% :: 10-15%	1/day	1-20 km :: Ocean/R	
3456	Chlorophyll_a Conc	Harris	mg/m^3	20-30% :: 10-15%	2-10 days	0.25-1 km :: Ocean/R	
1103	ClO Conc	Grose	mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1104	ClO Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1105	ClO Conc	Schoeberl	ppb	10% :: 0.02	1/day	8 x 10 dg :: G	3 km :: Strat
1108	ClONO2 Conc	Grose	mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
1109	ClONO2 Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1110	ClONO2 Conc	Schoeberl	ppb	15% :: 0.05	1/day	8 x 10 dg :: G	3 km :: Strat
2049	Cloud Cover	Barron	%	5 :: 5	1/day	100 km :: G	N/A :: Cloud
2050	Cloud Cover	Barron	%	5 :: 5	1/day	10 km :: R	N/A :: Cloud
2051	Cloud Cover	Barron	%	5 :: 5	1/day	30 m :: L	N/A :: Cloud
2073	Cloud Cover	Bates		:: 10%	1/(6 hr)	1 x 1 dg :: G	N/A :: Cloud
2074	Cloud Cover	Bates	%	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
3343	Cloud Cover	Dickinson				High_res :: G	
3344	Cloud Cover	Dickinson				Med_res :: G	
3345	Cloud Cover	Dickinson				Low_res :: G	
2052	Cloud Cover	Hansen		3% ::	1/wk	500 km :: G	:: Cloud
3436	Cloud Cover	Harris	%	5-10% :: 2-5%	2/day	5-50 km :: Ocean/R	
2053	Cloud Cover	Isacks	%		1/wk	5 km :: Land/R	N/A :: Cloud
2075	Cloud Cover	Kerr, Sorooshian	%	5% :: 5%	1/day	10 km :: Land/R	N/A :: Cloud
2054	Cloud Cover	Lau	%	5% :: 5%	2/day	50 km :: R	N/A :: Atmos
2055	Cloud Cover	Liu				:: Ocean	N/A :: Cloud
2057	Cloud Cover	Moore	% cover	10% :: 10%	1/wk	1 km :: G	
2058	Cloud Cover	Murakami	% cover	10% ::			N/A :: Cloud
2076	Cloud Cover	Rothrock	dimensionless	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
2059	Cloud Cover	Sellers			4/day	100 km ::	0.5 km :: Trop
2056	Cloud Cover	Simard		5% ::		:: Canada/R	N/A :: Cloud
2060	Cloud Cover	Srokosz	%	5% :: 1%	2/day	10 km :: Ocean [South Atlan]	N/A :: Cloud
2061	Cloud Cover	Wielicki		5% :: 2%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
2077	Cloud Cover	Wielicki		2% :: 2%	1/(16 day)	30 m :: R	N/A :: Atmos
2069	Cloud Cover, Cirrus	Bates	/m/sr		1/day	100 km :: G	0.5 km :: Trop
2072	Cloud Cover, Cirrus	Bates	dimensionless	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
2070	Cloud Cover, Cirrus	Lau	%	5% :: 5%	1/day	100 km :: G	N/A ::
1759	Cloud Drop Phase	Bates	water/ice		1/day, 1/mo	1 dg :: G	N/A :: Cloud
3346	Cloud Drop Phase	Dickinson				<0.5-1 deg :: G	
1760	Cloud Drop Phase	Wielicki		25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
1761	Cloud Drop Phase	Wielicki		90% Conf :: 90% Conf	6/day [d,n]	25-100 km :: G	N/A :: Atmos
3347	Cloud Drop Size	Dickinson				<0.5-1 deg :: G	
1771	Cloud Drop Size	Wielicki	£m	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
1772	Cloud Drop Size	Wielicki	£m	30% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
1777	Cloud Drop Size(Effective Radius)	Bates	um	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
3348	Cloud Drop Size-distribution	Dickinson				<0.5-1 deg :: G	
1775	Cloud Drop Size-distribution	Hartmann	um	20% :: 20%	1/day	10 km :: G	0-15 km :: Cloud
3372	Cloud Emissivity	Dickinson				<0.5-1 deg :: G	
1399	Cloud Height	Hansen	km (m)	50 m ::	1/wk	500 km :: G	:: Cloud
1380	Cloud Height, Base	Barron	m	100 m :: 50 m	1/day	100 km :: G	100 m :: Cloud
1381	Cloud Height, Base	Barron	m	100 m :: 50 m	1/day	10 km :: R	100 m :: Cloud

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
1382	Cloud Height, Base	Barron	m	100 m :: 50 m	1/day	30 m :: L	100 m :: Cloud
1383	Cloud Height, Base	Bates	mb	:: 100 mb		25 km :: G	100 mb :: Cloud
1384	Cloud Height, Base	Bates	mb	:: 100 mb	1/(6 hr)	1 x 1 dg :: G	100 mb :: Cloud
3342	Cloud Height, Base	Dickinson					
1385	Cloud Height, Base	Kerr, Sorooshian	km or mb	200m :: 200m	1/hr	1 km :: Land	100 mb :: Trop
1386	Cloud Height, Base	Wielicki	km	1 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
1387	Cloud Height, Base	Wielicki	km	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
1388	Cloud Height, Base	Wielicki	km	0.1 km :: 0.1 km	2/day [d,n]	50 km :: R	0.1 km :: Atmos
1401	Cloud Height, Cirrus	Bates	m	500 m ::	2/day	50 km :: G	N/A :: Cloud
1402	Cloud Height, Cirrus	Lau	m	100 m ::	2/day	50 km :: G	N/A :: Atmos
1404	Cloud Height, PSC	Pyle			2/day	:: G	:: Strat
1406	Cloud Height, Stratoform	Bates	m	50 m ::	2/day	50 km :: G	N/A :: Cloud
1412	Cloud Height, Top	Barron	m	100 m :: 25 m	1/day	100 km :: G	100 m :: Cloud
1413	Cloud Height, Top	Barron	m	100 m :: 25 m	1/day	10 km :: R	100 m :: Cloud
1414	Cloud Height, Top	Barron	m	100 m :: 25 m	1/day	30 m :: L	100 m :: Cloud
1415	Cloud Height, Top	Bates	mb	:: 100 mb	1/(6 hr)	1 x 1 dg :: G	100 mb :: Cloud
1416	Cloud Height, Top	Bates	km	0.5 km :: 0.25 km	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
3349	Cloud Height, Top	Dickinson				<0.5-1 deg :: G	
3437	Cloud Height, Top	Harris	km	0.5 :: 0.3	2/day	20-50 km :: Ocean/R	
1417	Cloud Height, Top	Kerr, Sorooshian	km	:: 0.5 km	1/hr	1 km :: Land/R	:: Cloud
1418	Cloud Height, Top	Murakami	km	1 km ::			:: Cloud
1419	Cloud Height, Top	Rothrock	km	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
1420	Cloud Height, Top	Wielicki	km	0.1 km :: 0.1 km	2/day [d,n]	50 km :: R	0.1 km :: Atmos
1421	Cloud Height, Top	Wielicki	km	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
1422	Cloud Height, Top	Wielicki	km	0.5 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
1890	Cloud Ice Content	Bates	kg/m^2	0.02 :: 0.02	1/day	10 km :: G	
1785	Cloud Ice Content	Hartmann	kg/m^2	0.02 :: 0.02	1/day	10 km :: Ocean	N/A :: Cloud
1892	Cloud Ice Index	Bates	dimensionless		2/day [d,n]	50 km :: G	N/A :: Cloud
3357	Cloud Liq-water Content	Dickinson				<0.5-1 deg :: G	
3358	Cloud Liq-water Content	Dickinson				<0.5-1 deg :: G	
1902	Cloud Liq_water Content	Barron	mm	0.1 :: 0.05	1/day	100 km :: G	1 km :: Cloud
1903	Cloud Liq_water Content	Barron	mm	0.1 :: 0.05	1/day	10 km :: R	1 km :: Cloud
1894	Cloud Liq_water Content	Bates		:: 75%	1/(6 hr)	1 x 1 dg :: G	lyr :: 0-30 km
1904	Cloud Liq_water Content	Bates	mm	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
1905	Cloud Liq_water Content	Kerr, Sorooshian				30 m :: Land/R	:: Cloud
1906	Cloud Liq_water Content	Wielicki	g/m^2	20% :: 10%	2/day [d,n]	12-25 km :: G	N/A :: Atmos
1907	Cloud Liq_water Content	Wielicki	g/m^2	50% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
1918	Cloud Liq_water Total Column	Abbott	kg/m^2	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
1919	Cloud Liq_water Total Column	Hartmann	kg/m^2	0.05 :: 0.05	1/day	10 km :: Ocean	Column :: Trop
1920	Cloud Liq_water Total Column	Lau	kg/m^2	0.05 :: 0.05	1/day	100 km :: G	N/A :: Trop
1921	Cloud Liq_water Total Column	Sellers					
1922	Cloud Liq_water Total Column	Srokosz	kg/m^2	10% :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Trop
2301	Cloud Optical Depth	Barron		3% :: 3%	1/day	100 km :: Ocean	N/A :: Cloud
2302	Cloud Optical Depth	Barron		3% :: 3%	1/day	10 km :: Ocean/R	N/A :: Cloud
2303	Cloud Optical Depth	Barron		3% :: 3%	1/day	30 m :: Ocean/L	N/A :: Cloud
2304	Cloud Optical Depth	Bates	dimensionless		1/day	15 x 45 km :: G	N/A :: Cloud
2305	Cloud Optical Depth	Bates	dimensionless	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3445	Cloud Optical Depth	Harris	none	10-20% :: 5-10%	2/day-1/day	5-50 km :: Ocean/R	
2306	Cloud Optical Depth	Hartmann	dimensionless	25% :: 0.25	1/day	10 km :: Ocean	N/A :: Cloud
3381	Cloud Optical Depth, LW	Dickinson				<0.5-1 deg :: G	
2314	Cloud Optical Depth, LW	Wielicki	dimensionless	25% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
3382	Cloud Optical Depth, SW	Dickinson				<0.5-1 deg :: G	
2319	Cloud Optical Depth, SW	Wielicki	dimensionless	25% :: 10%	3/day [d]	25-100 km :: G	N/A :: Atmos
1527	Cloud Pressure, Top	Bates	mb	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
3330	Cloud Pressure, Top	Dickinson				<0.5-1 deg :: G	
2360	Cloud Radiation	Moore	cal/cm^2/day	10% :: 10%	1/wk	1 km :: G	:: Cloud
2421	Cloud Radiative Forcing	Bates	W/m^2		1/wk	500 km :: G	:: Atmos
3615	Cloud Reflectance, Bi-directional (BRDF)	Wielicki		5% :: 2%	TBD	10 dg [Angle] :: G	N/A :: Cld
2423	Cloud Reflectance, Bi-directional, (BRDF)	Wielicki	fraction	5% :: 2%	1/day	0.2-2 km :: R	N/A :: Cloud
2546	Cloud Spectral Char	Liu				:: G	N/A :: Cloud
2457	Cloud Temperature	Sellers					
2458	Cloud Temperature, Emission	Barron	K	2 :: 1	1/day	100 km :: G	N/A :: Cloud
2459	Cloud Temperature, Emission	Barron	K	2 :: 1	1/day	10 km :: R	N/A :: Cloud
3386	Cloud Temperature, Emission	Dickinson				<0.5-1 deg :: G	
2460	Cloud Temperature, Top	Bates	K	1K :: 0.5 K	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
3387	Cloud Temperature, Top	Dickinson				<0.5-1 deg :: G	
2461	Cloud Temperature, Top	Hansen	K	5% ::	1/wk	500 km :: G	:: Cloud
3449	Cloud Temperature, Top	Harris	K	1-2 K :: 0.5-1 K	2/day-1/day	5-50 km :: Ocean/R	
2462	Cloud Temperature, Top	Kerr, Sorooshian	K	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
3396	Cloud Transmissivity	Dickinson				<0.5-1 deg :: G	
2544	Cloud Transmissivity	Rothrock		0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
3307	Cloud XXX, PSC	Grose	no/cm^3	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
1158	DMS Conc	Schoeberl	ppb	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Trop
2904	Drainage_Basin Boundary	Lau	km^2	100m^2 :: 100m^2	1/mission	10 m :: Land/L	N/A :: Sfc
2905	Drainage_Network Structure	Barron	m	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
2902	Drainage_Network Structure	Isacks	feature recog.		1/mission, 1/yr	15-30 m :: Land/R	N/A :: Sfc
3419	Electric Conductivity	Dickinson				<0.5-1 deg :: G	
3420	Electric Field Strength, DC	Dickinson				<0.5-1 deg :: G	
3226	Electron Energy Spectra	Schoeberl	electrn/cm^2/s/keV	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
2807	Erosion Rock Weathering	Barron			1/mission	10 km :: Land/R	N/A :: Sfc
2808	Erosion Rock Weathering	Barron			1/mission	100 km :: Land	N/A :: Sfc
1576	Eruption-Plume Ash Chemistry	Isacks	K	1 :: 0.4	1/wk	50 km :: Land/R	1 km :: Trop
3273	Eruption-Plume Dispersal	Mouginis-Mark	km/day	1 km ::	1/orbit, 1/day	1 km :: Land/L	N/A :: Plume_col
3282	Eruption-Plume Fallout Rate	Mouginis-Mark			1/day	1 km :: Land/R	N/A :: Plume_col
3283	Eruption-Plume HCl Content (Mass Eruption Rate)	Mouginis-Mark	kton/day		1/day	:: G	N/A :: Plume_col
3285	Eruption-Plume Height	Mouginis-Mark	km	200m(ver) ::	1/day	1 km :: Land/R	N/A :: Plume_col
3289	Eruption-Plume SO2 Content (Mass Eruption Rate)	Mouginis-Mark	kton/day		1/day	1 km :: G	N/A :: Plume_col
3293	Eruption-Plume Temperature	Mouginis-Mark	C	10 C ::	2/day [d,n]	100 m :: R	N/A :: Plume_col
3288	Eruption_Plume SO2 Conc Spike	Mouginis-Mark	kton/day		[near-real time ?]	1 km :: G	N/A :: Plume_col
3350	Evaporation, Land_sfc	Dickinson				<0.5-1 deg :: G	
3398	Fire Extent	Dickinson				<0.5-1 deg :: Land	
2662	Fire XXX	Hansen		10% ::	1/wk	500 km :: Land	:: Sfc
2658	Forest Deforestation	Hansen		10% ::	1/wk	500 km :: Land	:: Sfc
3453	Gelbstoff Absorption Coef	Harris	/m	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3213	Gelbstoff Absorption Coef@300nm	Brewer	/m	50% :: 10%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
3214	Gelbstoff Absorption Coef@300nm	Brewer	/m	50% :: 10%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
2863	Geodetic Site Position, Horizontal	Isacks	mm	3 mm :: 1 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
2865	Geodetic Site Position, Vertical	Isacks	mm	5 mm :: 2 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
1499	Geopotential Height Gradient	Bates	m/km	0.04m/km ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
2923	Glacier Cover	Isacks	km^2	5% :: 2%	1/seas	10-30 m :: Land/L	N/A :: Sfc
2894	Glacier Displacement	Simard	m	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
1856	H2O (HDO) Conc	Schoeberl	ratio to H2O	10% :: 10%	1/day	8 x 10 dg :: G	3 km :: Strat
1808	H2O Conc	Bates	g/m^3	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
1811	H2O Conc	Grose	mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Trop/meso
1819	H2O Conc	Pyle	mix ratio (-log10)	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1821	H2O Conc	Schoeberl	ppm	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
1822	H2O Conc	Schoeberl	ppm	10% :: 0.05	1/day	4 x 5 dg :: G	2.5 km :: Meso
1864	H2O Conc, Stratospheric	Hansen		3% ::	1/wk	500 km :: G	Column :: Strat
1166	H2O2 Conc	Grose	mix ratio	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Strat
1167	H2O2 Conc	Pyle	mix ratio (-log10)	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1168	H2O2 Conc	Schoeberl	ppb	20% :: .1t,.05s	1/wk	8 x 10 dg :: G	2 km :: Strat
1176	HBr Conc	Grose	mix ratio	25% :: 10%	1/day	30 x 4 dg :: G	3 km :: Strat
1177	HBr Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1178	HBr Conc	Schoeberl	ppt	20% :: 1	1/wk	8 x 10 dg :: G	3 km :: Strat
1190	HCN Conc	Schoeberl	ppb	20% :: 0.01	1/wk	8 x 10 dg :: G	3 km :: Strat
1182	HCl Conc	Grose	mix ratio	15% :: 10%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
1183	HCl Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1184	HCl Conc	Schoeberl	ppb	15% :: 0.1	1/day	4 x 5 dg :: G	2 km :: Strat
1193	HF Conc	Grose	mix ratio	25% :: 10%	1/day	30 x 4 dg :: G	3 km :: Strat
1194	HF Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1195	HF Conc	Schoeberl	ppb	15% :: 0.05	1/day	4 x 5 dg :: G	2 km :: Strat
1198	HNO3 Conc	Grose	mix ratio	20% :: 5%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
1199	HNO3 Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1200	HNO3 Conc	Schoeberl	ppb	15% :: 0.1	1/day	2 x 3 dg :: G	2 km :: Strat
1207	HNO4 Conc	Grose	mix ratio	50% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1208	HNO4 Conc	Schoeberl	ppb	20% :: 0.02	1/wk	8 x 10 dg :: G	3 km :: Strat
1210	HNOx Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1212	HO2 Conc	Grose	mix ratio	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
1213	HO2 Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1214	HO2 Conc	Schoeberl	ppb	15% :: 0.02	1/day [d]	6 x 8 dg :: G	2 km :: Strat
1218	HOCl Conc	Grose	mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
1219	HOCl Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1220	HOCl Conc	Schoeberl	ppb	20% :: 0.02	1/wk	8 x 10 dg :: G	3 km :: Strat
1464	Heat Flux, Latent	Bates	W/m^2 or mm/day	10 :: 10	1/day	100 km :: Ocean	N/A :: Sfc
1465	Heat Flux, Latent	Bates	W/m^2	:: 20%	1/(3 day)	100 km :: >60 dgLAT	
1467	Heat Flux, Latent	Brewer	W/m^2		1/day, 1/seas	:: Ocean	N/A :: Sfc
3327	Heat Flux, Latent	Dickinson				<0.5-1 deg :: Ocean	
1468	Heat Flux, Latent	Lau	W/m^2	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
1475	Heat Flux, Net	Murakami	W/m^2	5% ::			
1476	Heat Flux, Sensible	Bates	W/m^2	:: 20%	1/day	100 km :: > 60 dgLAT	
1477	Heat Flux, Sensible	Brewer	W/m^2		1/day, 1/seas	:: Ocean	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3328	Heat Flux, Sensible	Dickinson				<0.5-1 deg :: Ocean	
1479	Heat Flux, Sensible	Lau	W/m^2	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
2131	Heat Flux, Sfc	Dozier	W/m^2	10% :: 10%	1/wk	50 m :: Land/L	N/A :: Sfc
1501	Heating Rate, Latent	Lau	C/day	0.5 C/dy :: 5%	1/mo	500 km :: G	2 km :: Trop
1502	Heating Rate, Latent	Lau	C/day	1 C/dy :: 5%	1/day	50 km :: R	1 km :: Trop
3326	Heating, Diabatic,	Dickinson				<0.5-1 deg :: G	
1463	Heating, Latent	Bates				25 km :: G	10 lvl :: Trop
1818	Humidity	Murakami	g/kg	10% ::			
1805	Humidity Profile	Abbott	g/kg	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
1806	Humidity Profile	Barron	g/kg	10% :: 5%	1/day	10 km :: R	:: Trop
1807	Humidity Profile	Barron	g/kg	10% :: 5%	1/day	100 km :: G	:: Trop
1809	Humidity Profile	Bates	g/kg	10% :: 5%	2/day [d,n]	50 km :: G	2 km :: Atmos
3353	Humidity Profile	Dickinson				<0.5-1 deg :: G	
1812	Humidity Profile	Hansen	mix ratio	3% ::	1/wk	500 km :: G	:: Atmos
1813	Humidity Profile	Hansen		3% ::	1/wk	500 km :: G	:: Trop
3438	Humidity Profile	Harris	g/kg	10% :: 5%	2/day	10-50 km :: Ocean/R	1 km :: Atmos
1814	Humidity Profile	Hartmann	g/kg	10% :: 10%	1/day	10 km :: G	1 km :: 0-15 km
1815	Humidity Profile	Isacks	g/kg	10% :: 0.05	1/wk	50 km :: Land/R	2 km :: Trop
1816	Humidity Profile	Kerr, Sorooshian	g/cm^3	10% :: 10%	2/day	50 km :: Land	1 km :: Atmos
1817	Humidity Profile	Liu	g/kg	0.5 :: 0.5	1/day	25 km :: Ocean	0.5 km :: Trop
1823	Humidity Profile	Sellers	Pa	10% ::	4/day	100 km ::	0.5 km :: Trop
1825	Humidity Profile	Tapley	g/kg	5% ::	4/day	50 km :: G	1 km :: Atmos
1826	Humidity Profile	Wielicki	g/kg	20% :: 10%	4/day [d,n]	1.25 dg :: G	2 km :: Atmos
1824	Humidity Profile, Specific	Srokosz	g/kg	0.3g/kg :: 0.1g/kg	2/day	10 km :: Ocean [South Atlan]	
3354	Humidity, Near_sfc	Dickinson				<0.5-1 deg :: G	N/A :: Near_sfc
1820	Humidity, Near_sfc	Rothrock	g/cm^3		1/day	100 km :: Polar	:: Near_sfc
1881	Humidity, Relative, Near_sfc	Kerr, Sorooshian	%	10% :: 10%	1/hr	1 km :: Land/R	N/A :: Sfc
2918	Ice_Sheet Cover	Bates	dimensionless		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc
2896	Ice_Sheet Displacement	Simard	m	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
2906	Ice_Sheet Elevation	Barron	mm	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
2907	Ice_Sheet Elevation	Barron	mm	100 ::	1/(3 mo)	100 km :: Land/Cryo	:: Sfc
2908	Ice_Sheet Elevation	Isacks	m	0.1 ::	2/yr	10 m :: Land/Cyro	N/A :: Sfc
2909	Ice_Sheet Elevation	Simard	mm	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
2910	Ice_Sheet Elevation	Simard	mm	100 mm ::	1/(3 mo)	100 km :: Land	N/A :: Sfc
3051	Ice_Sheet Temperature	Barron	K	1 K ::	1/wk	10 km :: Land/Cryo	N/A :: Sfc
3052	Ice_Sheet Temperature	Barron	K	1 K ::	1/wk	100 km :: Land/Cryo	N/A :: Sfc
3388	Ice_Sheet Temperature	Dickinson				<0.5-1 deg :: Land/Cryo	
3053	Ice_Sheet Thickness	Barron	mm	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
3054	Ice_Sheet Thickness	Barron	mm	100 ::	1/(3 mo)	100 km :: Land/Cryo	30 m :: Sfc
3055	Ice_Sheet Thickness	Simard	mm	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
3056	Ice_Sheet Thickness	Simard	mm	100 mm ::	1/(3 mo)	100 km :: Land	N/A :: Sfc
2929	Ice_Sheet Velocity	Barron	m/s	::		:: Land/Cryo	N/A :: Sfc
1372	Industrial_Emissions Conc	Hansen	mix ratio	2% ::	1/wk	500 km :: G	:: Trop
2936	Infiltration Capacity	Kerr, Sorooshian	L/T		1/yr	30 m :: Land/R	
2938	Inundation Extent	Lau	m^2	10% :: 5%	1/wk	100 m :: Land/L	N/A :: Sfc
2939	Inundation Extent	Moore	ha/km^2	20% :: 20%	1/wk, 1/mo	1-25 km :: Land	:: Sfc
2942	Inundation Extent	Moore	ha/km^2	20% :: 20%	1/wk	1-25 km :: Land	

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3384	Irradiance, Incident, Sfc	Dickinson				<0.5-1 deg :: G	
2269	Irradiance, Solar	Abbott	W/m^2	5% :: 1%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: Sfc
2271	Irradiance, Solar	Grose	W/m ^2/nm	5% :: 1%	2/day	15 x 4 dg :: G	:: TOA
2272	Irradiance, Solar	Hansen		0.05% ::	1/wk	500 km :: G	:: TOA
2273	Irradiance, Solar	Pyle	W/m ^2/nm	:: 1%	2/day	15 x 4 km :: G	3 km :: Strat
2275	Irradiance, UV Solar	Brewer	E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	30 m :: Ocean/L	
2276	Irradiance, UV Solar	Brewer	E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
2279	Irradiance, Visible Solar	Brewer	E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
2280	Irradiance, Visible Solar	Brewer	E/m^2/s/Hz	20% :: 5%	1/day, 1/seas	30 m :: Ocean/L	
3062	Lake Extent	Barron	m^2	10% :: 10%	1/day	:: Land/R	N/A :: Sfc
3059	Lake Extent	Isacks		::		15-30 m :: Land/L	N/A :: Sfc
3203	Lake Water Attenuation Coef	Richey, Batista	/m	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
2812	Lake Water Chemistry, XXX	Richey, Batista	g/m^3	[10%],5% :: [5%].10%	1/wk	1 km :: Land/R	N/A :: Sfc
2654	Lake Water Chlorophyll Conc	Richey, Batista	g/m^3	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
3291	Lake Water Temperature, Volcano Summit	Mouginis-Mark	C	2 C ::	1/(3 mo)	100 m :: Land/L	N/A :: Sfc
2855	Land Heat Capacity	Kerr, Sorooshian				30 m :: Land/R	N/A :: Sfc
2541	Land Thermal inertia	Kerr, Sorooshian	cal/cm^2/K/s	.008 :: .004	1/(16 day)	60 m :: Land/R	N/A :: Sfc
2112	Land_sfc Emissivity	Bates	dimensionless	0.05 :: 0.025	2/day [d,n]	50 km :: Land	N/A :: Sfc
3373	Land_sfc Emissivity	Dickinson				<0.5-1 deg :: Land	
2123	Land_sfc Emissivity	Kerr, Sorooshian	%	0.05 :: 0.05	1/yr	90 m :: Land/R	N/A :: Sfc
2120	Land_sfc Emissivity	Wielicki	fraction	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc
3487	Land_sfc Emissivity, LW (8-12u)	Cihlar	fraction	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
2125	Land_sfc Emissivity, Spectral	Isacks			1/yr	15-90 m :: Land/L	N/A :: Sfc
2437	Land_sfc Reflectance Factor, MODIS	Cihlar		0.05 :: 0.001	1/(3 mo)	0.25 km :: Canada/R	N/A :: Atmos
2041	Land_sfc Reflectance, Bi-directional Spectral, (BRI	Sellers				250-500 m :: Land	
3369	Land_sfc Reflectance, Bi-directional, (BRDF)	Dickinson				<0.5-1 deg :: G	
2034	Land_sfc Reflectance, Bi-directional, (BRDF)	Sellers					
2043	Land_sfc Reflectance, Bi-directional, SW_Broadba	Wielicki	fraction	5% :: 2%	1/day [d]	0.2-2km :: R	N/A :: Sfc, Atmos
2044	Land_sfc Reflectance, Bi-directional, SW_Broadba	Wielicki	fraction	5% :: 2%		10 dg [Angle] :: G	N/A :: Sfc, Atmos
2426	Land_sfc Reflectance, Directional	Brewer		3% :: 1%	1/day, 1/seas	1.7 km :: Ocean	N/A :: Sfc
2427	Land_sfc Reflectance, Directional	Brewer		3% :: 1%	1/day, 1/seas	.22 km :: Ocean/L	N/A :: Sfc
2428	Land_sfc Reflectance, Directional	Kerr, Sorooshian	%	3% :: 5%	1/(2 mo)	30 m :: Land/R	:: Sfc
1545	Land_sfc Roughness	Barron	m	10% :: 0.1	1/mission, 1/yr	10 km :: Land/R	N/A :: Sfc
1546	Land_sfc Roughness	Barron	m	10% :: 0.1	1/mission, 1/yr	30 m :: Land/L	N/A :: Sfc
1547	Land_sfc Roughness	Barron	m	10% :: 0.1	1/mission, 1/yr	100 km :: Land	N/A :: Sfc
1553	Land_sfc Roughness	Isacks	cm	2 cm :: 1 cm	1/mission, 1/mo	30 m :: Land/L	N/A :: Sfc
1549	Land_sfc Roughness, Aerodynamic	Kerr, Sorooshian	cm	0.1 m :: 0.2 m	1/seas	25 km :: Land	N/A :: Sfc
1550	Land_sfc Roughness, Aerodynamic	Lau	cm	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
1551	Land_sfc Roughness, Aerodynamic	Lau	cm	10% :: 10%	1/wk	10 km :: Land/R	N/A :: Sfc
1552	Land_sfc Roughness, Geometric,	Kerr, Sorooshian	cm	0.1 cm :: 0.2 cm	2/mo	25 km :: Land	N/A :: Sfc
3389	Land_sfc Temperature	Dickinson				High_res :: Land	
3390	Land_sfc Temperature	Dickinson				Low_res :: Land	
3391	Land_sfc Temperature	Dickinson				Med_res :: Land	
2477	Land_sfc Temperature	Hansen	K	0.2 C ::	1/wk	500 km :: Land	:: Sfc
2476	Land_sfc Temperature	Richey, Batista	K		1/day	:: Land/R	N/A :: Sfc
2478	Land_sfc Temperature	Sellers		::		500 m ::	
3312	Land_sfc Temperature	Simard	K	1.3 :: 1.0 ?	2/day	1 km :: R/Canada	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3313	Land_sfc Temperature	Simard	K	1.3 :: 1.0 ?	2/day	10 km :: R/Canada	N/A :: Sfc
2472	Land_sfc Temperature, Skin	Barron	K	1 :: 0.5	1/day	30 m :: Land/L	N/A :: Sfc
2473	Land_sfc Temperature, Skin	Barron	K	1 :: 0.5	1/day	10 km :: Land/R	N/A :: Sfc
2474	Land_sfc Temperature, Skin	Barron	K	1 :: 0.5	1/day	100 km :: G	N/A :: Sfc
2475	Land_sfc Temperature, Skin	Bates	K	1.0K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
3450	Land_sfc Temperature, Skin	Harris	K	0.5 :: 0.2	2/day	20-50 km :: Ocean/R	
2496	Land_sfc Temperature, Skin	Isacks	K	1-3 :: 1	1/wk	1 km :: Land/R	N/A :: Sfc
2497	Land_sfc Temperature, Skin	Isacks	K	1-6 :: 0.3	1/wk	90 m :: Land/L	N/A :: Sfc
2479	Land_sfc Temperature, Skin	Wielicki	K	1 K :: 0.5 K	4/day [d,n]	1.25 dg :: Land	N/A :: Sfc
2538	Land_sfc Temperature-Difference, Day-Night	Bates	K	0.5 K :: 0.25 K	1/day	50 km :: Land	N/A :: Sfc
3395	Land_sfc Temperature-Difference, Day-Night	Dickinson				<0.5-1 deg :: G	
2849	Landform Distribution	Barron	m	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
2851	Landform Feature Distribution	Isacks	feature recog.		1/mission	15-30 m :: Land/R	N/A :: Sfc
2869	Landform Scarp-fault Elevation	Isacks	cm	10 cm :: 5 cm	1/mission	[2-D sect.] :: Land/L	N/A :: Sfc
3262	Lava-Flow Advance Rate	Mouginis-Mark	m/day	30 m(hor) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3266	Lava-Flow Areal Change	Mouginis-Mark	m^2	(30m)^2 ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3292	Lava-Flow Temperature	Mouginis-Mark	C	10 C ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3297	Lava-Flow Thickness	Mouginis-Mark	cm	5 cm(ver) ::	1/event	30 m :: Land/L	N/A :: Sfc
2096	Level-1B Backscatter Coef, ALT	Srokosz	dB	0.2dB :: 0.1dB	1/(10 day)	10 km :: Ocean [South Atlan]	N/A :: Sfc
3448	Level-1B Backscatter Coef, HIRIS	Harris	/m	20% :: 10%	2-10 days	0.25-1 km :: Ocean/R	
2102	Level-1B Backscatter Coef, SAR_EOS	Cihlar		2 dB :: 1 dB	1/(3 mo)	25 m :: Canada/R	N/A :: Sfc
2109	Level-1B Backscatter Coef, STIKSCAT	Srokosz	dB	0.3 dB :: 0.1 dB	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
3125	Level-1B Backscatter Waveforms, ALT	Srokosz	dB	0.02(bin) :: 0.1dB	1/(10 day)	10 km :: Ocean [South Atlan]	N/A :: Sfc
2106	Level-1B Backscatter, SAR	Srokosz	dB	0.2 dB :: TBD	[occasional]	25 m :: Ocean [South Atlan]	N/A :: Sfc
2097	Level-1B Backscatter, STIKSCAT	Brewer	dB	10% :: TBD	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
2346	Level-1B Radiance, AIRS	Bates		::			
2349	Level-1B Radiance, AMSU-A	Bates	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
2355	Level-1B Radiance, AVHRR(ESA?)	Wielicki	W/m^2/sr/um	5%,LW.2K :: SW2%,LW	2/day [d,n]	1 km :: R	N/A :: Atmos
2358	Level-1B Radiance, CERES	Wielicki	W/m^2/sr/um	2%,LW1% :: SW2%,LW	6/day [d,n]	25 km :: R	N/A :: Atmos
2351	Level-1B Radiance, MHS	Bates	K	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
2389	Level-1B Radiance, MODIS	Sellers	W/m^2/sr/um				
3310	Level-1B Radiance, MODIS	Srokosz	W/m^2/sr/um	0.05% ::	1/day	1 km :: R	N/A :: Atmos
2390	Level-1B Radiance, MODIS	Wielicki	W/m^2/sr/um	5%,LW.1K :: SW2%,LW	2/day [d,n]	0.25-1 km :: R	N/A :: Atmos
3485	Level-1B Radiance, MODIS-T	Sellers	W/m^2/sr/um				
2414	Level-2 Radiance, Water-leaving	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	Brewer	E/m^2/s/Hz	10% :: TBD	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
3447	Level-2 Radiance, Water-leaving	Harris	mW/(cm^2-sr-um)	10% :: 5%	1/day	1-20 km :: Ocean/R	
3340	Lightning Intensity	Dickinson				<0.5-1 deg :: G	
1757	Lightning Rate	Barron	/s	10% :: 10%	1/day	10 km :: G	N/A :: Atmos
3341	Lightning Rate	Dickinson				<0.5-1 deg :: G	
1758	Lightning Rate	Kerr, Sorooshian	#/hr	1 :: 1	1/(10 min)	1 km :: Land	:: Trop
2778	Mineral Conc, Rock-Soil	Isacks	%		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
3356	Moisture Flux, Horizontal,	Dickinson				<0.5-1 deg :: G	N/A : Trop
1229	N2O Conc	Grose	mix ratio	15% :: 5%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
1230	N2O Conc	Hansen	mix ratio		1/wk	500 km :: G	:: Trop
1231	N2O Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1232	N2O Conc	Schoeberl	ppb	15% :: 10	1/day	2 x 3 dg :: G	2 km :: Strat

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
1250	N2O5 Conc	Grose	mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1251	N2O5 Conc	Pyle	mix ratio (-log10)	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1252	N2O5 Conc	Schoeberl	ppb	15% :: 20%	1/day	8 x 10 dg :: G	3 km :: Strat
1262	NO Conc	Grose	mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1263	NO Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1264	NO Conc	Schoeberl	ppb	15% :: .2s,1.0m	1/day [d]	4 x 5 dg :: G	2 km :: Mid-atmos
1269	NO2 Conc	Grose	mix ratio	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1270	NO2 Conc	Pyle	mix ratio (-log10)	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
1271	NO2 Conc	Schoeberl	ppb	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
1279	NO3 Conc	Grose	mix ratio	20% :: 10%	1/day [n]	30 x 4 dg :: G	3 km :: Mid-atmos
1280	NO3 Conc	Pyle	mix ratio (-log10)	25% :: 10%	1/day [n]	15 x 4 km :: G	3 km :: Strat
1294	O(3P) Conc	Grose	mix ratio	30% :: 10%	1/wk	30 x 4 dg :: G	3 km :: Mid-atmos
1295	O(3P) Conc	Pyle	mix ratio (-log10)	15% :: 5%	1/wk	15 x 4 km :: G	2 km :: Strat
1296	O(3P) Conc	Schoeberl	ppb	15% :: 10%	1/wk [d]	8 x 10 dg :: G	3 km :: Strat
1305	O3 Conc	Bates		5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
1306	O3 Conc	Grose	mix ratio	2%,5% :: 2%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1307	O3 Conc	Hansen	mix ratio	3% ::	1/wk	500 km :: G	:: Atmos
1309	O3 Conc	Moore	ppmv	25% :: 10%	1/day	100 km :: G	:: Atmos
1310	O3 Conc	Murakami	ppmv (mix ratio)	10% ::			N/A :: TOA
1331	O3 Conc	Murakami	/m^3	5-10% :: 2-10%			
1311	O3 Conc	Pyle	mix ratio (-log10)	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
1312	O3 Conc	Schoeberl	ppm	10% :: 10%	1/day	4 x 5 dg :: G	2.5 km :: Trop
1313	O3 Conc	Schoeberl	ppm	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
1308	O3 Total Burden	Kerr, Sorooshian	ppm	5% :: 5%	1/day	25 km :: G	Column :: Atmos
1342	O3(18^OOO) Conc	Schoeberl	ratio to ^ (48)O3	10% :: 10%	1/wk	8 x 10 dg :: G	5 km :: Strat
1354	OCS Conc	Schoeberl	ppb	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Strat
1349	OClO Conc	Grose	mix ratio	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
1350	OClO Conc	Pyle	mix ratio (-log10)	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
1351	OClO Conc	Schoeberl	ppb	20% :: 0.01	1/wk [n]	8 x 10 dg :: G	3 km :: Strat
1355	OH Conc	Grose	mix ratio	25% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
1211	OH Conc	Pyle	mix ratio (-log10)	20% :: 10%	2/day	15 x 4 km :: G	2 km :: Strat
1356	OH Conc	Schoeberl	ppb	10% :: .02s,.05m	1/day [d]	6 x 8 dg :: G	2 km :: Mid-atmos
2599	Ocean Productivity, Primary	Brewer	mmol-C/m^2/day	50% :: 5%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
2600	Ocean Productivity, Primary	Brewer	mmol-C/m^2/day	50% :: 5%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
3460	Ocean Productivity, Primary	Harris	mg/m^3/day	30% :: 5%	1/day	1-20 km :: Ocean/R	
2598	Ocean Productivity, Primary, Near sfc	Abbott	mg-C/m^3/day		1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: Near_sfc
2597	Ocean Productivity, Primary, Total Column	Abbott	mg-C/m^2/day		1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
1573	Ocean Productivity, Total Column	Hansen	C [K]	0.3 C ::	1/wk	500 km :: G	:: Strat
3204	Ocean Water Attenuation Coef	Abbott	/m	20% :: 5%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
3201	Ocean Water Attenuation Coef, Diffuse	Brewer	/m	25% :: TBD	1/day, 1/seas	30 m :: Ocean/L	N/A :: Sfc
3202	Ocean Water Attenuation Coef, Diffuse	Brewer	/m	25% :: TBD	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
3461	Ocean Water Attenuation Coef@490nm	Harris	/m	25% :: 10%	1/day	1-20 km :: Ocean/R	
3080	Ocean Water Salinity	Bates	o/oo		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
3079	Ocean Water Salinity	Hansen		0.02% ::	1/wk	500 km :: Ocean	:: TOO
3081	Ocean Water Salinity	Lau	%	10% :: 10%	1/wk	500 km :: Ocean/Trop	
3083	Ocean Water Salinity, Sub ice	Rothrock	o/oo	0.02 o/oo :: 0.02 o/oo	1/(3 day)	500 km :: Polar	N/A :: TOO
3115	Ocean Water Temperature, Internal	Bates	K		1/(3 day)	100 km :: > 60 dgLAT	:: lvl [?]

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	*Product Name*	*Investigator*	*Units*	*Accuracy Abs :: Rel*	*Temporal Resolution*	*Horizontal Resol :: Coverage*	*Vertical Resol :: Coverage*
3116	Ocean Water Temperature, Internal	Hansen	K		1/wk	500 km :: Ocean	:: Sub_sfc
3218	Ocean Water Temperature, Internal	Lau	K	0.5 K ::	1/day	10 km :: Ocean/R	10 m :: Sub_sfc
3117	Ocean Water Temperature, Internal	Rothrock	K	0.02 K :: 0.02 K	1/(3 day)	500 km :: Polar	-lvl ::
3430	Ocean Wave Direction	Harris	deg	10 :: 10	1/day	10 deg :: Ocean/R	
3126	Ocean Wave Height	Bates	m	20% :: 20%	1/day	50-75 m :: Ocean	N/A :: Sfc
3431	Ocean Wave Height	Harris	m	10-20% :: 5-20%	1-10 days	7-25 km :: Ocean/R	
3128	Ocean Wave Height, Along-track	Bates	cm	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
3130	Ocean Wave Height, Significant	Abbott	m	10% :: 5%	1/(10-20 day)	10-20 km :: Ocean [Southern]	N/A :: Sfc
3131	Ocean Wave Height, Significant	Srokosz	m	>(.5m,5%) :: 0.1m	1/day	10 km :: Ocean/R	N/A :: Sfc
3432	Ocean Wave Length	Harris	km	10% :: 10%	1/day	1-10 km :: Ocean/R	
3463	Ocean Wave Power Spectrum, 2-D	Bates				:: Ocean	N/A :: Sfc
3383	Optical Depth, Total	Dickinson				<0.5-1 deg :: G	
2326	Optical Depth, Total	Isacks		5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
2325	Optical Depth, Total	Kerr, Sorooshian	eq.atm	10% :: 10%	1/(5-16 day)	10 km :: Land/R	:: Atmos
2561	Organic Carbon Conc, Dissolved	Brewer	mol-C/m^3	100% :: 10%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
2562	Organic Carbon Conc, Dissolved	Brewer	mol-C/m^3	100% :: 10%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
2579	Organic Matter Conc, Dissolved	Abbott	mmol/m^3	50% :: 20%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
3457	Organic Matter Conc, Dissolved	Harris	mg/m^3	100% :: 30%	1/day	1-20 km :: Ocean/R	
1365	PAN Conc	Schoeberl	ppb	20% :: 0.01	1/day	8 x 10 dg :: G	3 km :: Strat
2328	PAR	Moore	W/m^2/sr	20% :: 10%	1/day, 1/wk	30 m :: Land/L	
2329	PAR	Moore	W/m^2/sr	20% :: 10%	1/day, 1/wk	500 m :: Land/R	
2263	PAR, Incident, (IPAR)	Schimel	5E, % ::	10% :: 1%	1/day	500 m :: 6 sites/L	N/A :: Sfc
2264	PAR, Incident, (IPAR)	Schimel	5E, % ::	10% :: 1%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
2265	PAR, Incident, (IPAR)	Schimel	5E, % ::	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
3498	PAR, Incident, Vegetation, (IPAR)	Cihlar	%	10% :: 1%	1 day	250-1000 m :: Canada/R	N/A :: Sfc
1510	PBL Height	Barron	m	75 m ::	1/day	10 km :: R	100 m :: Mixed_lyr
1511	PBL Height	Barron	m	75 m ::	1/day	100 km :: G	100 m :: Mixed_lyr
1512	PBL Height	Bates	m	75 m ::		2-200 km :: G	75 m :: Trop
3329	PBL Height	Dickinson					
1513	PBL Height	Sellers					
3209	Phytoplankton Backscatter	Abbott	mw/cm^2/sr/um	50% :: 20%	1/day	1-4 km :: Ocean	N/A :: N/A
3077	Pigment Conc	Hansen		2% ::	1/wk	500 km :: Ocean	:: TOO
3458	Pigment Conc	Harris	mg/m^3	30% :: 10%	1/day	1-20 km :: Ocean/R	
3459	Pigment Conc, Accessory	Harris	mg/m^3	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	
2695	Pigment Conc, Non-photosynthetic	Moore	relative	20% :: 20%	1/(16 day)	1 km :: Land/R	:: Sfc
2696	Pigment Conc, Non-photosynthetic	Moore	relative	20% :: 20%	1/(16 day)	30 m :: Land/L	:: Sfc
2584	Pigment Conc, Phycoerythrin	Abbott	mg/m^3	50% :: 20%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
2587	Pigment Conc, Phytoplankton	Abbott	mg/m^3	35% :: 10%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
2590	Pigment Conc, Phytoplankton	Rothrock	mg/m^3		1/(2 day)	10 km :: Polar	N/A :: TOO
1858	Precipitable Water	Abbott	kg/m^2	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
1859	Precipitable Water	Barron	mm	3% :: 1%	1/day	30 m :: L	Column :: Trop
1860	Precipitable Water	Barron	mm	3% :: 1%	1/day	10 km :: R	Column :: Trop
1861	Precipitable Water	Barron	mm	3% :: 1%	1/day	100 km :: G	Column :: Trop
1862	Precipitable Water	Bates	mm	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
3355	Precipitable Water	Dickinson				<0.5-1 deg :: G	
3439	Precipitable Water	Harris			1/day	10-25 km :: Ocean/R	
3440	Precipitable Water	Harris	mm	5% :: 3%	2/day	20-50 km :: Ocean/R	

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
1865	Precipitable Water	Kerr, Sorooshian	cm	10% :: 10%	2/day	50 km :: Land	Column :: Atmos
1866	Precipitable Water	Liu	g/cm^2	0.5 :: 0.5	1/day	25 km :: Ocean	Column :: Trop
1867	Precipitable Water	Murakami	g/cm^2	20% ::			
1810	Precipitable Water	Richey, Batista	%	5% :: 5%	1/day	:: R	:: Trop
1863	Precipitable Water	Richey, Batista	mm/mo ?		1/wk	1 km :: R	Column :: Trop
1868	Precipitable Water	Srokosz	kg/m^2	1kg/m^2 :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Atmos
1926	Precipitation Amount	Barron	mm/day	2 :: 1	1/day	100 km :: G	N/A :: Trop
1927	Precipitation Amount	Barron	mm/day	2 :: 1	1/day	10 km :: R	N/A :: Trop
1928	Precipitation Amount	Brewer	mm/day	2 :: TBD	1/day, 1/seas	:: Ocean/L	N/A :: Sfc
1929	Precipitation Amount	Brewer	mm/day	2 :: TBD	1/day, 1/seas	:: Ocean	N/A :: Sfc
3488	Precipitation Amount	Cihlar	mm	0.1 mm :: 0.1 mm	1 day	500m :: Canada/R	N/A :: Sfc
1930	Precipitation Amount	Hansen	mm/wk	10% ::	1/wk	500 km :: G	:: Sfc
3441	Precipitation Amount	Harris	mm/day	2 :: 1	2/day	20-50 km :: Ocean/R	
1931	Precipitation Amount	Hartmann	mm/day	10 :: 10	1/day	10 km :: Ocean	N/A :: Trop
1932	Precipitation Amount	Isacks	mm		1/wk	5-50 km :: Land/R	N/A :: Sfc
1935	Precipitation Amount	Lau	mm/day	2 :: 2	1/mo	500 km :: G	N/A :: Trop
1936	Precipitation Amount	Lau	mm/day	2 :: 2	1/day	50 km :: R	N/A :: Sfc
1938	Precipitation Amount	Murakami	mm/day	10% ::			
1939	Precipitation Amount	Sellers	mm		4/day	100 km ::	
1940	Precipitation Amount	Wielicki	mm/day	50% :: 25%	4/day [d,n]	25-50 km :: G	N/A :: Trop
1934	Precipitation Amount, Daily	Kerr, Sorooshian	mm	1 mm :: 1 mm	1/day	1 km :: Land/R	N/A :: Sfc
1973	Precipitation Amount, Rain	Liu	mm/day	1 :: 1	2/day	25 km :: Ocean	N/A :: Trop
1974	Precipitation Amount, Rain	Moore	mm/wk	10% :: 10%	1/wk	1 km :: G	
1957	Precipitation Amount, Rain, Monthly	Kerr, Sorooshian	mm	10% :: 10%	1/mo	500 m :: Land/L	N/A :: Sfc
3489	Precipitation Amount, Snow	Cihlar	mm/wk	10% :: 10%	1 wk	1 km :: Canada/R	N/A :: Sfc
1983	Precipitation Amount, Snow	Moore	mm/wk	10% :: 10%	1/wk	1 km :: G	
1984	Precipitation Amount, Snow	Sellers					
1949	Precipitation Conc, Ice	Bates	g/m^3			10 km :: G	7 lvl :: Trop
2981	Precipitation Depth	Lau	mm	10% :: 10%	1/day	1 km :: Land/R	N/A :: Sfc
1968	Precipitation Index	Bates	mm	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
1970	Precipitation Index, Antecedent	Bates	dimensionless		1/day	26-52 km :: Land	N/A :: Sfc
1958	Precipitation Rate	Bates	mm/hr			10 km :: G	1 lvl :: Sfc
1933	Precipitation Rate	Isacks	mm/hr		1/event, 1/mo	5-50 km :: Land/R	N/A :: Sfc
1960	Precipitation Rate	Lau	mm/hr	25% :: 10%	1/hr	100 m :: Land/L	N/A :: Sfc
1937	Precipitation Rate	Simard		20% ::		:: Canada/R	N/A :: Trop
1972	Precipitation Rate, Rain	Abbott	mm/hr	5% :: 1%	(1-2)/day	25 km :: Ocean [Southern]	N/A :: Trop
1954	Precipitation Rate, Rain	Bates	g/m^3			10 km :: G	7 lvl :: Trop
3359	Precipitation Rate, Rain	Dickinson				<0.5-1 deg :: G	
1959	Precipitation Rate, Rain	Kerr, Sorooshian	mm/hr	20% :: 20%	1/day	500 m :: G	N/A :: Trop
1975	Precipitation Rate, Rain	Srokosz	mm/hr	10% :: 1mm/hr	2/day	10 km :: Ocean [South Atlan]	N/A :: Trop
3360	Precipitation Rate, Snow	Dickinson				<0.5-1 deg :: G	
1965	Precipitation Storm Depth (Precip-thickness)	Lau	mm	10% :: 10%	1/hr	100 m :: Land/L	N/A :: Sfc
1966	Precipitation_Drop Phase, Sfc	Bates	type (snow,water)			10 km :: G	N/A :: Sfc
1516	Pressure	Grose	mb	0.05 :: 2%	2/day	15 x 4 dg :: G	3 km :: Mid-atmos
1518	Pressure	Kerr, Sorooshian	mb	5% :: 5%	1/hr	25 km :: Land	3 km :: Trop
1517	Pressure, Sfc	Isacks	mb			:: Land/R	N/A :: Sfc
1533	Pressure, Sfc	Lau	mb	5% ::	1/day	100 km :: G	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
1519	Pressure, Sfc	Rothrock	mb	1 mb :: 1 mb	1/day	500 km :: Polar	N/A :: Sfc
1520	Pressure, Sfc	Tapley	mb	1-5 mb ::	4/day	50 km :: G	N/A :: Sfc
3255	Proton Energy Spectra	Schoeberl	proton/cm^2/s/MeV	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
3385	Radiation Budget	Dickinson				<0.5-1 deg :: G	
2357	Radiation Budget	Hansen			1/wk	500 km :: G	
2374	Radiation Intensity, IR	Schoeberl	photons/cm^2/s/cm	1%(~1K) :: 0.5%	1/day	100 km :: G	1.5 km :: Strat
2411	Radiation Intensity, UV	Schoeberl	photons/cm^2/s/nm	5% :: 2%	1/day	:: G	:: Strat
2413	Radiation Intensity, Visible	Schoeberl	photons/cm^2/s/nm	5% :: 2%	1/day	:: G	:: Strat
3490	Radiative Flux	Cihlar	W/m^2		1 wk	1 km^2 ::	N/A :: Sfc
2150	Radiative Flux Divergence, LW	Wielicki	W/m^2/km	%clr/25%cld :: 5%clr/10%	6/day [d,n]	1.25 dg :: G	:: Atmos
2152	Radiative Flux Divergence, SW	Wielicki	W/m^2/km	%clr/25%cld :: 5%clr/10%	3/day [d]	1.25 dg :: G	:: Atmos
2141	Radiative Flux, Broadband	Richey, Batista	W/m^2		2/day	:: Land/R	
2142	Radiative Flux, Broadband, Down	Kerr, Sorooshian	W/m^2	1 W/m^2 :: 1 W/m^2	1/hr	8 km :: Land/R	N/A :: TOA
2185	Radiative Flux, LW	Barron	W/m^2	10 :: 5	1/day	100 km :: G	N/A :: Sfc
2186	Radiative Flux, LW	Barron	W/m^2	10 :: 5	1/day	30 m :: L	N/A :: Sfc
2187	Radiative Flux, LW	Barron	W/m^2	10 :: 5	1/day	10 km :: R	N/A :: Sfc
2189	Radiative Flux, LW	Barron	W/m^2	10 :: 5	1/day	100 km :: G	N/A :: TOA
2255	Radiative Flux, LW	Brewer	W/m^2		1/day, 1/seas	:: Ocean/L	
2256	Radiative Flux, LW	Brewer	W/m^2		1/day, 1/seas	:: Ocean	
2188	Radiative Flux, LW	Hartmann	W/m^2	5% :: 2%	1/day	<30 km :: Ocean	N/A :: Sfc
2190	Radiative Flux, LW	Hartmann	W/m^2	5% :: 2%	1/day	<30 km :: Ocean	N/A :: TOA
2154	Radiative Flux, LW	Lau	W/m^2	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
2385	Radiative Flux, LW	Srokosz	W/m^2	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
3375	Radiative Flux, LW, Down	Dickinson				<0.5-1 deg :: G	N/A :: Sfc ?
2163	Radiative Flux, LW, Down	Kerr, Sorooshian	W/m^2	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
2164	Radiative Flux, LW, Down	Sellers	W/m^2	20% :: 20%	4/day	100 km :: Land	0.5 km ::
2165	Radiative Flux, LW, Down	Wielicki	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
2173	Radiative Flux, LW, Net	Bates	W/m^2		2/day [d,n]	50 km :: Land	N/A ::
2174	Radiative Flux, LW, Net	Bates	W/m^2		2/day [d,n]	50 km :: Ocean	N/A ::
3376	Radiative Flux, LW, Net	Dickinson				<0.5-1 deg :: G	N/A :: Sfc ?
2175	Radiative Flux, LW, Net	Wielicki	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
2183	Radiative Flux, LW, Net Up	Murakami	W/m^2	2% ::			N/A :: Atmos
3377	Radiative Flux, LW, TOA	Dickinson				<0.5-1 deg :: G	N/A :: TOA
2191	Radiative Flux, LW, Up	Bates	W/m^2		2/day [d,n]	50 km :: G	N/A :: TOA
3378	Radiative Flux, LW, Up	Dickinson				<0.5-1 deg :: G	N/A :: Sfc ?
2192	Radiative Flux, LW, Up	Kerr, Sorooshian	W/m^2	15% :: 15%	[diurnal]	500 m :: Land/R	:: TOA
2395	Radiative Flux, LW, Up	Murakami	mW/m^2/sr/cm	10% ::			N/A :: TOA
2193	Radiative Flux, LW, Up	Sellers	W/m^2	20% :: 20%	4/day	100 km :: Land	0.5 km ::
2194	Radiative Flux, LW, Up	Wielicki	W/m^2	5 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: TOA
2195	Radiative Flux, LW, Up	Wielicki	W/m^2	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
2137	Radiative Flux, Net	Simard		10% ::		:: Canada/R	
2236	Radiative Flux, SW	Barron	W/m^2	10 :: 5	1/day	30 m :: L	N/A :: Sfc
2237	Radiative Flux, SW	Barron	W/m^2	10 :: 5	1/day	100 km :: G	N/A :: Sfc
2238	Radiative Flux, SW	Barron	W/m^2	10 :: 5	1/day	10 km :: R	N/A :: Sfc
2239	Radiative Flux, SW	Barron	W/m^2	10 :: 5	1/day	100 km :: G	N/A :: TOA
1492	Radiative Flux, SW	Brewer	W/m^2		1/day, 1/seas	:: Ocean	
1493	Radiative Flux, SW	Brewer	W/m^2		1/day, 1/seas	:: Ocean/L	

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
2213	Radiative Flux, SW	Hartmann	W/m^2	0.5% :: 0.5%	1/day	20 km :: G	N/A :: TOA
2214	Radiative Flux, SW	Hartmann	W/m^2	0.5% :: 0.5%	1/day	20 km :: G	N/A :: Sfc
2215	Radiative Flux, SW	Lau	W/m^2	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
2400	Radiative Flux, SW	Srokosz	W/m^2	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
2216	Radiative Flux, SW, Down	Kerr, Sorooshian	W/m^2	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
2217	Radiative Flux, SW, Down	Sellers	W/m^2	20% :: 20%	1/hr	100 km :: Land	
2218	Radiative Flux, SW, Down	Wielicki	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
3379	Radiative Flux, SW, Net	Dickinson				<0.5-1 deg :: G	N/A :: Sfc
2226	Radiative Flux, SW, Net	Wielicki	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
2234	Radiative Flux, SW, Net_Down	Murakami	W/m^2	2% ::			N/A :: Atmos
3380	Radiative Flux, SW, TOA	Dickinson				<0.5-1 deg :: G	N/A :: Sfc
2240	Radiative Flux, SW, Up	Kerr, Sorooshian	W/m^2	15% :: 15%	[diurnal]	500 m :: Land/R	N/A :: Sfc
2241	Radiative Flux, SW, Up	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	Wielicki	W/m^2	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
3443	Radiative Flux, Sea_sfc	Harris	W/m^2	5% :: 2%	2/day	20-50 km :: Ocean/R	
2888	River Channel Geometry	Barron	m	10% :: 10%	1/seas	1 m :: Land/L	N/A :: Sfc
3049	River Channel Geometry, Major-stream	Lau	m^2	10 :: 10	1/mission	30 m :: Land/R	N/A :: Sfc
2982	River Channel Patterns	Isacks				15-30 m :: Land/L	N/A :: Sfc
2889	River Discharge	Moore	m^3/s	5% :: 5%	1/wk, 1/mo	few sites :: Land	:: Sfc
3063	River Extent	Barron	m^2	10% :: 10%	1/day	30 m :: Land/L	N/A :: Sfc
3064	River Extent	Barron	m^2	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
2914	River Floodplain Extent	Lau	m^2	10% :: 5%	1/wk	100 m :: Land/L	N/A :: Sfc
2915	River Floodplain Extent	Moore	ha/km^2	20% :: 20%	1/wk	1-25 km :: Land	
2913	River Floodplain Extent	Richey, Batista	m^2	10% :: 10%	1/seas	1 km :: Land/R	N/A :: Sfc
2984	River Stage (Flooding)	Moore	m		1/wk, 1/mo	point :: Land	:: Sfc
2983	River Stage (Flooding)	Richey, Batista	cm	5 cm :: 5%	1/seas	100 m :: Land/R	N/A :: Sfc
3205	River Water Attenuation Coef	Richey, Batista	/m	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
2809	River Water Chemistry	Richey, Batista	g/m^3	[10%],5% :: [5%].10%	1/wk	1 km :: Land/R	N/A :: Sfc
2655	River Water Chlorophyll Conc	Richey, Batista	g/m^3	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
2985	Runoff	Lau	m^3/s	5% :: 5%	1/day	:: Land/L,R	N/A :: Sfc
1366	SO2 Conc	Schoeberl	ppb	20% ::	1/wk	8 x 10 dg :: G	3 km :: Strat
2780	Sand Depth	Isacks	m	0.5 :: 0.5	1/seas	50 m :: Land/L	N/A :: Sfc
3136	Sea_Ice Conc	Barron		5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
3137	Sea_Ice Conc	Barron		5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3167	Sea_Ice Conc	Barron		5% :: 5%	1/day	30 m :: Ocean/Cryo	N/A :: Sfc
3168	Sea_Ice Conc	Barron		5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3182	Sea_Ice Conc	Bates	fractional cov		1/(3 day)	100 km :: > 60 dgLAT	:: Sfc
3149	Sea_Ice Conc	Brewer	%	10% :: 1%	1/day, 1/seas	10 km :: Ocean/Cryo	N/A :: Sfc
3141	Sea_Ice Conc	Simard		10Km/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3142	Sea_Ice Conc	Srokosz	%	10% :: 1%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3165	Sea_Ice Conc, First-year	Rothrock	fraction	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3178	Sea_Ice Conc, GCM	Rothrock	fraction	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3173	Sea_Ice Conc, Multi-year	Barron	m^2		1/day	100 km :: Ocean/Cryo	N/A :: Sfc
3174	Sea_Ice Conc, Multi-year	Barron	m^2		1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3175	Sea_Ice Conc, Multi-year	Rothrock	fraction	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3148	Sea_Ice Conc	Bates	fraction	10% :: 10%	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
3417	Sea_Ice Conc	Rothrock					

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3150	Sea_Ice Cover	Hansen		3% ::	1/wk	500 km :: Ocean/Cryo	:: Sfc
3188	Sea_Ice Cover	Rothrock	fraction	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3183	Sea_Ice Cover	Simard	m	50 cm ::		:: Canada/R	N/A :: Sfc
2919	Sea_Ice Cover	Wielicki	fraction	10% :: 5%	1/day	50 km :: Ocean/Cryo	N/A :: Sfc
3156	Sea_Ice Edge	Abbott	presence/absence		1/day	25 km :: Ocean/Cryo	N/A :: Sfc
3189	Sea_Ice Edge	Rothrock	fraction	0.05 :: 0.05	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3157	Sea_Ice Edge	Simard		25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
3190	Sea_Ice Edge	Simard		10km/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3158	Sea_Ice Edge	Srokosz	dg lat,lon	0.1 dg :: 0.01 dg	1/day	N/A :: Ocean/Cryo	N/A :: Sfc
2121	Sea_Ice Emissivity	Bates	dimensionless		1/day	10 km :: Polar	N/A :: Sfc
3160	Sea_Ice Extent	Barron		5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
3161	Sea_Ice Extent	Barron		5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
3162	Sea_Ice Extent	Simard		25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
3166	Sea_Ice Leads	Barron		5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
3103	Sea_Ice Motion	Rothrock	km/day	0.5 km :: 0.5 km	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
3196	Sea_Ice Motion, Regional	Simard		500 m ::	1/(7 day)	500 m :: Canada/R	N/A :: Sfc
1555	Sea_Ice Roughness	Bates	mm	100 mm ::	1/(3 mo)	:: Polar	N/A :: Sfc
2489	Sea_Ice Temperature	Bates	K		1/day	10 km :: Polar	N/A :: Sfc
2490	Sea_Ice Temperature	Rothrock	K	2 K :: 2 K	1/(3 day)	25 km :: Polar	N/A :: Sfc
3120	Sea_Ice Temperature	Simard	K	0.3K ::		:: Canada/R	N/A :: Sfc
3418	Sea_Ice Thickness	Dickinson				<0.5-1 deg :: Ocean/Cryo	
3105	Sea_Level Height	Abbott	cm	5 cm :: 3 cm	1/(10-20 day)	10-20 km :: Ocean [Southern]	N/A :: Sfc
3106	Sea_Level Height	Brewer	m	5% :: 1%	1/day, 1/seas	7 km :: Ocean	N/A :: Sfc
3111	Sea_Level Height, Along-track	Bates	cm	10 cm ::		7 km :: Ocean	N/A :: Sfc
3427	Sea_Level Height, Along-track	Harris	cm	2% :: 1%	1-10 days	7-25 km :: Ocean/R	
3425	Sea_sfc Feature position	Harris	deg long,lat	120 m :: 60 m	1 wk	0.25-1 km:: Ocean/R	
3426	Sea_sfc Feature velocity	Harris	km/day	20% :: 10%	1 wk	0.25-1 km:: Ocean/R	
2438	Sea_sfc Reflectance Factor, MODIS-T	Cihlar		0.05 :: 0.001	1/(3 mo)	0.5 km :: Canada/R	
2504	Sea_sfc Temperature (SST)	Abbott	K	0.5 K :: 0.05 K	(1-2)/day	1-4 km :: Ocean [Southern]	N/A :: Sfc
2505	Sea_sfc Temperature (SST)	Abbott	K	1 K :: 0.1 K	(1-2)/day	50 km :: Ocean [Southern]	N/A :: Sfc
2506	Sea_sfc Temperature (SST)	Barron	K	0.5 K ::	1/day	100 km :: Ocean	N/A :: Sfc
2507	Sea_sfc Temperature (SST)	Barron	K	0.5 K ::	1/day	10 km :: Ocean/R	N/A :: Sfc
2508	Sea_sfc Temperature (SST)	Bates	K	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
2509	Sea_sfc Temperature (SST)	Bates	K	0.5K :: 0.4K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
2510	Sea_sfc Temperature (SST)	Brewer	K	0.5 K :: 0.5 K	1/day, 1/seas	30 m :: Ocean/L	N/A :: Sfc
2511	Sea_sfc Temperature (SST)	Brewer	K	0.5 K :: 0.5 K	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
3392	Sea_sfc Temperature (SST)	Dickinson				<0.5-1 deg :: Ocean	
3393	Sea_sfc Temperature (SST)	Dickinson				<0.5-1 deg :: Ocean	
2512	Sea_sfc Temperature (SST)	Hansen	K	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
3451	Sea_sfc Temperature (SST)	Harris	K	0.5-1 K :: 0.2-0.3 K	1/day	0.25-1 km :: Ocean/R	
3452	Sea_sfc Temperature (SST)	Harris	K	0.5-1 K :: 0.2-0.3 K	1/day	20 km :: Ocean/R	
2513	Sea_sfc Temperature (SST)	Hartmann	K	0.5 K :: 0.5 K	1/day	10 km :: Ocean	N/A :: Sfc
2514	Sea_sfc Temperature (SST)	Lau	K	0.5 K ::	1/wk	100 km :: Ocean	N/A :: Sfc
2515	Sea_sfc Temperature (SST)	Lau	K	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
2516	Sea_sfc Temperature (SST)	Lau	K	0.5 K ::	1/day	50 km :: R	N/A :: Sfc
2517	Sea_sfc Temperature (SST)	Liu	K	0.5 :: 0.5	1/wk	10 km :: G	N/A :: Sfc
2518	Sea_sfc Temperature (SST)	Murakami	K	0.2 K ::		:: G	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
2519	Sea_sfc Temperature (SST)	Rothrock	K	1 K :: 1 K	1/(2 day)	30 km :: G	N/A :: Sfc
2520	Sea_sfc Temperature (SST)	Srokosz	K	0.3K(IR) :: 0.1K	2/day	100-1 km :: Ocean [South Atlan	N/A :: Sfc
2521	Sea_sfc Temperature (SST)	Wielicki	K	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc
3429	Sea_sfc Topographic Height	Harris	cm	2% :: 1%	1-10 days	7-25 km :: Ocean/R	
2767	Snow Contaminant Conc	Dozier	mg/m^3	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	
3003	Snow Cover	Barron	m^2	5% :: 5%	1/day	100 km :: Land	N/A :: Sfc
3004	Snow Cover	Barron	m^2	5% :: 5%	1/day	30 m :: Land/L	N/A :: Sfc
3005	Snow Cover	Barron	m^2	5% :: 5%	1/day	10 km :: Land/R	N/A :: Sfc
3006	Snow Cover	Bates	dimensionless		2/day [d,n]	50 km :: Land	N/A :: Sfc
3007	Snow Cover	Bates	km^2	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
3008	Snow Cover	Dozier	km^2	10% :: 10%	1/wk, 1/mo	50 x 50 m :: Land/L	N/A :: Sfc
3009	Snow Cover	Hansen		0.02 ::	1/wk	500 km :: Land	:: Sfc
3010	Snow Cover	Isacks	km^2	5% :: 2%	1/mo	1 km :: Land/R	N/A :: Sfc
3011	Snow Cover	Isacks	km^2	5% :: 2%	1/seas	15-30 m :: Land/L	N/A :: Sfc
3012	Snow Cover	Lau	m^2	50 :: 10	1/wk	100 m :: Land/L	N/A :: Sfc
3013	Snow Cover	Lau	m^2	50 :: 10	1/wk	1 km :: Land/L	N/A :: Sfc
3014	Snow Cover	Murakami	km^2	10% ::		:: Land	N/A :: Sfc
3015	Snow Cover	Sellers			1/(1-4 day)	100 km ::	:: Sfc
3026	Snow Cover	Simard	km	10km ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3016	Snow Cover	Wielicki	fraction	10% :: 5%	1/day	50 km :: Land	N/A :: Sfc
3028	Snow Cover, Wet	Dozier	km^2	10% :: 10%	1/wk, 1/mo	50 m :: Snow/L	
3414	Snow Depth	Dickinson				Med_res :: Land	
3031	Snow Depth	Isacks	cm	20% :: 20%	1/seas	30 m :: Land/L	N/A :: Sfc
3032	Snow Depth	Lau	cm	5 cm :: 5 cm	1/wk	5 km :: Land/R	N/A :: Sfc
3033	Snow Depth	Lau	cm	5 cm :: 5 cm	1/wk	30 m :: Land/R	N/A :: Sfc
3034	Snow Depth	Simard	cm	5 cm/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
3415	Snow Extent	Dickinson				Low_res :: Land	
3416	Snow Extent	Dickinson				Med_res :: Land	
3037	Snow Grain Size	Dozier	mm	200% :: 200%	1/wk, 1/mo	50 m :: Snow/L	
3039	Snow Liq-water Content	Dozier	N/A	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	
3027	Snow Liq-water Content	Moore			1/wk	1 km :: Land	:: Sfc
3040	Snow Mass	Murakami	g/cm^2	10% ::		:: Land	N/A :: Sfc
3043	Snow State	Simard				:: Canada/R	N/A :: Sfc
2500	Snow Temperature, Sfc	Dozier	K	1 K :: 0.3 K	1/wk	500 m :: Snow/L	
2998	Snow Water Equivalent	Barron	mm	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
2999	Snow Water Equivalent	Barron	mm	10% :: 10%	1/day	30 m :: Land/L	N/A :: Sfc
3491	Snow Water Equivalent	Cihlar	mm	10% :: 10%	1 wk	1 km :: Canada/R	N/A :: Sfc
3000	Snow Water Equivalent	Dozier	m	20% :: 20%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
2996	Snow Water Equivalent	Lau	mm	10 mm :: 10 mm	1/wk	30 m :: Land/L	N/A :: Sfc
2997	Snow Water Equivalent	Lau	mm	10 mm :: 10 mm	1/wk	5 km :: Land/R	N/A :: Sfc
3046	Snow Water Equivalent	Moore	mm		1/wk	1 km :: Land	:: Sfc
3045	Snow Water Equivalent	Simard	mm	10 mm/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
2791	Soil Bulk Density	Kerr, Sorooshian	g/cm^3	5% :: 5%	1/yr	1 km :: Land	N/A :: Sfc
2810	Soil Chemistry	Richey, Batista	kg/ha	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
2792	Soil Class	Kerr, Sorooshian	class		1/yr	30 m :: Land/R	:: Sfc
2794	Soil Composition	Barron		10% :: 5%	1/mission	100 km :: Land	N/A :: Sfc
2795	Soil Composition	Barron		10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
2796	Soil Composition	Barron		10% :: 5%	1/mission	10 km :: Land/R	N/A :: Sfc
2797	Soil Extent	Barron	N/A	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
2798	Soil Extent	Barron	N/A	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
2799	Soil Extent	Barron	N/A	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
3409	Soil Extent	Dickinson				Low_res :: Land	
2800	Soil Extent	Moore	ha	15% :: 15%	1/yr	1 km :: Land	:: Sfc
2917	Soil Hydraulic Conditions, Unsaturated	Kerr, Sorooshian	L/T	0.05 ::		30 m :: Land/R	:: Sfc
3492	Soil Hydraulic Properties	Cihlar		5-10% :: 5%	once	1 km :: Canada/R	N/A :: Sfc
2916	Soil Hydraulic Properties	Simard		10% ::		:: Canada/R	N/A :: Sfc
2802	Soil Mineral Type	Kerr, Sorooshian	mineral type		1/yr	30 m :: Land/R	:: Sfc
2946	Soil Moisture	Barron	cm^3/cm^3	0.05 :: 0.02	1/day	10 km :: Land/R	N/A :: Sfc
2947	Soil Moisture	Barron	cm^3/cm^3	0.05 :: 0.02	1/day	100 km :: Land	N/A :: Sfc
2948	Soil Moisture	Barron	cm^3/cm^3	0.05 :: 0.02	1/day	30 m :: Land/L	N/A :: Sfc
2959	Soil Moisture	Bates	% vol	10-25% :: 5-10%	1/(3 day), 1/wk	60-100 m :: Land	N/A :: Sfc
2960	Soil Moisture	Bates		:: 40%		43 km :: Land	N/A :: Sfc
3493	Soil Moisture	Cihlar	% saturation	10% :: 20%		1 km :: Canada/R	N/A :: Sfc
3411	Soil Moisture	Dickinson				Low_res :: Land	
3412	Soil Moisture	Dickinson				Med_res :: Land	
3413	Soil Moisture	Dickinson				High_res :: Land	
2962	Soil Moisture	Hansen		10% ::	1/wk	500 km :: Land	:: Sfc
2963	Soil Moisture	Isacks	% vol	10% :: 5%	1/mo, 1/yr	60-100 m :: Land/L	N/A :: Sfc
2964	Soil Moisture	Lau	% vol	10% :: 5%	1/(3 day)	50 m :: Land/L	N/A :: Sfc
2965	Soil Moisture	Lau	% vol	10% :: 5%	1/(3 day)	3 km :: Land/R	N/A :: Sfc
2966	Soil Moisture	Moore	% saturated	30% :: 30%	1/wk, 1/mo	1-25 km :: Land	:: Sfc
3066	Soil Moisture	Murakami	cm			:: Land	N/A :: Sfc
2958	Soil Moisture	Richey, Batista	cm		1/mo	1 km :: Land/R	N/A :: Sfc
2967	Soil Moisture	Sellers			1/(1-4 day)	100 km ::	:: Sfc
2949	Soil Moisture	Simard		10% ::		:: Canada/R	N/A :: Sfc
2785	Soil Proportion, Bare	Barron	%	5 :: 5	1/seas	10 km :: Land/R	N/A :: Sfc
2786	Soil Proportion, Bare	Barron	%	5 :: 5	1/seas	100 km :: Land	N/A :: Sfc
2787	Soil Proportion, Bare	Barron	%	5 :: 5	1/seas	30 m :: Land/L	N/A :: Sfc
2788	Soil Proportion, Bare	Simard		10% ::		:: Canada/R	N/A :: Sfc
3370	Soil Reflectance, Bi-directional, (BRDF)	Dickinson				<0.5-1 deg :: Land	
2042	Soil Reflectance, Bi-directional, (BRDF)	Kerr, Sorooshian	dimensionless	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
3331	Soil Roughness	Dickinson				High_res :: Land	
3332	Soil Roughness	Dickinson				Low_res :: Land	
3494	Soil Spectral-characteristics	Cihlar	%	5% :: 10%	once	250-1000 m :: Canada/R	N/A :: Sfc
2501	Soil Temperature	Lau	K	0.5 K :: 0.5 K	1/(3 day)	100 m :: Land/L	N/A :: Sfc
2502	Soil Temperature	Lau	K	1 K :: 1 K	1/(3 day)	1 km :: Land/R	N/A :: Sfc
3311	Soil Temperaturee	Simard	K	0.5 :: 1.0	2/day	100 m :: R/Canada	N/A :: Sfc
1561	Stratopause Height	Bates	km	1 km :: 0.5 km	2/day [d,n]	50 km :: G	N/A :: Mid-atmos
2882	Structure-Location, Significant Mappable	Kerr, Sorooshian			1/yr	30 m :: Land/R	:: Sfc
3060	Surface Water Area	Lau	m^2	100 ::	1/wk	30 m :: Land/L	N/A :: Sfc
3061	Surface Water Area	Lau	m^2	100 ::	1/wk	1 km :: Land/R	N/A :: Sfc
2804	Suspended-Solids Conc, Lake Water	Barron		25% ::		10 km :: Land/R-Lakes	N/A :: Sfc
2805	Suspended-Solids Conc, River Water	Barron		25% ::		10 km :: Land/R-Rivers	N/A :: Sfc
3333	Temperature	Dickinson				<0.5-1 deg :: G	

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
3428	Temperature	Harris	K	1 :: 0.5	2/day	10-50 km :: Ocean/R	1 km :: Atmos
1563	Temperature Profile	Abbott	C	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
1564	Temperature Profile	Barron	K	1 K :: 0.5K	1/day	100 km :: G	1 km :: Trop
1565	Temperature Profile	Barron	K	1 K :: 0.5K	1/day	10 km :: R	1 km :: Trop
1569	Temperature Profile	Bates	K	:: 1-2K		1.8 x .16 dg :: G	3 km :: 20-60 km
1570	Temperature Profile	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	Bates	K	1.0K :: 0.4 K	2/day [d,n]	50 km :: G	1 km :: Atmos
1572	Temperature Profile	Grose	K	2 K :: 0.5 K	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
1574	Temperature Profile	Hansen	K	0.3 C ::	1/wk	500 km :: G	:: Trop
1575	Temperature Profile	Hartmann	K	1 :: 1	1/day	10 km :: Ocean	1 km :: 0-15 km
1577	Temperature Profile	Kerr, Sorooshian	K	1 K :: 1 K	2/day	50 km :: Land	1 km :: Atmos
1578	Temperature Profile	Lau	K	1 K ::	1/day	100 km :: G	1 km :: Trop
1579	Temperature Profile	Liu	K	0.5 :: 0.5	1/day	25 km :: Ocean	0.5 km :: Trop
1580	Temperature Profile	Murakami	K	1% ::			
1581	Temperature Profile	Pyle	K	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
1582	Temperature Profile	Schoeberl	K	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
1583	Temperature Profile	Sellers	K	1 K ::	4/day	100 km ::	0.5 km :: Trop
1584	Temperature Profile	Srokosz	K	1K :: 0.1 K	2/day	10 km :: Ocean [South Atlan]	
1585	Temperature Profile	Wielicki	K	1 K :: 1 K	4/day [d,n]	1.25 dg :: G	1 km :: Atmos
1566	Temperature, Near_sfc	Barron	K	0.5 ::	1/day	100 km :: Ocean	N/A :: Sfc
1568	Temperature, Near_sfc	Barron	K	0.5 ::	1/day	10 km :: Ocean/R	N/A :: Sfc
3334	Temperature, Near_sfc	Dickinson				<0.5-1 deg :: G	
1629	Temperature, Near_sfc	Hansen	K	0.2 C ::	1/wk	500 km :: Land	:: Sfc
1630	Temperature, Near_sfc	Hansen	K	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
1631	Temperature, Near_sfc	Kerr, Sorooshian	K	1K :: 1K	2/day [d,n]	500 m :: Land/R	N/A :: Sfc
1627	Temperature, Near_sfc	Rothrock	K	2 K :: 2 K	1/day	100 km :: Polar	N/A :: Near_sfc
1632	Temperature, Near_sfc	Schimel	C	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
1633	Temperature, Near_sfc	Schimel	C	10% :: 1%	1/day, 1/wk	30 m :: 6 sites/L	N/A :: Sfc
3302	Temperature, PBL	Mouginis-Mark			1/day	30 m :: Land/R	N/A :: Plume_col
2823	Topographic Elevation, Land_sfc	Barron	m		1/mission	10 km :: Land/R	30 m :: Sfc
2824	Topographic Elevation, Land_sfc	Barron	m		1/mission	30 m :: Land/L	30 m :: Sfc
3495	Topographic Elevation, Land_sfc	Cihlar	m	5-10 m ::	once	30 m :: Canada/R	10 m :: Sfc
3410	Topographic Elevation, Land_sfc	Dickinson				Low_res :: Land	
2825	Topographic Elevation, Land_sfc	Dozier	m	10 m :: 1 m		20 m :: Land/L	:: Sfc
2844	Topographic Elevation, Land_sfc	Isacks	m	0.1 :: 0.1	1/mission, 1/seas	1 m :: Land/L	N/A :: Sfc
2826	Topographic Elevation, Land_sfc	Kerr, Sorooshian	m	50 m :: 50 m	1/mission	500 m :: Land	N/A :: Sfc
2827	Topographic Elevation, Land_sfc	Moore	m	1m ::			:: Sfc
2847	Topographic Elevation, Land_sfc	Wielicki	km	200 m :: 200 m	1/mission	10 km :: Land	N/A :: Sfc
2833	Topographic Elevation, Land_sfc, (DEM)	Isacks	m	30 :: 10	1/mission	20 m :: Land/L	N/A :: Sfc
2838	Topographic Elevation, Land_sfc, (DEM)	Isacks	m	:: 120	1/mission	720 m :: Land/R	N/A :: Sfc
2839	Topographic Elevation, Land_sfc, (DEM)	Isacks	m	100 m :: 50 m	1/mission	50 m :: Land/R	N/A :: Sfc
2834	Topographic Elevation, Land_sfc, (DEM)	Kerr, Sorooshian	m	10 :: 10	1/yr	30 m :: Land/R	:: Sfc
2835	Topographic Elevation, Land_sfc, (DEM)	Lau	m	10 m :: 1 m	1/mission	10 m :: Land/L,R	N/A :: Sfc
2837	Topographic Elevation, Land_sfc, Control, (DEM)	Isacks	m	1 m :: 1 m	1/mission	point :: Land/L	N/A :: Sfc
3123	Topographic Elevaton, Sea_sfc	Liu	cm	3 cm :: 3 cm		:: Ocean	N/A :: Sfc
3122	Topographic Elevaton, Sea_sfc	Murakami	m	0.01 ::			N/A :: Sfc
3107	Topographic Elevaton, Sea_sfc	Srokosz	m	0.02m :: 0.01m	1/(10 day)	10 km :: Ocean/R	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
2830	Topographic Slope (Azimuth), Land_sfc	Kerr, Sorooshian	dg	10 :: 5	1/yr	30 m :: Land/R	:: Sfc
2845	Topographic Slope (Azimuth), Land_sfc	Kerr, Sorooshian	%	5 :: 5	1/yr	30 m :: Land/R	:: Sfc
1640	Torque, Friction	Bates	kg m^2/s^2	5% ::		:: G	:: Atmos
1374	Trace Gas Conc	Murakami	mix ratio	20% ::			N/A :: TOA
1642	Tropopause Height, Aerosol_located	Bates	m	75 m ::		200 km :: G	75 m :: Trop
2627	Vegetation Biomass	Richey, Batista	t/ha	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
2628	Vegetation Biomass	Sellers					
2612	Vegetation Biomass, Dead	Barron	kg/ha	25% :: 15%	1/mission	30 m :: L	N/A :: Sfc
2613	Vegetation Biomass, Dead	Barron	kg/ha	25% :: 15%	1/mission	10 km :: R	N/A :: Sfc
2615	Vegetation Biomass, Green	Barron	kg/ha	25% :: 15%	1/mission	30 m :: L	N/A :: Sfc
2616	Vegetation Biomass, Green	Barron	kg/ha	25% :: 15%	1/mission	10 km :: R	N/A :: Sfc
3397	Vegetation Biomass, Green	Dickinson				<0.5-1 deg :: Land	
2617	Vegetation Biomass, Green	Isacks	kg/ha	40% :: 15%	1/mo	30 m :: Land/L	N/A :: Sfc
2618	Vegetation Biomass, Green	Moore	g/ha	40% :: 15%	1/(2-16 day)	500 m :: Land/R	:: Sfc
2619	Vegetation Biomass, Green	Moore	g/ha	40% :: 15%	1/(2-16 day)	30 m :: Land/L	:: Sfc
2624	Vegetation Biomass, Sub_sfc	Kerr, Sorooshian	kg/m^2		1/(1-3 yr) [few yr]	1120 m :: Land/R	:: Sub_sfc
2630	Vegetation Biome Area	Kerr, Sorooshian	km^2	5% :: 5%	1/seas	:: Land/R	N/A :: Sfc
2647	Vegetation Cellulose Conc	Moore	%	20% :: 20%	1/(16 day)	30 m :: Land/L	
2649	Vegetation Chlorophyll Conc	Moore	g/ha	20% :: 10%	1/day, 1/wk	30 m :: Land/L	
2650	Vegetation Chlorophyll Conc	Moore	g/ha	20% :: 10%	1/day, 1/wk	1 km :: Land/R	:: Sfc
2651	Vegetation Chlorophyll Conc	Schimel	kg/ha	10% :: 1%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
2652	Vegetation Chlorophyll Conc	Schimel	kg/ha	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2740	Vegetation Cover	Sellers			1/(1-4 day)	100 km ::	:: Sfc
2634	Vegetation Density	Kerr, Sorooshian	%			60 m :: Land/R	:: Sfc
1989	Vegetation Evapotrans	Bates	mm/day	1 :: 1	1/day	500 m :: Land	N/A :: Sfc
1990	Vegetation Evapotrans	Bates	m/yr	0.02 ::			
3497	Vegetation Evapotrans	Cihlar	cm	20% :: 5-20%	1 day, 1 wk	500 m :: Canada/R	N/A :: Sfc
3351	Vegetation Evapotrans	Dickinson				High_res :: Land	
3352	Vegetation Evapotrans	Dickinson				Med_res :: Land	
1788	Vegetation Evapotrans	Lau	W/m^2 ?	10% :: 10%	1/day	1 km :: Land/L	N/A :: Sfc
3057	Vegetation Evapotrans	Moore	%	20% :: 20%	1/day, 1/wk	500 m :: R	:: Sfc
3058	Vegetation Evapotrans	Moore	%	20% :: 20%	1/day, 1/wk	30 m :: L	:: Sfc
1991	Vegetation Evapotrans	Murakami	m/yr	0.02 ::			
1790	Vegetation Evapotrans	Schimel	cm ?	20% :: 5%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
1789	Vegetation Evapotrans	Simard				:: Canada/R	N/A :: Sfc
1800	Vegetation Evapotrans, Actual, (AET)	Bates	mm/day	0.5 :: 1	1/day	500 m :: Land	N/A :: Sfc
1801	Vegetation Evapotrans, Actual, (AET)	Lau	W/m^2 ?	10% :: 10%	1/day	1 km :: Land/L	N/A :: Sfc
1802	Vegetation Evapotrans, Actual, (AET)	Lau	W/m^2 ?	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
1804	Vegetation Evapotrans, Potential	Lau	W/m^2 ?	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
2715	Vegetation Extent	Barron	N/A	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
2716	Vegetation Extent	Barron	N/A	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
2717	Vegetation Extent	Barron	N/A	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
3400	Vegetation Extent	Dickinson				High_res :: Land	
3401	Vegetation Extent	Dickinson				Med-low_res :: Land	
2718	Vegetation Extent	Hansen		5% ::	1/wk	500 km :: Land	:: Sfc
2719	Vegetation Extent	Isacks			1/seas	1 km :: Land/R	N/A :: Sfc
2721	Vegetation Extent	Moore	ha	15% :: 15%	1/yr	1 km :: Land	:: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
2720	Vegetation Extent	Simard		10% ::		:: Canada/R	N/A :: Sfc
3402	Vegetation Height	Dickinson				Med-low_res :: Land	
2636	Vegetation Height	Kerr, Sorooshian	m	10% :: 10%	1/seas	30 m :: Land/R	:: Sfc
2742	Vegetation Index	Hansen		5% ::	1/wk	500 km :: Land	:: Sfc
2743	Vegetation Index	Isacks		1 :: 1	1/mo	240-500 m :: Land/R	N/A :: Sfc
2744	Vegetation Index	Isacks	%	1 :: 0.5	1/mo	30-60 m :: Land/L	N/A :: Sfc
2745	Vegetation Index	Murakami				:: Land	N/A :: Sfc
2673	Vegetation Index, Leaf Area, (LAI)	Barron		0.5 :: 0.2	1/day	100 km :: Land	N/A :: Sfc
2674	Vegetation Index, Leaf Area, (LAI)	Barron		0.5 :: 0.2	1/day	10 km :: Land/R	N/A :: Sfc
2675	Vegetation Index, Leaf Area, (LAI)	Barron		0.5 :: 0.2	1/day	30 m :: Land/L	N/A :: Sfc
2676	Vegetation Index, Leaf Area, (LAI)	Bates	area fraction		1/mo	60 m :: Land	N/A :: Sfc
3499	Vegetation Index, Leaf Area, (LAI)	Cihlar	%	10% :: 1%	1 wk	1 km :: Canada/R	N/A :: Sfc
3406	Vegetation Index, Leaf Area, (LAI)	Dickinson				Low_res :: Land	
2677	Vegetation Index, Leaf Area, (LAI)	Lau	%	10% :: 10%	1/seas	1 km :: Land/R	N/A :: Sfc
2678	Vegetation Index, Leaf Area, (LAI)	Schimel	%	10% :: 1%	1/wk, 1/mo	30 m :: 6 sites/L	N/A :: Sfc
2679	Vegetation Index, Leaf Area, (LAI)	Schimel	%	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2760	Vegetation Leaf Water Content	Moore	g/cm^3	20% :: 20%	1/day, 1/wk	30 m :: Land/L	:: Sfc
2684	Vegetation Lignin Conc	Moore	%	20% :: 20%	1/(16 day)	30 m :: Land/L	
2685	Vegetation Lignin Conc	Schimel	%	20% :: 1%	1/seas	30 m :: 6 sites/L	N/A :: Sfc
2686	Vegetation Lignin Conc	Schimel	%	20% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2950	Vegetation Moisture, Root-zone	Barron	cm^3/cm^3	0.1 :: 0.05	1/day	100 km :: Land	N/A :: Sub_sfc
2951	Vegetation Moisture, Root-zone	Barron	cm^3/cm^3	0.1 :: 0.05	1/day	10 km :: Land/R	N/A :: Sfc
2952	Vegetation Moisture, Root-zone	Barron	cm^3/cm^3	0.1 :: 0.05	1/day	30 m :: Land/L	N/A :: Sub_sfc
3501	Vegetation Moisture, Root-zone	Cihlar	m	10% :: 20%	1 wk (in grow. seas)	1 km :: Canada/R	N/A :: Sub_sfc
3399	Vegetation Moisture, Root-zone	Dickinson				<0.5-1 deg :: Land	
2708	Vegetation Moisture, Root-zone	Richey, Batista	m	[20%],10% :: [10%],20%	1/seas	1 km :: Land/R	N/A :: Sfc
2953	Vegetation Moisture, Root-zone	Simard		10% ::		:: Canada/R	N/A :: Sfc
2688	Vegetation N Conc	Moore	%	20% :: 20%	1/(16 day)	1 km :: Land/R	
2689	Vegetation N Conc	Moore	%	20% :: 20%	1/(16 day)	30 m :: Land/L	
2690	Vegetation N Conc	Schimel	%	20% :: 1%	1/seas	30 m :: 6 sites/L	N/A :: Sfc
2691	Vegetation N Conc	Schimel	%	20% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
2693	Vegetation Physiography	Richey, Batista	m	10% :: 10%	1/mo	1 km :: Land/R	N/A :: Sfc
2698	Vegetation Production, Net Primary, (NPP)	Schimel	kg/ha	20% :: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
3500	Vegetation Reflectance Factor	Cihlar	dimensionless	0.05 :: 0.001	1 day	250-1000 m :: Canada/R	N/A :: Sfc
3496	Vegetation Reflectance, Bi-directional, (BRDF)	Cihlar		0.05 :: 0.001	1 wk (for 1 yr)	:: Canada/R	N/A :: Sfc
3371	Vegetation Reflectance, Bi-directional, (BRDF)	Dickinson				<0.5-1 deg :: Land	
2046	Vegetation Reflectance, Bi-directional, (BRDF)	Kerr, Sorooshian	N/A	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
3403	Vegetation Rooting Depth	Dickinson				<0.5-1 deg :: Land	
2707	Vegetation Rooting Depth	Kerr, Sorooshian	m	20% :: 20%	1/yr	30 m :: Land/R	
3404	Vegetation Roughness	Dickinson				Med-low_res :: Land	
2638	Vegetation Spatial Density	Kerr, Sorooshian	#/km^2	20% :: 10%		60 m :: Land/R	:: Sfc
2709	Vegetation Stomatal Resistance	Kerr, Sorooshian			1/seas	30 m :: Land/R	
2639	Vegetation Structure	Barron			1/seas	30 m :: Land/L	N/A :: Sfc
2640	Vegetation Structure	Barron			1/seas	10 km :: Land/R	N/A :: Sfc
3502	Vegetation Structure	Cihlar	geometric			1 km :: Canada/R	N/A :: Sfc
2726	Vegetation Structure	Richey, Batista	%		1/seas	1 km :: Land/R	N/A :: Sfc
2641	Vegetation Structure	Schimel	geometric	:: 5%	1/yr	30 m :: 6 sites/L	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
2642	Vegetation Structure	Schimel	geometric	:: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
2643	Vegetation Structure	Schimel	geometric	:: 5%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
3503	Vegetation Temperature	Cihlar	K	0.5 K :: 1.0 K	1 day	250-1000 m :: Canada/R	N/A :: Sfc
3394	Vegetation Temperature	Dickinson				<0.5-1 deg :: Land	
2456	Vegetation Temperature	Kerr, Sorooshian	K	0.5K :: 0.5K	2/day [d,n]	500 m :: Land/R	:: Sfc
2535	Vegetation Temperature	Moore	K				:: Sfc
2728	Vegetation Type	Barron	N/A	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
2729	Vegetation Type	Barron	N/A	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
2730	Vegetation Type	Barron	N/A	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
3504	Vegetation Type	Cihlar	ha	15% :: 15%	once	100 m :: Canada/R	N/A :: Sfc
3405	Vegetation Type	Dickinson				<0.5-1 deg :: Land	
2731	Vegetation Type	Hansen		5% ::	1/wk	500 km :: Land	:: Sfc
2732	Vegetation Type	Isacks			1/seas	1 km :: Land/R	N/A :: Sfc
2733	Vegetation Type	Kerr, Sorooshian	class		1/seas	30 m :: Land/R	:: Sfc
2734	Vegetation Type	Lau	species		1/seas	30 m :: Land/L	N/A :: Sfc
2736	Vegetation Type	Moore	ha	15% :: 15%	1/yr	1 km :: Land	:: Sfc
2739	Vegetation Type Boundaries	Barron	m	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
2762	Vegetation Water Content	Moore	g/cm^3	20% :: 20%	1/day, 1/wk	30 m :: Land/L	:: Sfc
2758	Vegetation Water Content, Integrated	Kerr, Sorooshian	%	20% :: 20%	2/wk	500 m :: Land/R	N/A :: Sfc
3407	Vegetation Water Potential	Dickinson				Low_res :: Land	
3269	Volcano Deformation	Mouginis-Mark	cm	1 cm(ver) ::	1/day	cm [?] :: [30 km^2/10]	N/A :: Sfc
3274	Volcano Elevation Change	Mouginis-Mark	cm	1-5 (ver) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
3278	Volcano Elevation Change	Mouginis-Mark	m	10 m(ver) ::	1/event	30 m :: Land/L	N/A :: Sfc
3276	Volcano Elevation, Reference	Mouginis-Mark	m	10 m(ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
3284	Volcano Morphology	Mouginis-Mark	m		4/yr	30 m :: Land/L	N/A :: Sfc
3287	Volcano Roughness	Mouginis-Mark	cm	3-24 cm ::	1/yr	30 m :: Land/L	N/A :: Sfc
3290	Volcano Temperature, Eruption Spike	Mouginis-Mark	C	10 C ::	[near-real time ?]	1 km :: G	N/A :: Sfc
3295	Volcano Temperature-Change	Mouginis-Mark	C/yr	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
3408	Wetlands Extent	Dickinson				Low_res :: Land	
2764	Wetlands Extent	Hansen		5% ::	1/wk	500 km :: Land	:: Sfc
1702	Wind Direction	Liu	dg	10 dg :: 10 dg	1/day	25 km :: Ocean	N/A :: Sfc
1703	Wind Direction	Srokosz	dg	10 dg :: 1 dg	1/day	25 km :: Ocean [South Atlan]	
1706	Wind Flux(Draw)	Kerr, Sorooshian	km/day		1/day	25 km :: Land	10 km :: Trop
1712	Wind Speed	Lau	m/s	1 m/s :: 2%	2/day	100 km :: G	1 km :: Trop
1739	Wind Speed	Lau	m/s	0.5 m/s :: 2%	2/day	100 km :: G	N/A :: Sfc
1714	Wind Speed	Pyle	m/s	5 m/s :: 5 m/s	2/day	15 x 4 km :: G	2 km :: Strat
1715	Wind Speed	Sellers	m/s	1 m/s ::	4/day	100 km ::	0.5 km :: Trop
3339	Wind Speed, Land_sfc	Dickinson				<0.5-1 deg :: Land	
1711	Wind Speed, Land_sfc	Kerr, Sorooshian	m/s	5 m/s :: 5 m/s	1/hr	25 km :: Land/R	N/A :: Sfc
1738	Wind Speed, PBL	Lau	m/s	20% :: 10%	1/hr	30 m :: Land/L	N/A :: PBL
1707	Wind Speed, Sea_sfc	Abbott	m/s	10% :: 5%	1/(10-20 day)	25 km :: Ocean [Southern]	N/A :: Sfc
1708	Wind Speed, Sea_sfc	Abbott	m/s	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
1709	Wind Speed, Sea_sfc	Bates	m/s		2/day [d,n]	50 km :: Ocean	N/A :: Sfc
1710	Wind Speed, Sea_sfc	Brewer	m/s	15% :: 5%	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
3435	Wind Speed, Sea_sfc	Harris	m/s	5-10% :: 2-10%	1-10 days	1-25 km :: Ocean/R	N/A :: Sfc
1713	Wind Speed, Sea_sfc	Liu	m/s	1 :: 1	1/day	25 km :: Ocean	N/A :: Sfc
1716	Wind Speed, Sea_sfc	Srokosz	m/s	1 m/s :: 0.1 m/s	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc

Appendix K: IDS Input Requirements Listed by Product Name

Prod #	Product Name	Investigator	Units	Accuracy Abs :: Rel	Temporal Resolution	Horizontal Resol :: Coverage	Vertical Resol :: Coverage
1717	Wind Speed, Sea_sfc	Tapley	m/s	1 m/s ::	4/day	50 km :: Ocean	N/A :: Sfc
1742	Wind Stress	Bates				:: Ocean	:: Sfc
1743	Wind Stress	Lau	N/m^2	0.01 ::		:: Ocean	N/A :: Sfc
1744	Wind Stress	Murakami	N/m^2	0.01 ::		:: Ocean	N/A :: Sfc
1745	Wind Stress	Tapley	N/m^2	10% ::	4/day	50 km :: Ocean	N/A :: Sfc
1754	Wind Velocity	Abbott	m/s,dg	10%,<20dg :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
1650	Wind Velocity	Barron	m/s,dg	1 m/s :: 0.5 m/s	1/day	30 m :: L	1 km :: 0-12 km
1651	Wind Velocity	Barron	m/s,dg	1 m/s :: 0.5 m/s	1/day	10 km :: R	1 km :: 0-12 km
1652	Wind Velocity	Barron	m/s,dg	1 m/s :: 0.5 m/s	1/day	100 km :: L	1 km :: 0-12 km
1659	Wind Velocity	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	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	Bates	m/s,dg	1-5 m/s ::	2/day	100 km :: G	1 km :: Atmos
3335	Wind Velocity	Dickinson				<0.5-1 deg :: G	
1662	Wind Velocity	Grose	m/s,dg	5m/s,10dg :: 5m/s,5dg	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
3433	Wind Velocity	Harris	m/s, deg	10%,20% :: 5%,10%	1 day	25 km :: Ocran/R	N/A :: Sfc
3434	Wind Velocity	Harris	m/s, deg	7%,14% :: 5%,10%	2 days	100 km :: Ocean/R	N/A :: Sfc
1665	Wind Velocity	Hartmann	m/s,dg	4 m/s :: 4 m/s	1/day	100 km :: G	:: 0-15 km
1666	Wind Velocity	Isacks	m/s,dg	:: 0.4	1/wk	100 km :: Land/R	:: Trop
1667	Wind Velocity	Liu	m/s,dg	1 :: 1	1/day	25 km :: Ocean	:: Trop
1668	Wind Velocity	Murakami	m/s,dg	10% :: TBD			
1671	Wind Velocity	Schoeberl	m/s,dg	2 m/s :: 3 m/s	1/day	200 x 200 km :: G	2 km :: Strat
1672	Wind Velocity	Srokosz	m/s,dg	2m/s :: 1m/s	1/day	25 km :: Ocean [South Atlan]	500 m ::
1673	Wind Velocity	Wielicki	m/s,dg	5 m/s :: 2 m/s	4/day [d,n]	1.25 dg :: G	1 km :: Atmos
3336	Wind Velocity, Divergent Horizontal	Dickinson				<0.5-1 deg :: G	
1684	Wind Velocity, Friction	Srokosz	m/s,dg	5%,5 dg :: .01m/s,1dg	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
1685	Wind Velocity, Geostrophic	Bates	m/s	2 m/s ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
2382	Wind Velocity, LAWS Line-of-sight (Level-1B)	Bates					
1654	Wind Velocity, Land_sfc	Barron	m/s,dg	1 :: 1	1/day	100 km :: Land	N/A :: Sfc
1655	Wind Velocity, Land_sfc	Barron	m/s,dg	1 :: 1	1/day	30 m :: Land/L	N/A :: Sfc
1656	Wind Velocity, Land_sfc	Barron	m/s,dg	1 :: 1	1/day	10 km :: Land/R	N/A :: Sfc
3337	Wind Velocity, Rotational Horizontal	Dickinson				<0.5-1 deg :: G	
1753	Wind Velocity, Sea_sfc	Abbott	m/s,dg	10%,<20dg :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
1653	Wind Velocity, Sea_sfc	Barron	m/s,dg	1 m/s,? :: 1 m/s,?	1/day	10 km :: Ocean/R	N/A :: Sfc
1657	Wind Velocity, Sea_sfc	Barron	m/s,dg	1 m/s,? :: 1 m/s,?	1/day	100 km :: Ocean	N/A :: Sfc
1658	Wind Velocity, Sea_sfc	Bates	m/s,dg	:: 10%; 20 dg		25 km :: Ocean	N/A :: Near_sfc
3338	Wind Velocity, Sea_sfc	Dickinson				<0.5-1 deg :: Ocean	
1663	Wind Velocity, Sea_sfc	Hansen	m/s,dg	10% ::	1/wk	500 km :: Ocean	:: Sfc
1664	Wind Velocity, Sea_sfc	Hartmann	m/s,dg	2 m/s :: 2 m/s	1/day	50 km :: Ocean	N/A :: Sfc
1669	Wind Velocity, Sea_sfc	Rqthrock	m/s,dg	2 m/s :: 2 m/s	1/day	100 km :: Polar	N/A :: Near_sfc
1670	Wind Velocity, Sea_sfc	Rothrock	m/s,dg	2 m/s :: 2 m/s	1/day	25 km :: Polar	N/A :: Sfc
3258	X-Ray Energy Spectra	Schoeberl	photon/cm^2/s/A	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 15-110 km
3421	X-Ray Images	Dickinson				<0.5-1 deg :: G	

IDS Input Requirements Listed by IDS Investigator

Appendix L

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix L: IDS Input Requirements Listed by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol. :: Cover.	Resol. :: Cover.
Abbott	*Sea_Ice Edge*	*3156*							*1/day*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153*	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3611	AM-			22 km :: Ocean/Cryo	N/A :: Sfc
			ASTER	AM2	Welch	3152	AM			15-30 m :: Ocean/Cryo	N/A :: Sfc

The "best" and "alternative" matches were selected by comparing the stated IDS requirements with the output product specficiations for these fields.

These output products have been identified by the SPSO as "best" or "alternative" matches for the IDS required input product #3156.

An asterisk (*) indicates a post-launch data product.

Match Types are described in Table A-4.

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

Legend for Appendix L:
IDS Input Requirements Listed by IDS Investigator

This table lists the IDS input requirements that have been matched to proposed EOS output products.

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Abbott	*Cloud Liq_water Total Column*	*1918*						*10% :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*Column :: Trop*
			CERES	TRM,AM,PM	Barkstrom	1900	BM	50% :: 10%	6/day [d,n]	25 km :: G	Column :: Atmos
			AIRS	PM	Rosenkranz	1908*	AM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
			MIMR	PM	TBD	3598	AM			22 km :: Ocean	N/A :: Trop
Abbott	*Humidity Profile*	*1805*						*10% :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*1 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Abbott	*Irradiance, Solar*	*2269*						*5% :: 1%*	*1/(1-2 day)*	*1-4 km :: Ocean [Southern]*	*N/A :: Sfc*
			MODIS	AM,PM	Gordon	2267	BM	10% :: 5%	1/day [d]	1 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Tanre	2268*	BM	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
Abbott	*Ocean Productivity, Primary, Total Column*	*2597*							*1/(1-2 day)*	*1-4 km :: Ocean [Southern]*	*N/A :: TOO*
			MODIS	AM,PM	Abbott	2602*	BM	:: 50-100%	1/day, 1/wk	1 km :: Ocean-I/R,L	N/A :: TOO
Abbott	*Ocean Water Attenuation Coef*	*3204*						*20% :: 5%*	*1/(1-2 day)*	*1-4 km :: Ocean [Southern]*	*N/A :: TOO*
			MODIS	AM,PM	Clark	2031*	BM	35% :: 10%	1/day, 1/wk	1 km :: Ocean-I/L	N/A :: TOO
			MODIS	AM,PM	Gordon, Clark	3200	AM	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ R,L	N/A :: TOO
Abbott	*Ocean Wave Height, Significant*	*3130*						*10% :: 5%*	*1/(10-20 day)*	*10-20 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	AM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Abbott	*Organic Matter Conc, Dissolved*	*2579*						*50% :: 20%*	*1/(1-2 day)*	*1-4 km :: Ocean [Southern]*	*N/A :: TOO*
			MODIS	AM,PM	Parslow et al	2583	BM	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean [Southern]R,L	N/A :: TOO
			MODIS	AM,PM	Carder	2581*	BM	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
Abbott	*Phytoplankton Backscatter*	*3209*						*50% :: 20%*	*1/day*	*1-4 km :: Ocean*	*N/A :: N/A*
			MODIS	AM,PM	Gordon	2555*	BM		1/day, 1/wk, 1/mo	1 km :: Ocean/R	N/A :: TOO
Abbott	*Pigment Conc, Phycoerythrin*	*2584*						*50% :: 20%*	*1/(1-2 day)*	*1-4 km :: Ocean [Southern]*	*N/A :: TOO*
			HIRIS	AM2	Davis, Melack	3072	AM-	100% :: 50%	1/(>=2 day)	60-90 m :: Ocean-I/L	N/A :: TOO
Abbott	*Pigment Conc, Phytoplankton*	*2587*						*35% :: 10%*	*1/(1-2 day)*	*1-4 km :: Ocean [Southern]*	*N/A :: TOO*
			MISR	AM	Diner	2589	BM	30% :: 30%	1/(1-2 day) [d]	1.92 km :: Ocean/G,R	N/A :: TOO
			MODIS	AM,PM	Gordon, Clark	2592	BM	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
			MISR	AM	Diner	2588*	AM	30% :: 30%	1/(1-2 day) [d]	240 m :: Ocean/R	N/A :: TOO
			MODIS	AM,PM	Gordon, Clark	2591	AM	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
Abbott	*Precipitable Water*	*1858*						*10% :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*Column :: Trop*
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
			MIMR	PM	TBD	3596	AM			22 km :: Ocean	Column :: Trop
			MODIS	AM,PM	Kaufman, Tanre	1874	AM	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos
			AIRS	PM	Rosenkranz	3693	AM	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Chedin, Fleming,	1869	AM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
Abbott	*Precipitation Rate, Rain*	*1972*						*5% :: 1%*	*(1-2)/day*	*25 km :: Ocean [Southern]*	*N/A :: Trop*
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
Abbott	*Sea_Ice Edge*	*3156*							*1/day*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3154	AM	<=5% :: <=5%	1/day, 1/wk, 1/mo	1 km :: Ocean/Cryo,R	N/A :: Sfc
			MIMR	PM	TBD	3611	AM			22 km :: Ocean/Cryo	N/A :: Sfc
			ASTER	AM1	Welch	3152	AM			90 m :: Ocean/Cryo	N/A :: Sfc
Abbott	*Sea_Level Height*	*3105*						*5 cm :: 3 cm*	*1/(10-20 day)*	*10-20 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Abbott	*Sea_sfc Temperature (SST)*	*2504*						*0.5 K :: 0.05 K*	*(1-2)/day*	*1-4 km :: Ocean [Southern]*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2527	BM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Abbott	*Sea_sfc Temperature (SST)*	*2504*	MODIS	AM,PM	Brown	2529	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2530	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
Abbott	*Sea_sfc Temperature (SST)*	*2505*						*1 K :: 0.1 K*	*(1-2)/day*	*50 km :: Ocean [Southern]*	*N/A :: Sfc*
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	BM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
Abbott	*Temperature Profile*	*1563*						*10% :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*1 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Abbott	*Wind Speed, Sea_sfc*	*1707*						*10% :: 5%*	*1/(10-20 day)*	*25 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	1735	BM	2 m/s ::		7 km :: Ocean	N/A :: Sfc
			AIRS	PM	Aumann	1718*	BM		1/day	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3595	AM		1 mo	1 dg :: Ocean	N/A :: Sfc
Abbott	*Wind Speed, Sea_sfc*	*1708*						*10% :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	1735	BM	2 m/s ::		7 km :: Ocean	N/A :: Sfc
			AIRS	PM	Aumann	1718*	BM		1/day	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
Abbott	*Wind Velocity, Sea_sfc*	*1753*						*10%,<20dg :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Barron	*Albedo, Land_sfc*	*2013*						*1% :: 1%*	*1/wk*	*10 km :: G*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	2016*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			AIRS	PM	Gautier ??	2000*	AM		1/day	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3665*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3666*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Barron	*Albedo, TOA*	*2023*						*3 ::*	*1/day*	*100 km :: G*	*N/A :: TOA*
			MODIS	AM,PM	Muller, Strahler,	3667*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: TOA
			MODIS	AM,PM	Muller, Strahler	2001	AM	10% :: 5%	1/(3-8 day)	1 km :: Land/R	N/A :: TOA
			MISR	AM	Diner	2011	AM	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
Barron	*Cloud Cover*	*2049*						*5 :: 5*	*1/day*	*100 km :: G*	*N/A :: Cloud*
			MODIS	AM,PM	King	2082	BM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2088	BM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2087	AM	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King	2081	AM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Barron	*Cloud Cover*	*2050*						*5 :: 5*	*1/day*	*10 km :: R*	*N/A :: Cloud*
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Barron	*Cloud Cover*	*2051*						*5 :: 5*	*1/day*	*30 m :: L*	*N/A :: Cloud*
			HIRIS	AM2	Welch	2079	BM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
			ASTER	AM1	Welch	2080	AM	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
Barron	*Cloud Height, Base*	*1380*						*100 m :: 50 m*	*1/day*	*100 km :: G*	*100 m :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1395	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Cloud Height, Base*	*1380*	CERES	TRM,AM,PM	Barkstrom	1393	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
Barron	*Cloud Height, Base*	*1381*						*100 m :: 50 m*	*1/day*	*10 km :: R*	*100 m :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1393	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
Barron	*Cloud Height, Base*	*1382*						*100 m :: 50 m*	*1/day*	*30 m :: L*	*100 m :: Cloud*
			HIRIS	AM2	Welch	1390	BM	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
			ASTER	AM1	Welch	1391	AM	100 m :: 100 m	1/(16 day)	100 m :: L	N/A :: Cloud
Barron	*Cloud Height, Top*	*1412*						*100 m :: 25 m*	*1/day*	*100 km :: G*	*100 m :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1430	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			AIRS	PM	Chahine, Chedin,	1423*	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	Menzel	1529	AM	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	1530	AM	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
Barron	*Cloud Height, Top*	*1413*						*100 m :: 25 m*	*1/day*	*10 km :: R*	*100 m :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1429	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
			MODIS	AM,PM	Menzel	1528	AM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
			MISR	AM	Diner	1432*	AM	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
			MISR	AM	Diner	1433*	AM	100 m :: 100 m	1/(5-16 day) [d]	500 m :: R	N/A :: Trop
Barron	*Cloud Height, Top*	*1414*						*100 m :: 25 m*	*1/day*	*30 m :: L*	*100 m :: Cloud*
			HIRIS	AM2	Welch, Goetz	1426	BM	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
			GLRS-A	ALT	Spinhirne et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
			ASTER	AM1	Welch	1427	AM	300 m :: 300 m	1/(16 day)	90 m :: L	N/A :: Cloud
Barron	*Cloud Liq_water Content*	*1902*						*0.1 :: 0.05*	*1/day*	*100 km :: G*	*1 km :: Cloud*
			AIRS	PM	Rosenkranz	1908*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1896	AM	75% :: 10%	6/day [d,n]	25 km :: G	lyr :: Atmos
Barron	*Cloud Liq_water Content*	*1903*						*0.1 :: 0.05*	*1/day*	*10 km :: R*	*1 km :: Cloud*
			MIMR	PM	TBD	3598	BM			22 km :: Ocean	N/A :: Trop
			CERES	TRM,AM,PM	Barkstrom	1896	AM	75% :: 10%	6/day [d,n]	25 km :: G	lyr :: Atmos
			ASTER	AM1	Welch	3626	AM		1/(16 day)	90 m :: L	N/A :: Cloud
Barron	*Cloud Optical Depth*	*2301*						*3% :: 3%*	*1/day*	*100 km :: Ocean*	*N/A :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	2317	BM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2322	BM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			EOSP	AERO,AM2	Travis	2313	AM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
			MODIS	AM,PM	King	2312	AM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2321	AM	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
Barron	*Cloud Optical Depth*	*2302*						*3% :: 3%*	*1/day*	*10 km :: Ocean/R*	*N/A :: Cloud*
			MODIS	AM,PM	King	2311	BM	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
Barron	*Cloud Optical Depth*	*2303*						*3% :: 3%*	*1/day*	*30 m :: Ocean/L*	*N/A :: Cloud*
			HIRIS	AM2	Welch	2309	BM	3% :: 1.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	N/A :: Cloud
			ASTER	AM1	Welch	2310	AM	3% :: 3%	1/(16 day)	15-30 m :: L	N/A :: Cloud
Barron	*Cloud Temperature, Emission*	*2458*						*2 :: 1*	*1/day*	*100 km :: G*	*N/A :: Cloud*
			MODIS	AM,PM	Menzel	2466	BM	2 C :: 1 C	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2463	AM	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Barron	*Cloud Temperature, Emission*	*2459*						*2 :: 1*	*1/day*	*10 km :: R*	*N/A :: Cloud*
			MODIS	AM,PM	Menzel	2467	BM	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
			ASTER	AM1	Welch	2465	AM	2 K :: 2 K	1/(16 day)	90 m :: L	N/A :: Cloud
Barron	*Drainage_Network Structure*	*2905*						*30 m ::*	*1/(3 mo)*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM-	:: 30%		30 m :: L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Drainage_Network Structure*	*2905*	ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Barron	*Humidity Profile*	*1806*						*10% :: 5%*	*1/day*	*10 km :: R*	*:: Trop*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Barron	*Humidity Profile*	*1807*						*10% :: 5%*	*1/day*	*100 km :: G*	*:: Trop*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Barron	*Ice_Sheet Elevation*	*2906*						*100 ::*	*1/(3 mo)*	*10 km :: Land/Cryo*	*:: Sfc*
			ALT	ALT	Zwally	2911	BM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
			GLRS-A	ALT	Bentley	2912	AM	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Elevation*	*2907*						*100 ::*	*1/(3 mo)*	*100 km :: Land/Cryo*	*:: Sfc*
			ALT	ALT	Zwally	2911	BM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Temperature*	*3051*						*1 K ::*	*1/wk*	*10 km :: Land/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Barron	*Ice_Sheet Temperature*	*3052*						*1 K ::*	*1/wk*	*100 km :: Land/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2481	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Barron	*Ice_Sheet Thickness*	*3053*						*100 ::*	*1/(3 mo)*	*10 km :: Land/Cryo*	*:: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Thickness*	*3054*						*100 ::*	*1/(3 mo)*	*100 km :: Land/Cryo*	*30 m :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Velocity*	*2929*						::		*:: Land/Cryo*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2897	BM	10 mm/day :: 10 mm/day	1/mo	N/A :: Land/Cryo	N/A :: Sfc
			HIRIS	AM2	Kieffer	2932	BM	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
			HIRIS	AM2	Kieffer	2895	AM	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
			ASTER	AM1	Kieffer	2931	AM	20 m/yr :: 10 m/yr	1 yr	15 m :: Land/Cryo	
			HIRIS	AM2	Kieffer	2930	AM	10^-6 :: variable	1/yr	100 m :: Land/Cryo	N/A :: Sfc
Barron	*Lake Extent*	*3062*						*10% :: 10%*	*1/day*	*:: Land/R*	*N/A :: Sfc*
			ASTER	AM1	TBD	3633	BM	TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
Barron	*Land_sfc Roughness*	*1545*						*10% :: 0.1*	*1/mission, 1/yr*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	1557*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Tanre	3670*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Barron	*Land_sfc Roughness*	*1546*						*10% :: 0.1*	*1/mission, 1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Barron	*Land_sfc Roughness*	*1547*						*10% :: 0.1*	*1/mission, 1/yr*	*100 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	1557*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Tanre	3670*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Barron	*Land_sfc Temperature, Skin*	*2472*						*1 :: 0.5*	*1/day*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2484	AM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Barron	*Land_sfc Temperature, Skin*	*2473*						*1 :: 0.5*	*1/day*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, Becker, Ch	2483	AM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Barron	*Land_sfc Temperature, Skin*	*2474*						*1 :: 0.5*	*1/day*	*100 km :: G*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2484	AM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Landform Distribution*	*2849*						*30 m ::*	*1/(3 mo)*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Barron	*Lightning Rate*	*1757*						*10% :: 10%*	*1/day*	*10 km :: G*	*N/A :: Atmos*
			LIS	TRM	Christian	1756	BM	:: 5%		.07 dg :: G	N/A :: Atmos
Barron	*PBL Height*	*1510*						*75 m ::*	*1/day*	*10 km :: R*	*100 m :: Mixed lyr*
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Barron	*PBL Height*	*1511*						*75 m ::*	*1/day*	*100 km :: G*	*100 m :: Mixed lyr*
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Barron	*Precipitable Water*	*1859*						*3% :: 1%*	*1/day*	*30 m :: L*	*Column :: Trop*
			HIRIS	AM2	Goetz	1873	BM	10% :: 3%	1/(1-3 min), 1/(2-16 day)	30 m :: L	Column :: Trop
Barron	*Precipitable Water*	*1860*						*3% :: 1%*	*1/day*	*10 km :: R*	*Column :: Trop*
			MODIS	AM,PM	Kaufman, Tanre	1874	BM	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
			MIMR	PM	TBD	3596	AM			22 km :: Ocean	Column :: Trop
			MODIS	AM,PM	Kaufman, Tanre	3321	AM	12% :: 8%	1 day, mo	1 km :: Land	N/A :: Atmos
Barron	*Precipitable Water*	*1861*						*3% :: 1%*	*1/day*	*100 km :: G*	*Column :: Trop*
			MODIS	AM,PM	Kaufman, Tanre	3322	BM	5% :: 3%	1 day, mo	1 dg :: Land	N/A :: Atmos
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Rosenkranz	3693	AM	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
Barron	*Precipitation Amount*	*1926*						*2 :: 1*	*1/day*	*100 km :: G*	*N/A :: Trop*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Barron	*Precipitation Amount*	*1927*						*2 :: 1*	*1/day*	*10 km :: R*	*N/A :: Trop*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Barron	*Radiative Flux, LW*	*2185*						*10 :: 5*	*1/day*	*100 km :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2203	BM	5 W/m^2 :: <5 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2182	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier ??, Sussk	2209*	AM	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier ??, Sussk	2210*	AM	<10 - TBD :: <5 - TBD	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			AIRS	PM	Gautier	2176*	AM	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2177*	AM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
Barron	*Radiative Flux, LW*	*2187*						*10 :: 5*	*1/day*	*10 km :: R*	*N/A :: Sfc*
			MODIS	AM,PM	Kaufman, Tanre	2380	BM-	10% :: 5%	1/day, 1/mo	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Gordon et al	2417	BM-	5% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
Barron	*Radiative Flux, LW*	*2189*						*10 :: 5*	*1/day*	*100 km :: G*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2200	BM	3 W/m^2 :: 1 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
Barron	*Radiative Flux, SW*	*2237*						*10 :: 5*	*1/day*	*100 km :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2230	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2248	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2222	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2232*	AM	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2233*	AM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
Barron	*Radiative Flux, SW*	*2238*						*10 :: 5*	*1/day*	*10 km :: R*	*N/A :: Sfc*
			MODIS	AM,PM	Kaufman, Tanre	2380	BM-	10% :: 5%	1/day, 1/mo	10 km :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Radiative Flux, SW*	*2238*	MODIS	AM,PM	Gordon et al	2416	AM-	5% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Gordon et al	2417	AM-	5% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
Barron	*Radiative Flux, SW*	*2239*						*10 :: 5*	*1/day*	*100 km :: G*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2251	BM	7 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
Barron	*Sea_Ice Conc*	*3136*						*5% :: 5%*	*1/day*	*100 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Conc*	*3137*						*5% :: 5%*	*1/day*	*10 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Conc*	*3167*						*5% :: 5%*	*1/day*	*30 m :: Ocean/Cryo*	*N/A :: Sfc*
			ASTER	AM1	Welch	3152	BM			90 m :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Conc*	*3168*						*5% :: 5%*	*1/day*	*10 km :: Ocean/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			AIRS	PM	Chedin, Staelin	3151*	AM	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
			ASTER	AM1	Welch	3152	AM			90 m :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Conc, Multi-year*	*3173*							*1/day*	*100 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3609	BM			22 km :: Ocean/Cryo	:: Sfc
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Conc, Multi-year*	*3174*							*1/day*	*10 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3609	BM			22 km :: Ocean/Cryo	:: Sfc
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Extent*	*3160*						*5% :: 5%*	*1/day*	*100 km :: Ocean/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Extent*	*3161*						*5% :: 5%*	*1/day*	*10 km :: Ocean/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3154	AM	<=5% :: <=5%	1/day, 1/wk, 1/mo	1 km :: Ocean/Cryo,R	N/A :: Sfc
			MIMR	PM	TBD	3611	AM			22 km :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_Ice Leads*	*3166*						*5% :: 5%*	*1/day*	*100 km :: Ocean/Cryo*	*N/A :: Sfc*
			ASTER	AM1	Welch	3617	BM			90 m :: Ocean/Cryo	N/A :: Sfc
			ASTER	AM1	Welch	3622	BM			90 m :: Ocean/Cryo	N/A :: Sfc
Barron	*Sea_sfc Temperature (SST)*	*2506*						*0.5 K ::*	*1/day*	*100 km :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	BM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
Barron	*Sea_sfc Temperature (SST)*	*2507*						*0.5 K ::*	*1/day*	*10 km :: Ocean/R*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2529	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2530	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
Barron	*Snow Cover*	*3003*						*5% :: 5%*	*1/day*	*100 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	BM			22 km :: Land	N/A :: Sfc
			AIRS	PM	Staelin	3018*	AM		2/day [d,n]	50 km :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Snow Cover*	*3004*						*5% :: 5%*	*1/day*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Welch	3624	BM			90 m :: Ocean/Cryo	N/A :: Sfc
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Barron	*Snow Cover*	*3005*						*5% :: 5%*	*1/day*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Barron	*Soil Composition*	*2794*						*10% :: 5%*	*1/mission*	*100 km :: Land*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	AM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
			MODIS	AM,PM	Huete	2095	AM-	10% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
Barron	*Soil Composition*	*2795*						*10% :: 5%*	*1/mission*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2766	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2772	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2776	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2784	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	AM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
Barron	*Soil Composition*	*2796*						*10% :: 5%*	*1/mission*	*10 km :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			MODIS	AM,PM	Huete	2095	AM-	10% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Huete	2047	AM-	5% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	AM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
Barron	*Soil Extent*	*2797*						*5 ? :: 5 ?*	*1/yr*	*100 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, Gillespie	2803*	AM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	AM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
Barron	*Soil Extent*	*2798*						*5 ? :: 5 ?*	*1/yr*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, Gillespie	2803*	AM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	AM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
Barron	*Soil Extent*	*2799*						*5 ? :: 5 ?*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	BM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Soil Moisture*	*2946*						*0.05 :: 0.02*	*1/day*	*10 km :: Land/R*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
Barron	*Soil Moisture*	*2947*						*0.05 :: 0.02*	*1/day*	*100 km :: Land*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
Barron	*Soil Proportion, Bare*	*2785*						*5 :: 5*	*1/seas*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, Gillespie	2803*	AM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
Barron	*Soil Proportion, Bare*	*2786*						*5 :: 5*	*1/seas*	*100 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, Gillespie	2803*	AM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
Barron	*Soil Proportion, Bare*	*2787*						*5 :: 5*	*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	AM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Soil Proportion, Bare*	*2787*	HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Suspended-Solids Conc, Lake Water*	*2804*						*25% ::*		*10 km :: Land/R-Lakes*	*N/A :: Sfc*
			HIRIS	AM2	Carder, Melack	3315	BM	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
Barron	*Temperature Profile*	*1564*						*1 K :: 0.5 K*	*1/day*	*100 km :: G*	*1 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Barron	*Temperature Profile*	*1565*						*1 K :: 0.5 K*	*1/day*	*10 km :: R*	*1 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Barron	*Temperature, Near_sfc*	*1566*						*0.5 ::*	*1/day*	*100 km :: Ocean*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Barron	*Temperature, Near_sfc*	*1568*						*0.5 ::*	*1/day*	*10 km :: Ocean/R*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Barron	*Topographic Elevation, Land_sfc*	*2823*							*1/mission*	*10 km :: Land/R*	*30 m :: Sfc*
			MISR	AM	Diner	2846*	BM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
Barron	*Topographic Elevation, Land_sfc*	*2824*							*1/mission*	*30 m :: Land/L*	*30 m :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Barron	*Vegetation Biomass, Dead*	*2612*						*25% :: 15%*	*1/mission*	*30 m :: L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Biomass, Dead*	*2613*						*25% :: 15%*	*1/mission*	*10 km :: R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Biomass, Green*	*2615*						*25% :: 15%*	*1/mission*	*30 m :: L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Biomass, Green*	*2616*						*25% :: 15%*	*1/mission*	*10 km :: R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Extent*	*2715*						*5 ? :: 5 ?*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Extent*	*2716*						*5 ? :: 5 ?*	*1/yr*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2749	BM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2669	AM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
Barron	*Vegetation Extent*	*2717*						*5 ? :: 5 ?*	*1/yr*	*100 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2749	BM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
Barron	*Vegetation Index, Leaf Area, (LAI)*	*2673*						*0.5 :: 0.2*	*1/day*	*100 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
Barron	*Vegetation Index, Leaf Area, (LAI)*	*2674*						*0.5 :: 0.2*	*1/day*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
Barron	*Vegetation Index, Leaf Area, (LAI)*	*2675*						*0.5 :: 0.2*	*1/day*	*30 m :: Land/L*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc
Barron	*Vegetation Structure*	*2639*							*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Structure*	*2640*							*1/seas*	*10 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Vegetation Structure*	*2640*	HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Type*	*2728*						*5 ? :: 5 ?*	*1/yr*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2669	AM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Type*	*2729*						*5 ? :: 5 ?*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Type*	*2730*						*5 ? :: 5 ?*	*1/yr*	*100 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
Barron	*Vegetation Type Boundaries*	*2739*						*30 m ::*	*1/(3 mo)*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc
Barron	*Wind Velocity, Sea_sfc*	*1653*						*1 m/s,? :: 1 m/s,?*	*1/day*	*10 km :: Ocean/R*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Barron	*Wind Velocity, Sea_sfc*	*1657*						*1 m/s,? :: 1 m/s,?*	*1/day*	*100 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1680	AM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Bates	*Aerosol Layer Boundary Height*	*1013*						*75 m ::*		*2-200 km :: G*	*75 m :: Atmos*
			GLRS-A	ALT	Spinhirne et al	1014	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Bates	*Aerosol Size-distribution*	*1019*						*:: 20%*	*1/(5-16 day)*	*15.4 km :: G*	*Column :: Atmos*
			MISR	AM	Diner	1993	BM	15% :: 10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			MISR	AM	Diner	3678	BM	15% :: 10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	1022	AM	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
Bates	*Aerosol XXX*	*1005*							*1/(1-3 day) [few day]*	*100 km :: G*	*1 km :: Atmos*
			SAGE-III	AERO,CHEM	McCormick	1012	BM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Bates	*Albedo, Land_sfc*	*1995*							*1/day*	*50 km :: Land*	*N/A :: Sfc*
			AIRS	PM	Gautier ??	2000*	BM		1/day	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler	2001	AM	10% :: 5%	1/(3-8 day)	1 km :: Land/R	N/A :: TOA
			MODIS	AM,PM	Tanre, Muller	2016*	AM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
Bates	*Cloud Cover*	*2073*						*:: 10%*	*1/(6 hr)*	*1 x 1 dg :: G*	*N/A :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	2087	BM	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King	2082	AM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2088	AM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
Bates	*Cloud Cover*	*2074*						*10% :: 5%*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
			MODIS	AM,PM	King	2082	BM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2088	BM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
Bates	*Cloud Cover, Cirrus*	*2069*							*1/day*	*100 km :: G*	*0.5 km :: Trop*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
			MODIS	AM,PM	King	2082	AM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2088	AM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Bates	*Cloud Cover, Cirrus*	*2072*						*0.05 :: 0.025*	*2/day [d,n]*	*15 x 45 km :: G*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	King	2081	AM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Bates	*Cloud Drop Phase*	*1759*							*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
			MODIS	AM,PM	King, Menzel	1765	BM	90% Conf :: 90% Conf	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1767	AM	90% Conf :: 90% Conf	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1769	AM	90% Conf :: 90% Conf	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
			EOSP	AERO,AM2	Travis	1770	AM	:: 95% Corr	1/day [d]	100 km :: G	N/A :: Cloud
Bates	*Cloud Drop Size(Effective Radius)*	*1777*						*0-40% :: 5%*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
			MODIS	AM,PM	King, Menzel	1781	BM	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1783	BM	30% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			EOSP	AERO,AM2	Travis	1774	AM	25% :: 25%	1/day [d]	100 km :: G	N/A :: Cloud
Bates	*Cloud Height, Base*	*1383*						*:: 100 mb*		*25 km :: G*	*100 mb :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1393	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
			GLRS-A	ALT	Spinhirne et al	1389	AM	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
Bates	*Cloud Height, Base*	*1384*						*:: 100 mb*	*1/(6 hr)*	*1 x 1 dg :: G*	*100 mb :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1394	BM	1.0 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
Bates	*Cloud Height, Cirrus*	*1401*						*500 m ::*	*2/day*	*50 km :: G*	*N/A :: Cloud*
			AIRS	PM	Chahine, Chedin,	1423*	BM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
Bates	*Cloud Height, Stratoform*	*1406*						*50 m ::*	*2/day*	*50 km :: G*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	1400	BM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
			AIRS	PM	Chahine, Chedin,	1423*	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Bates	*Cloud Height, Top*	*1415*						*:: 100 mb*	*1/(6 hr)*	*1 x 1 dg :: G*	*100 mb :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1431	BM	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1429	AM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
Bates	*Cloud Height, Top*	*1416*						*0.5 km :: 0.25 km*	*2/day [d,n]*	*15 x 45 km :: G*	*N/A :: Cloud*
			AIRS	PM	Chahine, Chedin,	1423*	BM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1429	AM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
Bates	*Cloud Ice Content*	*1890*						*0.02 :: 0.02*	*1/day*	*10 km :: G*	
			AIRS	PM	Staelin	1893*	BM	TBD :: TBD	2/day [d,n]	50 km :: G	N/A :: Cloud
Bates	*Cloud Ice Index*	*1892*							*2/day [d,n]*	*50 km :: G*	*N/A :: Cloud*
			AIRS	PM	Staelin	1893*	BM	TBD :: TBD	2/day [d,n]	50 km :: G	N/A :: Cloud
Bates	*Cloud Liq_water Content*	*1894*						*:: 75%*	*1/(6 hr)*	*1 x 1 dg :: G*	*lyr :: 0-30 km*
			CERES	TRM,AM,PM	Barkstrom	1895	BM	75% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1896	AM	75% :: 10%	6/day [d,n]	25 km :: G	lyr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1897	AM	75% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
			MLS	MO	Waters	1898	AM	:: 5%	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Upper Trop
Bates	*Cloud Liq_water Content*	*1904*						*0.1 :: 0.1*	*2/day [d,n]*	*50 km :: G*	*N/A :: Cloud*
			AIRS	PM	Rosenkranz	1908*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
Bates	*Cloud Optical Depth*	*2304*							*1/day*	*15 x 45 km :: G*	*N/A :: Cloud*
			MODIS	AM,PM	King	2311	BM	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Bates	*Cloud Optical Depth*	*2304*	EOSP	AERO,AM2	Travis	2313	BM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
			MODIS	AM,PM	King	2312	AM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne et al	2308	AM	0.1 ::		2-200 km :: G	N/A :: Cloud
Bates	*Cloud Optical Depth*	*2305*						*20% :: 10%*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
			MODIS	AM,PM	King	2312	BM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	2313	AM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2317	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2322	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
Bates	*Cloud Pressure, Top*	*1527*						*50 mb :: 20 mb*	*2/day*	*5 km :: G*	*N/A :: Cloud*
			MODIS	AM,PM	Menzel	1528	BM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	1530	AM	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
Bates	*Cloud Temperature, Top*	*2460*						*1 K :: 0.5 K*	*2/day [d,n]*	*15 x 45 km :: G*	*N/A :: Cloud*
			AIRS	PM	Chahine, Chedin,	2463	BM	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	Menzel	2467	AM	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
Bates	*Geopotential Height Gradient*	*1499*						*0.04m/km ::*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1500	BM	0.04m/km :: 0.04m/km	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-80 km
Bates	*H2O Conc*	*1808*						*5-10% :: 1-5%*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: 10-80 km*
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1841	AM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
			TES	CHEM	Beer	1843	AM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Bates	*Humidity Profile*	*1809*						*10% :: 5%*	*2/day [d,n]*	*50 km :: G*	*2 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Bates	*Ice_Sheet Cover*	*2918*							*2/day [d,n]*	*50 km :: Land/Cryo*	*N/A :: Sfc*
			AIRS	PM	Staelin	2921*	BM		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc
Bates	*Land_sfc Emissivity*	*2112*						*0.05 :: 0.025*	*2/day [d,n]*	*50 km :: Land*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	2113*	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	3324*	BM	0.05 :: 0.02	1 day, 1 wk	10 km :: Land	N/A :: Sfc
Bates	*Land_sfc Temperature, Skin*	*2475*						*1.0 K :: 0.5 K*	*2/day [d,n]*	*50 km :: Land*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	2481	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Bates	*Land_sfc Temperature-Difference, Day-Nigh*	*2538*						*0.5 K :: 0.25 K*	*1/day*	*50 km :: Land*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	2539*	BM	0.5 K :: 0.25 K	2/day [d,n]	50 km :: G	N/A :: Sfc
			MODIS	AM,PM	Huete	2537*	AM	1 K :: 1 K	1/day	856 m :: R	N/A :: Sfc
			ASTER	AM1	Kieffer et al	2540	AM	1-2 K :: 0.3 K		90 m :: Land/R,L	N/A :: Sfc
Bates	*Level-1B Radiance, AIRS*	*2346*						::			
			AIRS	PM	Chahine	2347	BM	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
Bates	*Level-1B Radiance, AMSU-A*	*2349*						*0.2dg NEdT :: 0.2dg NEdT*	*2/day [d,n]*	*40 x 40 km :: G*	*N/A :: N/A*
			AIRS	PM	Chahine	2350	BM	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
Bates	*Level-1B Radiance, MHS*	*2351*						*0.2dg NEdT :: 0.2dg NEdT*	*2/day [d,n]*	*15 x 15 km :: G*	*N/A :: N/A*
			AIRS	PM	Chahine	2352	BM	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
Bates	*O3 Conc*	*1305*						*5-10% :: 1-5%*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: 10-80 km*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1321	AM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Bates	*Ocean Wave Height*	*3126*						*20% :: 20%*	*1/day*	*50-75 m :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	AM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Bates	*Ocean Wave Height, Along-track*	*3128*						*>.5m,10% ::*		*7 km :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	BM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Bates	*PBL Height*	*1512*						*75 m ::*		*2-200 km :: G*	*75 m :: Trop*
			GLRS-A	ALT	Spinhime et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Bates	*Precipitable Water*	*1862*						*5% :: 3%*	*2/day [d,n]*	*50 km :: G*	*N/A :: Trop*
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	1874	AM	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos
			AIRS	PM	Rosenkranz	3693	AM	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
Bates	*Precipitation Index*	*1968*						*2mm/hr :: 1mm/hr*	*2/day [d,n]*	*50 km :: G*	*N/A :: Trop*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3601	AM		1 mo	1 dg :: Global	N/A :: Sfc
Bates	*Precipitation Index, Antecedent*	*1970*							*1/day*	*26-52 km :: Land*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3601	AM		1 mo	1 dg :: Global	N/A :: Sfc
Bates	*Precipitation Rate*	*1958*								*10 km :: G*	*1 lvl :: Sfc*
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
Bates	*Radiative Flux, LW, Net*	*2173*							*2/day [d,n]*	*50 km :: Land*	*N/A ::*
			AIRS	PM	Gautier	2176*	BM	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
Bates	*Radiative Flux, LW, Net*	*2174*							*2/day [d,n]*	*50 km :: Ocean*	*N/A ::*
			AIRS	PM	Gautier	2177*	BM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
Bates	*Radiative Flux, LW, Up*	*2191*							*2/day [d,n]*	*50 km :: G*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2202	BM	7 W/m^2 :: <7 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2204	BM	5 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
			CERES	TRM,AM,PM	Barkstrom	2200	BM	3 W/m^2 :: 1 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
Bates	*Sea_Ice Conc*	*3182*							*1/(3 day)*	*100 km :: > 60 dgLAT*	*:: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Bates	*Sea_Ice Cover*	*3148*						*10% :: 10%*	*2/day [d,n]*	*50 km :: Ocean/Cryo*	*N/A :: Sfc*
			AIRS	PM	Chedin, Staelin	3151*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3153	AM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
Bates	*Sea_Ice Emissivity*	*2121*							*1/day*	*10 km :: Polar*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	3324*	BM	0.05 :: 0.02	1 day, 1 wk	10 km :: Land	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2113*	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: Land	N/A :: Sfc
Bates	*Sea_Ice Temperature*	*2489*							*1/day*	*10 km :: Polar*	*N/A :: Sfc*
			ASTER	AM1	Welch	3619	BM			90 m :: Ocean/Cryo	N/A :: Sfc
Bates	*Sea_Level Height, Along-track*	*3111*						*10 cm ::*		*7 km :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Bates	*Sea_sfc Temperature (SST)*	*2508*						*0.3-0.6 K :: 0.1-0.3 K*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean/G,R*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2528	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Bates	*Sea_sfc Temperature (SST)*	*2509*						*0.5 K :: 0.4 K*	*2/day [d,n]*	*50 km :: Ocean*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	2523*	BM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2532	AM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
Bates	*Snow Cover*	*3006*							*2/day [d,n]*	*50 km :: Land*	*N/A :: Sfc*
			AIRS	PM	Staelin	3018*	BM		2/day [d,n]	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3020	AM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	AM			22 km :: Land	N/A :: Sfc
Bates	*Snow Cover*	*3007*						<=5% :: <=5%	*1/day, 1/wk*	*10 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	AM			22 km :: Land	N/A :: Sfc
			AIRS	PM	Staelin	3018*	AM		2/day [d,n]	50 km :: Land	N/A :: Sfc
Bates	*Soil Moisture*	*2960*						*:: 40%*		*43 km :: Land*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
Bates	*Stratopause Height*	*1561*						*1 km :: 0.5 km*	*2/day [d,n]*	*50 km :: G*	*N/A :: Mid-atmos*
			AIRS	PM	Smith	1562*	BM	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Mid-atmos
Bates	*Temperature Profile*	*1569*						*:: 1-2 K*		*1.8 x .16 dg :: G*	*3 km :: 20-60 km*
			SAGE-III	AERO,CHEM	McCormick	1611	AM	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
			HIRDLS	CHEM	Barnett, Gille	1608	AM	K;2K>50km :: 0.3K;1K>50k	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			GGI	ALT	Melbourne	1606	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 2-5/50-60 km
			GGI	ALT	Melbourne	1605	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
			AIRS	PM	Chedin, Fleming,	1588	AM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Bates	*Temperature Profile*	*1570*						*1K;2K>50km :: .3;1K>50km*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: 10-80 km*
			HIRDLS	CHEM	Barnett, Gille	1608	BM	K;2K>50km :: 0.3K;1K>50k	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAGE-III	AERO,CHEM	McCormick	1611	AM	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
Bates	*Temperature Profile*	*1571*						*1.0 K :: 0.4 K*	*2/day [d,n]*	*50 km :: G*	*1 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Bates	*Tropopause Height, Aerosol_located*	*1642*						*75 m ::*		*200 km :: G*	*75 m :: Trop*
			GLRS-A	ALT	Spinhirne et al	1014	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
			AIRS	PM	Smith, Susskind	3688*	AM	1 km :: 0.5 km	2/day [d,n]	50 x 50 km :: G	N/A :: Atmos
Bates	*Vegetation Evapotrans*	*1989*						*1 :: 1*	*1/day*	*500 m :: Land*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Bates	*Vegetation Evapotrans*	*1990*						*0.02 ::*			
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Bates	*Vegetation Evapotrans, Actual, (AET)*	*1800*						*0.5 :: 1*	*1/day*	*500 m :: Land*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Bates	*Vegetation Index, Leaf Area, (LAI)*	*2676*							*1/mo*	*60 m :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Bates	*Wind Speed, Sea_sfc*	*1709*							*2/day [d,n]*	*50 km :: Ocean*	*N/A :: Sfc*
			MIMR	PM	TBD	3594	BM			39 km :: Ocean	N/A :: Sfc
Bates	*Wind Stress*	*1742*								*:: Ocean*	*:: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc
			MIMR	PM	TBD	3595	BM		1 mo	1 dg :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
Bates	*Wind Velocity, Geostrophic*	*1685*						*2 m/s ::*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1687	BM	3 m/s :: 3 m/s	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
Bates	*Wind Velocity, Sea_sfc*	*1658*						*:: 10%; 20 dg*		*25 km :: Ocean*	*N/A :: Near_sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Brewer	*Gelbstoff Absorption Coef@300nm*	*3213*						*50% :: 10%*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3215	BM-	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Brewer	*Gelbstoff Absorption Coef@300nm*	*3214*						*50% :: 10%*	*1/day, 1/seas*	*20 km :: Ocean*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3215	BM-	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Brewer	*Irradiance, UV Solar*	*2275*						*20% :: 5%*	*1/day, 1/seas*	*30 m :: Ocean/L*	
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Brewer	*Irradiance, UV Solar*	*2276*						*20% :: 5%*	*1/day, 1/seas*	*20 km :: Ocean*	
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2398	AM-		1/hr	2 dg :: G	1 km :: Mid_atm
Brewer	*Irradiance, Visible Solar*	*2279*						*20% :: 5%*	*1/day, 1/seas*	*20 km :: Ocean*	
			MODIS	AM,PM	Gordon	2267	BM-	10% :: 5%	1/day [d]	1 km :: Ocean	N/A :: Sfc
Brewer	*Irradiance, Visible Solar*	*2280*						*20% :: 5%*	*1/day, 1/seas*	*30 m :: Ocean/L*	
			MODIS	AM,PM	Gordon	2267	BM-	10% :: 5%	1/day [d]	1 km :: Ocean	N/A :: Sfc
Brewer	*Land_sfc Reflectance, Directional*	*2426*						*3% :: 1%*	*1/day, 1/seas*	*1.7 km :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	2425*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Kaufman et al	2429	AM	0.01 :: 0.005	1/day	1 km :: G	N/A :: Sfc
			MISR	AM	Diner	2631	AM	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
Brewer	*Land_sfc Reflectance, Directional*	*2427*						*3% :: 1%*	*1/day, 1/seas*	*.22 km :: Ocean/L*	*N/A :: Sfc*
			MODIS	AM,PM	Kaufman et al	2431	BM	0.01 :: 0.005	1/day	0.25 km :: G	N/A :: Sfc
			MISR	AM	Diner	2632	AM	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2425*	AM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			HIRIS	AM2	Gerstl	2035	AM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
Brewer	*Level-1B Backscatter, STIKSCAT*	*2097*						*10% :: TBD*	*1/day, 1/seas*	*25 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	2108	BM	:: 0.25 dB		25 km :: G	N/A :: Sfc
Brewer	*Level-2 Radiance, Water-leaving*	*2414*						*10% :: TBD*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Goetz	2370	BM				
Brewer	*Level-2 Radiance, Water-leaving*	*2415*						*10% :: TBD*	*1/day, 1/seas*	*20 km :: Ocean*	*N/A :: TOO*
			MODIS	AM,PM	Gordon et al	2417	BM	5% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Gordon et al	2416	AM	5% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Sfc
Brewer	*Ocean Productivity, Primary*	*2599*						*50% :: 5%*	*1/day, 1/seas*	*20 km :: Ocean*	*N/A :: TOO*
			MODIS	AM,PM	Esaias	2606	AM	<35% :: <20%	1/wk, 1/mo, 1/yr	20 km :: Ocean/G,R	N/A :: TOO
Brewer	*Ocean Productivity, Primary*	*2600*						*50% :: 5%*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Davis, Melack et	2601	BM	100% :: 50%	1/(>=2 day)	30-90 m :: Ocean/L	N/A :: TOO
Brewer	*Ocean Water Attenuation Coef, Diffuse*	*3202*						*25% :: TBD*	*1/day, 1/seas*	*20 km :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Clark	2032*	BM	35% :: 10%	1/day, 1/wk	20 km :: Ocean-I	N/A :: TOO

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Brewer	*Organic Carbon Conc, Dissolved*	*2561*						*100% :: 10%*	*1/day, 1/seas*	*20 km :: Ocean*	*N/A :: TOO*
			MODIS	AM,PM	Carder	2580*	BM	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
			MODIS	AM,PM	Parslow et al	2582	AM	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean [Southern]	N/A :: TOO
Brewer	*Organic Carbon Conc, Dissolved*	*2562*						*100% :: 10%*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3314	BM	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
Brewer	*Precipitation Amount*	*1928*						*2 :: TBD*	*1/day, 1/seas*	*:: Ocean/L*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Brewer	*Precipitation Amount*	*1929*						*2 :: TBD*	*1/day, 1/seas*	*:: Ocean*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Brewer	*Radiative Flux, LW*	*2255*							*1/day, 1/seas*	*:: Ocean/L*	
			CERES	TRM,AM,PM	Barkstrom	2168	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2203	BM	5 W/m^2 :: <5 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2182	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
Brewer	*Radiative Flux, LW*	*2256*							*1/day, 1/seas*	*:: Ocean*	
			CERES	TRM,AM,PM	Barkstrom	2168	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2203	BM	5 W/m^2 :: <5 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2182	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2177*	AM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
Brewer	*Radiative Flux, SW*	*1492*							*1/day, 1/seas*	*:: Ocean*	
			CERES	TRM,AM,PM	Barkstrom	2222	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2248	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2233*	AM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
Brewer	*Radiative Flux, SW*	*1493*							*1/day, 1/seas*	*:: Ocean/L*	
			CERES	TRM,AM,PM	Barkstrom	2222	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2248	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2233*	AM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
Brewer	*Sea_Ice Conc*	*3149*						*10% :: 1%*	*1/day, 1/seas*	*10 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Brewer	*Sea_Level Height*	*3106*						*5% :: 1%*	*1/day, 1/seas*	*7 km :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Brewer	*Sea_sfc Temperature (SST)*	*2510*						*0.5 K :: 0.5 K*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: Sfc*
			ASTER	AM1	Welch	3620	BM			90 m :: Ocean/Cryo	N/A :: Sfc
Brewer	*Sea_sfc Temperature (SST)*	*2511*						*0.5 K :: 0.5 K*	*1/day, 1/seas*	*20 km :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2528	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2529	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Carder	2580*	AM	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
Brewer	*Wind Speed, Sea_sfc*	*1710*						*15% :: 5%*	*1/day, 1/seas*	*25 km :: Ocean*	*N/A :: Sfc*
			MIMR	PM	TBD	3594	BM			39 km :: Ocean	N/A :: Sfc
			AIRS	PM	Aumann	1718*	AM		1/day	50 km :: Ocean	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Cihlar	*Land_sfc Emissivity, LW (8-12u)*	*3487*						*0.025 :: 0.025*	*10 day*	*1.25 deg :: Canada/R*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	2113*	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Barton	2111*	BM	0.01 :: 0.01	1/day, 1/wk	50 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Wan	3324*	BM	0.05 :: 0.02	1 day, 1 wk	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Barton	2110*	AM	0.01 :: 0.01	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			ASTER	AM1	Kahle, Becker, Ch	2124	AM	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
			MODIS	AM,PM	Wan	3323*	AM	0.05 :: 0.02	1 day, 1 wk	1 km :: Land/R	N/A :: Sfc
Cihlar	*Land_sfc Reflectance Factor, MODIS*	*2437*						*0.05 :: 0.001*	*1/(3 mo)*	*0.25 km :: Canada/R*	*N/A :: Atmos*
			MODIS	AM,PM	Kaufman et al	2431	BM	0.01 :: 0.005	1/day	0.25 km :: G	N/A :: Sfc
Cihlar	*PAR, Intercepted, Vegetation, (IPAR)*	*3498*						*10% :: 1%*	*1 day*	*250-1000 m :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre	2268*	BM	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
Cihlar	*Precipitation Amount*	*3488*						*0.1 mm :: 0.1 mm*	*1 day*	*500m :: Canada/R*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	BM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3601	AM		1 mo	1 dg :: Global	N/A :: Sfc
Cihlar	*Precipitation Amount, Snow*	*3489*						*10% :: 10%*	*1 wk*	*1 km :: Canada/R*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	AM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
Cihlar	*Radiative Flux*	*3490*							*1 wk*	*1 km^2 ::*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre	2268*	BM	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
Cihlar	*Snow Water Equivalent*	*3491*						*10% :: 10%*	*1 wk*	*1 km :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Huete	2047	BM	5% :: 5%	1/mo	1 km :: Land/R	N/A :: Sfc
Cihlar	*Soil Moisture*	*3493*						*10% :: 20%*		*1 km :: Canada/R*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	AM			60 km :: Land	N/A :: Sfc
Cihlar	*Soil Spectral-characteristics*	*3494*						*5% :: 10%*	*once*	*250-1000 m :: Canada/R*	*N/A :: Sfc*
			ASTER	AM1	Palluconi et al	2378	BM	TBD :: 0.065-0.085	1/(2-16 day)	90 m :: Land/R,L	N/A :: Sfc
			MODIS	AM,PM	Gordon	2345	BM	10% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R,L	N/A :: Atmos
Cihlar	*Topographic Elevation, Land_sfc*	*3495*						*5-10 m ::*	*once*	*30 m :: Canada/R*	*10 m :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
			MISR	AM	Diner	2846*	AM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
Cihlar	*Vegetation Evapotrans*	*3497*						*20% :: 5-20%*	*1 day, 1 wk*	*500 m :: Canada/R*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Cihlar	*Vegetation Index, Leaf Area, (LAI)*	*3499*						*10% :: 1%*	*1 wk*	*1 km :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
Cihlar	*Vegetation Reflectance Factor*	*3500*						*0.05 :: 0.001*	*1 day*	*250-1000 m :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	2424*	BM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Kaufman et al	2429	BM	0.01 :: 0.005	1/day	1 km :: G	N/A :: Sfc
			MODIS	AM,PM	Kaufman et al	2430	BM	0.01 :: 0.005	1/day	0.5 km :: G	N/A :: Sfc
			MODIS	AM,PM	Kaufman et al	2431	BM	0.01 :: 0.005	1/day	0.25 km :: G	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler	2434	BM	5% :: 3%	1/day	1 km :: R	N/A :: Sfc
Cihlar	*Vegetation Reflectance, Bi-directional, (BRL*	*3496*						*0.05 :: 0.001*	*1 wk (for 1 yr)*	*:: Canada/R*	*N/A :: Sfc*
			MISR	AM	Diner	2631	BM	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			MISR	AM	Diner	2632	BM	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			HIRIS	AM2	Gerstl	2035	AM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
Cihlar	*Vegetation Structure*	*3502*								*1 km :: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Cihlar	*Vegetation Temperature*	*3503*						*0.5 K :: 1.0 K*	*1 day*	*250-1000 m :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			ASTER	AM1	Kahle, Becker, Cl	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Cihlar	*Vegetation Type*	*3504*						*15% :: 15%*	*once*	*100 m :: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2750	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	0.5 km :: Land/R	N/A :: Sfc
Dickinson	*Aerosol Backscatter*	*3368*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Gordon	2345	BM	10% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R,L	N/A :: Atmos
Dickinson	*Aerosol Extinction*	*3374*								*<0.5-1 deg :: G*	
			SAGE-III	AERO,CHEM	McCormick	1012	BM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
Dickinson	*Albedo, Cloud*	*3361*								*<0.5-1 deg :: G*	
			HIRIS	AM2	Welch	2008	BM	5% :: 5%		90 m :: R	:: Cloud
Dickinson	*Albedo, Land_sfc*	*3363*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Tanre, Muller	2016*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			AIRS	PM	Gautier ??	2000*	BM		1/day	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2015*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
Dickinson	*Albedo, Sea_Ice*	*3362*								*<0.5-1 deg :: Ocean/Cryo*	
			ASTER	AM1	Welch	3624	BM			90 m :: Ocean/Cryo	N/A :: Sfc
Dickinson	*Albedo, Snow*	*3364*								*High res :: Land*	
			HIRIS	AM2	Dozier	2440	BM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Dickinson	*Albedo, TOA*	*3365*								*<0.5-1 deg :: G*	
			MISR	AM	Diner	2011	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
			MODIS	AM,PM	Muller, Strahler, T	3667*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: TOA
			MISR	AM	Diner	3679	AM	<=0.03 :: 0.01	9,16 day; mo; seas; yr	1.92 km ? :: G	N/A :: TOA
Dickinson	*Albedo, Vegetation*	*3366*								*High res :: Land*	
			MISR	AM	Diner	2021*	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
Dickinson	*Albedo, Vegetation*	*3367*								*High res :: Land*	
			MISR	AM	Diner	2022	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3665*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2015*	BM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
Dickinson	*CO Conc*	*3325*									
			MOPITT	AM1	Drummond	1126	BM	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
			TES	CHEM	Beer	1129	AM	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Dickinson	*Cloud Cover*	*3343*								*High res :: G*	
			MODIS	AM,PM	Salomonson?	3641	BM	10% :: 5%	1/mo (day & night)	0.25 km :: G	N/A :: Cloud
			ASTER	AM1	Welch	2080	BM	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
Dickinson	*Cloud Cover*	*3344*								*Med res :: G*	
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	BM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
Dickinson	*Cloud Cover*	*3345*								*Low res :: G*	
			CERES	TRM,AM,PM	Barkstrom	2088	BM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			MODIS	AM,PM	King	2082	BM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
Dickinson	*Cloud Drop Phase*	*3346*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	King, Menzel	1765	BM	90% Conf :: 90% Conf	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1768	BM	90% Conf :: 90% Conf	6/day [d,n]	25 km :: G	N/A :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Dickinson	*Cloud Drop Phase*	*3346*	CERES	TRM,AM,PM	Barkstrom	1767	AM	90% Conf :: 90% Conf	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			EOSP	AERO,AM2	Travis	1770	AM	:: 95% Corr	1/day [d]	100 km :: G	N/A :: Cloud
Dickinson	*Cloud Drop Size*	*3347*								*<0.5-1 deg :: G*	
			EOSP	AERO,AM2	Travis	1774	BM	25% :: 25%	1/day [d]	100 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1784	BM	30% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King, Menzel	1781	AM	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			MODIS	AM,PM	King, Menzel	1780	AM	0-40% :: 5%	1/day	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1783	AM	30% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
Dickinson	*Cloud Drop Size-distribution*	*3348*								*<0.5-1 deg :: G*	
			HIRIS	AM2	Welch	1776	BM	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
			ASTER	AM1	Welch	3627	BM		1/(16 day)	90 m :: L	N/A :: Cloud
Dickinson	*Cloud Emissivity*	*3372*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Menzel	2126	BM	0.10 :: 0.05	2/day	5 km :: G	N/A :: Cloud
			MODIS	AM,PM	Menzel	2127	BM	0.10 :: 0.05	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			AIRS	PM	Chahine, Smith	2128*	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
Dickinson	*Cloud Height, Base*	*3342*									
			CERES	TRM,AM,PM	Barkstrom	1395	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
Dickinson	*Cloud Height, Top*	*3349*								*<0.5-1 deg :: G*	
			CERES	TRM,AM,PM	Barkstrom	1430	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			MISR	AM	Diner	1432*	BM	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
			AIRS	PM	Chahine, Chedin,	1423*	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1429	AM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
Dickinson	*Cloud Liq-water Content*	*3357*								*<0.5-1 deg :: G*	
			CERES	TRM,AM,PM	Barkstrom	1896	BM	75% :: 10%	6/day [d,n]	25 km :: G	1yr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1897	BM	75% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	1yr :: Atmos
			MIMR	PM	TBD	3598	AM			22 km :: Ocean	N/A :: Trop
			MLS	MO	Waters	1898	AM	:: 5%	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Upper Trop
Dickinson	*Cloud Liq-water Content*	*3358*								*<0.5-1 deg :: G*	
			AIRS	PM	Rosenkranz	1908*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
Dickinson	*Cloud Optical Depth, LW*	*3381*								*<0.5-1 deg :: G*	
			CERES	TRM,AM,PM	Barkstrom	2316	BM	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2317	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2318	AM	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
Dickinson	*Cloud Optical Depth, SW*	*3382*								*<0.5-1 deg :: G*	
			CERES	TRM,AM,PM	Barkstrom	2321	BM	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King	2312	BM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2322	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			MODIS	AM,PM	King	2311	AM	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	2313	AM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
			GLRS-A	ALT	Spinhirne et al	2308	AM	0.1 ::		2-200 km :: G	N/A :: Cloud
			AIRS	PM	Smith, Gautier ??	3684*	AM	TBD :: TBD	1/day	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
Dickinson	*Cloud Pressure, Top*	*3330*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Menzel	1528	BM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	1530	AM	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
			HIRDLS	CHEM	Barnett, Gille	1531	AM	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
			MODIS	AM,PM	Menzel	1529	AM	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Dickinson	*Cloud Temperature, Emission*	*3386*								*<0.5-1 deg :: G*	
			AIRS	PM	Chahine, Chedin,	2463	BM	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Dickinson	*Cloud Temperature, Top*	*3387*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Menzel	2466	BM	2 C :: 1 C	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2463	BM	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	Menzel	2467	AM	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
Dickinson	*Cloud Transmissivity*	*3396*								*<0.5-1 deg :: G*	
			AIRS	PM	Chahine	3685*	BM	TBD :: TBD	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
Dickinson	*Evaporation, Land_sfc*	*3350*								*<0.5-1 deg :: G*	
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Dickinson	*Fire Extent*	*3398*								*<0.5-1 deg :: Land*	
			MODIS	AM,PM	Kaufman, Justice	2666	BM		1/day, 1/wk	1 dg :: Land	N/A :: Sfc
Dickinson	*Humidity Profile*	*3353*								*<0.5-1 deg :: G*	
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Dickinson	*Humidity, Near_sfc*	*3354*								*<0.5-1 deg :: G*	*N/A :: Near_sfc*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Dickinson	*Ice_Sheet Temperature*	*3388*								*<0.5-1 deg :: Land/Cryo*	
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2481	AM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Dickinson	*Irradiance, Incident, Sfc*	*3384*								*<0.5-1 deg :: G*	
			CERES	TRM,AM,PM	Barkstrom	2221	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2222	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2223	BM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Dickinson	*Land_sfc Emissivity*	*3373*								*<0.5-1 deg :: Land*	
			MODIS	AM,PM	Barton	2111*	BM	0.01 :: 0.01	1/day, 1/wk	50 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Wan	3324*	BM	0.05 :: 0.02	1 day, 1 wk	10 km :: Land	N/A :: Sfc
Dickinson	*Land_sfc Reflectance, Bi-directional, (BRDF*	*3369*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Tanre, Muller	2425*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MISR	AM	Diner	2631	AM	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3669*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Dickinson	*Land_sfc Temperature*	*3389*								*High res :: Land*	
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Dickinson	*Land_sfc Temperature*	*3390*								*Low res :: Land*	
			AIRS	PM	Chedin, Fleming,	2481	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Dickinson	*Land_sfc Temperature*	*3391*								*Med res :: Land*	
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Dickinson	*Land_sfc Temperature-Difference, Day-Nigh*	*3395*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Huete	2537*	BM	1 K :: 1 K	1/day	856 m :: R	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2539*	BM	0.5 K :: 0.25 K	2/day [d,n]	50 km :: G	N/A :: Sfc
			ASTER	AM1	Kieffer et al	2540	AM	1-2 K :: 0.3 K		90 m :: Land/R,L	N/A :: Sfc
Dickinson	*Lightning Intensity*	*3340*								*<0.5-1 deg :: G*	
			LIS	TRM	Christian	3643	BM			.07 dg :: G	N/A :: Atmos
			LIS	TRM	Christian	1756	BM	:: 5%		.07 dg :: G	N/A :: Atmos
Dickinson	*Lightning Rate*	*3341*								*<0.5-1 deg :: G*	
			LIS	TRM	Christian	1756	BM	:: 5%		.07 dg :: G	N/A :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Dickinson	*Optical Depth, Total*	*3383*								*<0.5-1 deg :: G*	
			CERES	TRM,AM,PM	Barkstrom	2321	BM	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King	2312	BM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			MODIS	AM,PM	Kaufman, Tanre	2293	BM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2316	AM	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2321	AM	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2317	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2322	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			MISR	AM	Diner	2299	AM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
Dickinson	*PBL Height*	*3329*									
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Dickinson	*Precipitable Water**	*3355*								*<0.5-1 deg :: G*	
			MODIS	AM,PM	Kaufman, Tanre	3322	BM	5% :: 3%	1 day, mo	1 dg :: Land	N/A :: Atmos
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
Dickinson	*Precipitation Rate, Rain*	*3359*								*<0.5-1 deg :: G*	
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
			MIMR	PM	TBD	3601	BM-		1 mo	1 dg :: Global	N/A :: Sfc
Dickinson	*Radiative Flux, LW, Down*	*3375*								*<0.5-1 deg :: G*	*N/A :: Sfc ?*
			CERES	TRM,AM,PM	Barkstrom	2168	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2169	BM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2170	BM	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Dickinson	*Radiative Flux, LW, Net*	*3376*								*<0.5-1 deg :: G*	*N/A :: Sfc ?*
			CERES	TRM,AM,PM	Barkstrom	2182	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2176*	AM	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2177*	AM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2180	AM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2181	AM	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Dickinson	*Radiative Flux, LW, TOA*	*3377*								*<0.5-1 deg :: G*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2200	BM	3 W/m^2 :: 1 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
Dickinson	*Radiative Flux, LW, Up*	*3378*								*<0.5-1 deg :: G*	*N/A :: Sfc ?*
			CERES	TRM,AM,PM	Barkstrom	2202	BM	7 W/m^2 :: <7 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Dickinson	*Radiative Flux, SW, Net*	*3379*								*<0.5-1 deg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2230	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2232*	AM	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2233*	AM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2229	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2231	AM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Dickinson	*Radiative Flux, SW, TOA*	*3380*								*<0.5-1 deg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2251	BM	7 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
Dickinson	*Sea_Ice Cover*	*3417*								*<0.5-1 deg :: Ocean/Cryo*	
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Dickinson	*Sea_sfc Temperature (SST)*	*3392*								*<0.5-1 deg :: Ocean*	
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2530	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Dickinson	*Sea_sfc Temperature (SST)*	*3393*								*<0.5-1 deg :: Ocean*	
			MIMR	PM	TBD	3603	BM			60 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3604	BM	1 K ::	1 mo	1 dg :: Ocean	N/A :: Sfc
Dickinson	*Snow Extent*	*3415*								*Low res :: Land*	
			AIRS	PM	Staelin	3018*	BM		2/day [d,n]	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Dickinson	*Snow Extent*	*3416*								*Med res :: Land*	
			MODIS	AM,PM	Salomonson	3021	BM	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Dickinson	*Soil Extent*	*3409*								*Low res :: Land*	
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
Dickinson	*Soil Moisture*	*3411*								*Low res :: Land*	
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3606	AM		1 mo	1 dg :: Land	N/A :: Sfc
Dickinson	*Soil Moisture*	*3412*								*Med res :: Land*	
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
Dickinson	*Soil Reflectance, Bi-directional, (BRDF)*	*3370*								*<0.5-1 deg :: Land*	
			MODIS	AM,PM	Tanre, Muller	2425*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MISR	AM	Diner	2631	AM	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3669*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Dickinson	*Soil Roughness*	*3331*								*High res :: Land*	
			MODIS	AM,PM	Tanre, Muller	1556*	BM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
Dickinson	*Soil Roughness*	*3332*								*Low res :: Land*	
			MODIS	AM,PM	Tanre, Muller	1557*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
Dickinson	*Temperature*	*3333*								*<0.5-1 deg :: G*	
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Dickinson	*Temperature, Near_sfc*	*3334*								*<0.5-1 deg :: G*	
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			AIRS	PM	Chedin, Fleming,	2481	AM-	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Dickinson	*Topographic Elevation, Land_sfc*	*3410*								*Low res :: Land*	
			MISR	AM	Diner	2846*	BM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Dickinson	*Vegetation Biomass, Green*	*3397*								*<0.5-1 deg :: Land*	
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Vegetation Evapotrans*	*3351*								*High res :: Land*	
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Dickinson	*Vegetation Evapotrans*	*3352*								*Med res :: Land*	
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Dickinson	*Vegetation Extent*	*3400*								*High res :: Land*	
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Vegetation Extent*	*3401*								*Med-low res :: Land*	
			MODIS	AM,PM	Strahler, Huete et	2669	BM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2751	BM	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2670	AM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2749	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Dickinson	*Vegetation Height*	*3402*								*Med-low res :: Land*	
			HIRIS	AM2	Ustin	2656	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Vegetation Index, Leaf Area, (LAI)*	*3406*								*Low res :: Land*	
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
Dickinson	*Vegetation Reflectance, Bi-directional, (BRL*	*3371*								*<0.5-1 deg :: Land*	
			MODIS	AM,PM	Tanre, Muller	2425*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MISR	AM	Diner	2631	AM	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3669*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Dickinson	*Vegetation Roughness*	*3404*								*Med-low res :: Land*	
			MODIS	AM,PM	Tanre, Muller	1557*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	1556*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Tanre	3670*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Dickinson	*Vegetation Temperature*	*3394*								*<0.5-1 deg :: Land*	
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Dickinson	*Vegetation Type*	*3405*								*<0.5-1 deg :: Land*	
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2669	AM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Wetlands Extent*	*3408*								*Low res :: Land*	
			MODIS	AM,PM	Strahler, Huete et	2669	BM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
Dickinson	*Wind Velocity, Sea_sfc*	*3338*								*<0.5-1 deg :: Ocean*	
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1680	AM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Dozier	*Albedo, Spectral, Land_sfc*	*2020*						*5% :: 1%*	*1/wk, 1/mo*	*50 m :: Land/L*	
			MISR	AM	Diner	2021*	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			HIRIS	AM2	Dozier	2440	AM-	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Dozier	*Snow Contaminant Conc*	*2767*						*20% :: 20%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	2768	BM	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Dozier	*Snow Cover*	*3008*						*10% :: 10%*	*1/wk, 1/mo*	*50 x 50 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Dozier	*Snow Cover, Wet*	*3028*						*10% :: 10%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	3030	BM	10% :: 10%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
			HIRIS	AM2	Dozier	3029	AM	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
Dozier	*Snow Grain Size*	*3037*						*200% :: 200%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	3038	BM	200% :: 200%	1/wk, 1/mo	50 [km?] :: Snow/L	N/A :: Sfc
Dozier	*Snow Liq-water Content*	*3039*						*100% :: 100%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	2943	BM	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Dozier	*Snow Temperature, Sfc*	*2500*						*1 K :: 0.3 K*	*1/wk*	*500 m :: Snow/L*	
			ASTER	AM1	Kahle, Becker, Cl	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2484	AM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Dozier	*Topographic Elevation, Land_sfc*	*2825*						*10 m :: 1 m*		*20 m :: Land/L*	*:: Sfc*
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Grose	*Aerosol Conc*	*1006*						*20% :: 10%*	*2/day*	*15 x 4 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			SAGE-III	AERO,CHEM	McCormick	1012	AM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
Grose	*BrO Conc*	*1026*						*20% :: 15%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1030	BM	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Grose	*CFC-11(CFCl3) Conc*	*1050*						*15% :: 5%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Grose	*CFC-12(CF2Cl2) Conc*	*1042*						*15% :: 5%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Grose	*CH3Cl Conc*	*1065*						*15% :: 5%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1070	BM	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
Grose	*CH4 Conc*	*1074*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	AM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			TES	CHEM	Beer	1089	AM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1088	AM	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Grose	*CO Conc*	*1116*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1124	BM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			MLS	MO	Waters	1125	BM	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
			TES	CHEM	Beer	1128	AM	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			MOPITT	AM1	Drummond	1126	AM	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
Grose	*CO2 Conc*	*1138*						*1% :: 0.5%*	*1/mo*	*ZM :: G*	*10 km :: Mid-atmos*
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Grose	*ClO Conc*	*1103*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1107	BM	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
Grose	*Cloud XXX, PSC*	*3307*						*20% :: 10%*	*2/day*	*15 x 4 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1408	BM	0.4 km :: 0.4 km	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Strat
			SAGE-III	AERO,CHEM	McCormick	1437	AM	0.2 km :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: Strat/Trop
			GLRS-A	ALT	Spinhirne et al	1405	AM	150 m ::	1/(2-16 day)	2-200 km :: Polar	75 m :: Strat
Grose	*H2O Conc*	*1811*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Trop/meso*
			SAFIRE	MO	Russell	1839	BM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			AIRS	PM	Chedin, Fleming,	1828	AM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			TES	CHEM	Beer	1842	AM	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			HIRDLS	CHEM	Barnett, Gille	1837	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
Grose	*H2O2 Conc*	*1166*						*25% :: 10%*	*2/day*	*30 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1172	BM	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
			MLS	MO	Waters	1171	AM	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
Grose	*HBr Conc*	*1176*						*25% :: 10%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1180	BM	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
Grose	*HCl Conc*	*1182*						*15% :: 10%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1188	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
			SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Grose	*HF Conc*	*1193*						*25% :: 10%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1197	BM	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
Grose	*HNO3 Conc*	*1198*						*20% :: 5%*	*2/day*	*30 x 10 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
			MLS	MO	Waters	1203	AM	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
			SAFIRE	MO	Russell	1204	AM	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
			TES	CHEM	Beer	1205	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2.3 km :: 4-12 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Grose	*HO2 Conc*	*1212*						*25% :: 10%*	*2/day*	*30 x 10 dg :: G*	*3 km :: Mid-atmos*
			SAFIRE	MO	Russell	1217	BM	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km
			MLS	MO	Waters	1216	AM	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
Grose	*HOCl Conc*	*1218*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1223	BM	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
			MLS	MO	Waters	1222	AM	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
Grose	*Irradiance, Solar*	*2271*						*5% :: 1%*	*2/day*	*15 x 4 dg :: G*	*:: TOA*
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Grose	*N2O Conc*	*1229*						*15% :: 5%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
			SAFIRE	MO	Russell	1241	AM	:: 15% (20-35 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 20-40 km
			MLS	MO	Waters	1240	AM	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
			TES	CHEM	Beer	1243	AM	:: 10 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Grose	*N2O5 Conc*	*1250*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1254	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
			SAFIRE	MO	Russell	1255	AM	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
Grose	*NO Conc*	*1262*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1266	BM	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
			TES	CHEM	Beer	1268	AM	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Grose	*NO2 Conc*	*1269*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1273	BM	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
			MLS	MO	Waters	1274	AM	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
			SAFIRE	MO	Russell	1275	AM	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
			SAGE-III	AERO,CHEM	McCormick	1276	AM	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 10-50 km
			SAGE-III	AERO,CHEM	McCormick	1277	AM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-50 km
			TES	CHEM	Beer	1278	AM	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Grose	*NO3 Conc*	*1279*						*20% :: 10%*	*1/day [n]*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			SAGE-III	AERO,CHEM	McCormick	1282	BM	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-55 km
Grose	*O(3P) Conc*	*1294*						*30% :: 10%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			SAFIRE	MO	Russell	1298	BM	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
Grose	*O3 Conc*	*1306*						*2%,5% :: 2%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1321	AM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
Grose	*OClO Conc*	*1349*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			SAGE-III	AERO,CHEM	McCormick	1353	BM	20% :: 20%	1/(2 min), 30/day	<2 x <1 dg :: G	2 km :: 15-25 km
			MLS	MO	Waters	1352	AM	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
Grose	*OH Conc*	*1355*						*25% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			SAFIRE	MO	Russell	1360	BM	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
Grose	*Pressure*	*1516*						*0.05 :: 2%*	*2/day*	*15 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1524	BM	0.1% :: 0.1%	2/day [d,n]	4 x 4 dg :: G	0.2 km :: 7-80 km
			MLS	MO	Waters	1525	AM	:: 1%(30-50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
			SAFIRE	MO	Russell	1526	AM	:: <2% (16-70 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
Grose	*Temperature Profile*	*1572*						*2 K :: 0.5 K*	*2/day*	*15 x 4 dg :: G*	*2 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1608	BM	K;2K>50km :: 0.3K;1K>50k	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Grose	*Temperature Profile*	*1572*	SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
Grose	*Wind Velocity*	*1662*						*5m/s,10dg :: 5m/s,5dg*	*2/day*	*15 x 4 dg :: G*	*2 km :: Mid-atmos*
			MLS	MO	Waters	1734	AM-	:: 10m/s	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 60-110 km
Hansen	*Aerosol Optical Depth*	*1001*						*tau=0.02 ::*	*1/wk*	*500 km :: G*	*:: Trop*
			MISR	AM	Diner	2299	BM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			MISR	AM	Diner	3676	BM	0.05/10% :: 0.05/10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			EOSP	AERO,AM2	Travis	2297	AM	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	2293	AM-	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	2294	AM-	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
Hansen	*Aerosol Optical Depth*	*2287*						*tau=0.02 ::*	*1/wk*	*500 km :: G*	*:: Strat*
			MISR	AM	Diner	2299	BM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	2293	AM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	2294	AM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
			SAGE-III	AERO,CHEM	McCormick	1012	AM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Hansen	*Albedo, Snow*	*2017*						*0.02 ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MISR	AM	Diner	2022	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			HIRIS	AM2	Dozier	2440	AM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Hansen	*Albedo, Vegetation*	*2024*						*0.02 ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			AIRS	PM	Gautier ??	2000*	BM		1/day	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3665*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3666*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Hansen	*CFC-XXX Conc*	*1057*							*1/wk*	*500 km :: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Hansen	*CH4 Conc*	*1075*						*0.10% ::*	*1/wk*	*500 km :: Wetlands*	*:: Trop*
			TES	CHEM	Beer	1089	BM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			HIRDLS	CHEM	Barnett, Gille	1085	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			AIRS	PM	Revercomb, Strov	1136*	AM	10 - 20 :: 6 - 15	2/day [d,n]	50 - 250 km :: G	Column :: Atmos
			MOPITT	AM1	Drummond	1096	AM	:: 1%	1/(12 s) [?]	120 km :: G	Column :: Atmos
Hansen	*CH4 Conc*	*1076*							*1/wk*	*500 km :: G*	*:: Trop*
			TES	CHEM	Beer	1089	BM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			HIRDLS	CHEM	Barnett, Gille	1085	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			AIRS	PM	Revercomb, Strov	1136*	AM	10 - 20 :: 6 - 15	2/day [d,n]	50 - 250 km :: G	Column :: Atmos
			MOPITT	AM1	Drummond	1096	AM	:: 1%	1/(12 s) [?]	120 km :: G	Column :: Atmos
Hansen	*CO Conc*	*1117*						*0.10% ::*	*1/wk*	*500 km ::*	*:: Trop*
			MOPITT	AM1	Drummond	1126	BM	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
			TES	CHEM	Beer	1129	AM	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			MLS	MO	Waters	1124	AM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			TES	CHEM	Beer	1128	AM	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			AIRS	PM	Revercomb, Strov	1136*	AM	10 - 20 :: 6 - 15	2/day [d,n]	50 - 250 km :: G	Column :: Atmos
			MOPITT	AM1	Drummond	1137	AM	:: 10%	1/(4 s) [?]	66 km :: G [dy]	Column :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Hansen	*CO2 Conc*	*1139*						*0.2 ppm ::*	*1/wk*	*500 km :: G*	*:: Trop*
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Hansen	*Cloud Cover*	*2052*						*3% ::*	*1/wk*	*500 km :: G*	*:: Cloud*
			CERES	TRM,AM,PM	Barkstrom	2088	BM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			MODIS	AM,PM	King	2082	BM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2062	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
			MODIS	AM,PM	King	2081	AM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2087	AM	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
Hansen	*Cloud Height*	*1399*						*50 m ::*	*1/wk*	*500 km :: G*	*:: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1430	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1395	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			MODIS	AM,PM	Menzel	1529	BM	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	1423*	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1431	AM	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			MISR	AM	Diner	1432*	AM	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
			EOSP	AERO,AM2	Travis	1530	AM	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
			HIRDLS	CHEM	Barnett, Gille	1531	AM	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
Hansen	*Cloud Temperature, Top*	*2461*						*5% ::*	*1/wk*	*500 km :: G*	*:: Cloud*
			MODIS	AM,PM	Menzel	2466	BM	2 C :: 1 C	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2463	AM	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Hansen	*Fires [Count, Extent, etc.]*	*2662*						*10% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Kaufman, Justice	2666	BM		1/day, 1/wk	1 dg :: Land	N/A :: Sfc
			MODIS	AM,PM	Kaufman, Justice	2664	BM		1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Kaufman, Justice	2665	AM		1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Kaufman, Justice	2663	AM		1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Kaufman, Justice	2471	AM	10 C :: 5 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Kaufman, Justice	2711	AM	10 C :: 5 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Hansen	*Forest Deforestation*	*2658*						*10% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2672	AM	10% :: 7%	1/seas	5 km :: Land	N/A :: Sfc
Hansen	*H2O Conc, Stratospheric*	*1864*						*3% ::*	*1/wk*	*500 km :: G*	*Column :: Strat*
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			TES	CHEM	Beer	1843	BM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			HIRDLS	CHEM	Barnett, Gille	1837	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1841	AM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
Hansen	*Humidity Profile*	*1812*						*3% ::*	*1/wk*	*500 km :: G*	*:: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1840	AM	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 3-50 km
			SAGE-III	AERO,CHEM	McCormick	1841	AM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
			AIRS	PM	Chedin, Fleming,	1828	AM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Hansen	*Humidity Profile*	*1813*						*3% ::*	*1/wk*	*500 km :: G*	*:: Trop*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Hansen	*Humidity Profile*	*1813*	TES	CHEM	Beer	1842	AM	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Hansen	*Industrial_Emissions Conc*	*1372*						*2% ::*	*1/wk*	*500 km :: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1085	AM-	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAGE-III	AERO,CHEM	McCormick	1277	AM-	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-50 km
			TES	CHEM	Beer	1256	AM-	:: 300 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Hansen	*Irradiance, Solar*	*2272*						*0.05% ::*	*1/wk*	*500 km :: G*	*:: TOA*
			ACRIM	MO	Willson	2274	BM	0.1% :: 0.0005%	1/(2 min)	N/A :: N/A	N/A :: TOA
Hansen	*Land_sfc Temperature*	*2477*						*0.2 C ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			AIRS	PM	Chedin, Fleming,	2481	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2485	AM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Hansen	*N2O Conc*	*1230*							*1/wk*	*500 km :: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
			AIRS	PM	Revercomb, Strov	1249*	AM-	20 - 40 :: 15 - 30	2/day [d,n]	Zonal_ave :: G	Column :: Atmos
Hansen	*O3 Conc*	*1307*						*3% ::*	*1/wk*	*500 km :: G*	*:: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAGE-III	AERO,CHEM	McCormick	1321	AM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
			MLS	MO	Waters	1328	AM	:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Hansen	*Pigment Conc*	*3077*						*2% ::*	*1/wk*	*500 km :: Ocean*	*:: TOO*
			MODIS	AM,PM	Gordon, Clark	2591	BM	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
			MODIS	AM,PM	Hoge, Esaias	2594*	BM	50% :: 15%	1/day, 1/wk	20 km :: Ocean/R	N/A :: TOO
Hansen	*Precipitation Amount*	*1930*						*10% ::*	*1/wk*	*500 km :: G*	*:: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3601	BM		1 mo	1 dg :: Global	N/A :: Sfc
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
Hansen	*Radiation Budget*	*2357*							*1/wk*	*500 km :: G*	
			CERES	TRM,AM,PM	Barkstrom	2144	BM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2147	BM	25% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
Hansen	*Sea_Ice Cover*	*3150*						*3% ::*	*1/wk*	*500 km :: Ocean/Cryo*	*:: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			AIRS	PM	Chedin, Staelin	3151*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
Hansen	*Sea_sfc Temperature (SST)*	*2512*						*0.2 C ::*	*1/wk*	*500 km :: Ocean*	*:: Sfc*
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown	2527	AM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
			MODIS	AM,PM	Brown	2529	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2530	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Abbott	2603*	AM	:: 50-100%	1/day, 1/wk	4 km :: Ocean-I/G,R	N/A :: TOO
Hansen	*Snow Cover*	*3009*						*0.02 ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			AIRS	PM	Staelin	3018*	BM		2/day [d,n]	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Hansen	*Snow Cover*	*3009*	MIMR	PM	TBD	3607	AM			22 km :: Land	N/A :: Sfc
			HIRIS	AM2	Dozier	3019	AM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3021	AM	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Hansen	*Soil Moisture*	*2962*						*10% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3606	BM		1 mo	1 dg :: Land	N/A :: Sfc
Hansen	*Temperature Profile*	*1573*						*0.3 C ::*	*1/wk*	*500 km :: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1608	BM	K;2K>50km :: 0.3K;1K>50k	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			AIRS	PM	Chedin, Fleming,	1588	AM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			GGI	ALT	Melbourne	1605	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
			SAGE-III	AERO,CHEM	McCormick	1611	AM	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
			SAGE-III	AERO,CHEM	McCormick	1612	AM	2 K :: 2 K	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-70 km
Hansen	*Temperature Profile*	*1574*						*0.3 C ::*	*1/wk*	*500 km :: G*	*:: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Hansen	*Temperature, Near_sfc*	*1629*						*0.2 C ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			AIRS	PM	Chedin, Fleming,	2481	AM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Hansen	*Temperature, Near_sfc*	*1630*						*0.2 C ::*	*1/wk*	*500 km :: Ocean*	*:: Sfc*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
Hansen	*Vegetation Extent*	*2718*						*5% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Justice, Huete et a	2749	BM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
Hansen	*Vegetation Index*	*2742*						*5% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Justice, Huete et a	2749	BM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
			MISR	AM	Diner	2756	AM	2% :: 2%	1/(5-16 day) [d]	1.92 km :: Land	N/A :: Sfc
Hansen	*Vegetation Type*	*2731*						*5% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2749	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
Hansen	*Wetlands Extent*	*2764*						*5% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2669	AM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
Hansen	*Wind Velocity, Sea_sfc*	*1663*						*10% ::*	*1/wk*	*500 km :: Ocean*	*:: Sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			AIRS	PM	Aumann	1718*	AM-		1/day	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM-			39 km :: Ocean	N/A :: Sfc
Harris	*Aerosol Angstrom Exponent*	*3442*						*15% :: 5%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Gordon	2295	BM	15% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Atmos
			MODIS	AM,PM	Gordon	2296	BM	15% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: Atmos
Harris	*Aerosol Mass Loading*	*3424*						*1% :: 1%*	*1/day*	*50 km :: Ocean/R*	
			MODIS	AM,PM	Kaufman, Tanre	1017	BM	30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Harris	*Aerosol Optical Depth*	*3444*						*10%,0.05 :: 5%,0.02*	*2/day-1/day*	*20-50 km :: Ocean/R*	
			MODIS	AM,PM	Tanre, Kaufman	2294	BM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
			MISR	AM	Diner	2299	AM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
Harris	*Aerosol Radiance, Single_scattering*	*3446*						*10% :: 5%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Gordon	2344	BM	10% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/G,R,L	N/A :: Atmos
			MODIS	AM,PM	Gordon	2345	BM	10% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R,L	N/A :: Atmos
Harris	*Aerosol Size-distribution (Radius-Dispersion*	*3423*						*0.1 :: 0.05*	*1/day*	*50 km :: Ocean/R*	
			MODIS	AM,PM	Tanre, Kaufman	1022	BM	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
Harris	*Chlorophyll Fluorescence*	*3462*						*25% :: 5%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Abbott	2576	BM	.004 :: .001	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
			MODIS	AM,PM	Abbott	2575	BM	.004 :: .001	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
			MODIS	AM,PM	Hoge	2573	BM	25% :: 8%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
Harris	*Chlorophyll_a Conc*	*3454*						*40% :: 20%*	*2-10 days*	*0.25-1 km:: Ocean/R*	
			MODIS	AM,PM	Abbott	2566*	BM	50-100% :: 35%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
			MODIS	AM,PM	Carder	2570	BM	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/G,R	N/A :: TOO
			HIRIS	AM2	Carder, Melack	2565	AM	100% :: 50%	1/(2 day) [d]	60-90 m :: Ocean-II/L	N/A :: TOO
Harris	*Chlorophyll_a Conc*	*3455*						*20-30% :: 10-15%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Carder	2570	BM	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/G,R	N/A :: TOO
			MODIS	AM,PM	Clark	2571	BM	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ L	N/A :: TOO
			MODIS	AM,PM	Clark	2572	BM	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-I/G,R	N/A :: TOO
			MODIS	AM,PM	Abbott	2566*	AM	50-100% :: 35%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
			MODIS	AM,PM	Abbott	2567*	AM	50-100% :: 35%	1/day, 1/wk	4 km :: Ocean/G,R	N/A :: TOO
Harris	*Chlorophyll_a Conc*	*3456*						*20-30% :: 10-15%*	*2-10 days*	*0.25-1 km :: Ocean/R*	
			MODIS	AM,PM	Carder	2570	BM	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/G,R	N/A :: TOO
			HIRIS	AM2	Carder, Davis	2564	AM	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Harris	*Cloud Cover*	*3436*						*5-10% :: 2-5%*	*2/day*	*5-50 km :: Ocean/R*	
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	BM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Harris	*Cloud Height, Top*	*3437*						*0.5 :: 0.3*	*2/day*	*20-50 km :: Ocean/R*	
			CERES	TRM,AM,PM	Barkstrom	1429	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
			MODIS	AM,PM	Menzel	1528	BM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	1423*	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Harris	*Cloud Optical Depth*	*3445*						*10-20% :: 5-10%*	*2/day-1/day*	*5-50 km :: Ocean/R*	
			MODIS	AM,PM	King	2311	BM	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	2313	AM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2316	AM	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2321	AM	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
Harris	*Cloud Temperature, Top*	*3449*						*1-2 K :: 0.5-1 K*	*2/day-1/day*	*5-50 km :: Ocean/R*	
			MODIS	AM,PM	Menzel	2467	BM	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2463	BM	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Harris	*Gelbstoff Absorption Coef*	*3453*						*20% :: 10%*	*2-10 days*	*0.25-1 km:: Ocean/R*	
			HIRIS	AM2	Carder, Melack	3215	BM	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Harris	*Humidity Profile*	*3438*						*10% :: 5%*	*2/day*	*10-50 km :: Ocean/R*	*1 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Harris	*Land_sfc Temperature, Skin*	*3450*						*0.5 :: 0.2*	*2/day*	*20-50 km :: Ocean/R*	
			AIRS	PM	Chedin, Fleming,	2481	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Harris	*Level-1B Backscatter Coef, HIRIS*	*3448*						*20% :: 10%*	*2-10 days*	*0.25-1 km :: Ocean/R*	
			HIRIS	AM2	Carder, Melack	3210	BM-	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean/L	N/A :: Sfc
Harris	*Level-2 Radiance, Water-leaving*	*3447*						*10% :: 5%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Gordon et al	2416	BM	5% :: 5%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Gordon et al	2417	BM	5% :: 5%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
Harris	*Ocean Productivity, Primary*	*3460*						*30% :: 5%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Abbott	2602*	BM	:: 50-100%	1/day, 1/wk	1 km :: Ocean-I/R,L	N/A :: TOO
			MODIS	AM,PM	Abbott	2603*	BM	:: 50-100%	1/day, 1/wk	4 km :: Ocean-I/G,R	N/A :: TOO
			MODIS	AM,PM	Esaias	2606	BM	<35% :: <20%	1/wk, 1/mo, 1/yr	20 km :: Ocean/G,R	N/A :: TOO
			HIRIS	AM2	Davis, Melack et	2601	AM	100% :: 50%	1/(>=2 day)	30-90 m :: Ocean/L	N/A :: TOO
Harris	*Ocean Water Attenuation Coef@490nm*	*3461*						*25% :: 10%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Gordon, Clark	3200	BM	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ R,L	N/A :: TOO
			MODIS	AM,PM	Gordon, Clark	3199	BM	25% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean-I/ R,L	N/A :: TOO
Harris	*Ocean Wave Height*	*3431*						*10-20% :: 5-20%*	*1-10 days*	*7-25 km :: Ocean/R*	
			ALT	ALT	Fu	3129	BM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Harris	*Organic Matter Conc, Dissolved*	*3457*						*100% :: 30%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Carder	2581*	BM	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
			MODIS	AM,PM	Carder	2580*	BM	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean	N/A :: TOO
			MODIS	AM,PM	Parslow et al	2583	BM	150% :: 30%	1/day, 1/wk, 1/mo	1 km :: Ocean [Southern]R,L	N/A :: TOO
			MODIS	AM,PM	Parslow et al	2582	BM	150% :: 30%	1/day, 1/wk, 1/mo	20 km :: Ocean [Southern]	N/A :: TOO
Harris	*Pigment Conc*	*3458*						*30% :: 10%*	*1/day*	*1-20 km :: Ocean/R*	
			MODIS	AM,PM	Gordon, Clark	2592	BM	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
			MODIS	AM,PM	Gordon, Clark	2591	BM	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
			MODIS	AM,PM	Hoge, Esaias	2594*	BM	50% :: 15%	1/day, 1/wk	20 km :: Ocean/R	N/A :: TOO
			MODIS	AM,PM	Hoge, Esaias	2593*	BM	50% :: 15%	1/day, 1/wk	1 km :: Ocean/R	N/A :: TOO
			MODIS	AM,PM	Hoge	3320*	BM	50% :: 15%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
			MODIS	AM,PM	Hoge	3319*	BM	50% :: 15%	1 day,wk,mo	20 km :: Ocean/GR	N/A :: TOO
Harris	*Pigment Conc, Accessory*	*3459*						*20% :: 10%*	*2-10 days*	*0.25-1 km :: Ocean/R*	
			HIRIS	AM2	Davis, Melack	3072	BM	100% :: 50%	1/(>=2 day)	60-90 m :: Ocean-I/L	N/A :: TOO
			MODIS	AM,PM	Hoge	3320*	BM	50% :: 15%	1 day,wk,mo	1 km :: Ocean/RL	N/A :: TOO
Harris	*Precipitable Water*	*3439*							*1/day*	*10-25 km :: Ocean/R*	
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
			MIMR	PM	TBD	3596	BM			22 km :: Ocean	Column :: Trop
Harris	*Precipitable Water*	*3440*						*5% :: 3%*	*2/day*	*20-50 km :: Ocean/R*	
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Rosenkranz	3693	BM	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
Harris	*Precipitation Amount*	*3441*						*2 :: 1*	*2/day*	*20-50 km :: Ocean/R*	
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	BM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Harris	*Radiative Flux, Sea_sfc*	*3443*						*5% :: 2%*	*2/day*	*20-50 km :: Ocean/R*	
			AIRS	PM	Gautier	2177*	BM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Harris	*Radiative Flux, Sea_sfc*	*3443*	AIRS	PM	Gautier	2233*	BM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Gordon	2267	AM-	10% :: 5%	1/day [d]	1 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Tanre	2268*	AM-	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
Harris	*Sea_Level Height, Along-track*	*3427*						*2% :: 1%*	*1-10 days*	*7-25 km :: Ocean/R*	
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Harris	*Sea_sfc Temperature (SST)*	*3451*						*0.5-1 K :: 0.2-0.3 K*	*1/day*	*0.25-1 km :: Ocean/R*	
			MODIS	AM,PM	Brown	2527	BM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
Harris	*Sea_sfc Temperature (SST)*	*3452*						*0.5-1 K :: 0.2-0.3 K*	*1/day*	*20 km :: Ocean/R*	
			MODIS	AM,PM	Brown	2528	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
Harris	*Sea_sfc Topographic Height*	*3429*						*2% :: 1%*	*1-10 days*	*7-25 km :: Ocean/R*	
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Harris	*Temperature*	*3428*						*1 :: 0.5*	*2/day*	*10-50 km :: Ocean/R*	*1 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Harris	*Wind Speed, Sea_sfc*	*3435*						*5-10% :: 2-10%*	*1-10 days*	*1-25 km :: Ocean/R*	*N/A :: Sfc*
			ALT	ALT	Fu	1735	BM	2 m/s ::		7 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
			AIRS	PM	Aumann	1718*	AM		1/day	50 km :: Ocean	N/A :: Sfc
Harris	*Wind Velocity*	*3433*						*10%,20% :: 5%,10%*	*1 day*	*25 km :: Ocean/R*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Harris	*Wind Velocity*	*3434*						*7%,14% :: 5%,10%*	*2 days*	*100 km :: Ocean/R*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Hartmann	*Aerosol Optical Depth*	*1002*						*tau=0.02 ::*	*1/day*	*20 km :: G*	*3 km :: 0-15 km*
			SAGE-III	AERO,CHEM	McCormick	1012	BM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
			MISR	AM	Diner	2299	BM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			EOSP	AERO,AM2	Travis	2297	AM	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	2293	AM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	2294	AM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
			MISR	AM	Diner	3676	AM	0.05/10% :: 0.05/10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
Hartmann	*Aerosol Size-distribution*	*1020*						*20% :: 20%*	*1/day*	*20 km :: G*	*N/A :: 0-15 km*
			MODIS	AM,PM	Tanre, Kaufman	1022	BM	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
			MISR	AM	Diner	1993	BM	15% :: 10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			MISR	AM	Diner	3678	BM	15% :: 10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
			MISR	AM	Diner	1994*	AM	15% :: 10%	1/(5-16 day)	1.9 km :: R	Column :: Atmos
Hartmann	*Albedo, Land_sfc*	*1997*						*1% :: 0.5%*	*1/day*	*20 km :: G*	*N/A ::*
			MODIS	AM,PM	Tanre, Muller	2016*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			AIRS	PM	Gautier ??	2000*	AM		1/day	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2015*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
Hartmann	*Cloud Drop Size-distribution*	*1775*						*20% :: 20%*	*1/day*	*10 km :: G*	*0-15 km :: Cloud*
			ASTER	AM1	Welch	3627	BM		1/(16 day)	90 m :: L	N/A :: Cloud
			HIRIS	AM2	Welch	1776	AM	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
Hartmann	*Cloud Ice Content*	*1785*						*0.02 :: 0.02*	*1/day*	*10 km :: Ocean*	*N/A :: Cloud*
			AIRS	PM	Staelin	1893*	BM	TBD :: TBD	2/day [d,n]	50 km :: G	N/A :: Cloud
			MODIS	AM,PM	King, Menzel	1764	AM-	90% Conf :: 90% Conf	1/day	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1769	AM-	90% Conf :: 90% Conf	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
Hartmann	*Cloud Liq_water Total Column*	*1919*						*0.05 :: 0.05*	*1/day*	*10 km :: Ocean*	*Column :: Trop*
			MIMR	PM	TBD	3598	BM			22 km :: Ocean	N/A :: Trop

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Hartmann	*Cloud Liq_water Total Column*	*1919*	CERES	TRM,AM,PM	Barkstrom	1895	AM	75% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	1yr :: Atmos
Hartmann	*Cloud Optical Depth*	*2306*						*25% :: 0.25*	*1/day*	*10 km :: Ocean*	*N/A :: Cloud*
			MODIS	AM,PM	King	2311	BM	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2318	AM	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
			GLRS-A	ALT	Spinhirne	2300	AM	20% ::	1/(2-16 day)	1-100 km :: G	
Hartmann	*Humidity Profile*	*1814*						*10% :: 10%*	*1/day*	*10 km :: G*	*1 km :: 0-15 km*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Hartmann	*Precipitation Amount*	*1931*						*10 :: 10*	*1/day*	*10 km :: Ocean*	*N/A :: Trop*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Hartmann	*Radiative Flux, LW*	*2188*						*5% :: 2%*	*1/day*	*<30 km :: Ocean*	*N/A :: Sfc*
			AIRS	PM	Gautier	2177*	BM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2182	AM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2203	AM	5 W/m^2 :: <5 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
Hartmann	*Radiative Flux, LW*	*2190*						*5% :: 2%*	*1/day*	*<30 km :: Ocean*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2205	BM	5 W/m^2 :: 2 W/m^2	6/day [d,n]	25 km :: G	N/A :: TOA
Hartmann	*Radiative Flux, SW*	*2213*						*0.5% :: 0.5%*	*1/day*	*20 km :: G*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2251	BM	7 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
Hartmann	*Radiative Flux, SW*	*2214*						*0.5% :: 0.5%*	*1/day*	*20 km :: G*	*N/A :: Sfc*
			AIRS	PM	Gautier	2232*	BM	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2233*	BM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2230	AM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2231	AM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2229	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: Sfc
Hartmann	*Sea_sfc Temperature (SST)*	*2513*						*0.5 K :: 0.5 K*	*1/day*	*10 km :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2529	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2530	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown	2527	AM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
Hartmann	*Temperature Profile*	*1575*						*1 :: 1*	*1/day*	*10 km :: Ocean*	*1 km :: 0-15 km*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Hartmann	*Wind Velocity, Sea_sfc*	*1664*						*2 m/s :: 2 m/s*	*1/day*	*50 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Isacks	*Aerosol Layer Boundary Height*	*1015*						*75 m ::*	*1/event, 1/mo*	*2 km :: Land/R*	*75 m :: Atmos*
			GLRS-A	ALT	Spinhirne et al	1014	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Isacks	*Aerosol Mass Loading*	*1016*						*30% :: 10%*	*1/wk*	*1-10 km :: Land/R*	*N/A :: Atmos*
			MODIS	AM,PM	Kaufman, Tanre	1017	BM	30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
Isacks	*Aerosol Size-distribution*	*1024*						*:: 20%*	*1/wk*	*2-15 km ::*	*Column :: Atmos*
			MISR	AM	Diner	1994*	BM	15% :: 10%	1/(5-16 day)	1.9 km :: R	Column :: Atmos
			MISR	AM	Diner	1993	AM	15% :: 10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			MISR	AM	Diner	3678	AM	15% :: 10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	1022	AM	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
Isacks	*Albedo, Land_sfc*	*1998*						*:: 3%*	*1/wk*	*250 m :: Land/R*	*N/A :: Sfc*
			MISR	AM	Diner	2021*	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Isacks	*Albedo, Land_sfc*	*1998*	MODIS	AM,PM	Tanre, Muller	2015*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3665*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3666*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Isacks	*Cloud Cover*	*2053*							*1/wk*	*5 km :: Land/R*	*N/A :: Cloud*
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
Isacks	*Drainage_Network Structure*	*2902*							*1/mission, 1/yr*	*15-30 m :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM-	:: 30%		30 m :: L	N/A :: Sfc
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Glacier Cover*	*2923*						*5% :: 2%*	*1/seas*	*10-30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	2922	BM	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
			HIRIS	AM2	Kieffer	2895	AM	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
Isacks	*Humidity Profile*	*1815*						*10% :: 0.05*	*1/wk*	*50 km :: Land/R*	*2 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Isacks	*Ice_Sheet Elevation*	*2908*						*0.1 ::*	*2/yr*	*10 m :: Land/Cyro*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	AM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Isacks	*Lake Extent*	*3059*						::		*15-30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	TBD	3633	BM	TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
Isacks	*Land_sfc Emissivity, Spectral*	*2125*							*1/yr*	*15-90 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Sc	2129	BM	N/A :: N/A	1/(0.5-16 day)	90 m :: Land/R,L	N/A :: Sfc
			MODIS	AM,PM	Wan	3323*	AM	0.05 :: 0.02	1 day, 1 wk	1 km :: Land/R	N/A :: Sfc
Isacks	*Land_sfc Roughness*	*1553*						*2 cm :: 1 cm*	*1/mission, 1/mo*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Land_sfc Temperature, Skin*	*2496*						*1-3 :: 1*	*1/wk*	*1 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Isacks	*Land_sfc Temperature, Skin*	*2497*						*1-6 :: 0.3*	*1/wk*	*90 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Isacks	*Landform Feature Distribution*	*2851*							*1/mission*	*15-30 m :: Land/R*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	2858	BM	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
			ASTER	AM1	Gillespie, Rowan,	2883*	BM	variable :: variable	50/mission	90 m :: Land/R,L	
			HIRIS	AM2	Kieffer, Clark	2884	BM	:: 30%		30 m :: L	N/A :: Sfc
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Landform Scarp-fault Elevation*	*2869*						*10 cm :: 5 cm*	*1/mission*	*[2-D sect.] :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Mineral Conc, Rock-Soil*	*2778*							*1/mission, 1/mo*	*15-30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Rowan,Kahle,Gill	2773	BM	10% :: 5%	15 scenes/yr	15,30,90 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2766	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2772	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2776	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2784	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie, Rowan,	2817*	AM	variable :: variable	50/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Pieri, Kahle	3298	AM	variable :: variable		15,30,90 m :: Land/R,L	N/A ::
			ASTER	AM1	Gillespie	2801	AM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
Isacks	*Optical Depth, Total*	*2326*						*5-15% :: 1-10%*	*1/wk*	*10-50 km :: Land/R*	*Column :: Atmos*
			EOSP	AERO,AM2	Travis	2313	BM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Isacks	*Optical Depth, Total*	*2326*	MODIS	AM,PM	King	2311	BM	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	2297	BM	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
			MISR	AM	Diner	2298*	BM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	2293	AM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
Isacks	*Precipitation Amount*	*1932*							*1/wk*	*5-50 km :: Land/R*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
Isacks	*Precipitation Rate*	*1933*							*1/event, 1/mo*	*5-50 km :: Land/R*	*N/A :: Sfc*
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
			MIMR	PM	TBD	3601	AM-		1 mo	1 dg :: Global	N/A :: Sfc
Isacks	*River Channel Patterns*	*2982*								*15-30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM	:: 30%		30 m :: L	N/A :: Sfc
Isacks	*Snow Cover*	*3010*						*5% :: 2%*	*1/mo*	*1 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3021	BM	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Isacks	*Snow Cover*	*3011*						*5% :: 2%*	*1/seas*	*15-30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	TBD	3634	BM	TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Isacks	*Temperature Profile*	*1576*						*1 :: 0.4*	*1/wk*	*50 km :: Land/R*	*1 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Isacks	*Topographic Elevation, Land_sfc, (DEM)*	*2833*						*30 :: 10*	*1/mission*	*20 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Topographic Elevation, Land_sfc, (DEM)*	*2838*						*:: 120*	*1/mission*	*720 m :: Land/R*	*N/A :: Sfc*
			MISR	AM	Diner	2846*	BM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Topographic Elevation, Land_sfc, (DEM)*	*2839*						*100 m :: 50 m*	*1/mission*	*50 m :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Topographic Elevation, Land_sfc, Control, (.*	*2837*						*1 m :: 1 m*	*1/mission*	*point :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Isacks	*Vegetation Biomass, Green*	*2617*						*40% :: 15%*	*1/mo*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Isacks	*Vegetation Extent*	*2719*							*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2669	BM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2751	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2750	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	0.5 km :: Land/R	N/A :: Sfc
Isacks	*Vegetation Index*	*2743*						*1 :: 1*	*1/mo*	*240-500 m :: Land/R*	*N/A :: Sfc*
			MISR	AM	Diner	2757*	BM	2% :: 2%	1/(5-16 day) [d]	240 m :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2750	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	0.5 km :: Land/R	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc
Isacks	*Vegetation Index*	*2744*						*1 :: 0.5*	*1/mo*	*30-60 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Gillespie	2747*	BM			15 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Isacks	*Vegetation Type*	*2732*							*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2669	BM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Kerr, Sorooshian	*Aerosol Conc*	*1007*						*5% :: 5%*	*1/day*	*25 km :: Land*	*3 km :: Atmos*
			SAGE-III	AERO,CHEM	McCormick	1012	AM-	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
			HIRDLS	CHEM	Barnett, Gille	1992	AM-	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Kerr, Sorooshian	*Albedo, Cloud*	*2006*						*5% :: 5%*	*1/hr*	*500 m :: Land/R*	*:: Cloud*
			HIRIS	AM2	Welch	2008	AM	5% :: 5%		90 m :: R	:: Cloud
			MISR	AM	Diner	2038*	AM	3% :: 1%	[variable] [d]	240 m :: R	N/A :: Trop
Kerr, Sorooshian	*Albedo, Land_sfc*	*2014*						*10% :: 10%*	*1/wk*	*500 m :: Land*	*N/A :: Sfc*
			MISR	AM	Diner	2021*	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2015*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3665*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3666*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Kerr, Sorooshian	*Albedo, Planetary Spectral, TOA*	*2009*						*10% :: 10%*	*1/day*	*25 km :: Land/R*	*:: TOA*
			MISR	AM	Diner	2011	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: TOA
			MODIS	AM,PM	Muller, Strahler	2001	AM	10% :: 5%	1/(3-8 day)	1 km :: Land/R	N/A :: TOA
Kerr, Sorooshian	*CO2 Conc*	*1140*						*15% :: 15%*	*1/day*	*50 km :: G*	*1 km :: Atmos*
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Kerr, Sorooshian	*Cloud Cover*	*2075*						*5% :: 5%*	*1/day*	*10 km :: Land/R*	*N/A :: Cloud*
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
			ASTER	AM1	Welch	2080	AM	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
			HIRIS	AM2	Welch	2079	AM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
Kerr, Sorooshian	*Cloud Height, Base*	*1385*						*200m :: 200m*	*1/hr*	*1 km :: Land*	*100 mb :: Trop*
			GLRS-A	ALT	Spinhirne et al	1389	BM	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1393	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
			HIRIS	AM2	Welch	1390	AM	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
			ASTER	AM1	Welch	1391	AM	100 m :: 100 m	1/(16 day)	100 m :: L	N/A :: Cloud
Kerr, Sorooshian	*Cloud Height, Top*	*1417*						*:: 0.5 km*	*1/hr*	*1 km :: Land/R*	*:: Cloud*
			MODIS	AM,PM	Menzel	1528	BM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
			MISR	AM	Diner	1433*	BM	100 m :: 100 m	1/(5-16 day) [d]	500 m :: R	N/A :: Trop
			GLRS-A	ALT	Spinhirne et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
			MISR	AM	Diner	1432*	AM	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
			HIRIS	AM2	Welch, Goetz	1426	AM	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
Kerr, Sorooshian	*Cloud Liq_water Content*	*1905*								*30 m :: Land/R*	*:: Cloud*
			ASTER	AM1	Welch	3626	BM		1/(16 day)	90 m :: L	N/A :: Cloud
			HIRIS	AM2	Welch	2281	AM	30% :: 10%		90 m :: R	:: Cloud
Kerr, Sorooshian	*Cloud Temperature, Top*	*2462*						*5% :: 5%*	*1/hr*	*500 m :: Land/R*	*:: Cloud*
			ASTER	AM1	Welch	2465	BM	2 K :: 2 K	1/(16 day)	90 m :: L	N/A :: Cloud
			MODIS	AM,PM	Menzel	2467	BM	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
Kerr, Sorooshian	*Humidity Profile*	*1816*						*10% :: 10%*	*2/day*	*50 km :: Land*	*1 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Kerr, Sorooshian	*Land Thermal Inertia*	*2541*						*.008 :: .004*	*1/(16 day)*	*60 m :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	Kieffer et al	2542	BM	40% :: 20%		90 m :: Land/R,L	N/A :: Sfc
Kerr, Sorooshian	*Land_sfc Emissivity*	*2123*						*0.05 :: 0.05*	*1/yr*	*90 m :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2124	BM	0.05-0.1 :: 0.005	1/(0.5-16 day)	90 m :: L	N/A :: Sfc
Kerr, Sorooshian	*Land_sfc Reflectance, Directional*	*2428*						*3% :: 5%*	*1/(2 mo)*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Slater	2432	BM	3% :: 1%	1/mo	30 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Slater	2433	BM	4% :: 0.5-1.3	3/yr	15,30 m :: Land/R,L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Kerr, Sorooshian	*Land_sfc Reflectance, Directional*	*2428*	HIRIS	AM2	Gerstl	2035	AM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
			MISR	AM	Diner	2632	AM	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
Kerr, Sorooshian	*Land_sfc Roughness, Aerodynamic*	*1549*						*0.1 m :: 0.2 m*	*1/seas*	*25 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	1557*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Tanre	3670*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Kerr, Sorooshian	*Land_sfc Roughness, Geometric,*	*1552*						*0.1 cm :: 0.2 cm*	*2/mo*	*25 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	1557*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Tanre	3670*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	1556*	BM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
Kerr, Sorooshian	*Lightning Rate*	*1758*						*1 :: 1*	*1/(10 min)*	*1 km :: Land*	*:: Trop*
			LIS	TRM	Christian	1756	BM	:: 5%		.07 dg :: G	N/A :: Atmos
Kerr, Sorooshian	*O3 Total Burden*	*1308*						*5% :: 5%*	*1/day*	*25 km :: G*	*Column :: Atmos*
			MODIS	AM,PM	Menzel	1333	BM	15-20DU :: 10DU	2/day, 1/day	5 km :: G	Column :: Atmos
			AIRS	PM	Chedin, Revercon	1332*	AM	5 - 15% :: 3 - 10%	2/day [d,n]	50 km :: G	Column :: Atmos
			MODIS	AM,PM	Menzel	1334	AM	15-20DU :: 10DU	1/day, 1/mo	0.5 dg :: G	Column :: Atmos
Kerr, Sorooshian	*Optical Depth, Total*	*2325*						*10% :: 10%*	*1/(5-16 day)*	*10 km :: Land/R*	*:: Atmos*
			MODIS	AM,PM	King	2311	BM	20% :: 10%	1/day [d]	5 km :: G	N/A :: Cloud
			MISR	AM	Diner	2298*	BM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
			EOSP	AERO,AM2	Travis	2313	AM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
			MODIS	AM,PM	Kaufman, Tanre	2293	AM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
Kerr, Sorooshian	*Precipitable Water*	*1865*						*10% :: 10%*	*2/day*	*50 km :: Land*	*Column :: Atmos*
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	1874	AM	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	3321	AM	12% :: 8%	1 day, mo	1 km :: Land	N/A :: Atmos
Kerr, Sorooshian	*Precipitation Amount, Daily*	*1934*						*1 mm :: 1 mm*	*1/day*	*1 km :: Land/R*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
Kerr, Sorooshian	*Precipitation Rate, Rain*	*1959*						*20% :: 20%*	*1/day*	*500 m :: G*	*N/A :: Trop*
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
Kerr, Sorooshian	*Pressure*	*1518*						*5% :: 5%*	*1/hr*	*25 km :: Land*	*3 km :: Trop*
			HIRDLS	CHEM	Barnett, Gille	1524	BM	0.1% :: 0.1%	2/day [d,n]	4 x 4 dg :: G	0.2 km :: 7-80 km
Kerr, Sorooshian	*Radiative Flux, Broadband, Down*	*2142*						*1 W/m^2 :: 1 W/m^2*	*1/hr*	*8 km :: Land/R*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2223	BM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2221	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2222	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
Kerr, Sorooshian	*Radiative Flux, LW, Down*	*2163*						*10% :: 10%*	*[diurnal]*	*500 m :: Land/R*	*:: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2170	BM	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2169	AM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2168	AM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
Kerr, Sorooshian	*Radiative Flux, SW, Down*	*2216*						*10% :: 10%*	*[diurnal]*	*500 m :: Land/R*	*:: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2223	BM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2221	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2222	AM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
Kerr, Sorooshian	*Radiative Flux, SW, Up*	*2240*						*15% :: 15%*	*[diurnal]*	*500 m :: Land/R*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2247	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2250	AM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Kerr, Sorooshian	*Soil Class*	*2792*							*1/yr*	*30 m :: Land/R*	*:: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	BM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie, Rowan,	2883*	AM-	variable :: variable	50/mission	90 m :: Land/R,L	
Kerr, Sorooshian	*Soil Mineral Type*	*2802*							*1/yr*	*30 m :: Land/R*	*:: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie, Rowan,	2817*	AM	variable :: variable	50/mission	90 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2772	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2784	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Soil Reflectance, Bi-directional, (BRDF)*	*2042*						*10% :: 10%*	*1/seas*	*N/A :: Land*	*N/A :: Sfc*
			HIRIS	AM2	Gerstl	2035	BM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
			MISR	AM	Diner	2632	BM	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3669*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2424*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2425*	AM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
Kerr, Sorooshian	*Structure-Location, Significant Mappable*	*2882*							*1/yr*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	BM	:: 30%		30 m :: L	N/A :: Sfc
			ASTER	AM1	Gillespie, Rowan,	2883*	BM	variable :: variable	50/mission	90 m :: Land/R,L	
Kerr, Sorooshian	*Temperature Profile*	*1577*						*1 K :: 1 K*	*2/day*	*50 km :: Land*	*1 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			HIRDLS	CHEM	Barnett, Gille	1608	AM	K;2K>50km :: 0.3K;1K>50k	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
Kerr, Sorooshian	*Temperature, Near_sfc*	*1631*						*1 K :: 1 K*	*2/day [d,n]*	*500 m :: Land/R*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			MODIS	AM,PM	Wan	2484	AM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Brown	2527	AM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
Kerr, Sorooshian	*Topographic Elevation, Land_sfc*	*2826*						*50 m :: 50 m*	*1/mission*	*500 m :: Land*	*N/A :: Sfc*
			MISR	AM	Diner	2846*	BM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Kerr, Sorooshian	*Topographic Elevation, Land_sfc, (DEM)*	*2834*						*10 :: 10*	*1/yr*	*30 m :: Land/R*	*:: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Kerr, Sorooshian	*Topographic Slope (Azimuth), Land_sfc*	*2830*						*10 :: 5*	*1/yr*	*30 m :: Land/R*	*:: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
			ASTER	AM1	Rowan	2856	BM	variable :: variable	25 scenes/yr	50 m :: Land/R,L	N/A :: Sfc
Kerr, Sorooshian	*Topographic Slope (Azimuth), Land_sfc*	*2845*						*5 :: 5*	*1/yr*	*30 m :: Land/R*	*:: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
			ASTER	AM1	Rowan	2856	BM	variable :: variable	25 scenes/yr	50 m :: Land/R,L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Biome Area*	*2630*						*5% :: 5%*	*1/seas*	*:: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2669	BM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Density*	*2634*								*60 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Height*	*2636*						*10% :: 10%*	*1/seas*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin	2656	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Kerr, Sorooshian	*Vegetation Reflectance, Bi-directional, (BRL*	*2046*						*10% :: 10%*	*1/seas*	*N/A :: Land*	*N/A :: Sfc*
			HIRIS	AM2	Gerstl	2035	BM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
			MISR	AM	Diner	2632	BM	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler, T	3669*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2424*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2425*	AM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Spatial Density*	*2638*						*20% :: 10%*		*60 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin	2657	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Temperature*	*2456*						*0.5 K :: 0.5 K*	*2/day [d,n]*	*500 m :: Land/R*	*:: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			ASTER	AM1	Kahle, Becker, Ch	2483	AM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2481	AM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Type*	*2733*							*1/seas*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Lau	*Albedo, Snow*	*2018*						*10% :: 10%*	*1/wk*	*100 m :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	2440	BM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Lau	*Cloud Cover*	*2054*						*5% :: 5%*	*2/day*	*50 km :: R*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2086	BM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	King	2081	AM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Lau	*Cloud Cover, Cirrus*	*2070*						*5% :: 5%*	*1/day*	*100 km :: G*	*N/A ::*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
			MODIS	AM,PM	King	2082	AM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2088	AM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Lau	*Cloud Height, Cirrus*	*1402*						*100 m ::*	*2/day*	*50 km :: G*	*N/A :: Atmos*
			AIRS	PM	Chahine, Chedin,	1423*	BM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
Lau	*Cloud Liq_water Total Column*	*1920*						*0.05 :: 0.05*	*1/day*	*100 km :: G*	*N/A :: Trop*
			CERES	TRM,AM,PM	Barkstrom	1899	BM	50% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	Column :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1901	AM	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	Column :: Atmos
			AIRS	PM	Rosenkranz	1908*	AM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
Lau	*Drainage_Basin Boundary*	*2904*						*100m^2 :: 100m^2*	*1/mission*	*10 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM-	:: 30%		30 m :: L	N/A :: Sfc
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Lau	*Land_sfc Roughness, Aerodynamic*	*1550*						*10% :: 10%*	*1/hr*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Lau	*Land_sfc Roughness, Aerodynamic*	*1551*						*10% :: 10%*	*1/wk*	*10 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	1557*	BM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Tanre	3670*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	1556*	BM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc

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IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Lau	*Precipitation Amount*	*1935*						*2 :: 2*	*1/mo*	*500 km :: G*	*N/A :: Trop*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
Lau	*Precipitation Amount*	*1936*						*2 :: 2*	*1/day*	*50 km :: R*	*N/A :: Sfc*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Lau	*Radiative Flux, LW*	*2154*						*10W/m^2 :: 10%*	*1/day*	*500 km :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2182	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2176*	AM	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2177*	AM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
Lau	*Radiative Flux, SW*	*2215*						*10W/m^2 :: 10%*	*1/day*	*500 km :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2230	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2222	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2248	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2232*	AM	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2233*	AM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
Lau	*River Channel Geometry, Major-stream*	*3049*						*10 :: 10*	*1/mission*	*30 m :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM	:: 30%		30 m :: L	N/A :: Sfc
Lau	*Sea_sfc Temperature (SST)*	*2514*						*0.5 K ::*	*1/wk*	*100 km :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	BM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
Lau	*Sea_sfc Temperature (SST)*	*2515*						*0.2 K :: 0.2 K*	*1/wk*	*200 km :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2527	AM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3604	AM	1 K ::	1 mo	1 dg :: Ocean	N/A :: Sfc
Lau	*Sea_sfc Temperature (SST)*	*2516*						*0.5 K ::*	*1/day*	*50 km :: R*	*N/A :: Sfc*
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	BM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
Lau	*Snow Cover*	*3012*						*50 :: 10*	*1/wk*	*100 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	TBD	3634	BM	TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Lau	*Snow Cover*	*3013*						*50 :: 10*	*1/wk*	*1 km :: Land/L*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3021	BM	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3020	AM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Lau	*Soil Moisture*	*2965*						*10% :: 5%*	*1/(3 day)*	*3 km :: Land/R*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Lau	*Soil Temperature*	*2501*						*0.5 K :: 0.5 K*	*1/(3 day)*	*100 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Lau	*Soil Temperature*	*2502*						*1 K :: 1 K*	*1/(3 day)*	*1 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			ASTER	AM1	Kahle, Becker, Ch	2483	AM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Lau	*Surface Water Area*	*3060*						*100 ::*	*1/wk*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	TBD	3633	BM	TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
Lau	*Surface Water Area*	*3061*						*100 ::*	*1/wk*	*1 km :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	TBD	3633	BM	TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
			MODIS	AM,PM	Strahler, Huete et	2669	AM-	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
Lau	*Temperature Profile*	*1578*						*1 K ::*	*1/day*	*100 km :: G*	*1 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Lau	*Topographic Elevation, Land_sfc, (DEM)*	*2835*						*10 m :: 1 m*	*1/mission*	*10 m :: Land/L,R*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Lau	*Vegetation Evapotrans*	*1788*						*10% :: 10%*	*1/day*	*1 km :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Lau	*Vegetation Evapotrans, Actual, (AET)*	*1801*						*10% :: 10%*	*1/day*	*1 km :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Lau	*Vegetation Evapotrans, Actual, (AET)*	*1802*						*10% :: 10%*	*1/day*	*10 km :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Lau	*Vegetation Evapotrans, Potential*	*1804*						*10% :: 10%*	*1/day*	*10 km :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Lau	*Vegetation Index, Leaf Area, (LAI)*	*2677*						*10% :: 10%*	*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
Lau	*Vegetation Type*	*2734*							*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Lau	*Wind Speed*	*1739*						*0.5 m/s :: 2%*	*2/day*	*100 km :: G*	*N/A :: Sfc*
			AIRS	PM	Aumann	1718*	BM		1/day	50 km :: Ocean	N/A :: Sfc
			STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
Lau	*Wind Stress*	*1743*						*0.01 ::*		*:: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc
			MIMR	PM	TBD	3595	BM		1 mo	1 dg :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
Liu	*Cloud Cover*	*2055*								*:: Ocean*	*N/A :: Cloud*
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King	2082	AM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2088	AM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Liu	*Cloud Spectral Char*	*2546*								*:: G*	*N/A :: Cloud*
			AIRS	PM	Chahine, Smith	2128*	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
			MISR	AM	Diner	2039*	BM	3% :: 1%	[variable] [d]	1.92 km :: G	N/A :: Trop
			ASTER	AM1	Kahle, Becker, Sc	2129	AM	N/A :: N/A	1/(0.5-16 day)	90 m :: Land/R,L	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Liu	*Humidity Profile*	*1817*						*0.5 :: 0.5*	*1/day*	*25 km :: Ocean*	*0.5 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			AIRS	PM	Rosenkranz	3692	BM	20% :: 20%	2/day [d,n]	50 km :: G	2 km :: Atmos
Liu	*Precipitable Water*	*1866*						*0.5 :: 0.5*	*1/day*	*25 km :: Ocean*	*Column :: Trop*
			MIMR	PM	TBD	3596	BM			22 km :: Ocean	Column :: Trop
			AIRS	PM	Chedin, Fleming,	1869	AM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Rosenkranz	3693	AM	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
			MODIS	AM,PM	Menzel	1875	AM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
Liu	*Precipitation Amount, Rain*	*1973*						*1 :: 1*	*2/day*	*25 km :: Ocean*	*N/A :: Trop*
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
Liu	*Sea_sfc Temperature (SST)*	*2517*						*0.5 :: 0.5*	*1/wk*	*10 km :: G*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2529	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2530	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown	2527	AM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
Liu	*Temperature Profile*	*1579*						*0.5 :: 0.5*	*1/day*	*25 km :: Ocean*	*0.5 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Liu	*Topographic Elevaton, Sea_sfc*	*3123*						*3 cm :: 3 cm*		*:: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
			ALT	ALT	Fu	3112	AM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Liu	*Wind Direction*	*1702*						*10 dg :: 10 dg*	*1/day*	*25 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Liu	*Wind Speed, Sea_sfc*	*1713*						*1 :: 1*	*1/day*	*25 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
			AIRS	PM	Aumann	1718*	AM		1/day	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
Moore	*Aerosol Conc*	*1008*						*50% ::*	*1/(2 day)*	*1 km :: G*	
			HIRIS	AM2	Gerstl	2292	AM-	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
			MISR	AM	Diner	2298*	AM-	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
Moore	*Aerosol Conc*	*1009*						*50% ::*	*1/(2 day)*	*30 m :: L*	
			HIRIS	AM2	Gerstl	2292	AM-	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
Moore	*CO Conc*	*1118*						*25% :: 10%*	*1/day*	*100 km :: G*	*:: Trop*
			MOPITT	AM1	Drummond	1126	BM	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
			MLS	MO	Waters	1124	AM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			AIRS	PM	Revercomb, Strov	1136*	AM	10 - 20 :: 6 - 15	2/day [d,n]	50 - 250 km :: G	Column :: Atmos
			MOPITT	AM1	Drummond	1137	AM	:: 10%	1/(4 s) [?]	66 km :: G [dy]	Column :: Atmos
Moore	*Cloud Cover*	*2057*						*10% :: 10%*	*1/wk*	*1 km :: G*	
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			ASTER	AM1	Welch	2080	AM	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
			HIRIS	AM2	Welch	2079	AM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
Moore	*Cloud Radiation*	*2360*						*10% :: 10%*	*1/wk*	*1 km :: G*	*:: Cloud*
			MODIS	AM,PM	Menzel	2126	BM	0.10 :: 0.05	2/day	5 km :: G	N/A :: Cloud
			AIRS	PM	Chahine, Smith	2128*	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 15 x 45 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2147	AM	25% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	1yr :: Atmos
Moore	*O3 Conc*	*1309*						*25% :: 10%*	*1/day*	*100 km :: G*	*:: Atmos*
			AIRS	PM	Chedin, Revercon	1332*	BM	5 - 15% :: 3 - 10%	2/day [d,n]	50 km :: G	Column :: Atmos
			MODIS	AM,PM	Menzel	1334	AM	15-20DU :: 10DU	1/day, 1/mo	0.5 dg :: G	Column :: Atmos
			HIRDLS	CHEM	Barnett, Gille	1318	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Moore	*O3 Conc*	*1309*	TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			SAGE-III	AERO,CHEM	McCormick	1321	AM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
Moore	*PAR*	*2328*						*20% :: 10%*	*1/day, 1/wk*	*30 m :: Land/L*	
			HIRIS	AM2	Ustin, Wessman	2030	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*PAR*	*2329*						*20% :: 10%*	*1/day, 1/wk*	*500 m :: Land/R*	
			MODIS	AM,PM	Tanre	2268*	BM	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
			MODIS	AM,PM	Esaias	2330*	AM	TBD :: TBD	1/day	N/A :: G	N/A :: Atmos
Moore	*Pigment Conc, Non-photosynthetic*	*2695*						*20% :: 20%*	*1/(16 day)*	*1 km :: Land/R*	*:: Sfc*
			HIRIS	AM2	Wessman, Aber	2648	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Wessman, Aber	2687	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Pigment Conc, Non-photosynthetic*	*2696*						*20% :: 20%*	*1/(16 day)*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Wessman, Aber	2648	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Wessman, Aber	2687	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Precipitation Amount, Rain*	*1974*						*10% :: 10%*	*1/wk*	*1 km :: G*	
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Moore	*River Floodplain Extent*	*2915*						*20% :: 20%*	*1/wk*	*1-25 km :: Land*	
			GLRS-A	ALT	Schutz et al	2858	AM	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
Moore	*Snow Liq-water Content*	*3027*							*1/wk*	*1 km :: Land*	*:: Sfc*
			HIRIS	AM2	Dozier	2943	BM	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Moore	*Soil Extent*	*2800*						*15% :: 15%*	*1/yr*	*1 km :: Land*	*:: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
			ASTER	AM1	Gillespie	2801	BM		50 scenes/mission	15 m :: Land/R,L	N/A :: Sfc
			MODIS	AM,PM	Strahler, Huete et	2669	AM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
Moore	*Soil Moisture*	*2966*						*30% :: 30%*	*1/wk, 1/mo*	*1-25 km :: Land*	*:: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
Moore	*Topographic Elevation, Land_sfc*	*2827*						*1m ::*			*:: Sfc*
			MISR	AM	Diner	2846*	BM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, JGI	2828	AM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
Moore	*Vegetation Biomass, Green*	*2618*						*40% :: 15%*	*1/(2-16 day)*	*500 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Biomass, Green*	*2619*						*40% :: 15%*	*1/(2-16 day)*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Cellulose Conc*	*2647*						*20% :: 20%*	*1/(16 day)*	*30 m :: Land/L*	
			HIRIS	AM2	Wessman, Aber	2648	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Chlorophyll Conc*	*2649*						*20% :: 10%*	*1/day, 1/wk*	*30 m :: Land/L*	
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Chlorophyll Conc*	*2650*						*20% :: 10%*	*1/day, 1/wk*	*1 km :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Evapotrans*	*3057*						*20% :: 20%*	*1/day, 1/wk*	*500 m :: R*	*:: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Moore	*Vegetation Evapotrans*	*3058*						*20% :: 20%*	*1/day, 1/wk*	*30 m :: L*	*:: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Moore	*Vegetation Extent*	*2721*						*15% :: 15%*	*1/yr*	*1 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2669	BM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Moore	*Vegetation Extent*	*2721*	MODIS	AM,PM	Justice, Huete et a	2751	AM-	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Leaf Water Content*	*2760*						*20% :: 20%*	*1/day, 1/wk*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Wessman, Goetz	2761	BM	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Lignin Conc*	*2684*						*20% :: 20%*	*1/(16 day)*	*30 m :: Land/L*	
			HIRIS	AM2	Wessman, Aber	2687	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Temperature*	*2535*									*:: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Moore	*Vegetation Type*	*2736*						*15% :: 15%*	*1/yr*	*1 km :: Land*	*:: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2669	BM	10% :: 5%	1/mo, 1/seas	1 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2750	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	0.5 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2751	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
Moore	*Vegetation Water Content*	*2762*						*20% :: 20%*	*1/day, 1/wk*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Wessman, Goetz	2761	AM-	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Aerosol Conc, Stratospheric*	*3263*							*1/wk*	*:: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			SAGE-III	AERO,CHEM	McCormick	1012	AM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
Mouginis-Mark	*Aerosol Conc, Tropospheric*	*3264*							*1/wk*	*:: G*	*:: Trop*
			SAGE-III	AERO,CHEM	McCormick	1012	BM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Mouginis-Mark	*Eruption-Plume Dispersal*	*3273*						*1 km ::*	*1/orbit, 1/day*	*1 km :: Land/L*	*N/A :: Plume_col*
			ASTER	AM1	Pieri	3301	BM	variable :: variable		15,30,90 m :: R/L	
			MISR	AM	Diner	2298*	AM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
			HIRIS	AM2	Gerstl	2292	AM	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
Mouginis-Mark	*Eruption-Plume Fallout Rate*	*3282*							*1/day*	*1 km :: Land/R*	*N/A :: Plume_col*
			MODIS	AM,PM	Kaufman, Tanre	1017	BM	30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
			ASTER	AM1	Pieri	3301	BM-	variable :: variable		15,30,90 m :: R/L	
Mouginis-Mark	*Eruption-Plume HCl Content (Mass Eruptio*	*3283*							*1/day*	*:: G*	*N/A :: Plume_col*
			TES	CHEM	Beer	3638	BM		1/(16 day)	16 x 5 km :: L	
			MLS	MO	Waters	1188	AM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	AM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
			SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Mouginis-Mark	*Eruption-Plume Height*	*3285*						*200m(ver) ::*	*1/day*	*1 km :: Land/R*	*N/A :: Plume_col*
			MISR	AM	Diner	3286*	BM	100 m :: 100 m	[variable] [d]	500 m :: Land/L	N/A :: Plume_top
			GLRS-A	ALT	Spinhirne et al	1014	AM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Mouginis-Mark	*Eruption-Plume Temperature*	*3293*						*10 C ::*	*2/day [d,n]*	*100 m :: R*	*N/A :: Plume_col*
			ASTER	AM1	Pieri	3301	BM-	variable :: variable		15,30,90 m :: R/L	
Mouginis-Mark	*Eruption_Plume SO2 Conc Spike*	*3288*							*[near-real time ?]*	*1 km :: G*	*N/A :: Plume_col*
			TES	CHEM	Beer	1370	BM	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			MLS	MO	Waters	1369	AM	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
Mouginis-Mark	*Eruption_Plume SO2 Content (Mass Eruptio*	*3289*							*1/day*	*1 km :: G*	*N/A :: Plume_col*
			TES	CHEM	Beer	1370	BM	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			MLS	MO	Waters	1369	AM	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
Mouginis-Mark	*Lake Water Temperature, Volcano Summit*	*3291*						*2 C ::*	*1/(3 mo)*	*100 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Mouginis-Mark	*Lava-Flow Advance Rate*	*3262*						*30 m(hor) ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3299	AM		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Lava-Flow Areal Change*	*3266*						*(30m)^2 ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3299	AM		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Lava-Flow Temperature*	*3292*						*10 C ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Temperature, PBL*	*3302*							*1/day*	*30 m :: Land/R*	*N/A :: Plume_col*
			ASTER	AM1	Pieri	3301	BM-	variable :: variable		15,30,90 m :: R/L	
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Mouginis-Mark	*Volcano Deformation*	*3269*						*1 cm(ver) ::*	*1/day*	*cm [?] :: [30 km^2/10]*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	3271	BM	5/yr-100/d ::	1/day, 1/yr	1 km :: Land/L	:: Sfc
Mouginis-Mark	*Volcano Elevation Change*	*3274*						*1-5 (ver) ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	3271	BM	5/yr-100/d ::	1/day, 1/yr	1 km :: Land/L	:: Sfc
Mouginis-Mark	*Volcano Elevation Change*	*3278*						*10 m(ver) ::*	*1/event*	*30 m :: Land/L*	*N/A :: Sfc*
			GLRS-A	ALT	Cohen, Schutz et	2831	BM	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
Mouginis-Mark	*Volcano Elevation, Reference*	*3276*						*10 m(ver) ::*	*1/mission*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, JGI	2828	BM	>50 m :: >30 m	1/mission	15 m :: Land/R,L	30 m :: Sfc
			MISR	AM	Diner	2846*	AM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc
Mouginis-Mark	*Volcano Morphology*	*3284*							*4/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	2858	BM	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
			GLRS-A	ALT	Cohen, Schutz et	2831	AM	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
Mouginis-Mark	*Volcano Roughness*	*3287*						*3-24 cm ::*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre, Muller	1556*	BM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
Mouginis-Mark	*Volcano Temperature, Eruption Spike*	*3290*						*10 C ::*	*[near-real time ?]*	*1 km :: G*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Volcano Temperature-Change*	*3295*						*1 C ::*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3294	AM-	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Murakami	*Aerosol Extinction Coef*	*2327*						*5-10% ::*		*:: G*	*N/A :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			MODIS	AM,PM	Tanre, Kaufman	2294	AM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
			MISR	AM	Diner	2298*	AM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
			SAGE-III	AERO,CHEM	McCormick	1012	AM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
Murakami	*Cloud Cover*	*2058*						*10% ::*			*N/A :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	2088	BM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	King	2081	AM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Murakami	*Cloud Height, Top*	*1418*						*1 km ::*			*:: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1430	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			AIRS	PM	Chahine, Chedin,	1423*	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1431	AM	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			EOSP	AERO,AM2	Travis	1530	AM	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud
			HIRDLS	CHEM	Barnett, Gille	1531	AM	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
			MODIS	AM,PM	Menzel	1528	AM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
			MODIS	AM,PM	Menzel	1529	AM	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud
Murakami	*Humidity*	*1818*						*10% ::*			
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Murakami	*O3 Conc*	*1310*						*10% ::*			*N/A :: TOA*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			SAGE-III	AERO,CHEM	McCormick	1321	BM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Murakami	*O3 Conc*	*1331*						*5-10% :: 2-10%*			
			MODIS	AM,PM	Menzel	1333	BM	15-20DU :: 10DU	2/day, 1/day	5 km :: G	Column :: Atmos
			MODIS	AM,PM	Menzel	1334	AM	15-20DU :: 10DU	1/day, 1/mo	0.5 dg :: G	Column :: Atmos
			AIRS	PM	Chedin, Revercon	1332*	AM	5 - 15% :: 3 - 10%	2/day [d,n]	50 km :: G	Column :: Atmos
Murakami	*Precipitable Water*	*1867*						*20% ::*			
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	1874	AM	8% :: 6%	1/day	5 km :: Land	N/A :: Atmos
			AIRS	PM	Rosenkranz	3693	AM	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
Murakami	*Precipitation Amount*	*1938*						*10% ::*			
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3601	BM		1 mo	1 dg :: Global	N/A :: Sfc
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Murakami	*Radiative Flux, LW, Net Up*	*2183*						*2% ::*			*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2182	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2176*	AM	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2177*	AM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2180	AM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2181	AM	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Murakami	*Radiative Flux, LW, Up*	*2395*						*10% ::*			*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2200	BM	3 W/m^2 :: 1 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: TOA
			CERES	TRM,AM,PM	Barkstrom	2204	AM	5 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
			CERES	TRM,AM,PM	Barkstrom	2205	AM	5 W/m^2 :: 2 W/m^2	6/day [d,n]	25 km :: G	N/A :: TOA
Murakami	*Radiative Flux, SW, Net_Down*	*2234*						*2% ::*			*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2230	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2232*	AM	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
Murakami	*Sea_sfc Temperature (SST)*	*2518*						*0.2 K ::*		*:: G*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2528	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Murakami	*Sea_sfc Temperature (SST)*	*2518*	MODIS	AM,PM	Brown, Barton	2531	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3604	AM	1 K ::	1 mo	1 dg :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
Murakami	*Snow Cover*	*3014*						*10% ::*		*:: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3021	BM	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			AIRS	PM	Staelin	3018*	AM		2/day [d,n]	50 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	AM			22 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3608	AM		1 mo	1 dg :: Land	N/A :: Sfc
Murakami	*Soil Moisture*	*3066*								*:: Land*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3606	BM		1 mo	1 dg :: Land	N/A :: Sfc
Murakami	*Temperature Profile*	*1580*						*1% ::*			
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Murakami	*Topographic Elevaton, Sea_sfc*	*3122*						*0.01 ::*			*N/A :: Sfc*
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
			ALT	ALT	Fu	3112	AM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Murakami	*Trace Gas Conc*	*1374*						*20% ::*			*N/A :: TOA*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	BM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
Murakami	*Vegetation Evapotrans*	*1991*						*0.02 ::*			
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Murakami	*Vegetation Index*	*2745*								*:: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Justice, Huete et a	2749	BM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Huete	2724*	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	1 km :: Land/R	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc
Murakami	*Wind Stress*	*1744*						*0.01 ::*		*:: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc
			MIMR	PM	TBD	3595	BM		1 mo	1 dg :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
Pyle	*Aerosol XXX*	*1003*							*2/day*	*:: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			EOSP	AERO,AM2	Travis	2297	BM-	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	2293	AM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	2294	AM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
Pyle	*BrO Conc*	*1027*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1030	BM	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
Pyle	*CFC-11(CFCl3) Conc*	*1051*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Pyle	*CFC-12(CF2Cl2) Conc*	*1043*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Pyle	*CH3Cl Conc*	*1066*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1070	BM	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
Pyle	*CH4 Conc*	*1077*						*10% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	AM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			TES	CHEM	Beer	1088	AM	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1089	AM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Pyle	*CO Conc*	*1119*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			MLS	MO	Waters	1124	BM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			MLS	MO	Waters	1125	AM	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
			TES	CHEM	Beer	1127	AM	:: 10 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			MOPITT	AM1	Drummond	1126	AM	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
Pyle	*ClO Conc*	*1104*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1107	BM	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
Pyle	*Cloud Height, PSC*	*1404*							*2/day*	*:: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1408	BM	0.4 km :: 0.4 km	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Strat
			SAGE-III	AERO,CHEM	McCormick	1437	BM	0.2 km :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: Strat/Trop
			GLRS-A	ALT	Spinhirne et al	1405	AM	150 m ::	1/(2-16 day)	2-200 km :: Polar	75 m :: Strat
Pyle	*H2O Conc*	*1819*						*10% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			HIRDLS	CHEM	Barnett, Gille	1837	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			TES	CHEM	Beer	1843	AM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			SAGE-III	AERO,CHEM	McCormick	1841	AM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
Pyle	*H2O2 Conc*	*1167*						*20% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1172	BM	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
			MLS	MO	Waters	1171	AM	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
Pyle	*HBr Conc*	*1177*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1180	BM	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
Pyle	*HCl Conc*	*1183*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1188	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
			SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Pyle	*HF Conc*	*1194*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1197	BM	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
Pyle	*HNO3 Conc*	*1199*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
			MLS	MO	Waters	1203	AM	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
			SAFIRE	MO	Russell	1204	AM	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
			TES	CHEM	Beer	1205	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2.3 km :: 4-12 km
			TES	CHEM	Beer	1206	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Pyle	*HNOx Conc*	*1210*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
Pyle	*HO2 Conc*	*1213*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1216	BM	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
			SAFIRE	MO	Russell	1217	AM	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Pyle	*HOCl Conc*	*1219*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1222	BM	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
			SAFIRE	MO	Russell	1223	AM	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
Pyle	*Irradiance, Solar*	*2273*						*:: 1%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Pyle	*N2O Conc*	*1231*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1240	BM	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
Pyle	*N2O5 Conc*	*1251*						*20% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1254	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
			SAFIRE	MO	Russell	1255	AM	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
Pyle	*NO Conc*	*1263*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1266	BM	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
			TES	CHEM	Beer	1268	AM	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Pyle	*NO2 Conc*	*1270*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1273	BM	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
			MLS	MO	Waters	1274	AM	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
			SAFIRE	MO	Russell	1275	AM	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
			SAGE-III	AERO,CHEM	McCormick	1276	AM	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 10-50 km
			SAGE-III	AERO,CHEM	McCormick	1277	AM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-50 km
			TES	CHEM	Beer	1278	AM	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Pyle	*NO3 Conc*	*1280*						*25% :: 10%*	*1/day [n]*	*15 x 4 km :: G*	*3 km :: Strat*
			SAGE-III	AERO,CHEM	McCormick	1282	BM	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-55 km
Pyle	*O(3P) Conc*	*1295*						*15% :: 5%*	*1/wk*	*15 x 4 km :: G*	*2 km :: Strat*
			SAFIRE	MO	Russell	1298	BM	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
Pyle	*O3 Conc*	*1311*						*5% :: 2%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	BM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1321	AM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Pyle	*OClO Conc*	*1350*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SAGE-III	AERO,CHEM	McCormick	1353	BM	20% :: 20%	1/(2 min), 30/day	<2 x <1 dg :: G	2 km :: 15-25 km
			MLS	MO	Waters	1352	AM	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
Pyle	*OH Conc*	*1211*						*20% :: 10%*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			SAFIRE	MO	Russell	1360	BM	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
Pyle	*Temperature Profile*	*1581*						*2 K :: 0.5 K*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
			TES	CHEM	Beer	1615	AM	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			SAGE-III	AERO,CHEM	McCormick	1611	AM	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
Pyle	*Wind Speed*	*1714*						*5 m/s :: 5 m/s*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			MLS	MO	Waters	1734	BM	:: 10m/s	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 60-110 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Richey, Batista	*Lake Water Attenuation Coef*	*3203*						*10% :: 10%*	*1/wk*	*1 km :: Land/R*	*N/A :: TOO*
			MODIS	AM,PM	Gordon, Clark	3200	AM	25% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ R,L	N/A :: TOO
Richey, Batista	*Lake Water Chlorophyll Conc*	*2654*						*20% :: 10%*	*1/wk*	*1 km :: Land/R*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3314	AM-	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
Richey, Batista	*Land_sfc Temperature*	*2476*							*1/day*	*:: Land/R*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2481	AM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
			ASTER	AM1	Kahle, Becker, Cl	2483	AM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Richey, Batista	*Precipitable Water*	*1810*						*5% :: 5%*	*1/day*	*:: R*	*:: Trop*
			AIRS	PM	Chedin, Fleming,	1869	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			MODIS	AM,PM	Kaufman, Tanre	3321	AM	12% :: 8%	1 day, mo	1 km :: Land	N/A :: Atmos
Richey, Batista	*Precipitable Water*	*1863*							*1/wk*	*1 km :: R*	*Column :: Trop*
			MODIS	AM,PM	Kaufman, Tanre	3321	BM	12% :: 8%	1 day, mo	1 km :: Land	N/A :: Atmos
			HIRIS	AM2	Goetz	1872	AM	10% :: 3%	1/(1-3 min), 1(2-16 day)	30 m :: L	Column :: Atmos
Richey, Batista	*Radiative Flux, Broadband*	*2141*							*2/day*	*:: Land/R*	
			CERES	TRM,AM,PM	Barkstrom	2223	BM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2223	BM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2248	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2249	BM	12 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: TOA
Richey, Batista	*Soil Chemistry*	*2810*						*20% :: 20%*	*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Gillespie	2803*	BM		50 maps/mission	90 m :: Land/R,L	N/A :: Sfc
Richey, Batista	*Soil Moisture*	*2958*							*1/mo*	*1 km :: Land/R*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
Richey, Batista	*Vegetation Biomass*	*2627*						*20% :: 20%*	*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Richey, Batista	*Vegetation Physiography*	*2693*						*10% :: 10%*	*1/mo*	*1 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Richey, Batista	*Vegetation Structure*	*2726*							*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Rothrock	*Albedo, Sea_Ice*	*2012*						*0.05 :: 0.05*	*1/(3 day)*	*25 km :: Polar*	*N/A :: Sfc*
			EOSP	AERO,AM2	Travis	3644	AM	5% ::	2 day [d]	10 km :: G	NA :: Cloud, Sfc
Rothrock	*Cloud Cover*	*2076*						*0.1 :: 0.1*	*1/day*	*100 km :: Polar*	*N/A :: Cloud*
			CERES	TRM,AM,PM	Barkstrom	2088	BM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			MODIS	AM,PM	King	2082	BM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
Rothrock	*Cloud Height, Top*	*1419*						*0.2km :: 0.2km*	*1/day*	*100 km :: Polar*	*:: Cloud*
			CERES	TRM,AM,PM	Barkstrom	1430	BM	1.0 km :: 0.1 km	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1431	BM	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			AIRS	PM	Chahine, Chedin,	1423*	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MISR	AM	Diner	1432*	AM	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
			MODIS	AM,PM	Menzel	1529	AM	50 mb :: 20 mb	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	1530	AM	30 mb :: 30 mb	1/day [d]	40 km :: G	30 mb :: Cloud

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Rothrock	*Cloud Transmissivity*	*2544*						*0.1 :: 0.1*	*1/day*	*100 km :: Polar*	*N/A :: Cloud*
			EOSP	AERO,AM2	Travis	2313	BM	20% :: 10%	1/day [d]	40 km :: G	Column :: Cloud
			MODIS	AM,PM	King	2312	BM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2317	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2318	AM	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2322	AM	10% :: 5%	1/day [Avg], 1/mo [Avg]	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2323	AM	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2321	AM	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2316	AM	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
Rothrock	*Humidity, Near_sfc*	*1820*							*1/day*	*100 km :: Polar*	*:: Near_sfc*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Rothrock	*Pigment Conc, Phytoplankton*	*2590*							*1/(2 day)*	*10 km :: Polar*	*N/A :: TOO*
			MISR	AM	Diner	2589	BM	30% :: 30%	1/(1-2 day) [d]	1.92 km :: Ocean/G,R	N/A :: TOO
			MODIS	AM,PM	Gordon, Clark	2592	AM	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean/R,L	N/A :: TOO
			MODIS	AM,PM	Gordon, Clark	2591	AM	30% :: 10%	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: TOO
Rothrock	*Sea_Ice Conc, First-year*	*3165*						*0.2 :: 0.2*	*1/(3 day)*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3609	BM			22 km :: Ocean/Cryo	:: Sfc
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Rothrock	*Sea_Ice Conc, GCM*	*3178*						*0.03 :: 0.03*	*1/(3 day)*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Rothrock	*Sea_Ice Conc, Multi-year*	*3175*						*0.2 :: 0.2*	*1/(3 day)*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Rothrock	*Sea_Ice Cover*	*3188*						*0.03 :: 0.03*	*1/(3 day)*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			AIRS	PM	Chedin, Staelin	3151*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Rothrock	*Sea_Ice Edge*	*3189*						*0.05 :: 0.05*	*1/(3 day)*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Rothrock	*Sea_Ice Motion*	*3103*						*0.5 km :: 0.5 km*	*1/(3 day)*	*25 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			AIRS	PM	Chedin, Staelin	3151*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
Rothrock	*Sea_sfc Temperature (SST)*	*2519*						*1 K :: 1 K*	*1/(2 day)*	*30 km :: G*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2528	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	BM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2532	AM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3603	AM			60 km :: Ocean	N/A :: Sfc
Rothrock	*Temperature, Near_sfc*	*1627*						*2 K :: 2 K*	*1/day*	*100 km :: Polar*	*N/A :: Near_sfc*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Rothrock	*Wind Velocity, Sea_sfc*	*1669*						*2 m/s :: 2 m/s*	*1/day*	*100 km :: Polar*	*N/A :: Near_sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1680	AM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
			AIRS	PM	Aumann	1718*	AM-		1/day	50 km :: Ocean	N/A :: Sfc
Rothrock	*Wind Velocity, Sea_sfc*	*1670*						*2 m/s :: 2 m/s*	*1/day*	*25 km :: Polar*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Rothrock	*Wind Velocity, Sea_sfc*	*1670*	STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Schimel	*PAR, Intercepted, (IPAR)*	*2263*						*10% :: 1%*	*1/day*	*500 m :: 6 sites/L*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre	2268*	BM	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
Schimel	*PAR, Intercepted, (IPAR)*	*2264*						*10% :: 1%*	*1/wk*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2030	BM-	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*PAR, Intercepted, (IPAR)*	*2265*						*10% :: 1%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			MODIS	AM,PM	Tanre	2268*	BM	200 :: 5 - 20%	1/day, 1/wk	1 km :: G,R	N/A :: Atmos
Schimel	*Temperature, Near_sfc*	*1632*						*10% :: 1%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			MODIS	AM,PM	Wan	2484	AM-	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Schimel	*Temperature, Near_sfc*	*1633*						*10% :: 1%*	*1/day, 1/wk*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Cl	2483	BM-	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Schimel	*Vegetation Chlorophyll Conc*	*2651*						*10% :: 1%*	*1/wk*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Chlorophyll Conc*	*2652*						*10% :: 1%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Evapotrans*	*1790*						*20% :: 5%*	*1/wk*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Schimel	*Vegetation Index, Leaf Area, (LAI)*	*2678*						*10% :: 1%*	*1/wk, 1/mo*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			ASTER	AM1	Gillespie	2747*	AM			15 m :: Land/R,L	N/A :: Sfc
Schimel	*Vegetation Index, Leaf Area, (LAI)*	*2679*						*10% :: 1%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2680*	BM	0.1-0.25 :: 5-20%	1/day, 1/wk	pixel_size :: Land/G,R,L	N/A :: N/A
Schimel	*Vegetation Lignin Conc*	*2685*						*20% :: 1%*	*1/seas*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman, Aber	2687	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Lignin Conc*	*2686*						*20% :: 1%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman, Aber	2687	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Production, Net Primary, (NPP)*	*2698*						*20% :: 5%*	*1/yr*	*500 m :: 6 sites/L*	*N/A :: Sfc*
			MODIS	AM,PM	Running	2703*	BM	100 :: 5-30%	1/wk, 1/mo, 1/yr	1 km :: Land/G,R	N/A :: N/A
Schimel	*Vegetation Structure*	*2641*						:: 5%	*1/yr*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Structure*	*2642*						:: 5%	*1/yr*	*500 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Structure*	*2643*						:: 5%	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schoeberl	*Aerosol Conc*	*1010*						*10% :: 5%*	*1/day*	*200 km :: G*	*1 km :: Strat*
			SAGE-III	AERO,CHEM	McCormick	1012	AM-	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
			HIRDLS	CHEM	Barnett, Gille	1992	AM-	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Schoeberl	*Aerosol Size-distribution*	*1021*						*10% :: 5%*	*1/day*	*200 km :: G*	*1 km :: Strat*
			MODIS	AM,PM	Tanre, Kaufman	1022	BM	10-30% :: 10%	1/day,1/mo	0.5 dg :: G,R	N/A :: Atmos
			MISR	AM	Diner	1993	AM	15% :: 10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			MISR	AM	Diner	3678	AM	15% :: 10%	9,16 day; mo; seas; yr	15.4 km ? :: G	Column :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Schoeberl	*BrO Conc*	*1028*						*20% :: 1*	*1/wk*	*8 x 10 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1030	BM	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
Schoeberl	*CFC-11(CFCl3) Conc*	*1052*						*15% :: 10*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Schoeberl	*CFC-12(CF2Cl2) Conc*	*1044*						*15% :: 10*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Schoeberl	*CH3Cl Conc*	*1067*						*15% :: 20*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1070	BM	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
Schoeberl	*CH4 Conc*	*1078*						*15% :: 0.05*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	AM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			TES	CHEM	Beer	1088	AM	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*CO Conc*	*1120*						*15% :: 5*	*1/day*	*2 x 3 dg :: G*	*2 km :: Trop*
			MOPITT	AM1	Drummond	1126	BM	:: 10%	1/(0.4 s) [?]	22 km :: G	3-4 km :: 0-15 km
			TES	CHEM	Beer	1128	AM	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1129	AM	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Schoeberl	*CO Conc*	*1121*						*15% :: 5*	*1/day*	*8 x 10 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1124	BM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			MLS	MO	Waters	1125	BM	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
			TES	CHEM	Beer	1127	AM	:: 10 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*ClO Conc*	*1105*						*10% :: 0.02*	*1/day*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1107	BM	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
Schoeberl	*H2O (HDO) Conc*	*1856*						*10% :: 10%*	*1/day*	*8 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1857	BM	:: 7% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-60 km
Schoeberl	*H2O Conc*	*1821*						*10% :: 5%t,0.05s*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: 0-Strat*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	BM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1841	AM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 3-50 km
			TES	CHEM	Beer	1843	AM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Schoeberl	*H2O Conc*	*1822*						*10% :: 0.05*	*1/day*	*4 x 5 dg :: G*	*2.5 km :: Meso*
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
Schoeberl	*H2O2 Conc*	*1168*						*20% :: .1t,.05s*	*1/wk*	*8 x 10 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1171	BM	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
			SAFIRE	MO	Russell	1172	AM	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
Schoeberl	*HBr Conc*	*1178*						*20% :: 1*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1180	BM	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
Schoeberl	*HCN Conc*	*1190*						*20% :: 0.01*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1191	BM	<=5% :: 4x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 20-65 km
			SAFIRE	MO	Russell	1192	AM	:: 35% (25-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 25-35 km
Schoeberl	*HCl Conc*	*1184*						*15% :: 0.1*	*1/day*	*4 x 5 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1188	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Schoeberl	*HCl Conc*	*1184*	SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Schoeberl	*HF Conc*	*1195*						*15% :: 0.05*	*1/day*	*4 x 5 dg :: G*	*2 km :: Strat*
			SAFIRE	MO	Russell	1197	BM	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
Schoeberl	*HNO3 Conc*	*1200*						*15% :: 0.1*	*1/day*	*2 x 3 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
			MLS	MO	Waters	1203	AM	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
			SAFIRE	MO	Russell	1204	AM	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
			TES	CHEM	Beer	1206	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*HO2 Conc*	*1214*						*15% :: 0.02*	*1/day [d]*	*6 x 8 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1216	BM	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
			SAFIRE	MO	Russell	1217	AM	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km
Schoeberl	*HOCl Conc*	*1220*						*20% :: 0.02*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1222	BM	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
			SAFIRE	MO	Russell	1223	AM	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
Schoeberl	*N2O Conc*	*1232*						*15% :: 10*	*1/day*	*2 x 3 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
			MLS	MO	Waters	1240	AM	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
			SAFIRE	MO	Russell	1241	AM	:: 15% (20-35 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 20-40 km
			TES	CHEM	Beer	1243	AM	:: 10 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*N2O5 Conc*	*1252*						*15% :: 20%*	*1/day*	*8 x 10 dg :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1254	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
			SAFIRE	MO	Russell	1255	AM	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
Schoeberl	*NO Conc*	*1264*						*15% :: .2s,1.0m*	*1/day [d]*	*4 x 5 dg :: G*	*2 km :: Mid-atmos*
			MLS	MO	Waters	1266	BM	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
			TES	CHEM	Beer	1268	AM	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*NO2 Conc*	*1271*						*10% ::*	*1/day*	*4 x 5 dg :: G*	*2 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1273	BM	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
			SAGE-III	AERO,CHEM	McCormick	1277	BM	10% :: 15%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 20-50 km
			SAGE-III	AERO,CHEM	McCormick	1276	AM	10% :: 10%	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 10-50 km
			MLS	MO	Waters	1274	AM	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
			SAFIRE	MO	Russell	1275	AM	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
			TES	CHEM	Beer	1278	AM	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Schoeberl	*O(3P) Conc*	*1296*						*15% :: 10%*	*1/wk [d]*	*8 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1298	BM	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
Schoeberl	*O3 Conc*	*1312*						*10% :: 10%*	*1/day*	*4 x 5 dg :: G*	*2.5 km :: Trop*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			SAGE-III	AERO,CHEM	McCormick	1321	AM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Schoeberl	*O3 Conc*	*1313*						*10% :: 5%*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	BM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			SAGE-III	AERO,CHEM	McCormick	1321	AM	6% :: 5 %	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-85 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			SAFIRE	MO	Russell	1327	AM	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Schoeberl	*O3 Conc*	*1313*	MLS	MO	Waters	1328	AM	:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
			SAFIRE	MO	Russell	1329	AM	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
			MLS	MO	Waters	1326	AM	:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
Schoeberl	*O3(18^OOO) Conc*	*1342*						*10% :: 10%*	*1/wk*	*8 x 10 dg :: G*	*5 km :: Strat*
			MLS	MO	Waters	1343	BM	:: 20%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
			SAFIRE	MO	Russell	1344	AM	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
			SAFIRE	MO	Russell	1345	AM	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km
Schoeberl	*OClO Conc*	*1351*						*20% :: 0.01*	*1/wk [n]*	*8 x 10 dg :: G*	*3 km :: Strat*
			SAGE-III	AERO,CHEM	McCormick	1353	BM	20% :: 20%	1/(2 min), 30/day	<2 x <1 dg :: G	2 km :: 15-25 km
			MLS	MO	Waters	1352	AM	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
Schoeberl	*OH Conc*	*1356*						*10% :: .02s,.05m*	*1/day [d]*	*6 x 8 dg :: G*	*2 km :: Mid-atmos*
			SAFIRE	MO	Russell	1360	BM	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
Schoeberl	*Radiation Intensity, IR*	*2374*						*1%(~1K) :: 0.5%*	*1/day*	*100 km :: G*	*1.5 km :: Strat*
			AIRS	PM	Chahine	2347	BM	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2340	AM	1%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
Schoeberl	*Radiation Intensity, UV*	*2411*						*5% :: 2%*	*1/day*	*:: G*	*:: Strat*
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	AM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Schoeberl	*Radiation Intensity, Visible*	*2413*						*5% :: 2%*	*1/day*	*:: G*	*:: Strat*
			MODIS	AM,PM	Salomonson	2339	BM	5%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2338	BM	5%(1π) :: RMS<NEdL	1/day	0.5 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2392	BM	5%(1π) :: RMS<NEdL	1/day	0.25 km :: G	N/A :: N/A
Schoeberl	*SO2 Conc*	*1366*						*20% ::*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1369	BM	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
			TES	CHEM	Beer	1370	AM	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Schoeberl	*Temperature Profile*	*1582*						*2 K :: 1 K*	*1/day*	*2 x 2 dg :: G*	*2 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			HIRDLS	CHEM	Barnett, Gille	1608	BM	K;2K>50km :: 0.3K;1K>50k	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			SAGE-III	AERO,CHEM	McCormick	1611	BM	2 K :: 2K	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 6-55 km
			GGI	ALT	Melbourne	1605	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
			SAGE-III	AERO,CHEM	McCormick	1612	AM	2 K :: 2 K	1/(2 min), 30/day	<2 x <1 dg :: Polar	1 km :: 6-70 km
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
			TES	CHEM	Beer	1615	AM	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1616	AM	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Sellers	*Aerosol Optical Depth*	*2288*						::			
			MODIS	AM,PM	Kaufman, Tanre	2293	BM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	2294	BM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
			EOSP	AERO,AM2	Travis	2297	BM	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
			MISR	AM	Diner	2298*	AM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	1.92 km :: R	Column :: Atmos
			MISR	AM	Diner	2299	AM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
			HIRIS	AM2	Gerstl	2292	AM	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
Sellers	*Aerosol XXX*	*1004*									
			MODIS	AM,PM	Kaufman, Tanre	2293	BM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	2294	BM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Sellers	*Aerosol XXX*	*1004*	GLRS-A	ALT	Spinhirne et al	1014	AM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
			SAGE-III	AERO,CHEM	McCormick	1012	AM	5% :: 5%	1/(2 min), 30/day	<2 x <1 dg :: G	1 km :: 0-40 km
Sellers	*Albedo, Cloud*	*2007*									
			HIRIS	AM2	Welch	2008	BM	5% :: 5%		90 m :: R	:: Cloud
			MISR	AM	Diner	2038*	AM	3% :: 1%	[variable] [d]	240 m :: R	N/A :: Trop
Sellers	*Albedo, Land_sfc*	*1999*						*1% :: 10%*	*1/(5 day)*	*100 km :: Land*	
			AIRS	PM	Gautier ??	2000*	BM		1/day	50 km :: Land	N/A :: Sfc
Sellers	*CO2 Conc*	*1141*									
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Sellers	*Cloud Cover*	*2059*							*4/day*	*100 km ::*	*0.5 km :: Trop*
			CERES	TRM,AM,PM	Barkstrom	2087	BM	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	King	2081	AM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
Sellers	*Cloud Liq_water Total Column*	*1921*									
			CERES	TRM,AM,PM	Barkstrom	1899	BM	50% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	Column :: Atmos
			AIRS	PM	Rosenkranz	1908*	AM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
Sellers	*Cloud Temperature*	*2457*									
			MODIS	AM,PM	Menzel	2466	BM	2 C :: 1 C	1/day, 1/mo	1 dg :: G	N/A :: Cloud
			MODIS	AM,PM	Menzel	2467	BM	2 C :: 1 C	2/day	5 km :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2463	AM	1 K :: 0.5 K	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			ASTER	AM1	Welch	2465	AM	2 K :: 2 K	1/(16 day)	90 m :: L	N/A :: Cloud
Sellers	*Humidity Profile*	*1823*						*10% ::*	*4/day*	*100 km ::*	*0.5 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Sellers	*Land_sfc Reflectance, Bi-directional Spectra*	*2041*								*250-500 m :: Land*	
			MISR	AM	Diner	2632	BM	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			HIRIS	AM2	Gerstl	2035	BM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2424*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3669*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Kaufman et al	2430	AM	0.01 :: 0.005	1/day	0.5 km :: G	N/A :: Sfc
			MODIS	AM,PM	Kaufman et al	2431	AM	0.01 :: 0.005	1/day	0.25 km :: G	N/A :: Sfc
			ASTER	AM1	Slater	2433	AM	4% :: 0.5-1.3	3/yr	15,30 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Slater	2432	AM	3% :: 1%	1/mo	30 m :: Land/R,L	N/A :: Sfc
Sellers	*Land_sfc Reflectance, Bi-directional, (BRDF*	*2034*									
			CERES	TRM,AM,PM	Barkstrom	2045	BM	5% :: 1%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
			MISR	AM	Diner	2631	BM	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2425*	AM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Kaufman et al	2429	AM	0.01 :: 0.005	1/day	1 km :: G	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler	2434	AM	5% :: 3%	1/day	1 km :: R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3669*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Sellers	*Land_sfc Temperature*	*2478*						::		*500 m ::*	
			ASTER	AM1	Kahle, Becker, Cl	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Sellers	*Level-1B Radiance, MODIS*	*2389*									
			MODIS	AM,PM	Salomonson	2338	BM	5%(1π) :: RMS<NEdL	1/day	0.5 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2339	BM	5%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2340	BM	1%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2392	BM	5%(1π) :: RMS<NEdL	1/day	0.25 km :: G	N/A :: N/A

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Sellers	*PBL Height*	*1513*									
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Sellers	*Precipitation Amount*	*1939*							*4/day*	*100 km ::*	
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Sellers	*Precipitation Amount, Snow*	*1984*									
			AIRS	PM	Staelin	3018*	AM-		2/day [d,n]	50 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	AM-			22 km :: Land	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	1769	AM-	90% Conf :: 90% Conf	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
Sellers	*Radiative Flux, LW, Down*	*2164*						*20% :: 20%*	*4/day*	*100 km :: Land*	*0.5 km ::*
			CERES	TRM,AM,PM	Barkstrom	2170	BM	7 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Sellers	*Radiative Flux, LW, Up*	*2193*						*20% :: 20%*	*4/day*	*100 km :: Land*	*0.5 km ::*
			CERES	TRM,AM,PM	Barkstrom	2202	BM	7 W/m^2 :: <7 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2146	BM	10% :: 5%	1/(6 hr)	1.25 x 1.25 dg :: G	1yr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2148	BM	50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	1yr :: Atmos
Sellers	*Radiative Flux, SW, Down*	*2217*						*20% :: 20%*	*1/hr*	*100 km :: Land*	
			CERES	TRM,AM,PM	Barkstrom	2221	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2223	BM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Sellers	*Snow Cover*	*3015*							*1/(1-4 day)*	*100 km ::*	*:: Sfc*
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			AIRS	PM	Staelin	3018*	BM		2/day [d,n]	50 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	BM			22 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3021	AM	<=5% :: <=5%	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Sellers	*Soil Moisture*	*2967*							*1/(1-4 day)*	*100 km ::*	*:: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
Sellers	*Temperature Profile*	*1583*						*1 K ::*	*4/day*	*100 km ::*	*0.5 km :: Trop*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Sellers	*Vegetation Biomass*	*2628*									
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Sellers	*Vegetation Cover*	*2740*							*1/(1-4 day)*	*100 km ::*	*:: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Simard	*Albedo, Snow*	*2019*						*2% ::*		*:: Canada/R*	*N/A :: Sfc*
			MISR	AM	Diner	2022	BM	<=0.03 :: 0.01	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			AIRS	PM	Gautier ??	2000*	BM		1/day	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2015*	AM	15% :: 5 - 8%	1/day, 1/wk	1 km :: G,R	N/A :: Sfc
			MODIS	AM,PM	Tanre, Muller	2016*	AM	15% :: 5 - 8%	1/day, 1/wk	10 km :: G,R	N/A :: Sfc
			HIRIS	AM2	Dozier	2440	AM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3665*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3666*	AM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc
Simard	*Cloud Cover*	*2056*						*5% ::*		*:: Canada/R*	*N/A :: Cloud*
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	2086	AM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2087	AM	5% :: 2%	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Simard	*Cloud Cover*	*2056*	CERES	TRM,AM,PM	Barkstrom	2088	AM	5% :: 2%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Simard	*Glacier Displacement*	*2894*						*10 cm ::*	*1/yr, 1/seas*	*:: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer	2895	BM	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
			ASTER	AM1	Kieffer	2931	AM	20 m/yr :: 10 m/yr	1 yr	15 m :: Land/Cryo	
Simard	*Ice_Sheet Displacement*	*2896*						*10 cm ::*	*1/yr, 1/seas*	*:: Canada/R*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2897	BM	10 mm/day :: 10 mm/day	1/mo	N/A :: Land/Cryo	N/A :: Sfc
			HIRIS	AM2	Kieffer	2932	AM	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
Simard	*Ice_Sheet Elevation*	*2909*						*100 mm ::*	*1/(3 mo)*	*10 km :: Land/R*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	AM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Simard	*Ice_Sheet Elevation*	*2910*						*100 mm ::*	*1/(3 mo)*	*100 km :: Land*	*N/A :: Sfc*
			ALT	ALT	Zwally	2911	BM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Simard	*Ice_Sheet Thickness*	*3055*						*100 mm ::*	*1/(3 mo)*	*10 km :: Land/R*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Simard	*Ice_Sheet Thickness*	*3056*						*100 mm ::*	*1/(3 mo)*	*100 km :: Land*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Simard	*Land_sfc Temperature*	*3312*						*1.3 :: 1.0 ?*	*2/day*	*1 km :: R/Canada*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2484	BM	1 C :: 1 C	1/day, 1/wk	1 km :: Land/R	N/A :: Sfc
Simard	*Land_sfc Temperature*	*3313*						*1.3 :: 1.0 ?*	*2/day*	*10 km :: R/Canada*	*N/A :: Sfc*
			MODIS	AM,PM	Wan	2485	BM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2481	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
Simard	*Precipitation Rate*	*1937*						*20% ::*		*:: Canada/R*	*N/A :: Trop*
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
			AIRS	PM	Susskind	1969*	AM-	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM-	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
Simard	*Radiative Flux, Net*	*2137*						*10% ::*		*:: Canada/R*	
			CERES	TRM,AM,PM	Barkstrom	2230	BM	10 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2182	BM	5 W/m^2 :: 2 W/m^2	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Sfc
Simard	*Sea_Ice Conc*	*3141*						*10km/10% ::*	*1/(7 day)*	*10 km :: Canada/R*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Simard	*Sea_Ice Cover*	*3183*						*50 cm ::*		*:: Canada/R*	*N/A :: Sfc*
			AIRS	PM	Chedin, Staelin	3151*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Simard	*Sea_Ice Edge*	*3157*						*25km ::*	*1/(7 day)*	*25 km :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3154	AM	<=5% :: <=5%	1/day, 1/wk, 1/mo	1 km :: Ocean/Cryo,R	N/A :: Sfc
			MIMR	PM	TBD	3611	AM			22 km :: Ocean/Cryo	N/A :: Sfc
			ASTER	AM1	Welch	3152	AM			90 m :: Ocean/Cryo	N/A :: Sfc
Simard	*Sea_Ice Edge*	*3190*						*10km/10% ::*	*1/(7 day)*	*10 km :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Simard	*Sea_Ice Extent*	*3162*						*25km ::*	*1/(7 day)*	*25 km :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Simard	*Sea_Ice Extent*	*3162*	MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Simard	*Sea_Ice Motion, Regional*	*3196*						*500 m ::*	*1/(7 day)*	*500 m :: Canada/R*	*N/A :: Sfc*
			ASTER	AM1	Welch	3152	AM			90 m :: Ocean/Cryo	N/A :: Sfc
			ASTER	AM1	TBD	3630	AM	TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
Simard	*Sea_Ice Temperature*	*3120*						*0.3 K ::*		*:: Canada/R*	*N/A :: Sfc*
			ASTER	AM1	Welch	3619	BM			90 m :: Ocean/Cryo	N/A :: Sfc
Simard	*Snow Cover*	*3026*						*10km ::*	*1/(7 day)*	*10 km :: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	AM			22 km :: Land	N/A :: Sfc
Simard	*Snow State*	*3043*								*:: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
			HIRIS	AM2	Dozier	3029	BM	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
			HIRIS	AM2	Dozier	3038	AM	200% :: 200%	1/wk, 1/mo	50 [km?] :: Snow/L	N/A :: Sfc
			HIRIS	AM2	Dozier	2943	AM	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Simard	*Soil Moisture*	*2949*						*10% ::*		*:: Canada/R*	*N/A :: Sfc*
			MIMR	PM	TBD	3605	BM			60 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3606	BM		1 mo	1 dg :: Land	N/A :: Sfc
Simard	*Soil Proportion, Bare*	*2788*						*10% ::*		*:: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2749	AM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
Simard	*Soil Temperaturee*	*3311*						*0.5 :: 1.0*	*2/day*	*100 m :: R/Canada*	*N/A :: Sfc*
			ASTER	AM1	Kahle, Becker, Ch	2483	BM	1-6 K :: 0.3 K	1/(2-16 day)	90 m :: Land	N/A :: Sfc
Simard	*Vegetation Evapotrans*	*1789*								*:: Canada/R*	*N/A :: Sfc*
			ASTER	AM1	Schmugge	1791	BM	1 mm/day :: 0.5 mm/day		90 m :: Land/R,L	N/A :: Sfc
Simard	*Vegetation Extent*	*2720*						*10% ::*		*:: Canada/R*	*N/A :: Sfc*
			MODIS	AM,PM	Strahler, Huete et	2670	BM	10% :: 5%	1/mo, 1/seas	5 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Justice, Huete et a	2749	BM	0.01 :: 0.01	1/day, 1/wk, 1/mo	10 km :: Land	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Srokosz	*Chlorophyll Conc*	*2563*						*10% :: 0.1mg*	*1/day*	*1 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			MODIS	AM,PM	Clark	2571	BM	30% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-I/ L	N/A :: TOO
			MODIS	AM,PM	Carder	2569	AM	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/ L	N/A :: TOO
			MODIS	AM,PM	Carder	2570	AM	50% :: 10%	1/day, 1/wk, 1/mo	1 km :: Ocean-II/G,R	N/A :: TOO
			MODIS	AM,PM	Abbott	2566*	AM	50-100% :: 35%	1/day, 1/wk	1 km :: Ocean/R,L	N/A :: TOO
			MISR	AM	Diner	2588*	AM	30% :: 30%	1/(1-2 day) [d]	240 m :: Ocean/R	N/A :: TOO
Srokosz	*Cloud Cover*	*2060*						*5% :: 1%*	*2/day*	*10 km :: Ocean [South Atlan]*	*N/A :: Cloud*
			MODIS	AM,PM	King	2081	BM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Srokosz	*Cloud Liq_water Total Column*	*1922*						*10% :: 0.1kg/m^2*	*2/day*	*10 km :: Ocean [South Atlan]*	*N/A :: Trop*
			CERES	TRM,AM,PM	Barkstrom	1900	BM	50% :: 10%	6/day [d,n]	25 km :: G	Column :: Atmos
			MIMR	PM	TBD	3598	AM			22 km :: Ocean	N/A :: Trop
Srokosz	*Humidity Profile, Specific*	*1824*						*0.3g/kg :: 0.1g/kg*	*2/day*	*10 km :: Ocean [South Atlan]*	
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			AIRS	PM	Rosenkranz	3692	BM	20% :: 20%	2/day [d,n]	50 km :: G	2 km :: Atmos
Srokosz	*Level-1B Backscatter Coef, ALT*	*2096*						*0.2dB :: 0.1dB*	*1/(10 day)*	*10 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			ALT	ALT	Fu	3464	BM				
Srokosz	*Level-1B Backscatter Coef, STIKSCAT*	*2109*						*0.3 dB :: 0.1 dB*	*1/day*	*25 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	2108	BM	:: 0.25 dB		25 km :: G	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Srokosz	*Level-1B Backscatter Waveforms, ALT*	*3125*						*0.02(bin) :: 0.1dB*	*1/(10 day)*	*10 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			ALT	ALT	Fu	3464	BM				
Srokosz	*Level-1B Radiance, MODIS*	*3310*						*0.05% ::*	*1/day*	*1 km :: R*	*N/A :: Atmos*
			MODIS	AM,PM	Salomonson	2338	BM	5%(1π) :: RMS<NEdL	1/day	0.5 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2339	BM	5%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2340	BM	1%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2392	BM	5%(1π) :: RMS<NEdL	1/day	0.25 km :: G	N/A :: N/A
Srokosz	*Ocean Wave Height, Significant*	*3131*						*>(.5m,5%) :: 0.1m*	*1/day*	*10 km :: Ocean/R*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	BM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Srokosz	*Precipitable Water*	*1868*						*1kg/m^2 :: 0.1kg/m^2*	*2/day*	*10 km :: Ocean [South Atlan]*	*N/A :: Atmos*
			MODIS	AM,PM	Menzel	1875	BM	10 mm :: 5 mm	2/day	5 km :: G	N/A :: Atmos
			MIMR	PM	TBD	3596	BM			22 km :: Ocean	Column :: Trop
			AIRS	PM	Chedin, Fleming,	1869	AM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Rosenkranz	3693	AM	2 mm :: 1 mm	2/day [d,n]	50 km :: G	N/A :: Trop
Srokosz	*Precipitation Rate, Rain*	*1975*						*10% :: 1mm/hr*	*2/day*	*10 km :: Ocean [South Atlan]*	*N/A :: Trop*
			MIMR	PM	TBD	3600	BM			22 km :: Global	N/A :: Sfc
Srokosz	*Radiative Flux, LW*	*2385*						*10W/m^2 :: 1W/m^2*	*2/day*	*10 km :: Ocean [South Atlan]*	
			CERES	TRM,AM,PM	Barkstrom	2205	BM	5 W/m^2 :: 2 W/m^2	6/day [d,n]	25 km :: G	N/A :: TOA
			AIRS	PM	Gautier	2177*	AM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
Srokosz	*Radiative Flux, SW*	*2400*						*10W/m^2 :: 1W/m^2*	*2/day*	*10 km :: Ocean [South Atlan]*	
			AIRS	PM	Gautier	2233*	BM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2221	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2229	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2247	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
Srokosz	*Sea_Ice Conc*	*3142*						*10% :: 1%*	*1/day*	*10 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
Srokosz	*Sea_Ice Edge*	*3158*						*0.1 dg :: 0.01 dg*	*1/day*	*N/A :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3613	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3153	BM	<=5% :: <=5%	1/day, 1/wk, 1/mo	10 km :: Ocean/Cryo	N/A :: Sfc
			MODIS	AM,PM	Salomonson	3154	AM	<=5% :: <=5%	1/day, 1/wk, 1/mo	1 km :: Ocean/Cryo,R	N/A :: Sfc
			MIMR	PM	TBD	3611	AM			22 km :: Ocean/Cryo	N/A :: Sfc
			ASTER	AMI	Welch	3152	AM			90 m :: Ocean/Cryo	N/A :: Sfc
Srokosz	*Sea_sfc Temperature (SST)*	*2520*						*0.3 K(IR) :: 0.1 K*	*2/day*	*.100-1 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			MODIS	AM,PM	Brown	2527	BM	0.3-0.5 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	1 km :: Ocean/L	N/A :: Sfc
			MODIS	AM,PM	Brown	2529	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2530	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	4 km :: Ocean/R,L	N/A :: Sfc
Srokosz	*Temperature Profile*	*1584*						*1 K :: 0.1 K*	*2/day*	*10 km :: Ocean [South Atlan]*	
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Srokosz	*Topographic Elevaton, Sea_sfc*	*3107*						*0.02m :: 0.01m*	*1/(10 day)*	*10 km :: Ocean/R*	*N/A :: Sfc*
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Srokosz	*Wind Direction*	*1703*						*10 dg :: 1 dg*	*1/day*	*25 km :: Ocean [South Atlan]*	
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Srokosz	*Wind Speed, Sea_sfc*	*1716*						*1 m/s :: 0.1 m/s*	*1/day*	*25 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			MIMR	PM	TBD	3594	BM			39 km :: Ocean	N/A :: Sfc
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Srokosz	*Wind Velocity, Friction*	*1684*						*5%,5 dg :: .01m/s,1dg*	*1/day*	*25 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Tapley	*Humidity Profile*	*1825*						*5% ::*	*4/day*	*50 km :: G*	*1 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
			TES	CHEM	Beer	1842	AM	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Tapley	*Wind Speed, Sea_sfc*	*1717*						*1 m/s ::*	*4/day*	*50 km :: Ocean*	*N/A :: Sfc*
			AIRS	PM	Aumann	1718*	BM		1/day	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3594	AM			39 km :: Ocean	N/A :: Sfc
Tapley	*Wind Stress*	*1745*						*10% ::*	*4/day*	*50 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc
			MIMR	PM	TBD	3594	BM			39 km :: Ocean	N/A :: Sfc
Wielicki	*Aerosol Optical Depth*	*2289*						*0.10 :: 0.10*	*1/day*	*1.25 dg :: G*	*N/A :: Atmos*
			EOSP	AERO,AM2	Travis	2297	BM	0.2 :: 10%	1/day [d]	40 km :: G	Column :: Atmos
			MODIS	AM,PM	Kaufman, Tanre	2293	AM	0.1 :: 0.05	1/day, 1/mo	0.5 dg :: Land	N/A :: Atmos
			MODIS	AM,PM	Tanre, Kaufman	2294	AM	0.05 :: 0.02	1/day, 1/mo	0.5 dg :: Ocean	N/A :: Atmos
			MISR	AM	Diner	2299	AM	0.05/10% :: 0.05/10%	1/(5-16 day) [d]	15.4 km :: G	Column :: Atmos
			GLRS-A	ALT	Spinhirne	2300	AM	20% ::	1/(2-16 day)	1-100 km :: G	
Wielicki	*Anisotropy, LW_broadband, Clear-sky*	*2025*						*2% :: 1%*		*10 dg [Angle] :: G/clr*	*N/A :: Sfc, Atmos*
			CERES	TRM,AM,PM	Barkstrom	2027	BM	2% :: 0.5%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
Wielicki	*Anisotropy, LW_broadband, Cloudy-sky*	*2026*						*2% :: 1%*		*10 dg [Angle] :: G/cld*	*N/A :: Sfc, Atmos*
			CERES	TRM,AM,PM	Barkstrom	2027	BM	2% :: 0.5%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
Wielicki	*Cloud Cover*	*2061*						*5% :: 2%*	*6/day [d,n]*	*25-100 km :: G*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2086	BM	5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
			AIRS	PM	Chahine, Chedin,	2062	AM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
			MODIS	AM,PM	King	2081	AM	10% :: 5%	2/day [d,n], 1/mo	5 km :: G	N/A :: Cloud
Wielicki	*Cloud Cover*	*2077*						*2% :: 2%*	*1/(16 day)*	*30 m :: R*	*N/A :: Atmos*
			HIRIS	AM2	Welch	2079	BM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
			ASTER	AM1	Welch	2080	AM	3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
Wielicki	*Cloud Drop Phase*	*1760*						*25% :: 10%*	*1/(16 day)*	*.03-10 km :: R*	*N/A :: Atmos*
			ASTER	AM1	Welch	1763	BM	water/ice ::	1/(16 day)	15-30 m :: L	N/A :: Cloud
			MODIS	AM,PM	King, Menzel	1764	BM	90% Conf :: 90% Conf	1/day	5 km :: G	N/A :: Cloud
			HIRIS	AM2	Welch	1762	AM		1/(2-16 day)	30 m :: L	N/A :: Cloud
Wielicki	*Cloud Drop Phase*	*1761*						*90% Conf :: 90% Conf*	*6/day [d,n]*	*25-100 km :: G*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	1768	BM	90% Conf :: 90% Conf	6/day [d,n]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King, Menzel	1764	AM	90% Conf :: 90% Conf	1/day	5 km :: G	N/A :: Cloud
			EOSP	AERO,AM2	Travis	1770	AM	:: 95% Corr	1/day [d]	100 km :: G	N/A :: Cloud
Wielicki	*Cloud Drop Size*	*1771*						*25% :: 10%*	*1/(16 day)*	*.03-10 km :: R*	*N/A :: Atmos*
			ASTER	AM1	Welch	1779	BM	10 um ::	1/(16 day)	15-90 m :: L	:: Cloud
			MODIS	AM,PM	King, Menzel	1780	BM	0-40% :: 5%	1/day	5 km :: G	N/A :: Cloud
			HIRIS	AM2	Welch	1776	AM	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
			HIRIS	AM2	Welch	1778	AM	10 um ::	1/(2-16 day)	30 m :: L	:: Cloud
Wielicki	*Cloud Drop Size*	*1772*						*30% :: 10%*	*6/day [d,n]*	*25-100 km :: G*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	1784	BM	30% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
			MODIS	AM,PM	King, Menzel	1780	AM	0-40% :: 5%	1/day	5 km :: G	N/A :: Cloud
Wielicki	*Cloud Height, Base*	*1386*						*1 km :: 0.1 km*	*6/day [d,n]*	*25-100 km :: G*	*0.1 km :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	1393	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Wielicki	*Cloud Height, Base*	*1387*						*0.1 km :: 0.1 km*	*1/(16 day)*	*0.2 km :: R*	*0.1 km :: Atmos*
			ASTER	AM1	Welch	1391	BM	100 m :: 100 m	1/(16 day)	100 m :: L	N/A :: Cloud
			GLRS-A	ALT	Spinhime et al	1389	AM	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
			HIRIS	AM2	Welch	1390	AM	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
Wielicki	*Cloud Height, Base*	*1388*						*0.1 km :: 0.1 km*	*2/day [d,n]*	*50 km :: R*	*0.1 km :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	1393	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
Wielicki	*Cloud Height, Top*	*1420*						*0.1 km :: 0.1 km*	*2/day [d,n]*	*50 km :: R*	*0.1 km :: Atmos*
			AIRS	PM	Chahine, Chedin,	1423*	BM	0.5 km :: 0.25 km	2/day [d,n]	15 x 15 - 50 x 50 km :: G	N/A :: Cloud
Wielicki	*Cloud Height, Top*	*1421*						*0.1 km :: 0.1 km*	*1/(16 day)*	*0.2 km :: R*	*0.1 km :: Atmos*
			ASTER	AM1	Welch	1427	BM	300 m :: 300 m	1/(16 day)	90 m :: L	N/A :: Cloud
			GLRS-A	ALT	Spinhime et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
			HIRIS	AM2	Welch, Goetz	1426	AM	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
Wielicki	*Cloud Height, Top*	*1422*						*0.5 km :: 0.1 km*	*6/day [d,n]*	*25-100 km :: G*	*0.1 km :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	1429	BM	1.0 km :: 0.1 km	6/day [d,n]	25 km :: G	0.1 km :: Atmos
			CERES	TRM,AM,PM	Barkstrom	1431	AM	0.5 km :: 0.1 km	1/(6 hr)	1.25 x 1.25 dg :: G	0.1 km :: Atmos
			MISR	AM	Diner	1432*	AM	<1000 m :: <1000 m	1/(5-16 day) [d]	5 km :: G	N/A :: Trop
Wielicki	*Cloud Liq_water Content*	*1906*						*20% :: 10%*	*2/day [d,n]*	*12-25 km :: G*	*N/A :: Atmos*
			AIRS	PM	Rosenkranz	1908*	BM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
			CERES	TRM,AM,PM	Barkstrom	1896	BM	75% :: 10%	6/day [d,n]	25 km :: G	1yr :: Atmos
			MIMR	PM	TBD	3598	AM			22 km :: Ocean	N/A :: Trop
Wielicki	*Cloud Liq_water Content*	*1907*						*50% :: 10%*	*6/day [d,n]*	*25-100 km :: G*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	1896	BM	75% :: 10%	6/day [d,n]	25 km :: G	1yr :: Atmos
			AIRS	PM	Rosenkranz	1908*	AM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
			MIMR	PM	TBD	3598	AM			22 km :: Ocean	N/A :: Trop
Wielicki	*Cloud Optical Depth, LW*	*2314*						*25% :: 10%*	*6/day [d,n]*	*25-100 km :: G*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2316	BM	25% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
Wielicki	*Cloud Optical Depth, SW*	*2319*						*25% :: 10%*	*3/day [d]*	*25-100 km :: G*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2321	BM	25% :: 10%	3/day [d]	25 km :: G	N/A :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2323	BM	25% :: 5%	1/(6 hr)	1.25 dg :: G	N/A :: Atmos
Wielicki	*Cloud Reflectance, Bi-directional (BRDF)*	*3615*						*5% :: 2%*	*TBD*	*10 dg [Angle] :: G*	*N/A :: Cld*
			CERES	TRM,AM,PM	Barkstrom	3698	BM	5% :: 1%		10 dg [Angle] :: G	N/A :: Atmos
			MISR	AM	Diner	2038*	BM	3% :: 1%	[variable] [d]	240 m :: R	N/A :: Trop
			MISR	AM	Diner	2039*	BM	3% :: 1%	[variable] [d]	1.92 km :: G	N/A :: Trop
			EOSP	AERO,AM2	Travis	3644	AM	5% ::	2 day [d]	10 km :: G	NA :: Cloud, Sfc
Wielicki	*Cloud Reflectance, Bi-directional, (BRDF)*	*2423*						*5% :: 2%*	*1/day*	*0.2-2 km :: R*	*N/A :: Cloud*
			MISR	AM	Diner	2038*	BM	3% :: 1%	[variable] [d]	240 m :: R	N/A :: Trop
			MISR	AM	Diner	2039*	BM	3% :: 1%	[variable] [d]	1.92 km :: G	N/A :: Trop
			HIRIS	AM2	Welch	2037	AM	:: 1%		30 m :: R	:: Cloud
Wielicki	*Humidity Profile*	*1826*						*20% :: 10%*	*4/day [d,n]*	*1.25 dg :: G*	*2 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1828	BM	10% :: 5%	2/day [d,n]	15 x 50 - 50 x 50 km :: G	2 km :: Atmos
Wielicki	*Land_sfc Emissivity*	*2120*						*0.025 :: 0.025*	*2/day [d,n]*	*1.25 dg :: Land*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	2113*	BM	0.05 :: 0.025	2/day [d,n]	15 x 15 - 50 x 50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Barton	2111*	BM	0.01 :: 0.01	1/day, 1/wk	50 km :: G,R	N/A :: Sfc
Wielicki	*Land_sfc Reflectance, Bi-directional, SW_Bi*	*2043*						*5% :: 2%*	*1/day [d]*	*0.2-2km :: R*	*N/A :: Sfc, Atmos*
			MISR	AM	Diner	2631	BM	5% :: 2%	1/(5-16 day) [d]	1.92 km :: G	N/A :: Sfc
			MISR	AM	Diner	2632	BM	5% :: 2%	1/(5-16 day) [d]	240 m :: R	N/A :: Sfc
			MODIS	AM,PM	Muller, Strahler,	3669*	BM	5% :: 3%	1/day	1 km :: Land/R	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Wielicki	*Land_sfc Reflectance, Bi-directional, SW_Br*	*2044*						*5% :: 2%*		*10 dg [Angle] :: G*	*N/A :: Sfc, Atmos*
			CERES	TRM,AM,PM	Barkstrom	2045	BM	5% :: 1%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
Wielicki	*Land_sfc Temperature, Skin*	*2479*						*1 K :: 0.5 K*	*4/day [d,n]*	*1.25 dg :: Land*	*N/A :: Sfc*
			AIRS	PM	Chedin, Fleming,	2481	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
			MODIS	AM,PM	Wan	2485	AM	1-3 C :: 1 C	1/day, 1/wk	10 km :: Land	N/A :: Sfc
Wielicki	*Level-1B Radiance, CERES*	*2358*						*SW2%,LW1% :: SW2%,LW1%*	*6/day [d,n]*	*25 km :: R*	*N/A :: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2359	BM	SW 2%,LW 1% :: 0.005	6/day [d,n]	25 km :: G	N/A :: N/A
Wielicki	*Level-1B Radiance, MODIS*	*2390*						*SW5%,LW.1K :: SW2%,LW.1K*	*2/day [d,n]*	*0.25-1 km :: R*	*N/A :: Atmos*
			MODIS	AM,PM	Salomonson	2392	BM	5%(1π) :: RMS<NEdL	1/day	0.25 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2338	BM	5%(1π) :: RMS<NEdL	1/day	0.5 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2339	BM	5%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
			MODIS	AM,PM	Salomonson	2340	BM	1%(1π) :: RMS<NEdL	1/day	1 km :: G	N/A :: N/A
Wielicki	*Precipitation Amount*	*1940*						*50% :: 25%*	*4/day [d,n]*	*25-50 km :: G*	*N/A :: Trop*
			AIRS	PM	Susskind	1969*	BM	2mm/day :: 1mm/day	2/day [d,n]	50 km :: G	N/A :: Trop
			AIRS	PM	Staelin	3694*	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
			MIMR	PM	TBD	3600	AM			22 km :: Global	N/A :: Sfc
Wielicki	*Radiative Flux Divergence, LW*	*2150*						*10%clr/25%cld :: 5%clr/10%cl*	*6/day [d,n]*	*1.25 dg :: G*	*:: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2145	BM	10% :: 5%	6/day [d,n]	1.25 dg :: G	1yr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2149	BM	50% :: 10%	6/day [d,n]	1.25 dg :: G	1yr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2146	AM	10% :: 5%	1/(6 hr)	1.25 x 1.25 dg :: G	1yr :: Atmos
Wielicki	*Radiative Flux Divergence, SW*	*2152*						*10%clr/25%cld :: 5%clr/10%cl*	*3/day [d]*	*1.25 dg :: G*	*:: Atmos*
			CERES	TRM,AM,PM	Barkstrom	2145	BM	10% :: 5%	6/day [d,n]	1.25 dg :: G	1yr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2149	BM	50% :: 10%	6/day [d,n]	1.25 dg :: G	1yr :: Atmos
			CERES	TRM,AM,PM	Barkstrom	2146	AM	10% :: 5%	1/(6 hr)	1.25 x 1.25 dg :: G	1yr :: Atmos
Wielicki	*Radiative Flux, LW, Down*	*2165*						*7 W/m^2 :: 2 W/m^2*	*6/day [d,n]*	*1.25 dg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2169	BM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
Wielicki	*Radiative Flux, LW, Net*	*2175*						*7 W/m^2 :: 2 W/m^2*	*6/day [d,n]*	*1.25 dg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2180	BM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2176*	AM	<15 :: TBD	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2177*	AM	<10 :: TBD	1/day	50 km :: Ocean	N/A :: Sfc
Wielicki	*Radiative Flux, LW, Up*	*2194*						*5 W/m^2 :: 2 W/m^2*	*6/day [d,n]*	*1.25 dg :: G*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2205	BM	5 W/m^2 :: 2 W/m^2	6/day [d,n]	25 km :: G	N/A :: TOA
Wielicki	*Radiative Flux, LW, Up*	*2195*						*7 W/m^2 :: 2 W/m^2*	*6/day [d,n]*	*1.25 dg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2201	BM	7 W/m^2 :: <7 W/m^2	6/day [d,n]	1.25 x 1.25 dg :: G	N/A :: Sfc
Wielicki	*Radiative Flux, SW, Down*	*2218*						*15 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 dg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2221	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2223	AM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
Wielicki	*Radiative Flux, SW, Net*	*2226*						*15 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 dg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2229	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: Sfc
			CERES	TRM,AM,PM	Barkstrom	2231	AM	15 W/m^2 :: 2 W/m^2	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Sfc
			AIRS	PM	Gautier	2232*	AM	<15 :: <5	1/day	50 km :: Land	N/A :: Sfc
			AIRS	PM	Gautier	2233*	AM	<10 :: <5	1/day	50 km :: Ocean	N/A :: Sfc
Wielicki	*Radiative Flux, SW, Up*	*2241*						*10 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 dg :: G*	*N/A :: TOA*
			CERES	TRM,AM,PM	Barkstrom	2246	BM	12 W/m^2 :: 2 W/m^2	3/day [d]	1.25 x 1.25 dg :: G	N/A :: TOA
Wielicki	*Radiative Flux, SW, Up*	*2242*						*15 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 dg :: G*	*N/A :: Sfc*
			CERES	TRM,AM,PM	Barkstrom	2247	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
Wielicki	*Sea_Ice Cover*	*2919*						*10% :: 5%*	*1/day*	*50 km :: Ocean/Cryo*	*N/A :: Sfc*
			MIMR	PM	TBD	3611	BM			22 km :: Ocean/Cryo	N/A :: Sfc
			AIRS	PM	Chedin, Staelin	3151*	AM	0.1 :: 0.1	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc

Appendix L: IDS Input Requirements and Match Products by IDS Investigator

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platforms	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Wielicki	*Sea_sfc Temperature (SST)*	*2521*						*1 K :: 0.5 K*	*1/wk*	*1.25 dg :: Ocean*	*N/A :: Sfc*
			MODIS	AM,PM	Brown, Barton	2532	BM	0.3-0.4K :: 0.1-0.6K	1/day, 1/wk, 1/mo	50 km :: Ocean	N/A :: Sfc
			MIMR	PM	TBD	3603	BM			60 km :: Ocean	N/A :: Sfc
			MODIS	AM,PM	Brown	2528	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			MODIS	AM,PM	Brown, Barton	2531	AM	0.3-0.6K :: 0.1-0.3K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
			AIRS	PM	Chedin, Fleming,	2523*	AM	0.5 - 1 K :: 0.4 - 0.5 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
Wielicki	*Snow Cover*	*3016*						*10% :: 5%*	*1/day*	*50 km :: Land*	*N/A :: Sfc*
			MODIS	AM,PM	Salomonson	3020	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
			MIMR	PM	TBD	3607	BM			22 km :: Land	N/A :: Sfc
			AIRS	PM	Staelin	3018*	AM		2/day [d,n]	50 km :: Land	N/A :: Sfc
Wielicki	*Temperature Profile*	*1585*						*1 K :: 1 K*	*4/day [d,n]*	*1.25 dg :: G*	*1 km :: Atmos*
			AIRS	PM	Chedin, Fleming,	1588	BM	1.0 K :: 0.4 K	2/day [d,n]	15 x 50 - 50 x 50 km :: G	1, 2 km :: Atmos
Wielicki	*Topographic Elevation, Land_sfc*	*2847*						*200 m :: 200 m*	*1/mission*	*10 km :: Land*	*N/A :: Sfc*
			MISR	AM	Diner	2846*	BM	100 m :: 100 m	1/mission	500 m :: Land	N/A :: Sfc

IDS Input Requirements Listed by Instrument

Appendix M

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix M: IDS Input Requirements Listed by Instrument

The "best" and "alternative" matches were selected by comparing the stated IDS requirements with the output product specficiations for these fields.

Instrument Output Data Product					IDS Input Requirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol. :: Cover.	Resol. :: Cover.
AIRS/AMSU	*PM*	*Cloud Cover*	*Chahine,Smith*	*2062*				*0.05 :: 0.025*	*2/day [d,n]*	*15 x 45 km :: G*	*N/A :: Cloud*
					Barron	2049	BM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
					Bates	2072	BM	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Hansen	2052	BM	3% ::	1/wk	500 km :: G	:: Cloud
					Sellers	2059	BM		4/day	100 km ::	0.5 km :: Trop
					Harris	3436	AM	5-10% :: 2-5%	2/day	5-50 km :: Ocean/R	
					Liu	2055	AM			:: Ocean	N/A :: Cloud
					Murakami	2058	AM	10% ::			N/A :: Cloud
					Lau	2054	AM	5% :: 5%	2/day	50 km :: R	N/A :: Atmos
					Rothrock	2076	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
					Srokosz	2060	AM	5% :: 1%	2/day	10 km :: Ocean [South Atlan]	N/A :: Cloud
					Wielicki	2061	AM	2% :: 2%	6/day [d,n]	25-100 km :: G	N/A :: Atmos

AIRS/AMSU output product #2062 has been identified by the SPSO as a "best" or alternative match for these IDS input product requirements

Match Types are described in Table A-4.

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

Legend for Appendix M: IDS Input Requirements Listed by Instrument

This table lists the anticipated output products from the EOS instruments that have been batched to IDS input product requirements

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
ACRIM	*MO*	*Irradiance, Solar, Total*	*Willson*	*2274*				*0.1% :: 0.0005%*	*1/(2 min)*	*N/A :: N/A*	*N/A :: TOA*
					Hansen	2272	BM	0.05% ::	1/wk	500 km :: G	:: TOA
AIRS	*PM*	*Wind Speed, Sea_sfc*	*Aumann*	*1718**					*1/day*	*50 km :: Ocean*	*N/A :: Sfc*
					Lau	1739	BM	0.5 m/s :: 2%	2/day	100 km :: G	N/A :: Sfc
					Abbott	1708	BM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
					Abbott	1707	BM	10% :: 5%	1/(10-20 day)	25 km :: Ocean [Southern]	N/A :: Sfc
					Tapley	1717	BM	1 m/s ::	4/day	50 km :: Ocean	N/A :: Sfc
					Rothrock	1669	AM-	2 m/s :: 2 m/s	1/day	100 km :: Polar	N/A :: Near_sfc
					Hansen	1663	AM-	10% ::	1/wk	500 km :: Ocean	:: Sfc
					Brewer	1710	AM	15% :: 5%	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
					Harris	3435	AM	5-10% :: 2-10%	1-10 days	1-25 km :: Ocean/R	N/A :: Sfc
					Liu	1713	AM	1 :: 1	1/day	25 km :: Ocean	N/A :: Sfc
AIRS	*PM*	*Cloud Transmissivity, Spectral*	*Chahine*	*3685**				*TBD :: TBD*	*2/day [d,n]*	*15 x 45 km :: G*	*N/A :: Cloud*
					Dickinson	3396	BM			<0.5-1 deg :: G	
AIRS	*PM*	*Cloud Height, Top*	*Chahine, Chedin,*	*1423**				*0.5 km :: 0.25 km*	*2/day [d,n]*	*15 x 15 - 50 x 50 km :: G*	*N/A :: Cloud*
					Bates	1416	BM	0.5 km :: 0.25 km	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Wielicki	1420	BM	0.1 km :: 0.1 km	2/day [d,n]	50 km :: R	0.1 km :: Atmos
					Bates	1401	BM	500 m ::	2/day	50 km :: G	N/A :: Cloud
					Lau	1402	BM	100 m ::	2/day	50 km :: G	N/A :: Atmos
					Barron	1412	AM	100 m :: 25 m	1/day	100 km :: G	100 m :: Cloud
					Dickinson	3349	AM			<0.5-1 deg :: G	
					Harris	3437	AM	0.5 :: 0.3	2/day	20-50 km :: Ocean/R	
					Murakami	1418	AM	1 km ::			:: Cloud
					Bates	1406	AM	50 m ::	2/day	50 km :: G	N/A :: Cloud
					Hansen	1399	AM	50 m ::	1/wk	500 km :: G	:: Cloud
					Rothrock	1419	AM	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
AIRS	*PM*	*Cloud Cover*	*Chahine, Chedin,*	*2062*				*0.05 :: 0.025*	*2/day [d,n]*	*15 x 15 - 50 x 50 km :: G*	*N/A :: Cloud*
					Barron	2049	BM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
					Lau	2054	BM	5% :: 5%	2/day	50 km :: R	N/A :: Atmos
					Hansen	2052	BM	3% ::	1/wk	500 km :: G	:: Cloud
					Sellers	2059	BM		4/day	100 km ::	0.5 km :: Trop
					Harris	3436	AM	5-10% :: 2-5%	2/day	5-50 km :: Ocean/R	
					Liu	2055	AM			:: Ocean	N/A :: Cloud
					Murakami	2058	AM	10% ::			N/A :: Cloud
					Simard	2056	AM	5% ::		:: Canada/R	N/A :: Cloud
					Bates	2072	AM $-	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Bates	2069	AM $-		1/day	100 km :: G	0.5 km :: Trop
					Lau	2070	AM $-	5% :: 5%	1/day	100 km :: G	N/A ::
					Rothrock	2076	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
					Srokosz	2060	AM	5% :: 1%	2/day	10 km :: Ocean [South Atlan]	N/A :: Cloud
					Wielicki	2061	AM	5% :: 2%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
AIRS	*PM*	*Cloud Temperature, Top*	*Chahine, Chedin,*	*2463*				*1 K :: 0.5 K*	*2/day [d,n]*	*15 x 15 - 50 x 50 km :: G*	*N/A :: Cloud*
					Bates	2460	BM	1 K :: 0.5 K	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Dickinson	3386	BM			<0.5-1 deg :: G	
					Dickinson	3387	BM			<0.5-1 deg :: G	
					Harris	3449	BM	1-2 K :: 0.5-1 K	2/day-1/day	5-50 km :: Ocean/R	
					Sellers	2457	AM				
					Hansen	2461	AM	5% ::	1/wk	500 km :: G	:: Cloud
					Barron	2458	AM	2 :: 1	1/day	100 km :: G	N/A :: Cloud

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
AIRS	*PM*	*Cloud Emissivity, IR Spectral (3-14um)*	*Chahine, Smith*	*2128**				*0.05 :: 0.025*	*2/day [d,n]*	*15 x 15 - 15 x 45 km :: G*	*N/A :: Cloud*
					Dickinson	3372	BM			<0.5-1 deg :: G	
					Liu	2546	BM			:: G	N/A :: Cloud
					Moore	2360	AM	10% :: 10%	1/wk	1 km :: G	:: Cloud
AIRS	*PM*	*Land_sfc Emissivity, Spectral*	*Chedin, Fleming,*	*2113**				*0.05 :: 0.025*	*2/day [d,n]*	*15 x 15 - 50 x 50 km :: Land*	*N/A :: Sfc*
					Bates	2121	BM		1/day	10 km :: Polar	N/A :: Sfc
					Bates	2112	BM	0.05 :: 0.025	2/day [d,n]	50 km :: Land	N/A :: Sfc
					Cihlar	3487	BM	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
					Wielicki	2120	BM	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc
AIRS	*PM*	*Land_sfc Temperature, Skin*	*Chedin, Fleming,*	*2481*				*1.0 K :: 0.5 K*	*2/day [d,n]*	*50 km :: Land*	*N/A :: Sfc*
					Simard	3313	BM	1.3 :: 1.0 ?	2/day	10 km :: R/Canada	N/A :: Sfc
					Harris	3450	BM	0.5 :: 0.2	2/day	20-50 km :: Ocean/R	
					Bates	2475	BM	1.0 K :: 0.5 K	2/day [d,n]	50 km :: Land	N/A :: Sfc
					Dickinson	3390	BM			Low_res :: Land	
					Barron	3052	BM	1 K ::	1/wk	100 km :: Land/Cryo	N/A :: Sfc
					Hansen	2477	BM	0.2 C ::	1/wk	500 km :: Land	:: Sfc
					Wielicki	2479	BM	1 K :: 0.5 K	4/day [d,n]	1.25 dg :: Land	N/A :: Sfc
					Richey, Batista	2476	AM		1/day	:: Land/R	N/A :: Sfc
					Hansen	1629	AM	0.2 C ::	1/wk	500 km :: Land	:: Sfc
					Dickinson	3388	AM			<0.5-1 deg :: Land/Cryo	
					Kerr, Soroosbian	2456	AM	0.5 K :: 0.5 K	2/day [d,n]	500 m :: Land/R	:: Sfc
					Dickinson	3334	AM-			<0.5-1 deg :: G	
AIRS	*PM*	*Sea_sfc Temperature (SST), Skin*	*Chedin, Fleming,*	*2523**				*0.5 - 1 K :: 0.4 - 0.5 K*	*2/day [d,n]*	*50 km :: Ocean*	*N/A :: Sfc*
					Bates	2509	BM	0.5 K :: 0.4 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
					Lau	2514	BM	0.5 K ::	1/wk	100 km :: Ocean	N/A :: Sfc
					Abbott	2505	BM	1 K :: 0.1 K	(1-2)/day	50 km :: Ocean [Southern]	N/A :: Sfc
					Barron	2506	BM	0.5 K ::	1/day	100 km :: Ocean	N/A :: Sfc
					Lau	2516	BM	0.5 K ::	1/day	50 km :: R	N/A :: Sfc
					Murakami	2518	AM	0.2 K ::		:: G	N/A :: Sfc
					Lau	2515	AM	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
					Hansen	1630	AM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Dickinson	3392	AM			<0.5-1 deg :: Ocean	
					Rothrock	2519	AM	1 K :: 1 K	1/(2 day)	30 km :: G	N/A :: Sfc
					Hansen	2512	AM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Wielicki	2521	AM	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc
					Abbott	2504	AM	0.5 K :: 0.05 K	(1-2)/day	1-4 km :: Ocean [Southern]	N/A :: Sfc
					Bates	2508	AM	0.3-0.6 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
					Brewer	2511	AM	0.5 K :: 0.5 K	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
AIRS	*PM*	*Land_sfc Temperature-Difference, Day-Night*	*Chedin, Fleming,*	*2539**				*0.5 K :: 0.25 K*	*2/day [d,n]*	*50 km :: G*	*N/A :: Sfc*
					Bates	2538	BM	0.5 K :: 0.25 K	1/day	50 km :: Land	N/A :: Sfc
					Dickinson	3395	BM			<0.5-1 deg :: G	
AIRS	*PM*	*Temperature Profile*	*Chedin, Fleming,*	*1588*				*1.0 K :: 0.4 K*	*2/day [d,n]*	*15 x 50 - 50 x 50 km :: G*	*1, 2 km :: Atmos*
					Abbott	1563	BM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
					Barron	1564	BM	1 K :: 0.5 K	1/day	100 km :: G	1 km :: Trop
					Bates	1571	BM	1.0 K :: 0.4 K	2/day [d,n]	50 km :: G	1 km :: Atmos
					Dickinson	3333	BM			<0.5-1 deg :: G	
					Harris	3428	BM	1 :: 0.5	2/day	10-50 km :: Ocean/R	1 km :: Atmos
					Isacks	1576	BM	1 :: 0.4	1/wk	50 km :: Land/R	1 km :: Trop

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
AIRS	*PM*	*Temperature Profile*	*Chedin, Fleming,*	*1588*	Kerr, Sorooshian	1577	BM	1 K :: 1 K	2/day	50 km :: Land	1 km :: Atmos
					Lau	1578	BM	1 K ::	1/day	100 km :: G	1 km :: Trop
					Murakami	1580	BM	1% ::			
					Dickinson	3334	BM			<0.5-1 deg :: G	
					Schimel	1632	BM	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Barron	1566	BM	0.5 ::	1/day	100 km :: Ocean	N/A :: Sfc
					Hansen	1574	BM	0.3 C ::	1/wk	500 km :: G	:: Trop
					Hansen	1629	BM	0.2 C ::	1/wk	500 km :: Land	:: Sfc
					Hansen	1630	BM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Rothrock	1627	BM	2 K :: 2 K	1/day	100 km :: Polar	N/A :: Near_sfc
					Schoeberl	1582	BM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
					Wielicki	1585	BM	1 K :: 1 K	4/day [d,n]	1.25 dg :: G	1 km :: Atmos
					Barron	1565	BM	1 K :: 0.5 K	1/day	10 km :: R	1 km :: Trop
					Hartmann	1575	BM	1 :: 1	1/day	10 km :: Ocean	1 km :: 0-15 km
					Liu	1579	BM	0.5 :: 0.5	1/day	25 km :: Ocean	0.5 km :: Trop
					Srokosz	1584	BM	1 K :: 0.1 K	2/day	10 km :: Ocean [South Atlan]	
					Pyle	1581	BM	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
					Barron	1568	BM	0.5 ::	1/day	10 km :: Ocean/R	N/A :: Sfc
					Kerr, Sorooshian	1631	BM	1 K :: 1 K	2/day [d,n]	500 m :: Land/R	N/A :: Sfc
					Sellers	1583	BM	1 K ::	4/day	100 km ::	0.5 km :: Trop
					Hansen	1573	AM	0.3 C ::	1/wk	500 km :: G	:: Strat
					Bates	1569	AM $-	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
AIRS	*PM*	*Humidity Profile*	*Chedin, Fleming,*	*1828*				*10% :: 5%*	*2/day [d,n]*	*15 x 50 - 50 x 50 km :: G*	*2 km :: Atmos*
					Barron	1807	BM	10% :: 5%	1/day	100 km :: G	:: Trop
					Bates	1809	BM	10% :: 5%	2/day [d,n]	50 km :: G	2 km :: Atmos
					Dickinson	3353	BM			<0.5-1 deg :: G	
					Isacks	1815	BM	10% :: 0.05	1/wk	50 km :: Land/R	2 km :: Trop
					Murakami	1818	BM	10% ::			
					Dickinson	3354	BM			<0.5-1 deg :: G	N/A :: Near_sfc
					Schoeberl	1821	BM	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
					Hansen	1813	BM	3% ::	1/wk	500 km :: G	:: Trop
					Rothrock	1820	BM		1/day	100 km :: Polar	:: Near_sfc
					Sellers	1823	BM	10% ::	4/day	100 km ::	0.5 km :: Trop
					Wielicki	1826	BM	20% :: 10%	4/day [d,n]	1.25 dg :: G	2 km :: Atmos
					Barron	1806	BM	10% :: 5%	1/day	10 km :: R	:: Trop
					Srokosz	1824	BM	0.3g/kg :: 0.1g/kg	2/day	10 km :: Ocean [South Atlan]	
					Pyle	1819	BM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Hartmann	1814	BM	10% :: 10%	1/day	10 km :: G	1 km :: 0-15 km
					Liu	1817	BM	0.5 :: 0.5	1/day	25 km :: Ocean	0.5 km :: Trop
					Abbott	1805	BM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
					Harris	3438	BM	10% :: 5%	2/day	10-50 km :: Ocean/R	1 km :: Atmos
					Kerr, Sorooshian	1816	BM	10% :: 10%	2/day	50 km :: Land	1 km :: Atmos
					Tapley	1825	BM	5% ::	4/day	50 km :: G	1 km :: Atmos
					Hansen	1812	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Grose	1811	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Trop/meso
AIRS	*PM*	*Precipitable Water*	*Chedin, Fleming,*	*1869*				*5% :: 3%*	*2/day [d,n]*	*50 km :: G*	*N/A :: Trop*
					Barron	1861	BM	3% :: 1%	1/day	100 km :: G	Column :: Trop
					Bates	1862	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
AIRS	*PM*	*Precipitable Water*	*Chedin, Fleming,*	*1869*	Dickinson	3355	BM			<0.5-1 deg :: G	
					Harris	3440	BM	5% :: 3%	2/day	20-50 km :: Ocean/R	
					Kerr, Sorooshian	1865	BM	10% :: 10%	2/day	50 km :: Land	Column :: Atmos
					Murakami	1867	BM	20% ::			
					Richey, Batista	1810	BM	5% :: 5%	1/day	:: R	:: Trop
					Hansen	1864	BM	3% ::	1/wk	500 km :: G	Column :: Strat
					Abbott	1858	AM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Liu	1866	AM	0.5 :: 0.5	1/day	25 km :: Ocean	Column :: Trop
					Srokosz	1868	AM	1kg/m^2 :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Atmos
AIRS	*PM*	*O3 Total Burden*	*Chedin, Revercon*	*1332**				*5 - 15% :: 3 - 10%*	*2/day [d,n]*	*50 km :: G*	*Column :: Atmos*
					Moore	1309	BM	25% :: 10%	1/day	100 km :: G	:: Atmos
					Murakami	1331	AM	5-10% :: 2-10%			
					Kerr, Sorooshian	1308	AM	5% :: 5%	1/day	25 km :: G	Column :: Atmos
AIRS	*PM*	*Sea_Ice Cover*	*Chedin, Staelin*	*3151**				*0.1 :: 0.1*	*2/day [d,n]*	*50 km :: Ocean/Cryo*	*N/A :: Sfc*
					Bates	3148	BM	10% :: 10%	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3183	BM	50 cm ::		:: Canada/R	N/A :: Sfc
					Rothrock	3103	BM	0.5 km :: 0.5 km	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Hansen	3150	BM	3% ::	1/wk	500 km :: Ocean/Cryo	:: Sfc
					Rothrock	3188	BM	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Wielicki	2919	AM	10% :: 5%	1/day	50 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3168	AM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
AIRS	*PM*	*Radiative Flux, LW, Net*	*Gautier*	*2176**				*<15 :: TBD*	*1/day*	*50 km :: Land*	*N/A :: Sfc*
					Bates	2173	BM		2/day [d,n]	50 km :: Land	N/A ::
					Dickinson	3376	AM			<0.5-1 deg :: G	N/A :: Sfc ?
					Murakami	2183	AM	2% ::			N/A :: Atmos
					Barron	2185	AM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Lau	2154	AM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Wielicki	2175	AM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
AIRS	*PM*	*Radiative Flux, LW, Net*	*Gautier*	*2177**				*<10 :: TBD*	*1/day*	*50 km :: Ocean*	*N/A :: Sfc*
					Harris	3443	BM	5% :: 2%	2/day	20-50 km :: Ocean/R	
					Hartmann	2188	BM	5% :: 2%	1/day	<30 km :: Ocean	N/A :: Sfc
					Bates	2174	BM		2/day [d,n]	50 km :: Ocean	N/A ::
					Brewer	2256	AM		1/day, 1/seas	:: Ocean	
					Dickinson	3376	AM			<0.5-1 deg :: G	N/A :: Sfc ?
					Murakami	2183	AM	2% ::			N/A :: Atmos
					Barron	2185	AM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Lau	2154	AM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Wielicki	2175	AM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
					Srokosz	2385	AM	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
AIRS	*PM*	*Radiative Flux, SW, Net*	*Gautier*	*2232**				*<15 :: <5*	*1/day*	*50 km :: Land*	*N/A :: Sfc*
					Hartmann	2214	BM	0.5% :: 0.5%	1/day	20 km :: G	N/A :: Sfc
					Dickinson	3379	AM			<0.5-1 deg :: G	N/A :: Sfc
					Murakami	2234	AM	2% ::			N/A :: Atmos
					Barron	2237	AM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Lau	2215	AM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Wielicki	2226	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
AIRS	*PM*	*Radiative Flux, SW, Net*	*Gautier*	*2233**				*<10 :: <5*	*1/day*	*50 km :: Ocean*	*N/A :: Sfc*
					Harris	3443	BM	5% :: 2%	2/day	20-50 km :: Ocean/R	

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
AIRS	*PM*	*Radiative Flux, SW, Net*	*Gautier*	*2233**	Hartmann	2214	BM	0.5% :: 0.5%	1/day	20 km :: G	N/A :: Sfc
					Srokosz	2400	BM	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
					Brewer	1492	AM		1/day, 1/seas	:: Ocean	
					Brewer	1493	AM		1/day, 1/seas	:: Ocean/L	
					Dickinson	3379	AM			<0.5-1 deg :: G	N/A :: Sfc
					Barron	2237	AM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Lau	2215	AM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Wielicki	2226	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
AIRS	*PM*	*Albedo, Land_sfc*	*Gautier ??*	*2000**					*1/day*	*50 km :: Land*	*N/A :: Sfc*
					Bates	1995	BM		1/day	50 km :: Land	N/A :: Sfc
					Dickinson	3363	BM			<0.5-1 deg :: G	
					Simard	2019	BM	2% ::		:: Canada/R	N/A :: Sfc
					Hansen	2024	BM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Sellers	1999	BM	1% :: 10%	1/(5 day)	100 km :: Land	
					Hartmann	1997	AM	1% :: 0.5%	1/day	20 km :: G	N/A ::
					Barron	2013	AM	1% :: 1%	1/wk	10 km :: G	N/A :: Sfc
AIRS	*PM*	*Radiative Flux, LW Spectral*	*Gautier ??, Sussk*	*2209**				*<10 - TBD :: <5 - TBD*	*2/day [d,n]*	*50 km :: Land*	*N/A :: Sfc*
					Barron	2185	AM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
AIRS	*PM*	*Radiative Flux, LW Spectral*	*Gautier ??, Sussk*	*2210**				*<10 - TBD :: <5 - TBD*	*2/day [d,n]*	*50 km :: Ocean*	*N/A :: Sfc*
					Barron	2185	AM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
AIRS	*PM*	*CO Total Burden*	*Revercomb, Strow*	*1136**				*10 - 20 :: 6 - 15*	*2/day [d,n]*	*50 - 250 km :: G*	*Column :: Atmos*
					Hansen	1075	AM	0.10% ::	1/wk	500 km :: Wetlands	:: Trop
					Hansen	1076	AM		1/wk	500 km :: G	:: Trop
					Hansen	1117	AM	0.10% ::	1/wk	500 km ::	:: Trop
					Moore	1118	AM	25% :: 10%	1/day	100 km :: G	:: Trop
AIRS	*PM*	*N2O Total Burden*	*Revercomb, Strow*	*1249**				*20 - 40 :: 15 - 30*	*2/day [d,n]*	*Zonal_ave :: G*	*Column :: Atmos*
					Hansen	1230	AM-		1/wk	500 km :: G	:: Trop
AIRS	*PM*	*Cloud Liq_water Content*	*Rosenkranz*	*1908**				*0.1 :: 0.1*	*2/day [d,n]*	*50 km :: G*	*N/A :: Cloud*
					Barron	1902	BM	0.1 :: 0.05	1/day	100 km :: G	1 km :: Cloud
					Bates	1904	BM	0.1 :: 0.1	2/day [d,n]	50 km :: G	N/A :: Cloud
					Dickinson	3358	BM			<0.5-1 deg :: G	
					Wielicki	1906	BM	20% :: 10%	2/day [d,n]	12-25 km :: G	N/A :: Atmos
					Sellers	1921	AM				
					Wielicki	1907	AM	50% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
					Abbott	1918	AM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Lau	1920	AM	0.05 :: 0.05	1/day	100 km :: G	N/A :: Trop
AIRS	*PM*	*Stratopause Height*	*Smith*	*1562**				*1 km :: 0.5 km*	*2/day [d,n]*	*50 x 50 km :: G*	*N/A :: Mid-atmos*
					Bates	1561	BM	1 km :: 0.5 km	2/day [d,n]	50 km :: G	N/A :: Mid-atmos
AIRS	*PM*	*Cloud Optical Thickness*	*Smith, Gautier ??*	*3684**				*TBD :: TBD*	*1/day*	*15 x 15 - 15 x 45 km :: G*	*N/A :: Cloud*
					Dickinson	3382	AM			<0.5-1 deg :: G	
AIRS	*PM*	*Tropopause Height*	*Smith, Susskind*	*3688**				*1 km :: 0.5 km*	*2/day [d,n]*	*50 x 50 km :: G*	*N/A :: Atmos*
					Bates	1642	AM	75 m ::		200 km :: G	75 m :: Trop
AIRS	*PM*	*Cloud Ice Index*	*Staelin*	*1893**				*TBD :: TBD*	*2/day [d,n]*	*50 km :: G*	*N/A :: Cloud*
					Bates	1892	BM		2/day [d,n]	50 km :: G	N/A :: Cloud
					Bates	1890	BM	0.02 :: 0.02	1/day	10 km :: G	
					Hartmann	1785	BM	0.02 :: 0.02	1/day	10 km :: Ocean	N/A :: Cloud
AIRS	*PM*	*Ice_Sheet Cover Index*	*Staelin*	*2921**					*2/day [d,n]*	*50 km :: Land/Cryo*	*N/A :: Sfc*
					Bates	2918	BM		2/day [d,n]	50 km :: Land/Cryo	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
AIRS	*PM*	*Snow Cover Index [combined with 2921]*	*Staelin*	*3018**					*2/day [d,n]*	*50 km :: Land*	*N/A :: Sfc*
					Bates	3006	BM		2/day [d,n]	50 km :: Land	N/A :: Sfc
					Dickinson	3415	BM			Low_res :: Land	
					Sellers	3015	BM		1/(1-4 day)	100 km ::	:: Sfc
					Hansen	3009	BM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Murakami	3014	AM	10% ::		:: Land	N/A :: Sfc
					Wielicki	3016	AM	10% :: 5%	1/day	50 km :: Land	N/A :: Sfc
					Sellers	1984	AM-$-				
					Barron	3003	AM	5% :: 5%	1/day	100 km :: Land	N/A :: Sfc
					Bates	3007	AM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
AIRS	*PM*	*Precipitation Index*	*Susskind*	*1969**				*2mm/day :: 1mm/day*	*2/day [d,n]*	*50 km :: G*	*N/A :: Trop*
					Bates	1968	BM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
					Bates	1970	BM		1/day	26-52 km :: Land	N/A :: Sfc
					Brewer	1928	BM	2 :: TBD	1/day, 1/seas	:: Ocean/L	N/A :: Sfc
					Brewer	1929	BM	2 :: TBD	1/day, 1/seas	:: Ocean	N/A :: Sfc
					Hansen	1930	BM	10% ::	1/wk	500 km :: G	:: Sfc
					Harris	3441	BM	2 :: 1	2/day	20-50 km :: Ocean/R	
					Isacks	1932	BM		1/wk	5-50 km :: Land/R	N/A :: Sfc
					Lau	1936	BM	2 :: 2	1/day	50 km :: R	N/A :: Sfc
					Murakami	1938	BM	10% ::			
					Barron	1926	BM	2 :: 1	1/day	100 km :: G	N/A :: Trop
					Lau	1935	BM	2 :: 2	1/mo	500 km :: G	N/A :: Trop
					Sellers	1939	BM		4/day	100 km ::	
					Barron	1927	BM	2 :: 1	1/day	10 km :: R	N/A :: Trop
					Hartmann	1931	BM	10 :: 10	1/day	10 km :: Ocean	N/A :: Trop
					Cihlar	3488	BM	0.1 mm :: 0.1 mm	1 day	500m :: Canada/R	N/A :: Sfc
					Kerr, Sorooshian	1934	BM	1 mm :: 1 mm	1/day	1 km :: Land/R	N/A :: Sfc
					Moore	1974	BM	10% :: 10%	1/wk	1 km :: G	
					Wielicki	1940	BM	50% :: 25%	4/day [d,n]	25-50 km :: G	N/A :: Trop
					Cihlar	3489	AM $-	10% :: 10%	1 wk	1 km :: Canada/R	N/A :: Sfc
					Simard	1937	AM-	20% ::		:: Canada/R	N/A :: Trop
AIRS [MHS]	*PM*	*Level-1B Radiance, MHS*	*Chahine*	*2352*				*0.2dg NEdT :: 0.2dg NEdT*	*2/day [d,n]*	*15 x 15 km :: G*	*N/A :: N/A*
					Bates	2351	BM	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	15 x 15 km :: G	N/A :: N/A
AIRS[AIRS]	*PM*	*Level-1B Radiance, AIRS*	*Chahine*	*2347*				*0.2dg NEdT :: 0.2dg NEdT*	*2/day [d,n]*	*15 x 15 km :: G*	*N/A :: N/A*
					Bates	2346	BM	::			
					Schoeberl	2374	BM	1%(~1K) :: 0.5%	1/day	100 km :: G	1.5 km :: Strat
AIRS[AMSU-A,	*PM*	*Humidity Profile, Microwave [see also 1828]*	*Rosenkranz*	*3692*				*20% :: 20%*	*2/day [d,n]*	*50 km :: G*	*2 km :: Atmos*
					Srokosz	1824	BM	0.3g/kg :: 0.1g/kg	2/day	10 km :: Ocean [South Atlan]	
					Liu	1817	BM	0.5 :: 0.5	1/day	25 km :: Ocean	0.5 km :: Trop
AIRS[AMSU-A,	*PM*	*Precipitable Water, Microwave [see also 186*	*Rosenkranz*	*3693*				*2 mm :: 1 mm*	*2/day [d,n]*	*50 km :: G*	*N/A :: Trop*
					Harris	3440	BM	5% :: 3%	2/day	20-50 km :: Ocean/R	
					Abbott	1858	AM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Barron	1861	AM	3% :: 1%	1/day	100 km :: G	Column :: Trop
					Bates	1862	AM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
					Murakami	1867	AM	20% ::			
					Liu	1866	AM	0.5 :: 0.5	1/day	25 km :: Ocean	Column :: Trop
					Srokosz	1868	AM	1kg/m^2 :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Atmos

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
AIRS/AMSU-A, PM		*Precipitation Index, Microwave [see also 196 Staelin*		*3694**				*2mm/hr :: 1mm/hr*	*2/day [d,n]*	*50 km :: G*	*N/A :: Trop*
					Harris	3441	BM	2 :: 1	2/day	20-50 km :: Ocean/R	
					Cihlar	3488	BM	0.1 mm :: 0.1 mm	1 day	500m :: Canada/R	N/A :: Sfc
					Bates	1968	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
					Bates	1970	AM		1/day	26-52 km :: Land	N/A :: Sfc
					Brewer	1928	AM	2 :: TBD	1/day, 1/seas	:: Ocean/L	N/A :: Sfc
					Brewer	1929	AM	2 :: TBD	1/day, 1/seas	:: Ocean	N/A :: Sfc
					Isaacs	1932	AM		1/wk	5-50 km :: Land/R	N/A :: Sfc
					Lau	1936	AM	2 :: 2	1/day	50 km :: R	N/A :: Sfc
					Murakami	1938	AM	10% ::			
					Cihlar	3489	AM $-	10% :: 10%	1 wk	1 km :: Canada/R	N/A :: Sfc
					Simard	1937	AM-	20% ::		:: Canada/R	N/A :: Trop
					Barron	1926	AM	2 :: 1	1/day	100 km :: G	N/A :: Trop
					Hansen	1930	AM	10% ::	1/wk	500 km :: G	:: Sfc
					Sellers	1939	AM		4/day	100 km ::	
					Barron	1927	AM	2 :: 1	1/day	10 km :: R	N/A :: Trop
					Hartmann	1931	AM	10 :: 10	1/day	10 km :: Ocean	N/A :: Trop
					Kerr, Sorooshian	1934	AM	1 mm :: 1 mm	1/day	1 km :: Land/R	N/A :: Sfc
					Lau	1935	AM	2 :: 2	1/mo	500 km :: G	N/A :: Trop
					Moore	1974	AM	10% :: 10%	1/wk	1 km :: G	
					Wielicki	1940	AM	50% :: 25%	4/day [d,n]	25-50 km :: G	N/A :: Trop
AIRS/AMSU-A] PM		*Level-1B Radiance, AMSU-A*	*Chahine*	*2350*				*0.2dg NEdT :: 0.2dg NEdT*	*2/day [d,n]*	*40 x 40 km :: G*	*N/A :: N/A*
					Bates	2349	BM	0.2dg NEdT :: 0.2dg NEdT	2/day [d,n]	40 x 40 km :: G	N/A :: N/A
ALT	*ALT*	*Wind Speed, Along-track*	*Fu*	*1735*				*2 m/s ::*		*7 km :: Ocean*	*N/A :: Sfc*
					Abbott	1708	BM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
					Harris	3435	BM	5-10% :: 2-10%	1-10 days	1-25 km :: Ocean/R	N/A :: Sfc
					Abbott	1707	BM	10% :: 5%	1/(10-20 day)	25 km :: Ocean [Southern]	N/A :: Sfc
ALT	*ALT*	*Topographic Elevaton, Sea_sfc*	*Fu*	*3108*				*5cm et al ::*	*1/(16 day)*	*25 km :: Ocean*	*N/A :: Sfc*
					Abbott	3105	BM	5 cm :: 3 cm	1/(10-20 day)	10-20 km :: Ocean [Southern]	N/A :: Sfc
					Brewer	3106	BM	5% :: 1%	1/day, 1/seas	7 km :: Ocean	N/A :: Sfc
					Harris	3429	BM	2% :: 1%	1-10 days	7-25 km :: Ocean/R	
					Liu	3123	BM	3 cm :: 3 cm		:: Ocean	N/A :: Sfc
					Murakami	3122	BM	0.01 ::			N/A :: Sfc
					Srokosz	3107	BM	0.02m :: 0.01m	1/(10 day)	10 km :: Ocean/R	N/A :: Sfc
ALT	*ALT*	*Sea_Level Height, Along-track*	*Fu*	*3112*				*10 cm ::*		*7 km :: Ocean*	*N/A :: Sfc*
					Abbott	3105	BM	5 cm :: 3 cm	1/(10-20 day)	10-20 km :: Ocean [Southern]	N/A :: Sfc
					Bates	3111	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
					Brewer	3106	BM	5% :: 1%	1/day, 1/seas	7 km :: Ocean	N/A :: Sfc
					Harris	3427	BM	2% :: 1%	1-10 days	7-25 km :: Ocean/R	
					Liu	3123	AM	3 cm :: 3 cm		:: Ocean	N/A :: Sfc
					Murakami	3122	AM	0.01 ::			N/A :: Sfc
ALT	*ALT*	*Ocean Wave Height, Along-track*	*Fu*	*3129*				*>.5m,10% ::*		*7 km :: Ocean*	*N/A :: Sfc*
					Bates	3128	BM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
					Harris	3431	BM	10-20% :: 5-20%	1-10 days	7-25 km :: Ocean/R	
					Srokosz	3131	BM	>(.5m,5%) :: 0.1m	1/day	10 km :: Ocean/R	N/A :: Sfc
					Abbott	3130	AM $-	10% :: 5%	1/(10-20 day)	10-20 km :: Ocean [Southern]	N/A :: Sfc
					Bates	3126	AM $-	20% :: 20%	1/day	50-75 m :: Ocean	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
ALT	*ALT*	*Level-1B Backscatter, ALT*	*Fu*	*3464*							
					Srokosz	2096	BM	0.2dB :: 0.1dB	1/(10 day)	10 km :: Ocean [South Atlan]	N/A :: Sfc
					Srokosz	3125	BM	0.02(bin) :: 0.1dB	1/(10 day)	10 km :: Ocean [South Atlan]	N/A :: Sfc
ALT	*ALT*	*Ice_Sheet Elevation*	*Zwally*	*2911*				*.5m-.5m :*	*1/yr*	*15 km :: Land/Cryo*	*N/A :: Sfc*
					Barron	2906	BM	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
					Simard	2910	BM	100 mm ::	1/(3 mo)	100 km :: Land	N/A :: Sfc
					Barron	3053	BM-	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
					Simard	3055	BM-	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
					Barron	2907	BM	100 ::	1/(3 mo)	100 km :: Land/Cryo	:: Sfc
					Barron	3054	BM-	100 ::	1/(3 mo)	100 km :: Land/Cryo	30 m :: Sfc
					Simard	3056	BM-	100 mm ::	1/(3 mo)	100 km :: Land	N/A :: Sfc
					Simard	2909	AM	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
					Isacks	2908	AM	0.1 ::	2/yr	10 m :: Land/Cyro	N/A :: Sfc
ASTER	*AM1*	*Vegetation Index (PVI)*	*Gillespie*	*2747**						*15 m :: Land/R,L*	*N/A :: Sfc*
					Isacks	2744	BM	1 :: 0.5	1/mo	30-60 m :: Land/L	N/A :: Sfc
					Barron	2739	AM	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
					Dickinson	3400	AM			High_res :: Land	
					Bates	2676	AM		1/mo	60 m :: Land	N/A :: Sfc
					Barron	2675	AM	0.5 :: 0.2	1/day	30 m :: Land/L	N/A :: Sfc
					Schimel	2678	AM	10% :: 1%	1/wk, 1/mo	30 m :: 6 sites/L	N/A :: Sfc
					Isacks	2743	AM	1 :: 1	1/mo	240-500 m :: Land/R	N/A :: Sfc
					Murakami	2745	AM			:: Land	N/A :: Sfc
					Cihlar	3504	AM	15% :: 15%	once	100 m :: Canada/R	N/A :: Sfc
ASTER	*AM1*	*Soil Index*	*Gillespie*	*2801*					*50 scenes/mission*	*15 m :: Land/R,L*	*N/A :: Sfc*
					Barron	2799	BM	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2792	BM		1/yr	30 m :: Land/R	:: Sfc
					Moore	2800	BM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Isacks	2778	AM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
					Barron	2794	AM	10% :: 5%	1/mission	100 km :: Land	N/A :: Sfc
					Barron	2795	AM	10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc
					Barron	2787	AM	5 :: 5	1/seas	30 m :: Land/L	N/A :: Sfc
					Barron	2796	AM	10% :: 5%	1/mission	10 km :: Land/R	N/A :: Sfc
					Barron	2797	AM	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
					Barron	2798	AM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
ASTER	*AM1*	*Mineral Maps*	*Gillespie, Rowan,*	*2817**				*variable :: variable*	*50/mission*	*90 m :: Land/R,L*	*N/A :: Sfc*
					Isacks	2778	AM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2802	AM		1/yr	30 m :: Land/R	:: Sfc
ASTER	*AM1*	*Geologic Unit Maps (Geology Maps)*	*Gillespie, Rowan,*	*2883**				*variable :: variable*	*50/mission*	*90 m :: Land/R,L*	
					Isacks	2851	BM		1/mission	15-30 m :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2882	BM		1/yr	30 m :: Land/R	:: Sfc
					Kerr, Sorooshian	2792	AM-		1/yr	30 m :: Land/R	:: Sfc
ASTER	*AM1*	*Land_sfc Emissivity [1]*	*Kahle, Becker, Cl*	*2124*				*0.05-0.1 :: 0.005*	*1/(0.5-16 day)*	*90 m :: L*	*N/A :: Sfc*
					Kerr, Sorooshian	2123	BM	0.05 :: 0.05	1/yr	90 m :: Land/R	N/A :: Sfc
					Cihlar	3487	AM	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
ASTER	*AM1*	*Land_sfc Temperature (3-products)*	*Kahle, Becker, Cl*	*2483*				*1-6 K :: 0.3 K*	*1/(2-16 day)*	*90 m :: Land*	*N/A :: Sfc*
					Dickinson	3389	BM			High_res :: Land	
					Isacks	2497	BM	1-6 :: 0.3	1/wk	90 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3292	BM	10 C ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
ASTER	*AM1*	*Land_sfc Temperature (3-products)*	*Kahle, Becker, Ch*	*2483*	Simard	3311	BM	0.5 :: 1.0	2/day	100 m :: R/Canada	N/A :: Sfc
					Cihlar	3503	BM	0.5 K :: 1.0 K	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Lau	2501	BM	0.5 K :: 0.5 K	1/(3 day)	100 m :: Land/L	N/A :: Sfc
					Moore	2535	BM				:: Sfc
					Mouginis-Mark	3291	BM	2 C ::	1/(3 mo)	100 m :: Land/L	N/A :: Sfc
					Dozier	2500	BM	1 K :: 0.3 K	1/wk	500 m :: Snow/L	
					Mouginis-Mark	3262	BM	30 m(hor) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3266	BM	(30m)^2 ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
					Schimel	1633	BM-	10% :: 1%	1/day, 1/wk	30 m :: 6 sites/L	N/A :: Sfc
					Sellers	2478	BM	::		500 m ::	
					Barron	2472	BM	1 :: 0.5	1/day	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3295	BM	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
					Richey, Batista	2476	AM		1/day	:: Land/R	N/A :: Sfc
					Lau	2502	AM	1 K :: 1 K	1/(3 day)	1 km :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2456	AM	0.5 K :: 0.5 K	2/day [d,n]	500 m :: Land/R	:: Sfc
					Barron	2473	AM	1 :: 0.5	1/day	10 km :: Land/R	N/A :: Sfc
ASTER	*AM1*	*Land_sfc Emissivity, Relative Spectral*	*Kahle, Becker, Sc*	*2129*				*N/A :: N/A*	*1/(0.5-16 day)*	*90 m :: Land/R,L*	*N/A :: Sfc*
					Isacks	2125	BM		1/yr	15-90 m :: Land/L	N/A :: Sfc
					Liu	2546	AM			:: G	N/A :: Cloud
ASTER	*AM1*	*Soil Maps, Level-4 [Class,Comp,Age,etc.]*	*Kahle, Gillespie*	*2803**					*50 maps/mission*	*90 m :: Land/R,L*	*N/A :: Sfc*
					Barron	2795	BM	10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2792	BM		1/yr	30 m :: Land/R	:: Sfc
					Kerr, Sorooshian	2802	BM		1/yr	30 m :: Land/R	:: Sfc
					Barron	2799	BM	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
					Barron	2794	BM	10% :: 5%	1/mission	100 km :: Land	N/A :: Sfc
					Barron	2796	BM	10% :: 5%	1/mission	10 km :: Land/R	N/A :: Sfc
					Dickinson	3409	BM			Low_res :: Land	
					Moore	2800	BM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Richey, Batista	2810	BM	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
					Barron	2786	AM	5 :: 5	1/seas	100 km :: Land	N/A :: Sfc
					Barron	2797	AM	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
					Barron	2798	AM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
					Barron	2785	AM	5 :: 5	1/seas	10 km :: Land/R	N/A :: Sfc
ASTER	*AM1*	*Topographic Elevation, Land_sfc, (DEM)*	*Kahle, JGI*	*2828*				*>50 m :: >30 m*	*1/mission*	*15 m :: Land/R,L*	*30 m :: Sfc*
					Barron	2824	BM		1/mission	30 m :: Land/L	30 m :: Sfc
					Isacks	2833	BM	30 :: 10	1/mission	20 m :: Land/L	N/A :: Sfc
					Isacks	2837	BM	1 m :: 1 m	1/mission	point :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2834	BM	10 :: 10	1/yr	30 m :: Land/R	:: Sfc
					Mouginis-Mark	3276	BM	10 m(ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
					Lau	2835	BM	10 m :: 1 m	1/mission	10 m :: Land/L,R	N/A :: Sfc
					Barron	1546	BM	10% :: 0.1	1/mission, 1/yr	30 m :: Land/L	N/A :: Sfc
					Isacks	1553	BM	2 cm :: 1 cm	1/mission, 1/mo	30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2830	BM	10 :: 5	1/yr	30 m :: Land/R	:: Sfc
					Kerr, Sorooshian	2845	BM	5 :: 5	1/yr	30 m :: Land/R	:: Sfc
					Lau	1550	BM	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
					Isacks	2839	BM	100 m :: 50 m	1/mission	50 m :: Land/R	N/A :: Sfc
					[illegible]	[illegible]	AM $-	[illegible] m ::	once	30 m :: Canada/R	10 m :: Sfc
					Dozier	2825	AM $-	10 m :: 1 m		20 m :: Land/L	:: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
ASTER	*AM1*	*Topographic Elevation, Land_sfc, (DEM)*	*Kahle, JGI*	*2828*	Moore	2827	AM	1m ::			:: Sfc
					Barron	2905	AM $-	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
					Barron	2849	AM $-	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
					Isacks	2902	AM $-		1/mission, 1/yr	15-30 m :: Land/R	N/A :: Sfc
					Isacks	2851	AM		1/mission	15-30 m :: Land/R	N/A :: Sfc
					Isacks	2869	AM $-	10 cm :: 5 cm	1/mission	[2-D sect.] :: Land/L	N/A :: Sfc
					Lau	2904	AM $-	100m^2 :: 100m^2	1/mission	10 m :: Land/L	N/A :: Sfc
					Dickinson	3410	AM			Low_res :: Land	
					Isacks	2838	AM	:: 120	1/mission	720 m :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2826	AM	50 m :: 50 m	1/mission	500 m :: Land	N/A :: Sfc
ASTER	*AM1*	*Glacier Velocity*	*Kieffer*	*2931*				*20 m/yr :: 10 m/yr*	*1 yr*	*15 m :: Land/Cryo*	
					Barron	2929	AM	::		:: Land/Cryo	N/A :: Sfc
					Simard	2894	AM	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
ASTER	*AM1*	*Land_sfc Temperature-Difference, Day-Nigh*	*Kieffer et al*	*2540*				*1-2 K :: 0.3 K*		*90 m :: Land/R,L*	*N/A :: Sfc*
					Bates	2538	AM	0.5 K :: 0.25 K	1/day	50 km :: Land	N/A :: Sfc
					Dickinson	3395	AM			<0.5-1 deg :: G	
ASTER	*AM1*	*Land Thermal Inertia*	*Kieffer et al*	*2542*				*40% :: 20%*		*90 m :: Land/R,L*	*N/A :: Sfc*
					Kerr, Sorooshian	2541	BM	.008 :: .004	1/(16 day)	60 m :: Land/R	N/A :: Sfc
ASTER	*AM1*	*Level-2 Radiance, Land_leaving*	*Palluconi et al*	*2378*				*TBD :: 0.065-0.085*	*1/(2-16 day)*	*90 m :: Land/R,L*	*N/A :: Sfc*
					Cihlar	3494	BM	5% :: 10%	once	250-1000 m :: Canada/R	N/A :: Sfc
ASTER	*AM1*	*Eruption-Plume Characteristics*	*Pieri*	*3301*				*variable :: variable*		*15,30,90 m :: R/L*	
					Mouginis-Mark	3273	BM	1 km ::	1/orbit, 1/day	1 km :: Land/L	N/A :: Plume_col
					Mouginis-Mark	3293	BM-	10 C ::	2/day [d,n]	100 m :: R	N/A :: Plume_col
					Mouginis-Mark	3282	BM-		1/day	1 km :: Land/R	N/A :: Plume_col
					Mouginis-Mark	3302	BM-		1/day	30 m :: Land/R	N/A :: Plume_col
ASTER	*AM1*	*Volcano Age*	*Pieri, Kahle*	*3298*				*variable :: variable*		*15,30,90 m :: Land/R,L*	*N/A ::*
					Isacks	2778	AM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
ASTER	*AM1*	*Landform Lineament / Slope Maps*	*Rowan*	*2856*				*variable :: variable*	*25 scenes/yr*	*50 m :: Land/R,L*	*N/A :: Sfc*
					Kerr, Sorooshian	2830	BM	10 :: 5	1/yr	30 m :: Land/R	:: Sfc
					Kerr, Sorooshian	2845	BM	5 :: 5	1/yr	30 m :: Land/R	:: Sfc
ASTER	*AM1*	*Mineral Index*	*Rowan,Kahle,Gill*	*2773*				*10% :: 5%*	*15 scenes/yr*	*15,30,90 m :: Land/R,L*	*N/A :: Sfc*
					Isacks	2778	BM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
ASTER	*AM1*	*Vegetation Evapotranspiration (ET)*	*Schmugge*	*1791*				*1 mm/day :: 0.5 mm/day*		*90 m :: Land/R,L*	*N/A :: Sfc*
					Cihlar	3497	BM	20% :: 5-20%	1 day, 1 wk	500 m :: Canada/R	N/A :: Sfc
					Dickinson	3351	BM			High_res :: Land	
					Lau	1801	BM	10% :: 10%	1/day	1 km :: Land/L	N/A :: Sfc
					Murakami	1991	BM	0.02 ::			
					Simard	1789	BM			:: Canada/R	N/A :: Sfc
					Bates	1989	BM	1 :: 1	1/day	500 m :: Land	N/A :: Sfc
					Bates	1800	BM	0.5 :: 1	1/day	500 m :: Land	N/A :: Sfc
					Moore	3057	BM	20% :: 20%	1/day, 1/wk	500 m :: R	:: Sfc
					Bates	1990	BM	0.02 ::			
					Dickinson	3352	BM			Med_res :: Land	
					Lau	1788	BM	10% :: 10%	1/day	1 km :: Land/L	N/A :: Sfc
					Lau	1802	BM	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
					Dickinson	3350	BM			<0.5-1 deg :: G	
					Lau	1804	BM	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
					Moore	3058	BM	20% :: 20%	1/day, 1/wk	30 m :: L	:: Sfc

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Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
ASTER	AM1	Vegetation Evapotranspiration (ET)	Schmugge	1791	Schimel	1790	BM	20% :: 5%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
ASTER	AM1	Land_sfc Reflectance, Directional	Slater	2433				4% :: 0.5-1.3	3/yr	15,30 m :: Land/R,L	N/A :: Sfc
					Kerr, Sorooshian	2428	BM	3% :: 5%	1/(2 mo)	30 m :: Land/R	:: Sfc
					Sellers	2041	AM			250-500 m :: Land	
ASTER	AM1	Sea_Ice Area	TBD	3630				TBD :: TBD	TBD	TBD :: Ocean/TBD	TBD :: TBD
					Simard	3196	AM $-	500 m ::	1/(7 day)	500 m :: Canada/R	N/A :: Sfc
ASTER	AM1	Land_sfc Water Area	TBD	3633				TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
					Isacks	3059	BM	::		15-30 m :: Land/L	N/A :: Sfc
					Lau	3060	BM	100 ::	1/wk	30 m :: Land/L	N/A :: Sfc
					Barron	3062	BM	10% :: 10%	1/day	:: Land/R	N/A :: Sfc
					Lau	3061	BM	100 ::	1/wk	1 km :: Land/R	N/A :: Sfc
ASTER	AM1	Snow Area	TBD	3634				TBD :: TBD	TBD	TBD :: Land/TBD	TBD :: TBD
					Isacks	3011	BM	5% :: 2%	1/seas	15-30 m :: Land/L	N/A :: Sfc
					Lau	3012	BM	50 :: 10	1/wk	100 m :: Land/L	N/A :: Sfc
ASTER	AM1	Cloud Height, Base	Welch	1391				100 m :: 100 m	1/(16 day)	100 m :: L	N/A :: Cloud
					Wielicki	1387	BM	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
					Kerr, Sorooshian	1385	AM	200m :: 200m	1/hr	1 km :: Land	100 mb :: Trop
					Barron	1382	AM	100 m :: 50 m	1/day	30 m :: L	100 m :: Cloud
ASTER	AM1	Cloud Height, Top	Welch	1427				300 m :: 300 m	1/(16 day)	90 m :: L	N/A :: Cloud
					Wielicki	1421	BM	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
					Barron	1414	AM	100 m :: 25 m	1/day	30 m :: L	100 m :: Cloud
ASTER	AM1	Cloud Drop Phase	Welch	1763				water/ice ::	1/(16 day)	15-30 m :: L	N/A :: Cloud
					Wielicki	1760	BM	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
ASTER	AM1	Cloud Drop Size(Effective Radius)	Welch	1779				10 um ::	1/(16 day)	15-90 m :: L	:: Cloud
					Wielicki	1771	BM	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
ASTER	AM1	Cloud Cover	Welch	2080				3% :: 3%	1/(16 day)	90 m :: L	N/A :: Cloud
					Dickinson	3343	BM			High_res :: G	
					Kerr, Sorooshian	2075	AM	5% :: 5%	1/day	10 km :: Land/R	N/A :: Cloud
					Wielicki	2077	AM	2% :: 2%	1/(16 day)	30 m :: R	N/A :: Atmos
					Barron	2051	AM	5 :: 5	1/day	30 m :: L	N/A :: Cloud
					Moore	2057	AM	10% :: 10%	1/wk	1 km :: G	
ASTER	AM1	Cloud Optical Depth	Welch	2310				3% :: 3%	1/(16 day)	15-30 m :: L	N/A :: Cloud
					Barron	2303	AM	3% :: 3%	1/day	30 m :: Ocean/L	N/A :: Cloud
ASTER	AM1	Cloud Temperature, Top	Welch	2465				2 K :: 2 K	1/(16 day)	90 m :: L	N/A :: Cloud
					Kerr, Sorooshian	2462	BM	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
					Sellers	2457	AM				
					Barron	2459	AM	2 :: 1	1/day	10 km :: R	N/A :: Cloud
ASTER	AM1	Sea_Ice Fraction	Welch	3152						90 m :: Ocean/Cryo	N/A :: Sfc
					Barron	3167	BM	5% :: 5%	1/day	30 m :: Ocean/Cryo	N/A :: Sfc
					Srokosz	3158	AM	0.1 dg :: 0.01 dg	1/day	N/A :: Ocean/Cryo	N/A :: Sfc
					Simard	3196	AM $-	500 m ::	1/(7 day)	500 m :: Canada/R	N/A :: Sfc
					Abbott	3156	AM		1/day	25 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3168	AM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3157	AM	25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
ASTER	AM1	Sea_Ice Lead (Open-Water) Fraction	Welch	3617						90 m :: Ocean/Cryo	N/A :: Sfc
					Barron	3166	BM	5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
ASTER	AM1	Sea_Ice Temperature	Welch	3619						90 m :: Ocean/Cryo	N/A :: Sfc
					Simard	3120	BM	0.3 K ::		:: Canada/R	N/A :: Sfc

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Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
ASTER	*AM1*	*Sea_Ice Temperature*	*Welch*	*3619*	Bates	2489	BM		1/day	10 km :: Polar	N/A :: Sfc
ASTER	*AM1*	*Sea_sfc Temperature (SST)*	*Welch*	*3620*						*90 m :: Ocean/Cryo*	*N/A :: Sfc*
					Brewer	2510	BM	0.5 K :: 0.5 K	1/day, 1/seas	30 m :: Ocean/L	N/A :: Sfc
ASTER	*AM1*	*Sea_Ice Lead (Open Water) Size-distribution*	*Welch*	*3622*						*90 m :: Ocean/Cryo*	*N/A :: Sfc*
					Barron	3166	BM	5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
ASTER	*AM1*	*Sea_Ice Albedo*	*Welch*	*3624*						*90 m :: Ocean/Cryo*	*N/A :: Sfc*
					Barron	3004	BM	5% :: 5%	1/day	30 m :: Land/L	N/A :: Sfc
					Dickinson	3362	BM			<0.5-1 deg :: Ocean/Cryo	
ASTER	*AM1*	*Cloud Liquid_Water Content*	*Welch*	*3626*					*1/(16 day)*	*90 m :: L*	*N/A :: Cloud*
					Kerr, Sorooshian	1905	BM			30 m :: Land/R	:: Cloud
					Barron	1903	AM	0.1 :: 0.05	1/day	10 km :: R	1 km :: Cloud
ASTER	*AM1*	*Cloud Drop Size_distribution*	*Welch*	*3627*					*1/(16 day)*	*90 m :: L*	*N/A :: Cloud*
					Dickinson	3348	BM			<0.5-1 deg :: G	
					Hartmann	1775	BM	20% :: 20%	1/day	10 km :: G	0-15 km :: Cloud
CERES	*TRM,AM,PM*	*Cloud Height, Base*	*Barkstrom*	*1393*				*1.0 km :: 0.1 km*	*6/day [d,n]*	*25 km :: G*	*0.1 km :: Atmos*
					Bates	1383	BM	:: 100 mb		25 km :: G	100 mb :: Cloud
					Wielicki	1386	BM	1 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
					Wielicki	1388	BM	0.1 km :: 0.1 km	2/day [d,n]	50 km :: R	0.1 km :: Atmos
					Barron	1380	BM	100 m :: 50 m	1/day	100 km :: G	100 m :: Cloud
					Barron	1381	BM	100 m :: 50 m	1/day	10 km :: R	100 m :: Cloud
					Kerr, Sorooshian	1385	BM	200m :: 200m	1/hr	1 km :: Land	100 mb :: Trop
CERES	*TRM,AM,PM*	*Cloud Height, Base*	*Barkstrom*	*1394*				*1.0 km :: 0.1 km*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*0.1 km :: Atmos*
					Bates	1384	BM	:: 100 mb	1/(6 hr)	1 x 1 dg :: G	100 mb :: Cloud
CERES	*TRM,AM,PM*	*Cloud Height, Base*	*Barkstrom*	*1395*				*1.0 km :: 0.1 km*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*0.1 km :: Atmos*
					Barron	1380	BM	100 m :: 50 m	1/day	100 km :: G	100 m :: Cloud
					Dickinson	3342	BM				
					Hansen	1399	BM	50 m ::	1/wk	500 km :: G	:: Cloud
CERES	*TRM,AM,PM*	*Cloud Height, Top*	*Barkstrom*	*1429*				*1.0 km :: 0.1 km*	*6/day [d,n]*	*25 km :: G*	*0.1 km :: Atmos*
					Wielicki	1422	BM	0.5 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
					Barron	1413	BM	100 m :: 25 m	1/day	10 km :: R	100 m :: Cloud
					Harris	3437	BM	0.5 :: 0.3	2/day	20-50 km :: Ocean/R	
					Dickinson	3349	AM			<0.5-1 deg :: G	
					Bates	1415	AM	:: 100 mb	1/(6 hr)	1 x 1 dg :: G	100 mb :: Cloud
					Bates	1416	AM	0.5 km :: 0.25 km	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Height, Top*	*Barkstrom*	*1430*				*1.0 km :: 0.1 km*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*0.1 km :: Atmos*
					Barron	1412	BM	100 m :: 25 m	1/day	100 km :: G	100 m :: Cloud
					Dickinson	3349	BM			<0.5-1 deg :: G	
					Murakami	1418	BM	1 km ::			:: Cloud
					Rothrock	1419	BM	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
					Hansen	1399	BM	50 m ::	1/wk	500 km :: G	:: Cloud
CERES	*TRM,AM,PM*	*Cloud Height, Top*	*Barkstrom*	*1431*				*0.5 km :: 0.1 km*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*0.1 km :: Atmos*
					Bates	1415	BM	:: 100 mb	1/(6 hr)	1 x 1 dg :: G	100 mb :: Cloud
					Rothrock	1419	BM	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
					Murakami	1418	AM	1 km ::			:: Cloud
					Wielicki	1422	AM	0.5 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
					Hansen	1399	AM	50 m ::	1/wk	500 km :: G	:: Cloud
CERES	*TRM,AM,PM*	*Cloud Drop Phase*	*Barkstrom*	*1767*				*90% Conf :: 90% Conf*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Atmos*
					Bates	1759	AM		1/day, 1/mo	1 dg :: G	N/A :: Cloud

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
CERES	TRM,AM,PM	Cloud Drop Phase	Barkstrom	1767	Dickinson	3346	AM			<0.5-1 deg :: G	
CERES	TRM,AM,PM	Cloud Drop Phase	Barkstrom	1768				90% Conf :: 90% Conf	6/day [d,n]	25 km :: G	N/A :: Atmos
					Dickinson	3346	BM			<0.5-1 deg :: G	
					Wielicki	1761	BM	90% Conf :: 90% Conf	6/day [d,n]	25-100 km :: G	N/A :: Atmos
CERES	TRM,AM,PM	Cloud Drop Phase	Barkstrom	1769				90% Conf :: 90% Conf	1/(6 hr)	1.25 x 1.25 dg :: G	N/A :: Atmos
					Bates	1759	AM		1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Sellers	1984	AM-$-				
					Hartmann	1785	AM-	0.02 :: 0.02	1/day	10 km :: Ocean	N/A :: Cloud
CERES	TRM,AM,PM	Cloud Drop Size(Effective Radius)	Barkstrom	1783				30% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	N/A :: Atmos
					Bates	1777	BM	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3347	AM			<0.5-1 deg :: G	
CERES	TRM,AM,PM	Cloud Drop Size(Effective Radius)	Barkstrom	1784				30% :: 10%	6/day [d,n]	25 km :: G	N/A :: Atmos
					Dickinson	3347	BM			<0.5-1 deg :: G	
					Wielicki	1772	BM	30% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
CERES	TRM,AM,PM	Cloud Liq_water Content	Barkstrom	1895				75% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	lyr :: Atmos
					Bates	1894	BM	:: 75%	1/(6 hr)	1 x 1 dg :: G	lyr :: 0-30 km
					Hartmann	1919	AM	0.05 :: 0.05	1/day	10 km :: Ocean	Column :: Trop
CERES	TRM,AM,PM	Cloud Liq_water Content	Barkstrom	1896				75% :: 10%	6/day [d,n]	25 km :: G	lyr :: Atmos
					Dickinson	3357	BM			<0.5-1 deg :: G	
					Wielicki	1906	BM	20% :: 10%	2/day [d,n]	12-25 km :: G	N/A :: Atmos
					Wielicki	1907	BM	50% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
					Barron	1902	AM	0.1 :: 0.05	1/day	100 km :: G	1 km :: Cloud
					Bates	1894	AM	:: 75%	1/(6 hr)	1 x 1 dg :: G	lyr :: 0-30 km
					Barron	1903	AM	0.1 :: 0.05	1/day	10 km :: R	1 km :: Cloud
CERES	TRM,AM,PM	Cloud Liq_water Content	Barkstrom	1897				75% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	lyr :: Atmos
					Dickinson	3357	BM			<0.5-1 deg :: G	
					Bates	1894	AM	:: 75%	1/(6 hr)	1 x 1 dg :: G	lyr :: 0-30 km
CERES	TRM,AM,PM	Cloud Liq_water Total Column	Barkstrom	1899				50% :: 10%	1/day [Avg], 1/mo [Avg]	1.25 x 1.25 dg :: G	Column :: Atmos
					Lau	1920	BM	0.05 :: 0.05	1/day	100 km :: G	N/A :: Trop
					Sellers	1921	BM				
CERES	TRM,AM,PM	Cloud Liq_water Total Column	Barkstrom	1900				50% :: 10%	6/day [d,n]	25 km :: G	Column :: Atmos
					Abbott	1918	BM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Sroka sz	1922	BM	10% :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Trop
CERES	TRM,AM,PM	Cloud Liq_water Total Column	Barkstrom	1901				50% :: 10%	1/(6 hr)	1.25 x 1.25 dg :: G	Column :: Atmos
					Lau	1920	AM	0.05 :: 0.05	1/day	100 km :: G	N/A :: Trop
CERES	TRM,AM,PM	Anisotropy, LW_broadband	Barkstrom	2027				2% :: 0.5%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
					Wielicki	2025	BM	2% :: 1%		10 dg [Angle] :: G/clr	N/A :: Sfc, Atmos
					Wielicki	2026	BM	2% :: 1%		10 dg [Angle] :: G/cld	N/A :: Sfc, Atmos
CERES	TRM,AM,PM	Land_sfc Reflectance, Bi-directional, SW_Br	Barkstrom	2045				5% :: 1%		10 dg [Angle] :: G	N/A :: Sfc,Atmos
					Sellers	2034	BM				
					Wielicki	2044	BM	5% :: 2%		10 dg [Angle] :: G	N/A :: Sfc, Atmos
CERES	TRM,AM,PM	Cloud Cover	Barkstrom	2086				5% :: 2%	6/day [d,n]	25 km :: G	N/A :: Atmos
					Dickinson	3344	BM			Med_res :: G	
					Wielicki	2061	BM	5% :: 2%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
					Lau	2054	BM	5% :: 5%	2/day	50 km :: R	N/A :: Atmos
					Harris	3436	BM	5-10% :: 2-5%	2/day	5-50 km :: Ocean/R	
					Bates	2072	AM $-	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Liu	2055	AM			:: Ocean	N/A :: Cloud

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
CERES	*TRM,AM,PM*	*Cloud Cover*	*Barkstrom*	*2086*	Murakami	2058	AM	10% ::			N/A :: Cloud
					Simard	2056	AM	5% ::		:: Canada/R	N/A :: Cloud
					Bates	2073	AM	:: 10%	1/(6 hr)	1 x 1 dg :: G	N/A :: Cloud
					Rothrock	2076	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
					Hansen	2052	AM	3% ::	1/wk	500 km :: G	:: Cloud
					Isacks	2053	AM		1/wk	5 km :: Land/R	N/A :: Cloud
					Barron	2049	AM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Cover*	*Barkstrom*	*2087*				*5% :: 2%*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: Atmos*
					Bates	2073	BM	:: 10%	1/(6 hr)	1 x 1 dg :: G	N/A :: Cloud
					Sellers	2059	BM		4/day	100 km ::	0.5 km :: Trop
					Simard	2056	AM	5% ::		:: Canada/R	N/A :: Cloud
					Hansen	2052	AM	3% ::	1/wk	500 km :: G	:: Cloud
					Barron	2049	AM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Cover*	*Barkstrom*	*2088*				*5% :: 2%*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Atmos*
					Barron	2049	BM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
					Bates	2074	BM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3345	BM			Low_res :: G	
					Murakami	2058	BM	10% ::			N/A :: Cloud
					Rothrock	2076	BM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
					Hansen	2052	BM	3% ::	1/wk	500 km :: G	:: Cloud
					Liu	2055	AM			:: Ocean	N/A :: Cloud
					Simard	2056	AM	5% ::		:: Canada/R	N/A :: Cloud
					Bates	2069	AM $-		1/day	100 km :: G	0.5 km :: Trop
					Lau	2070	AM $-	5% :: 5%	1/day	100 km :: G	N/A ::
					Bates	2073	AM	:: 10%	1/(6 hr)	1 x 1 dg :: G	N/A :: Cloud
CERES	*TRM,AM,PM*	*Radiative Flux Divergence, Clear-sky*	*Barkstrom*	*2144*				*10% :: 5%*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*lyr :: Atmos*
					Hansen	2357	BM		1/wk	500 km :: G	
CERES	*TRM,AM,PM*	*Radiative Flux Divergence, Clear-sky*	*Barkstrom*	*2145*				*10% :: 5%*	*6/day [d,n]*	*1.25 dg :: G*	*lyr :: Atmos*
					Wielicki	2150	BM	0%clr/25%cld :: 5%clr/10%cl	6/day [d,n]	1.25 dg :: G	:: Atmos
					Wielicki	2152	BM	0%clr/25%cld :: 5%clr/10%cl	3/day [d]	1.25 dg :: G	:: Atmos
CERES	*TRM,AM,PM*	*Radiative Flux Divergence, Clear-sky*	*Barkstrom*	*2146*				*10% :: 5%*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*lyr :: Atmos*
					Sellers	2193	BM	20% :: 20%	4/day	100 km :: Land	0.5 km ::
					Wielicki	2150	AM	0%clr/25%cld :: 5%clr/10%cl	6/day [d,n]	1.25 dg :: G	:: Atmos
					Wielicki	2152	AM	0%clr/25%cld :: 5%clr/10%cl	3/day [d]	1.25 dg :: G	:: Atmos
CERES	*TRM,AM,PM*	*Radiative Flux Divergence, Cloudy_sky*	*Barkstrom*	*2147*				*25% :: 10%*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*lyr :: Atmos*
					Hansen	2357	BM		1/wk	500 km :: G	
					Moore	2360	AM	10% :: 10%	1/wk	1 km :: G	:: Cloud
CERES	*TRM,AM,PM*	*Radiative Flux Divergence, Cloudy_sky*	*Barkstrom*	*2148*				*50% :: 10%*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*lyr :: Atmos*
					Sellers	2193	BM	20% :: 20%	4/day	100 km :: Land	0.5 km ::
CERES	*TRM,AM,PM*	*Radiative Flux Divergence, Cloudy_sky*	*Barkstrom*	*2149*				*50% :: 10%*	*6/day [d,n]*	*1.25 dg :: G*	*lyr :: Atmos*
					Wielicki	2150	BM	0%clr/25%cld :: 5%clr/10%cl	6/day [d,n]	1.25 dg :: G	:: Atmos
					Wielicki	2152	BM	0%clr/25%cld :: 5%clr/10%cl	3/day [d]	1.25 dg :: G	:: Atmos
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Down*	*Barkstrom*	*2168*				*5 W/m^2 :: 2 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Brewer	2255	BM		1/day, 1/seas	:: Ocean/L	
					Brewer	2256	BM		1/day, 1/seas	:: Ocean	
					Dickinson	3375	BM			<0.5-1 deg :: G	N/A :: Sfc ?
					Kerr, Sorooshian	2163	AM	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Down*	*Barkstrom*	*2169*				*7 W/m^2 :: 2 W/m^2*	*6/day [d,n]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Wielicki	2165	BM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
					Dickinson	3375	BM			<0.5-1 deg :: G	N/A :: Sfc ?
					Kerr, Sorooshian	2163	AM	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Down*	*Barkstrom*	*2170*				*7 W/m^2 :: 2 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Sellers	2164	BM	20% :: 20%	4/day	100 km :: Land	0.5 km ::
					Dickinson	3375	BM			<0.5-1 deg :: G	N/A :: Sfc ?
					Kerr, Sorooshian	2163	BM	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Net*	*Barkstrom*	*2180*				*7 W/m^2 :: 2 W/m^2*	*6/day [d,n]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Wielicki	2175	BM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
					Dickinson	3376	AM			<0.5-1 deg :: G	N/A :: Sfc ?
					Murakami	2183	AM	2% ::			N/A :: Atmos
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Net*	*Barkstrom*	*2181*				*7 W/m^2 :: 2 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Dickinson	3376	AM			<0.5-1 deg :: G	N/A :: Sfc ?
					Murakami	2183	AM	2% ::			N/A :: Atmos
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Net*	*Barkstrom*	*2182*				*5 W/m^2 :: 2 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Barron	2185	BM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Brewer	2255	BM		1/day, 1/seas	:: Ocean/L	
					Brewer	2256	BM		1/day, 1/seas	:: Ocean	
					Dickinson	3376	BM			<0.5-1 deg :: G	N/A :: Sfc ?
					Murakami	2183	BM	2% ::			N/A :: Atmos
					Simard	2137	BM	10% ::		:: Canada/R	
					Lau	2154	BM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Hartmann	2188	AM	5% :: 2%	1/day	<30 km :: Ocean	N/A :: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Up*	*Barkstrom*	*2200*				*3 W/m^2 :: 1 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: TOA*
					Barron	2189	BM	10 :: 5	1/day	100 km :: G	N/A :: TOA
					Murakami	2395	BM	10% ::			N/A :: TOA
					Dickinson	3377	BM			<0.5-1 deg :: G	N/A :: TOA
					Bates	2191	BM		2/day [d,n]	50 km :: G	N/A :: TOA
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Up*	*Barkstrom*	*2201*				*7 W/m^2 :: <7 W/m^2*	*6/day [d,n]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Wielicki	2195	BM	7 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Up*	*Barkstrom*	*2202*				*7 W/m^2 :: <7 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Dickinson	3378	BM			<0.5-1 deg :: G	N/A :: Sfc ?
					Bates	2191	BM		2/day [d,n]	50 km :: G	N/A :: TOA
					Sellers	2193	BM	20% :: 20%	4/day	100 km :: Land	0.5 km ::
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Up*	*Barkstrom*	*2203*				*5 W/m^2 :: <5 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Barron	2185	BM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Brewer	2255	BM		1/day, 1/seas	:: Ocean/L	
					Brewer	2256	BM		1/day, 1/seas	:: Ocean	
					Hartmann	2188	AM	5% :: 2%	1/day	<30 km :: Ocean	N/A :: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Up*	*Barkstrom*	*2204*				*5 W/m^2 :: 2 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: TOA*
					Bates	2191	BM		2/day [d,n]	50 km :: G	N/A :: TOA
					Murakami	2395	AM	10% ::			N/A :: TOA
CERES	*TRM,AM,PM*	*Radiative Flux, LW, Up*	*Barkstrom*	*2205*				*5 W/m^2 :: 2 W/m^2*	*6/day [d,n]*	*25 km :: G*	*N/A :: TOA*
					Wielicki	2194	BM	5 W/m^2 :: 2 W/m^2	6/day [d,n]	1.25 dg :: G	N/A :: TOA
					Hartmann	2190	BM	5% :: 2%	1/day	<30 km :: Ocean	N/A :: TOA
					Srokosz	2385	BM	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
					Murakami	2395	AM	10% ::			N/A :: TOA

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Down*	*Barkstrom*	*2221*				*15 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 dg :: G*	*N/A :: Sfc*
					Wielicki	2218	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
					Kerr, Sorooshian	2142	BM	1 W/m^2 :: 1 W/m^2	1/hr	8 km :: Land/R	N/A :: TOA
					Dickinson	3384	BM			<0.5-1 deg :: G	
					Sellers	2217	BM	20% :: 20%	1/hr	100 km :: Land	
					Kerr, Sorooshian	2216	AM	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
					Srokosz	2400	AM	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Down*	*Barkstrom*	*2222*				*10 W/m^2 :: 2 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Barron	2237	BM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Brewer	1492	BM		1/day, 1/seas	:: Ocean	
					Kerr, Sorooshian	2142	BM	1 W/m^2 :: 1 W/m^2	1/hr	8 km :: Land/R	N/A :: TOA
					Dickinson	3384	BM			<0.5-1 deg :: G	
					Lau	2215	BM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Brewer	1493	BM		1/day, 1/seas	:: Ocean/L	
					Kerr, Sorooshian	2216	AM	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Down*	*Barkstrom*	*2223*				*15 W/m^2 :: 2 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Kerr, Sorooshian	2142	BM	1 W/m^2 :: 1 W/m^2	1/hr	8 km :: Land/R	N/A :: TOA
					Dickinson	3384	BM			<0.5-1 deg :: G	
					Kerr, Sorooshian	2216	BM	10% :: 10%	[diurnal]	500 m :: Land/R	:: Sfc
					Richey, Batista	2141	BM		2/day	:: Land/R	
					Richey, Batista	2141	BM		2/day	:: Land/R	
					Sellers	2217	BM	20% :: 20%	1/hr	100 km :: Land	
					Wielicki	2218	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Net*	*Barkstrom*	*2229*				*15 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Wielicki	2226	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
					Dickinson	3379	AM			<0.5-1 deg :: G	N/A :: Sfc
					Hartmann	2214	AM	0.5% :: 0.5%	1/day	20 km :: G	N/A :: Sfc
					Srokosz	2400	AM	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Net*	*Barkstrom*	*2230*				*10 W/m^2 :: 2 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Barron	2237	BM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Dickinson	3379	BM			<0.5-1 deg :: G	N/A :: Sfc
					Murakami	2234	BM	2% ::			N/A :: Atmos
					Simard	2137	BM	10% ::		:: Canada/R	
					Lau	2215	BM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Hartmann	2214	AM	0.5% :: 0.5%	1/day	20 km :: G	N/A :: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Net*	*Barkstrom*	*2231*				*15 W/m^2 :: 2 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Dickinson	3379	AM			<0.5-1 deg :: G	N/A :: Sfc
					Wielicki	2226	AM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
					Hartmann	2214	AM	0.5% :: 0.5%	1/day	20 km :: G	N/A :: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Up*	*Barkstrom*	*2246*				*12 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 x 1.25 dg :: G*	*N/A :: TOA*
					Wielicki	2241	BM	10 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: TOA
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Up*	*Barkstrom*	*2247*				*15 W/m^2 :: 2 W/m^2*	*3/day [d]*	*1.25 dg :: G*	*N/A :: Sfc*
					Wielicki	2242	BM	15 W/m^2 :: 2 W/m^2	3/day [d]	1.25 dg :: G	N/A :: Sfc
					Kerr, Sorooshian	2240	AM $-	15% :: 15%	[diurnal]	500 m :: Land/R	N/A :: Sfc
					Srokosz	2400	AM	10W/m^2 :: 1W/m^2	2/day	10 km :: Ocean [South Atlan]	
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Up*	*Barkstrom*	*2248*				*10 W/m^2 :: 2 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Barron	2237	BM	10 :: 5	1/day	100 km :: G	N/A :: Sfc
					Brewer	1492	BM		1/day, 1/seas	:: Ocean	

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Up*	*Barkstrom*	*2248*	Brewer	1493	BM		1/day, 1/seas	:: Ocean/L	
					Lau	2215	BM	10W/m^2 :: 10%	1/day	500 km :: G	N/A :: Sfc
					Richey, Batista	2141	BM		2/day	:: Land/R	
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Up*	*Barkstrom*	*2249*				*12 W/m^2 :: 2 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: TOA*
					Richey, Batista	2141	BM		2/day	:: Land/R	
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Up*	*Barkstrom*	*2250*				*15 W/m^2 :: 2 W/m^2*	*1/(6 hr)*	*1.25 x 1.25 dg :: G*	*N/A :: Sfc*
					Kerr, Sorooshian	2240	AM $-	15% :: 15%	[diurnal]	500 m :: Land/R	N/A :: Sfc
CERES	*TRM,AM,PM*	*Radiative Flux, SW, Up*	*Barkstrom*	*2251*				*7 W/m^2 :: 2 W/m^2*	*1/day [Avg], 1/mo [Avg]*	*1.25 x 1.25 dg :: G*	*N/A :: TOA*
					Barron	2239	BM	10 :: 5	1/day	100 km :: G	N/A :: TOA
					Dickinson	3380	BM			<0.5-1 deg :: G	N/A :: Sfc
					Hartmann	2213	BM	0.5% :: 0.5%	1/day	20 km :: G	N/A :: TOA
CERES	*TRM,AM,PM*	*Cloud Optical Depth, LW*	*Barkstrom*	*2316*				*25% :: 10%*	*6/day [d,n]*	*25 km :: G*	*N/A :: Atmos*
					Dickinson	3381	BM			<0.5-1 deg :: G	
					Wielicki	2314	BM	25% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
					Dickinson	3383	AM			<0.5-1 deg :: G	
					Harris	3445	AM	10-20% :: 5-10%	2/day-1/day	5-50 km :: Ocean/R	
					Rothrock	2544	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Optical Depth, LW*	*Barkstrom*	*2317*				*10% :: 5%*	*1/day [Avg], 1/mo [Avg]*	*1.25 dg :: G*	*N/A :: Atmos*
					Barron	2301	BM	3% :: 3%	1/day	100 km :: Ocean	N/A :: Cloud
					Bates	2305	AM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3381	AM			<0.5-1 deg :: G	
					Dickinson	3383	AM			<0.5-1 deg :: G	
					Rothrock	2544	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Optical Depth, LW*	*Barkstrom*	*2318*				*25% :: 5%*	*1/(6 hr)*	*1.25 dg :: G*	*N/A :: Atmos*
					Dickinson	3381	AM			<0.5-1 deg :: G	
					Hartmann	2306	AM	25% :: 0.25	1/day	10 km :: Ocean	N/A :: Cloud
					Rothrock	2544	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Optical Depth, SW*	*Barkstrom*	*2321*				*25% :: 10%*	*3/day [d]*	*25 km :: G*	*N/A :: Atmos*
					Dickinson	3382	BM			<0.5-1 deg :: G	
					Dickinson	3383	BM			<0.5-1 deg :: G	
					Wielicki	2319	BM	25% :: 10%	3/day [d]	25-100 km :: G	N/A :: Atmos
					Dickinson	3383	AM			<0.5-1 deg :: G	
					Harris	3445	AM	10-20% :: 5-10%	2/day-1/day	5-50 km :: Ocean/R	
					Barron	2301	AM	3% :: 3%	1/day	100 km :: Ocean	N/A :: Cloud
					Rothrock	2544	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Optical Depth, SW*	*Barkstrom*	*2322*				*10% :: 5%*	*1/day [Avg], 1/mo [Avg]*	*1.25 dg :: G*	*N/A :: Atmos*
					Barron	2301	BM	3% :: 3%	1/day	100 km :: Ocean	N/A :: Cloud
					Bates	2305	AM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3382	AM			<0.5-1 deg :: G	
					Dickinson	3383	AM			<0.5-1 deg :: G	
					Rothrock	2544	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
CERES	*TRM,AM,PM*	*Cloud Optical Depth, SW*	*Barkstrom*	*2323*				*25% :: 5%*	*1/(6 hr)*	*1.25 dg :: G*	*N/A :: Atmos*
					Wielicki	2319	BM	25% :: 10%	3/day [d]	25-100 km :: G	N/A :: Atmos
					Rothrock	2544	AM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
CERES	*TRM,AM,PM*	*Level-1B Radiance, CERES*	*Barkstrom*	*2359*				*SW 2%,LW 1% :: 0.005*	*6/day [d,n]*	*25 km :: G*	*N/A :: N/A*
					Wielicki	2358	BM	W2%,LW1% :: SW2%,LW1	6/day [d,n]	25 km :: R	N/A :: Atmos
CERES	*TRM,AM,PM*	*Cloud Reflectance, Bi-directional, SW_Broad*	*Barkstrom*	*3698*				*5% :: 1%*		*10 dg [Angle] :: G*	*N/A :: Atmos*
					Wielicki	3615	BM	5% :: 2%	TBD	10 dg [Angle] :: G	N/A :: Cld

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
EOSP	*AERO,AM2*	*Cloud Pressure, Top*	*Travis*	*1530*				*30 mb :: 30 mb*	*1/day [d]*	*40 km :: G*	*30 mb :: Cloud*
					Dickinson	3330	AM			<0.5-1 deg :: G	
					Murakami	1418	AM	1 km ::			:: Cloud
					Rothrock	1419	AM	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
					Barron	1412	AM	100 m :: 25 m	1/day	100 km :: G	100 m :: Cloud
					Hansen	1399	AM	50 m ::	1/wk	500 km :: G	:: Cloud
					Bates	1527	AM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
EOSP	*AERO,AM2*	*Cloud Drop Phase*	*Travis*	*1770*				*:: 95% Corr*	*1/day [d]*	*100 km :: G*	*N/A :: Cloud*
					Bates	1759	AM		1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3346	AM			<0.5-1 deg :: G	
					Wielicki	1761	AM	90% Conf :: 90% Conf	6/day [d,n]	25-100 km :: G	N/A :: Atmos
EOSP	*AERO,AM2*	*Cloud Drop Size*	*Travis*	*1774*				*25% :: 25%*	*1/day [d]*	*100 km :: G*	*N/A :: Cloud*
					Dickinson	3347	BM			<0.5-1 deg :: G	
					Bates	1777	AM	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
EOSP	*AERO,AM2*	*Aerosol Optical Depth*	*Travis*	*2297*				*0.2 :: 10%*	*1/day [d]*	*40 km :: G*	*Column :: Atmos*
					Sellers	2288	BM	::			
					Isacks	2326	BM	5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
					Pyle	1003	BM-		2/day	:: G	:: Strat
					Wielicki	2289	BM	0.10 :: 0.10	1/day	1.25 dg :: G	N/A :: Atmos
					Hansen	1001	AM	tau=0.02 ::	1/wk	500 km :: G	:: Trop
					Hartmann	1002	AM	tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
EOSP	*AERO,AM2*	*Cloud Optical Depth*	*Travis*	*2313*				*20% :: 10%*	*1/day [d]*	*40 km :: G*	*Column :: Cloud*
					Rothrock	2544	BM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
					Isacks	2326	BM	5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
					Bates	2304	BM		1/day	15 x 45 km :: G	N/A :: Cloud
					Dickinson	3382	AM			<0.5-1 deg :: G	
					Harris	3445	AM	10-20% :: 5-10%	2/day-1/day	5-50 km :: Ocean/R	
					Barron	2301	AM	3% :: 3%	1/day	100 km :: Ocean	N/A :: Cloud
					Bates	2305	AM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Kerr, Sorooshian	2325	AM	10% :: 10%	1/(5-16 day)	10 km :: Land/R	:: Atmos
EOSP	*AERO,AM2*	*Reflectance, Bi-directional (BRDF)*	*Travis*	*3644*				*5% ::*	*2 day [d]*	*10 km :: G*	*N/A :: Cloud, Sfc*
					Wielicki	3615	AM	5% :: 2%	TBD	10 dg [Angle] :: G	N/A :: Cld
					Rothrock	2012	AM $-	0.05 :: 0.05	1/(3 day)	25 km :: Polar	N/A :: Sfc
GGI	*ALT*	*Temperature Profile*	*Melbourne*	*1605*				*1 K :: 1 K*	*700 ret/day*	*1-200 km :: G*	*1 km :: 5 - 50 km*
					Bates	1569	AM $-	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
					Hansen	1573	AM	0.3 C ::	1/wk	500 km :: G	:: Strat
					Schoeberl	1582	AM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
GGI	*ALT*	*Temperature Profile*	*Melbourne*	*1606*				*1 K :: 1 K*	*700 ret/day*	*1-200 km :: G*	*1 km :: 2-5/50-60 km*
					Bates	1569	AM $-	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
GLRS-A	*ALT*	*Ice_Sheet Displacement*	*Bentley*	*2897*				*10 mm/day :: 10 mm/day*	*1/mo*	*N/A :: Land/Cryo*	*N/A :: Sfc*
					Barron	2929	BM	::		:: Land/Cryo	N/A :: Sfc
					Simard	2896	BM	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
GLRS-A	*ALT*	*Ice_Sheet Elevation*	*Bentley*	*2912*				*100 mm :: 100 mm*	*1/mo*	*75 m :: Land/Cryo*	*N/A :: Sfc*
					Simard	2909	BM	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
					Barron	3053	BM-	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
					Barron	3054	BM-	100 ::	1/(3 mo)	100 km :: Land/Cryo	30 m :: Sfc
					Simard	3055	BM-	100 mm ::	1/(3 mo)	10 km :: Land/R	N/A :: Sfc
					Simard	3056	BM-	100 mm ::	1/(3 mo)	100 km :: Land	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
GLRS-A	*ALT*	*Ice_Sheet Elevation*	*Bentley*	*2912*	Isacks	2908	BM	0.1 ::	2/yr	10 m :: Land/Cyro	N/A :: Sfc
					Barron	2906	AM	100 ::	1/(3 mo)	10 km :: Land/Cryo	:: Sfc
GLRS-A	*ALT*	*Topographic Elevation-Change Rate, Land_i*	*Cohen, Schutz et a*	*2831*				*5 mm/yr ::*	*1/yr*	*100-900 km :: Land/R*	*:: Sfc*
					Mouginis-Mark	3278	BM	10 m(ver) ::	1/event	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3284	AM		4/yr	30 m :: Land/L	N/A :: Sfc
GLRS-A	*ALT*	*Landform Morphology*	*Schutz et al*	*2858*				*100-500mm ::*	*1/wk, 1/yr*	*0.1-10 km :: Land*	*100-500 mm :: Sfc*
					Isacks	2851	BM		1/mission	15-30 m :: Land/R	N/A :: Sfc
					Mouginis-Mark	3284	BM		4/yr	30 m :: Land/L	N/A :: Sfc
					Moore	2915	AM $-	20% :: 20%	1/wk	1-25 km :: Land	
GLRS-A	*ALT*	*Volcano Deformation(Inflation-Deflation)*	*Schutz et al*	*3271*				*5/yr-100/d ::*	*1/day, 1/yr*	*1 km :: Land/L*	*:: Sfc*
					Mouginis-Mark	3269	BM	1 cm(ver) ::	1/day	cm [?] :: [30 km^2/10]	N/A :: Sfc
					Mouginis-Mark	3274	BM	1-5 (ver) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
GLRS-A	*ALT*	*Cloud Height*	*Spinhirne*	*1400*				*75 m ::*	*1/(2-16 day)*	*2-10 km :: G*	*75 m ::*
					Bates	1406	BM	50 m ::	2/day	50 km :: G	N/A :: Cloud
					Bates	1401	AM	500 m ::	2/day	50 km :: G	N/A :: Cloud
					Lau	1402	AM	100 m ::	2/day	50 km :: G	N/A :: Atmos
					Bates	2069	AM $-		1/day	100 km :: G	0.5 km :: Trop
					Bates	2072	AM $-	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Lau	2070	AM $-	5% :: 5%	1/day	100 km :: G	N/A ::
GLRS-A	*ALT*	*Cloud Structure, Cirrus*	*Spinhirne*	*1410*				*0.2 ::*	*1/(2-16 day)*	*1-10 km :: G*	*75 m ::*
					Bates	2069	AM $-		1/day	100 km :: G	0.5 km :: Trop
					Lau	2070	AM $-	5% :: 5%	1/day	100 km :: G	N/A ::
					Bates	2072	AM $-	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Bates	1401	AM	500 m ::	2/day	50 km :: G	N/A :: Cloud
					Lau	1402	AM	100 m ::	2/day	50 km :: G	N/A :: Atmos
GLRS-A	*ALT*	*Cloud Cover*	*Spinhirne*	*2078*				*1% ::*	*1/(2-16 day)*	*10-200 km :: G*	*N/A ::*
					Hansen	2052	AM	3% ::	1/wk	500 km :: G	:: Cloud
					Lau	2054	AM	5% :: 5%	2/day	50 km :: R	N/A :: Atmos
					Liu	2055	AM			:: Ocean	N/A :: Cloud
					Murakami	2058	AM	10% ::			N/A :: Cloud
					Simard	2056	AM	5% ::		:: Canada/R	N/A :: Cloud
					Harris	3436	AM	5-10% :: 2-5%	2/day	5-50 km :: Ocean/R	
					Bates	2069	AM $-		1/day	100 km :: G	0.5 km :: Trop
					Lau	2070	AM $-	5% :: 5%	1/day	100 km :: G	N/A ::
					Barron	2049	AM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
					Bates	2072	AM $-	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Kerr, Sorooshian	2075	AM	5% :: 5%	1/day	10 km :: Land/R	N/A :: Cloud
					Barron	2050	AM	5 :: 5	1/day	10 km :: R	N/A :: Cloud
GLRS-A	*ALT*	*Cloud Optical Depth, Cirrus*	*Spinhirne*	*2300*				*20% ::*	*1/(2-16 day)*	*1-100 km :: G*	
					Hartmann	2306	AM	25% :: 0.25	1/day	10 km :: Ocean	N/A :: Cloud
					Wielicki	2289	AM	0.10 :: 0.10	1/day	1.25 dg :: G	N/A :: Atmos
GLRS-A	*ALT*	*Aerosol Layer Boundary Height*	*Spinhirne et al*	*1014*				*150 m ::*	*1/(2-16 day)*	*2-200 km :: G*	*75 m :: Atmos*
					Bates	1013	BM	75 m ::		2-200 km :: G	75 m :: Atmos
					Bates	1642	BM	75 m ::		200 km :: G	75 m :: Trop
					Isacks	1015	BM	75 m ::	1/event, 1/mo	2 km :: Land/R	75 m :: Atmos
					Sellers	1004	AM				
					Mouginis-Mark	3285	AM	200m(ver) ::	1/day	1 km :: Land/R	N/A :: Plume_col

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
GLRS-A	*ALT*	*Cloud Height, Base*	*Spinhirne et al*	*1389*				*75 m ::*	*1/(2-16 day)*	*2-100 km :: G*	*75 m :: Cloud*
					Kerr, Sorooshian	1385	BM	200m :: 200m	1/hr	1 km :: Land	100 mb :: Trop
					Bates	1383	AM	:: 100 mb		25 km :: G	100 mb :: Cloud
					Wielicki	1387	AM	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
GLRS-A	*ALT*	*Cloud Height, PSC*	*Spinhirne et al*	*1405*				*150 m ::*	*1/(2-16 day)*	*2-200 km :: Polar*	*75 m :: Strat*
					Pyle	1404	AM		2/day	:: G	:: Strat
					Grose	3307	AM	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
GLRS-A	*ALT*	*Cloud Height, Top*	*Spinhirne et al*	*1425*				*75 m ::*	*1/(2-16 day)*	*200 m :: G*	*75 m :: Cloud*
					Wielicki	1421	AM	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
					Barron	1413	AM	100 m :: 25 m	1/day	10 km :: R	100 m :: Cloud
					Kerr, Sorooshian	1417	AM	:: 0.5 km	1/hr	1 km :: Land/R	:: Cloud
					Barron	1414	AM	100 m :: 25 m	1/day	30 m :: L	100 m :: Cloud
GLRS-A	*ALT*	*PBL Height*	*Spinhirne et al*	*1514*				*150 m ::*	*1/(2-16 day)*	*2-200 km :: G*	*75 m :: Trop*
					Bates	1512	BM	75 m ::		2-200 km :: G	75 m :: Trop
					Dickinson	3329	BM				
					Mouginis-Mark	3302	BM		1/day	30 m :: Land/R	N/A :: Plume_col
					Sellers	1513	BM				
					Barron	1511	BM	75 m ::	1/day	100 km :: G	100 m :: Mixed_lyr
					Barron	1510	BM	75 m ::	1/day	10 km :: R	100 m :: Mixed_lyr
GLRS-A	*ALT*	*Aerosol Optical Depth*	*Spinhirne et al*	*2291*				*20% ::*	*1/(2-16 day)*	*2-200 km :: G*	*N/A :: Atmos*
					Hansen	1001	AM	tau=0.02 ::	1/wk	500 km :: G	:: Trop
					Isacks	2326	AM	5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
					Murakami	2327	AM	5-10% ::		:: G	N/A :: Atmos
					Hansen	2287	AM	tau=0.02 ::	1/wk	500 km :: G	:: Strat
					Sellers	2288	AM	::			
GLRS-A	*ALT*	*Cloud Optical Depth*	*Spinhirne et al*	*2308*				*0.1 ::*		*2-200 km :: G*	*N/A :: Cloud*
					Dickinson	3382	AM			<0.5-1 deg :: G	
					Bates	2304	AM		1/day	15 x 45 km :: G	N/A :: Cloud
HIRDLS	*CHEM*	*CFC-12(CF2Cl2) Conc*	*Barnett, Gille*	*1047*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-30 km*
					Murakami	1374	BM	20% ::			N/A :: TOA
					Schoeberl	1044	BM	15% :: 10	1/day	2 x 3 dg :: G	1.5 km :: Strat
					Hansen	1057	BM		1/wk	500 km :: G	:: Trop
					Grose	1042	BM	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
					Pyle	1043	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
HIRDLS	*CHEM*	*CFC-11(CFCl3) Conc*	*Barnett, Gille*	*1055*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-30 km*
					Murakami	1374	BM	20% ::			N/A :: TOA
					Schoeberl	1052	BM	15% :: 10	1/day	2 x 3 dg :: G	1.5 km :: Strat
					Hansen	1057	BM		1/wk	500 km :: G	:: Trop
					Grose	1050	BM	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
					Pyle	1051	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
HIRDLS	*CHEM*	*CH4 Conc*	*Barnett, Gille*	*1085*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-65 km*
					Murakami	1374	BM	20% ::			N/A :: TOA
					Grose	1074	BM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1078	BM	15% :: 0.05	1/day	2 x 3 dg :: G	1.5 km :: Strat
					Pyle	1077	BM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Hansen	1372	AM-	2% ::	1/wk	500 km :: G	:: Trop
					Hansen	1075	AM	0.10% ::	1/wk	500 km :: Wetlands	:: Trop
					Hansen	1076	AM		1/wk	500 km :: G	:: Trop

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
HIRDLS	*CHEM*	*HNO3 Conc*	*Barnett, Gille*	*1202*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 10-40 km*
					Grose	1198	BM	20% :: 5%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
					Pyle	1210	BM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
					Pyle	1199	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1200	BM	15% :: 0.1	1/day	2 x 3 dg :: G	2 km :: Strat
HIRDLS	*CHEM*	*N2O Conc*	*Barnett, Gille*	*1239*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-60 km*
					Murakami	1374	BM	20% ::			N/A :: TOA
					Hansen	1230	BM		1/wk	500 km :: G	:: Trop
					Grose	1229	BM	15% :: 5%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1232	BM	15% :: 10	1/day	2 x 3 dg :: G	2 km :: Strat
					Pyle	1231	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
HIRDLS	*CHEM*	*N2O5 Conc*	*Barnett, Gille*	*1254*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 15-45 km*
					Schoeberl	1252	BM	15% :: 20%	1/day	8 x 10 dg :: G	3 km :: Strat
					Grose	1250	BM	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1251	BM	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
HIRDLS	*CHEM*	*NO2 Conc*	*Barnett, Gille*	*1273*				*5-10% :: 3-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 10-55 km*
					Grose	1269	BM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1270	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1271	BM	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
HIRDLS	*CHEM*	*O3 Conc*	*Barnett, Gille*	*1318*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-80 km*
					Bates	1305	BM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Murakami	1310	BM	10% ::			N/A :: TOA
					Schoeberl	1313	BM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
					Grose	1306	BM	2%,5% :: 2%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1311	BM	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1312	BM	10% :: 10%	1/day	4 x 5 dg :: G	2.5 km :: Trop
					Hansen	1307	BM	3% ::	1/wk	500 km :: G	:: Atmos
					Moore	1309	AM	25% :: 10%	1/day	100 km :: G	:: Atmos
HIRDLS	*CHEM*	*Cloud Height, PSC*	*Barnett, Gille*	*1408*				*0.4 km :: 0.4 km*	*2/day [d,n]*	*4 x 4 dg :: G*	*0.4 km :: Strat*
					Pyle	1404	BM		2/day	:: G	:: Strat
					Grose	3307	BM	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
HIRDLS	*CHEM*	*Geopotential Height-Gradient*	*Barnett, Gille*	*1500*				*0.04m/km :: 0.04m/km*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 15-80 km*
					Bates	1499	BM	0.04m/km ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
HIRDLS	*CHEM*	*Pressure*	*Barnett, Gille*	*1524*				*0.1% :: 0.1%*	*2/day [d,n]*	*4 x 4 dg :: G*	*0.2 km :: 7-80 km*
					Grose	1516	BM	0.05 :: 2%	2/day	15 x 4 dg :: G	3 km :: Mid-atmos
					Kerr, Sorooshian	1518	BM	5% :: 5%	1/hr	25 km :: Land	3 km :: Trop
HIRDLS	*CHEM*	*Cloud Pressure, Top*	*Barnett, Gille*	*1531*				*5-10% :: 5-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*0.4 km :: Trop*
					Dickinson	3330	AM			<0.5-1 deg :: G	
					Hansen	1399	AM	50 m ::	1/wk	500 km :: G	:: Cloud
					Murakami	1418	AM	1 km ::			:: Cloud
HIRDLS	*CHEM*	*Temperature Profile*	*Barnett, Gille*	*1608*				*1K;2K>50km :: 0.3K;1K>50km*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-80 km*
					Bates	1570	BM	1K;2K>50km :: .3;1K>50km	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Hansen	1573	BM	0.3 C ::	1/wk	500 km :: G	:: Strat
					Grose	1572	BM	2 K :: 0.5 K	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
					Schoeberl	1582	BM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
					Bates	1569	AM $-	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
					Kerr, Sorooshian	1577	AM	1 K :: 1 K	2/day	50 km :: Land	1 km :: Atmos

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
HIRDLS	*CHEM*	*Wind Velocity, Geostrophic*	*Barnett, Gille*	*1687*				*3 m/s :: 3 m/s*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-80 km*
					Bates	1685	BM	2 m/s ::	2/day	4 x 4 dg :: G	1-1.5 km :: Atmos
HIRDLS	*CHEM*	*H2O Conc*	*Barnett, Gille*	*1837*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-80 km*
					Bates	1808	BM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Schoeberl	1821	BM	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
					Schoeberl	1822	BM	10% :: 0.05	1/day	4 x 5 dg :: G	2.5 km :: Meso
					Hansen	1812	BM	3% ::	1/wk	500 km :: G	:: Atmos
					Hansen	1864	AM	3% ::	1/wk	500 km :: G	Column :: Strat
					Grose	1811	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Trop/meso
					Pyle	1819	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
HIRDLS	*CHEM*	*Aerosol Extinction Coef*	*Barnett, Gille*	*1992*				*5-10% :: 1-10%*	*2/day [d,n]*	*4 x 4 dg :: G*	*1 km :: 7-30 km*
					Murakami	2327	BM	5-10% ::		:: G	N/A :: Atmos
					Mouginis-Mark	3263	BM		1/wk	:: G	:: Strat
					Bates	1005	BM		1/(1-3 day) [few day]	100 km :: G	1 km :: Atmos
					Pyle	1003	BM		2/day	:: G	:: Strat
					Mouginis-Mark	3264	AM		1/wk	:: G	:: Trop
					Schoeberl	1010	AM-$-	10% :: 5%	1/day	200 km :: G	1 km :: Strat
					Grose	1006	AM $-	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
					Kerr, Sorooshian	1007	AM-$-	5% :: 5%	1/day	25 km :: Land	3 km :: Atmos
					Hansen	1001	AM	tau=0.02 ::	1/wk	500 km :: G	:: Trop
					Hansen	2287	AM	tau=0.02 ::	1/wk	500 km :: G	:: Strat
HIRIS	*AM2*	*Chlorophyll_a Conc, Phytoplankton, Case-I V*	*Carder, Davis*	*2564*				*50% :: 25%*	*1/(2 day) [d]*	*30-90 m :: Ocean-I/L*	*N/A :: TOO*
					Harris	3456	AM	20-30% :: 10-15%	2-10 days	0.25-1 km :: Ocean/R	
HIRIS	*AM2*	*Chlorophyll_a Conc, Case-II Waters*	*Carder, Melack*	*2565*				*100% :: 50%*	*1/(2 day) [d]*	*60-90 m :: Ocean-II/L*	*N/A :: TOO*
					Harris	3454	AM	40% :: 20%	2-10 days	0.25-1 km:: Ocean/R	
HIRIS	*AM2*	*Ocean Water Backscatter Coef@565nm*	*Carder, Melack*	*3210*				*50% :: 25%*	*1/(2 day) [d]*	*30-90 m :: Ocean/L*	*N/A :: Sfc*
					Harris	3448	BM-	20% :: 10%	2-10 days	0.25-1 km :: Ocean/R	
HIRIS	*AM2*	*Gelbstoff Absorption Coef@410nm*	*Carder, Melack*	*3215*				*50% :: 25%*	*1/(2 day) [d]*	*30-90 m :: Ocean-I/L*	*N/A :: TOO*
					Brewer	3213	BM-	50% :: 10%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
					Brewer	3214	BM-	50% :: 10%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
					Harris	3453	BM	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	
HIRIS	*AM2*	*Organic Matter Conc, Dissolved*	*Carder, Melack*	*3314*				*100% :: 50%*	*(>=2)/day*	*0-90 m :: Ocean/L+Land/Lakes*	*N/A :: TOO*
					Brewer	2562	BM	100% :: 10%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
					Richey, Batista	2654	AM-$-	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
HIRIS	*AM2*	*Suspended-Solids Conc, Ocean Water*	*Carder, Melack*	*3315*				*100% :: 50%*	*(>=2)/day*	*0-90 m :: Ocean/L+Land/Lakes*	*N/A :: TOO*
					Barron	2804	BM	25% ::		10 km :: Land/R-Lakes	N/A :: Sfc
HIRIS	*AM2*	*Pigment Conc, Accessory*	*Davis, Melack*	*3072*				*100% :: 50%*	*1/(>=2 day)*	*60-90 m :: Ocean-I/L*	*N/A :: TOO*
					Harris	3459	BM	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	
					Abbott	2584	AM-$-	50% :: 20%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
HIRIS	*AM2*	*Ocean Productivity, Primary,*	*Davis, Melack et a*	*2601*				*100% :: 50%*	*1/(>=2 day)*	*30-90 m :: Ocean/L*	*N/A :: TOO*
					Brewer	2600	BM	50% :: 5%	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
					Harris	3460	AM	30% :: 5%	1/day	1-20 km :: Ocean/R	
HIRIS	*AM2*	*Snow Reflectance, Spectral*	*Dozier*	*2440*				*5% :: 1%*	*1/wk, 1/mo*	*50 m :: Land/L*	*N/A :: Sfc*
					Dickinson	3364	BM			High_res :: Land	
					Lau	2018	BM	10% :: 10%	1/wk	100 m :: Land/R	N/A :: Sfc
					Hansen	2017	AM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Dozier	2020	AM-	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	
					Simard	2019	AM	2% ::		:: Canada/R	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
HIRIS	*AM2*	*Snow Contaminant Conc*	*Dozier*	*2768*				*20% :: 20%*	*1/wk, 1/mo*	*50 m :: Snow/L*	*N/A :: Sfc*
					Dozier	2767	BM	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	
HIRIS	*AM2*	*Glacier Cover, Bare_Ice*	*Dozier*	*2922*				*5% :: 2%*	*1/wk, 1/mo*	*50 m :: Glacier/L*	*N/A :: Sfc*
					Isacks	2923	BM	5% :: 2%	1/seas	10-30 m :: Land/L	N/A :: Sfc
HIRIS	*AM2*	*Snow Liq-water Content*	*Dozier*	*2943*				*100% :: 100%*	*1/wk, 1/mo*	*50 m :: Snow/L*	*N/A :: Sfc*
					Dozier	3039	BM	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	
					Moore	3027	BM		1/wk	1 km :: Land	:: Sfc
					Simard	3043	AM			:: Canada/R	N/A :: Sfc
HIRIS	*AM2*	*Snow Cover*	*Dozier*	*3019*				*5% :: 2%*	*1/wk, 1/mo*	*50 m :: Cryo/L*	*N/A :: Sfc*
					Dozier	3008	BM	10% :: 10%	1/wk, 1/mo	50 x 50 m :: Land/L	N/A :: Sfc
					Simard	3043	BM			:: Canada/R	N/A :: Sfc
					Lau	3012	BM	50 :: 10	1/wk	100 m :: Land/L	N/A :: Sfc
					Isacks	3011	BM	5% :: 2%	1/seas	15-30 m :: Land/L	N/A :: Sfc
					Barron	3004	BM	5% :: 5%	1/day	30 m :: Land/L	N/A :: Sfc
					Hansen	3009	AM	0.02 ::	1/wk	500 km :: Land	:: Sfc
HIRIS	*AM2*	*Snow Cover, Wet*	*Dozier*	*3029*				*5% :: 2%*	*1/wk, 1/mo*	*50 m :: Glacier/L*	*N/A :: Sfc*
					Simard	3043	BM			:: Canada/R	N/A :: Sfc
					Dozier	3028	AM	10% :: 10%	1/wk, 1/mo	50 m :: Snow/L	
HIRIS	*AM2*	*Snow Cover, Wet*	*Dozier*	*3030*				*10% :: 10%*	*1/wk, 1/mo*	*50 m :: Cryo/L*	*N/A :: Sfc*
					Dozier	3028	BM	10% :: 10%	1/wk, 1/mo	50 m :: Snow/L	
HIRIS	*AM2*	*Snow Grain Size*	*Dozier*	*3038*				*200% :: 200%*	*1/wk, 1/mo*	*50 (km?) :: Snow/L*	*N/A :: Sfc*
					Dozier	3037	BM	200% :: 200%	1/wk, 1/mo	50 m :: Snow/L	
					Simard	3043	AM			:: Canada/R	N/A :: Sfc
HIRIS	*AM2*	*Land_sfc Reflectance, Bi-directional, (BRDF, Gerstl*		*2035*				*5% :: 5%*	*1/(16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Sellers	2041	BM			250-500 m :: Land	
					Kerr, Sorooshian	2042	BM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Kerr, Sorooshian	2046	BM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Kerr, Sorooshian	2428	AM	3% :: 5%	1/(2 mo)	30 m :: Land/R	:: Sfc
					Cihlar	3496	AM	0.05 :: 0.001	1 wk (for 1 yr)	:: Canada/R	N/A :: Sfc
					Brewer	2427	AM	3% :: 1%	1/day, 1/seas	.22 km :: Ocean/L	N/A :: Sfc
HIRIS	*AM2*	*Aerosol Optical Depth*	*Gerstl*	*2292*				*0.05 :: 0.01*	*1/(2-16 day)*	*100 m :: L*	*Column :: Atmos*
					Moore	1009	AM-$-	50% ::	1/(2 day)	30 m :: L	
					Moore	1008	AM-$-	50% ::	1/(2 day)	1 km :: G	
					Mouginis-Mark	3273	AM	1 km ::	1/orbit, 1/day	1 km :: Land/L	N/A :: Plume_col
					Sellers	2288	AM	::			
HIRIS	*AM2*	*Precipitable Water*	*Goetz*	*1872*				*10% :: 3%*	*1/(1-3 min), 1(2-16 day)*	*30 m :: L*	*Column :: Atmos*
					Richey, Batista	1863	AM		1/wk	1 km :: R	Column :: Trop
HIRIS	*AM2*	*Precipitable Water*	*Goetz*	*1873*				*10% :: 3%*	*1/(1-3 min), 1/(2-16 day)*	*30 m :: L*	*Column :: Trop*
					Barron	1859	BM	3% :: 1%	1/day	30 m :: L	Column :: Trop
HIRIS	*AM2*	*Level-1B Radiance, HIRIS*	*Goetz*	*2370*							
					Brewer	2414	BM	10% :: TBD	1/day, 1/seas	30 m :: Ocean/L	N/A :: TOO
HIRIS	*AM2*	*Glacier Displacement*	*Kieffer*	*2895*				*1% :: 0.2%*	*1/yr*	*30 m :: Glacier/L*	*N/A :: Sfc*
					Simard	2894	BM	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
					Barron	2929	AM	::		:: Land/Cryo	N/A :: Sfc
					Isacks	2923	AM	5% :: 2%	1/seas	10-30 m :: Land/L	N/A :: Sfc
HIRIS	*AM2*	*Glacier Velocity*	*Kieffer*	*2930*				*10^-6 :: variable*	*1/yr*	*100 m :: Land/Cryo*	*N/A :: Sfc*
					Barron	2929	AM	::		:: Land/Cryo	N/A :: Sfc

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Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
HIRIS	*AM2*	*Ice_Sheet Velocity (Outflow), Polar*	*Kieffer*	*2932*				*10^6 :: variable*	*1/yr*	*100 m :: Cryo*	*N/A :: Sfc*
					Barron	2929	BM	::		:: Land/Cryo	N/A :: Sfc
					Simard	2896	AM	10 cm ::	1/yr, 1/seas	:: Canada/R	N/A :: Sfc
HIRIS	*AM2*	*Landform Sfc units, Geologic*	*Kieffer, Clark*	*2884*				*:: 30%*		*30 m :: L*	*N/A :: Sfc*
					Isacks	2851	BM		1/mission	15-30 m :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2882	BM		1/yr	30 m :: Land/R	:: Sfc
					Lau	3049	AM $-	10 :: 10	1/mission	30 m :: Land/R	N/A :: Sfc
					Isacks	2982	AM $-			15-30 m :: Land/L	N/A :: Sfc
					Barron	2905	AM-$-	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
					Isacks	2902	AM-$-		1/mission, 1/yr	15-30 m :: Land/R	N/A :: Sfc
					Lau	2904	AM-$-	100m^2 :: 100m^2	1/mission	10 m :: Land/L	N/A :: Sfc
HIRIS	*AM2*	*Mineral(CO3) Relative Abundance*	*Rowan, Clark*	*2766*				*10% :: 5%*	*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2795	AM	10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc
					Isacks	2778	AM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
HIRIS	*AM2*	*Mineral(OH) Relative Abundance*	*Rowan, Clark*	*2776*				*10% :: 5%*	*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2795	AM	10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc
					Isacks	2778	AM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
HIRIS	*AM2*	*Mineral(SO4) Relative Abundance*	*Rowan, Clark*	*2784*				*10% :: 5%*	*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2795	AM	10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc
					Isacks	2778	AM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2802	AM		1/yr	30 m :: Land/R	:: Sfc
HIRIS	*AM2*	*Mineral(Fe) Relative Abundance*	*Rowan, Clark*	*2772*				*10% :: 5%*	*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2795	AM	10% :: 5%	1/mission	30 m :: Land/L	N/A :: Sfc
					Isacks	2778	AM		1/mission, 1/mo	15-30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2802	AM		1/yr	30 m :: Land/R	:: Sfc
HIRIS	*AM2*	*Volcano-Activity Temperature*	*Rowan, Goetz*	*3294*				*10 C :: 5 C*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Mouginis-Mark	3292	AM	10 C ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3262	AM	30 m(hor) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3266	AM	(30m)^2 ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3295	AM-	1 C ::	1/yr	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3290	AM	10 C ::	[near-real time ?]	1 km :: G	N/A :: Sfc
HIRIS	*AM2*	*Volcano-Activity Extent*	*Rowan, Goetz*	*3299*					*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Mouginis-Mark	3262	AM	30 m(hor) ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
					Mouginis-Mark	3266	AM	(30m)^2 ::	2/day [d,n]	30 m :: Land/L	N/A :: Sfc
HIRIS	*AM2*	*Land_sfc Reflectance, Directional*	*Slater*	*2432*				*3% :: 1%*	*1/mo*	*30 m :: Land/R,L*	*N/A :: Sfc*
					Kerr, Sorooshian	2428	BM	3% :: 5%	1/(2 mo)	30 m :: Land/R	:: Sfc
					Sellers	2041	AM			250-500 m :: Land	
HIRIS	*AM2*	*Vegetation Crown Height*	*Ustin*	*2656*				*40% :: 20%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Kerr, Sorooshian	2636	BM	10% :: 10%	1/seas	30 m :: Land/R	:: Sfc
					Cihlar	3502	BM			1 km :: Canada/R	N/A :: Sfc
					Dickinson	3402	BM			Med-low_res :: Land	
					Barron	2639	AM $-		1/seas	30 m :: Land/L	N/A :: Sfc
					Schimel	2641	AM $-	:: 5%	1/yr	30 m :: 6 sites/L	N/A :: Sfc
					Schimel	2642	AM $-	:: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
					Schimel	2643	AM $-	:: 5%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Barron	2640	AM $-		1/seas	10 km :: Land/R	N/A :: Sfc
					Richey, Batista	2726	AM $-		1/seas	1 km :: Land/R	N/A :: Sfc
					Richey, Batista	2693	AM-$-	10% :: 10%	1/mo	1 km :: Land/R	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
HIRIS	*AM2*	*Vegetation Crown Spacing*	*Ustin*	*2657*				*40% :: 20%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Kerr, Sorooshian	2638	BM	20% :: 10%		60 m :: Land/R	:: Sfc
					Barron	2639	AM $-		1/seas	30 m :: Land/L	N/A :: Sfc
					Schimel	2641	AM $-	:: 5%	1/yr	30 m :: 6 sites/L	N/A :: Sfc
					Schimel	2642	AM $-	:: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
					Schimel	2643	AM $-	:: 5%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Kerr, Sorooshian	2634	AM			60 m :: Land/R	:: Sfc
					Barron	2640	AM $-		1/seas	10 km :: Land/R	N/A :: Sfc
					Richey, Batista	2693	AM-$-	10% :: 10%	1/mo	1 km :: Land/R	N/A :: Sfc
HIRIS	*AM2*	*Vegetation Index*	*Ustin et al*	*2746*				*20% :: 10%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Isacks	2744	AM	1 :: 0.5	1/mo	30-60 m :: Land/L	N/A :: Sfc
					Barron	2787	AM	5 :: 5	1/seas	30 m :: Land/L	N/A :: Sfc
					Barron	2739	AM	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2733	AM		1/seas	30 m :: Land/R	:: Sfc
					Lau	2734	AM		1/seas	30 m :: Land/L	N/A :: Sfc
					Bates	2676	AM		1/mo	60 m :: Land	N/A :: Sfc
					Barron	2675	AM	0.5 :: 0.2	1/day	30 m :: Land/L	N/A :: Sfc
					Schimel	2678	AM	10% :: 1%	1/wk, 1/mo	30 m :: 6 sites/L	N/A :: Sfc
					Isacks	2743	AM	1 :: 1	1/mo	240-500 m :: Land/R	N/A :: Sfc
					Cihlar	3504	AM	15% :: 15%	once	100 m :: Canada/R	N/A :: Sfc
HIRIS	*AM2*	*PAR, Absorbed, Vegetative, (APAR)*	*Ustin, Wessman*	*2030*				*25% :: 10%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Moore	2328	BM	20% :: 10%	1/day, 1/wk	30 m :: Land/L	
					Schimel	2264	BM-	10% :: 1%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
HIRIS	*AM2*	*Vegetation Biomass, Dead*	*Ustin, Wessman*	*2614*				*30% :: 15%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2612	BM	25% :: 15%	1/mission	30 m :: L	N/A :: Sfc
					Sellers	2628	BM				
					Barron	2613	BM	25% :: 15%	1/mission	10 km :: R	N/A :: Sfc
					Richey, Batista	2627	BM	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
HIRIS	*AM2*	*Vegetation Biomass, Green*	*Ustin, Wessman*	*2620*				*30% :: 15%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2615	BM	25% :: 15%	1/mission	30 m :: L	N/A :: Sfc
					Isacks	2617	BM	40% :: 15%	1/mo	30 m :: Land/L	N/A :: Sfc
					Moore	2619	BM	40% :: 15%	1/(2-16 day)	30 m :: Land/L	:: Sfc
					Sellers	2628	BM				
					Barron	2616	BM	25% :: 15%	1/mission	10 km :: R	N/A :: Sfc
					Dickinson	3397	BM			<0.5-1 deg :: Land	
					Moore	2618	BM	40% :: 15%	1/(2-16 day)	500 m :: Land/R	:: Sfc
					Richey, Batista	2627	BM	20% :: 20%	1/seas	1 km :: Land/R	N/A :: Sfc
HIRIS	*AM2*	*Vegetation Chlorophyll Conc*	*Ustin, Wessman*	*2653*				*25% :: 10%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Schimel	2651	BM	10% :: 1%	1/wk	30 m :: 6 sites/L	N/A :: Sfc
					Schimel	2652	BM	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Moore	2650	BM	20% :: 10%	1/day, 1/wk	1 km :: Land/R	:: Sfc
					Moore	2649	BM	20% :: 10%	1/day, 1/wk	30 m :: Land/L	
HIRIS	*AM2*	*Vegetation Cover*	*Ustin, Wessman*	*2741*				*20% :: 10%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2715	BM	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
					Barron	2787	BM	5 :: 5	1/seas	30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2634	BM			60 m :: Land/R	:: Sfc
					Dickinson	3400	BM			High_res :: Land	
					Kerr, Sorooshian	2630	AM	5% :: 5%	1/seas	:: Land/R	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
HIRIS	*AM2*	*Vegetation Cover*	*Ustin, Wessman*	*2741*	Cihlar	3502	AM			1 km :: Canada/R	N/A :: Sfc
					Barron	2640	AM $-		1/seas	10 km :: Land/R	N/A :: Sfc
					Richey, Batista	2726	AM $-		1/seas	1 km :: Land/R	N/A :: Sfc
					Moore	2721	AM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Sellers	2740	AM		1/(1-4 day)	100 km ::	:: Sfc
					Simard	2720	AM	10% ::		:: Canada/R	N/A :: Sfc
HIRIS	*AM2*	*Cloud Height, Base*	*Welch*	*1390*				*50 m :: 50 m*	*1/(2-16 day)*	*30 m :: L*	*N/A :: Cloud*
					Barron	1382	BM	100 m :: 50 m	1/day	30 m :: L	100 m :: Cloud
					Wielicki	1387	AM	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
					Kerr, Sorooshian	1385	AM	200m :: 200m	1/hr	1 km :: Land	100 mb :: Trop
HIRIS	*AM2*	*Cloud Drop Phase*	*Welch*	*1762*					*1/(2-16 day)*	*30 m :: L*	*N/A :: Cloud*
					Wielicki	1760	AM	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
HIRIS	*AM2*	*Cloud Drop Size-distribution*	*Welch*	*1776*				*20% :: 10%*	*1/(2-16 day)*	*30 m :: L*	*:: Cloud*
					Dickinson	3348	BM			<0.5-1 deg :: G	
					Wielicki	1771	AM	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
					Hartmann	1775	AM	20% :: 20%	1/day	10 km :: G	0-15 km :: Cloud
HIRIS	*AM2*	*Cloud Drop Size(Effective Radius)*	*Welch*	*1778*				*10 um ::*	*1/(2-16 day)*	*30 m :: L*	*:: Cloud*
					Wielicki	1771	AM	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
HIRIS	*AM2*	*Albedo, Cloud*	*Welch*	*2008*				*5% :: 5%*		*90 m :: R*	*:: Cloud*
					Sellers	2007	BM				
					Dickinson	3361	BM			<0.5-1 deg :: G	
					Kerr, Sorooshian	2006	AM $-	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
HIRIS	*AM2*	*Cloud Reflectance, Bi-directional, (BRDF)*	*Welch*	*2037*				*:: 1%*		*30 m :: R*	*:: Cloud*
					Wielicki	2423	AM	5% :: 2%	1/day	0.2-2 km :: R	N/A :: Cloud
HIRIS	*AM2*	*Cloud Cover*	*Welch*	*2079*				*1% :: 0.5%*	*1/(1-3 min), 1/(2-16 day)*	*30 m :: L*	*:: Cloud*
					Barron	2051	BM	5 :: 5	1/day	30 m :: L	N/A :: Cloud
					Wielicki	2077	BM	2% :: 2%	1/(16 day)	30 m :: R	N/A :: Atmos
					Moore	2057	AM	10% :: 10%	1/wk	1 km :: G	
					Kerr, Sorooshian	2075	AM	5% :: 5%	1/day	10 km :: Land/R	N/A :: Cloud
HIRIS	*AM2*	*Cloud Liq_water Content*	*Welch*	*2281*				*30% :: 10%*		*90 m :: R*	*:: Cloud*
					Kerr, Sorooshian	1905	AM			30 m :: Land/R	:: Cloud
HIRIS	*AM2*	*Cloud Optical Depth*	*Welch*	*2309*				*3% :: 1.5%*	*1/(1-3 min), 1/(2-16 day)*	*30 m :: L*	*N/A :: Cloud*
					Barron	2303	BM	3% :: 3%	1/day	30 m :: Ocean/L	N/A :: Cloud
HIRIS	*AM2*	*Cloud Height, Top*	*Welch, Goetz*	*1426*				*500 m :: 250 m*	*1/(2-16 day)*	*30 m :: L*	*N/A :: Cloud*
					Barron	1414	BM	100 m :: 25 m	1/day	30 m :: L	100 m :: Cloud
					Wielicki	1421	AM	0.1 km :: 0.1 km	1/(16 day)	0.2 km :: R	0.1 km :: Atmos
					Kerr, Sorooshian	1417	AM	:: 0.5 km	1/hr	1 km :: Land/R	:: Cloud
HIRIS	*AM2*	*Vegetation Type*	*Wessman*	*2644*				*10% :: 10%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Barron	2729	BM	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
					Kerr, Sorooshian	2733	BM		1/seas	30 m :: Land/R	:: Sfc
					Lau	2734	BM		1/seas	30 m :: Land/L	N/A :: Sfc
					Barron	2739	BM	30 m ::	1/(3 mo)	30 m :: Land/L	N/A :: Sfc
					Cihlar	3504	BM	15% :: 15%	once	100 m :: Canada/R	N/A :: Sfc
					Kerr, Sorooshian	2630	AM	5% :: 5%	1/seas	:: Land/R	N/A :: Sfc
					Barron	2799	AM	5 ? :: 5 ?	1/yr	30 m :: Land/L	N/A :: Sfc
					Barron	2787	AM	5 :: 5	1/seas	30 m :: Land/L	N/A :: Sfc
					Dickinson	3400	AM			High_res :: Land	
					Barron	2728	AM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
HIRIS	*AM2*	*Vegetation Type*	*Wessman*	*2644*	Dickinson	3405	AM			<0.5-1 deg :: Land	
					Hansen	2731	AM	5% ::	1/wk	500 km :: Land	:: Sfc
HIRIS	*AM2*	*Vegetation Cellulose Conc*	*Wessman, Aber*	*2648*				*40% :: 20%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Moore	2647	BM	20% :: 20%	1/(16 day)	30 m :: Land/L	
					Moore	2696	AM-$-	20% :: 20%	1/(16 day)	30 m :: Land/L	:: Sfc
					Moore	2695	AM-$-	20% :: 20%	1/(16 day)	1 km :: Land/R	:: Sfc
HIRIS	*AM2*	*Vegetation Lignin Conc*	*Wessman, Aber*	*2687*				*40% :: 20%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Moore	2684	BM	20% :: 20%	1/(16 day)	30 m :: Land/L	
					Schimel	2685	BM	20% :: 1%	1/seas	30 m :: 6 sites/L	N/A :: Sfc
					Schimel	2686	BM	20% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Moore	2696	AM-$-	20% :: 20%	1/(16 day)	30 m :: Land/L	:: Sfc
					Moore	2695	AM-$-	20% :: 20%	1/(16 day)	1 km :: Land/R	:: Sfc
HIRIS	*AM2*	*Vegetation Leaf-tissue Water Content*	*Wessman, Goetz*	*2761*				*50% :: 20%*	*1/(2-16 day)*	*30 m :: Land/L*	*N/A :: Sfc*
					Moore	2760	BM	20% :: 20%	1/day, 1/wk	30 m :: Land/L	:: Sfc
					Moore	2762	AM-$-	20% :: 20%	1/day, 1/wk	30 m :: Land/L	:: Sfc
LIS	*TRM*	*Lightning Rate*	*Christian*	*1756*				*:: 5%*		*.07 dg :: G*	*N/A :: Atmos*
					Barron	1757	BM	10% :: 10%	1/day	10 km :: G	N/A :: Atmos
					Kerr, Soroosbian	1758	BM	1 :: 1	1/(10 min)	1 km :: Land	:: Trop
					Dickinson	3340	BM			<0.5-1 deg :: G	
					Dickinson	3341	BM			<0.5-1 deg :: G	
LIS	*TRM*	*Lightning Radiant Energy*	*Christian*	*3643*						*.07 dg :: G*	*N/A :: Atmos*
					Dickinson	3340	BM			<0.5-1 deg :: G	
MIMR	*PM*	*Wind Stress, Sea_sfc*	*TBD*	*3594*						*39 km :: Ocean*	*N/A :: Sfc*
					Bates	1709	BM		2/day [d,n]	50 km :: Ocean	N/A :: Sfc
					Brewer	1710	BM	15% :: 5%	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
					Srokosz	1716	BM	1 m/s :: 0.1 m/s	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
					Tapley	1745	BM	10% ::	4/day	50 km :: Ocean	N/A :: Sfc
					Abbott	1707	AM	10% :: 5%	1/(10-20 day)	25 km :: Ocean [Southern]	N/A :: Sfc
					Abbott	1708	AM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
					Bates	1742	AM			:: Ocean	:: Sfc
					Lau	1743	AM	0.01 ::		:: Ocean	N/A :: Sfc
					Liu	1713	AM	1 :: 1	1/day	25 km :: Ocean	N/A :: Sfc
					Murakami	1744	AM	0.01 ::		:: Ocean	N/A :: Sfc
					Hansen	1663	AM-	10% ::	1/wk	500 km :: Ocean	:: Sfc
					Lau	1739	AM	0.5 m/s :: 2%	2/day	100 km :: G	N/A :: Sfc
					Harris	3435	AM	5-10% :: 2-10%	1-10 days	1-25 km :: Ocean/R	N/A :: Sfc
					Tapley	1717	AM	1 m/s ::	4/day	50 km :: Ocean	N/A :: Sfc
MIMR	*PM*	*Wind Stress, Sea_sfc*	*TBD*	*3595*					*1 mo*	*1 dg :: Ocean*	*N/A :: Sfc*
					Bates	1742	BM			:: Ocean	:: Sfc
					Lau	1743	BM	0.01 ::		:: Ocean	N/A :: Sfc
					Murakami	1744	BM	0.01 ::		:: Ocean	N/A :: Sfc
					Abbott	1707	AM	10% :: 5%	1/(10-20 day)	25 km :: Ocean [Southern]	N/A :: Sfc
MIMR	*PM*	*Precipitable Water*	*TBD*	*3596*						*22 km :: Ocean*	*Column :: Trop*
					Harris	3439	BM		1/day	10-25 km :: Ocean/R	
					Liu	1866	BM	0.5 :: 0.5	1/day	25 km :: Ocean	Column :: Trop
					Srokosz	1868	BM	1kg/m^2 :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Atmos
					Abbott	1858	AM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Barron	1860	AM	3% :: 1%	1/day	10 km :: R	Column :: Trop

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MIMR	*PM*	*Cloud Liq_water Total Column*	*TBD*	*3598*						*22 km :: Ocean*	*N/A :: Trop*
					Hartmann	1919	BM	0.05 :: 0.05	1/day	10 km :: Ocean	Column :: Trop
					Barron	1903	BM	0.1 :: 0.05	1/day	10 km :: R	1 km :: Cloud
					Wielicki	1906	AM	20% :: 10%	2/day [d,n]	12-25 km :: G	N/A :: Atmos
					Wielicki	1907	AM	50% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
					Dickinson	3357	AM			<0.5-1 deg :: G	
					Abbott	1918	AM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Srokosz	1922	AM	10% :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Trop
MIMR	*PM*	*Precipitation Rate*	*TBD*	*3600*						*22 km :: Global*	*N/A :: Sfc*
					Abbott	1972	BM	5% :: 1%	(1-2)/day	25 km :: Ocean [Southern]	N/A :: Trop
					Isacks	1933	BM		1/event, 1/mo	5-50 km :: Land/R	N/A :: Sfc
					Simard	1937	BM	20% ::		:: Canada/R	N/A :: Trop
					Srokosz	1975	BM	10% :: 1mm/hr	2/day	10 km :: Ocean [South Atlan]	N/A :: Trop
					Dickinson	3359	BM			<0.5-1 deg :: G	
					Liu	1973	BM	1 :: 1	2/day	25 km :: Ocean	N/A :: Trop
					Bates	1958	BM			10 km :: G	1 lvl :: Sfc
					Kerr, Sorooshian	1959	BM	20% :: 20%	1/day	500 m :: G	N/A :: Trop
					Brewer	1928	AM	2 :: TBD	1/day, 1/seas	:: Ocean/L	N/A :: Sfc
					Brewer	1929	AM	2 :: TBD	1/day, 1/seas	:: Ocean	N/A :: Sfc
					Hartmann	1931	AM	10 :: 10	1/day	10 km :: Ocean	N/A :: Trop
					Lau	1936	AM	2 :: 2	1/day	50 km :: R	N/A :: Sfc
					Murakami	1938	AM	10% ::			
					Wielicki	1940	AM	50% :: 25%	4/day [d,n]	25-50 km :: G	N/A :: Trop
					Barron	1926	AM	2 :: 1	1/day	100 km :: G	N/A :: Trop
					Harris	3441	AM	2 :: 1	2/day	20-50 km :: Ocean/R	
					Sellers	1939	AM		4/day	100 km ::	
					Barron	1927	AM	2 :: 1	1/day	10 km :: R	N/A :: Trop
					Moore	1974	AM	10% :: 10%	1/wk	1 km :: G	
MIMR	*PM*	*Precipitation Index*	*TBD*	*3601*					*1 mo*	*1 dg :: Global*	*N/A :: Sfc*
					Murakami	1938	BM	10% ::			
					Dickinson	3359	BM-			<0.5-1 deg :: G	
					Hansen	1930	BM	10% ::	1/wk	500 km :: G	:: Sfc
					Bates	1968	AM	2mm/hr :: 1mm/hr	2/day [d,n]	50 km :: G	N/A :: Trop
					Isacks	1933	AM-		1/event, 1/mo	5-50 km :: Land/R	N/A :: Sfc
					Bates	1970	AM		1/day	26-52 km :: Land	N/A :: Sfc
					Cihlar	3488	AM	0.1 mm :: 0.1 mm	1 day	500m :: Canada/R	N/A :: Sfc
MIMR	*PM*	*Sea_sfc Temperature (SST)*	*TBD*	*3603*						*60 km :: Ocean*	*N/A :: Sfc*
					Dickinson	3393	BM			<0.5-1 deg :: Ocean	
					Wielicki	2521	BM	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc
					Abbott	2505	AM	1 K :: 0.1 K	(1-2)/day	50 km :: Ocean [Southern]	N/A :: Sfc
					Barron	2506	AM	0.5 K ::	1/day	100 km :: Ocean	N/A :: Sfc
					Lau	2514	AM	0.5 K ::	1/wk	100 km :: Ocean	N/A :: Sfc
					Murakami	2518	AM	0.2 K ::		:: G	N/A :: Sfc
					Lau	2515	AM	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
					Rothrock	2519	AM	1 K :: 1 K	1/(2 day)	30 km :: G	N/A :: Sfc
					Lau	2516	AM	0.5 K ::	1/day	50 km :: R	N/A :: Sfc
					Bates	2509	AM	0.5 K :: 0.4 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MIMR	*PM*	*Sea_sfc Temperature (SST)*	*TBD*	*3604*				*1 K ::*	*1 mo*	*1 dg :: Ocean*	*N/A :: Sfc*
					Dickinson	3393	BM			<0.5-1 deg :: Ocean	
					Murakami	2518	AM	0.2 K ::		:: G	N/A :: Sfc
					Lau	2515	AM	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
MIMR	*PM*	*Soil Moisture*	*TBD*	*3605*						*60 km :: Land*	*N/A :: Sfc*
					Bates	2960	BM	:: 40%		43 km :: Land	N/A :: Sfc
					Dickinson	3411	BM			Low_res :: Land	
					Murakami	3066	BM			:: Land	N/A :: Sfc
					Sellers	2967	BM		1/(1-4 day)	100 km ::	:: Sfc
					Simard	2949	BM	10% ::		:: Canada/R	N/A :: Sfc
					Hansen	2962	BM	10% ::	1/wk	500 km :: Land	:: Sfc
					Barron	2947	BM	0.05 :: 0.02	1/day	100 km :: Land	N/A :: Sfc
					Dickinson	3412	BM			Med_res :: Land	
					Moore	2966	BM	30% :: 30%	1/wk, 1/mo	1-25 km :: Land	:: Sfc
					Barron	2946	BM	0.05 :: 0.02	1/day	10 km :: Land/R	N/A :: Sfc
					Lau	2965	BM	10% :: 5%	1/(3 day)	3 km :: Land/R	N/A :: Sfc
					Richey, Batista	2958	BM		1/mo	1 km :: Land/R	N/A :: Sfc
					Cihlar	3493	AM $-	10% :: 20%		1 km :: Canada/R	N/A :: Sfc
MIMR	*PM*	*Soil Moisture*	*TBD*	*3606*					*1 mo*	*1 dg :: Land*	*N/A :: Sfc*
					Murakami	3066	BM			:: Land	N/A :: Sfc
					Simard	2949	BM	10% ::		:: Canada/R	N/A :: Sfc
					Hansen	2962	BM	10% ::	1/wk	500 km :: Land	:: Sfc
					Dickinson	3411	AM			Low_res :: Land	
MIMR	*PM*	*Snow Cover*	*TBD*	*3607*						*22 km :: Land*	*N/A :: Sfc*
					Barron	3003	BM	5% :: 5%	1/day	100 km :: Land	N/A :: Sfc
					Wielicki	3016	BM	10% :: 5%	1/day	50 km :: Land	N/A :: Sfc
					Sellers	3015	BM		1/(1-4 day)	100 km ::	:: Sfc
					Murakami	3014	AM	10% ::		:: Land	N/A :: Sfc
					Sellers	1984	AM-$-				
					Bates	3006	AM		2/day [d,n]	50 km :: Land	N/A :: Sfc
					Hansen	3009	AM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Bates	3007	AM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
					Simard	3026	AM	10km ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
MIMR	*PM*	*Snow Cover*	*TBD*	*3608*					*1 mo*	*1 dg :: Land*	*N/A :: Sfc*
					Murakami	3014	AM	10% ::		:: Land	N/A :: Sfc
MIMR	*PM*	*Sea_Ice Age*	*TBD*	*3609*						*22 km :: Ocean/Cryo*	*:: Sfc*
					Rothrock	3165	BM	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3173	BM		1/day	100 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3174	BM		1/day	10 km :: Ocean/Cryo	N/A :: Sfc
MIMR	*PM*	*Sea_Ice Conc*	*TBD*	*3611*						*22 km :: Ocean/Cryo*	*N/A :: Sfc*
					Bates	3148	BM	10% :: 10%	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
					Dickinson	3417	BM			<0.5-1 deg :: Ocean/Cryo	
					Rothrock	3165	BM	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Rothrock	3178	BM	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Rothrock	3175	BM	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Wielicki	2919	BM	10% :: 5%	1/day	50 km :: Ocean/Cryo	N/A :: Sfc
					Rothrock	3188	BM	0.03 :: 0.03	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3183	BM	50 cm ::		:: Canada/R	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MIMR	*PM*	*Sea_Ice Conc*	*TBD*	*3611*	Rothrock	3103	BM	0.5 km :: 0.5 km	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3136	BM	5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3173	BM		1/day	100 km :: Ocean/Cryo	N/A :: Sfc
					Bates	3182	BM		1/(3 day)	100 km :: > 60 dgLAT	:: Sfc
					Hansen	3150	BM	3% ::	1/wk	500 km :: Ocean/Cryo	:: Sfc
					Barron	3137	BM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3174	BM		1/day	10 km :: Ocean/Cryo	N/A :: Sfc
					Brewer	3149	BM	10% :: 1%	1/day, 1/seas	10 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3141	BM	10km/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
					Srokosz	3142	BM	10% :: 1%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
					Abbott	3156	AM		1/day	25 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3157	AM	25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
					Srokosz	3158	AM	0.1 dg :: 0.01 dg	1/day	N/A :: Ocean/Cryo	N/A :: Sfc
					Barron	3161	AM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
MIMR	*PM*	*Sea_Ice Extent*	*TBD*	*3613*						*22 km :: Ocean/Cryo*	*N/A :: Sfc*
					Abbott	3156	BM		1/day	25 km :: Ocean/Cryo	N/A :: Sfc
					Rothrock	3175	BM	0.2 :: 0.2	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3162	BM	25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
					Rothrock	3189	BM	0.05 :: 0.05	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3157	BM	25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
					Simard	3190	BM	10km/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
					Srokosz	3158	BM	0.1 dg :: 0.01 dg	1/day	N/A :: Ocean/Cryo	N/A :: Sfc
					Rothrock	3103	BM	0.5 km :: 0.5 km	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3160	BM	5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3161	BM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
MISR	*AM*	*Cloud Height, Top*	*Diner*	*1432**				*<1000 m :: <1000 m*	*1/(5-16 day) [d]*	*5 km :: G*	*N/A :: Trop*
					Dickinson	3349	BM			<0.5-1 deg :: G	
					Barron	1413	AM	100 m :: 25 m	1/day	10 km :: R	100 m :: Cloud
					Rothrock	1419	AM	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
					Hansen	1399	AM	50 m ::	1/wk	500 km :: G	:: Cloud
					Kerr, Sorooshian	1417	AM	:: 0.5 km	1/hr	1 km :: Land/R	:: Cloud
					Wielicki	1422	AM	0.5 km :: 0.1 km	6/day [d,n]	25-100 km :: G	0.1 km :: Atmos
MISR	*AM*	*Cloud Height, Top*	*Diner*	*1433**				*100 m :: 100 m*	*1/(5-16 day) [d]*	*500 m :: R*	*N/A :: Trop*
					Kerr, Sorooshian	1417	BM	:: 0.5 km	1/hr	1 km :: Land/R	:: Cloud
					Barron	1413	AM	100 m :: 25 m	1/day	10 km :: R	100 m :: Cloud
MISR	*AM*	*Aerosol Size-distribution*	*Diner*	*1993*				*15% :: 10%*	*1/(5-16 day) [d]*	*15.4 km :: G*	*Column :: Atmos*
					Bates	1019	BM	:: 20%	1/(5-16 day)	15.4 km :: G	Column :: Atmos
					Hartmann	1020	BM	20% :: 20%	1/day	20 km :: G	N/A :: 0-15 km
					Isacks	1024	AM	:: 20%	1/wk	2-15 km ::	Column :: Atmos
					Schoeberl	1021	AM	10% :: 5%	1/day	200 km :: G	1 km :: Strat
MISR	*AM*	*Aerosol Size-distribution*	*Diner*	*1994**				*15% :: 10%*	*1/(5-16 day)*	*1.9 km :: R*	*Column :: Atmos*
					Isacks	1024	BM	:: 20%	1/wk	2-15 km ::	Column :: Atmos
					Hartmann	1020	AM	20% :: 20%	1/day	20 km :: G	N/A :: 0-15 km
MISR	*AM*	*Albedo, Planetary Spectral, TOA*	*Diner*	*2011*				*<=0.03 :: 0.01*	*1/(5-16 day) [d]*	*1.92 km :: G*	*N/A :: TOA*
					Dickinson	3365	BM			<0.5-1 deg :: G	
					Kerr, Sorooshian	2009	BM	10% :: 10%	1/day	25 km :: Land/R	:: TOA
					Barron	2023	AM	3 ::	1/day	100 km :: G	N/A :: TOA

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MISR	*AM*	*Albedo, Spectral, Land_sfc*	*Diner*	*2021**				*<=0.03 :: 0.01*	*1/(5-16 day) [d]*	*240 m :: R*	*N/A :: Sfc*
					Isacks	1998	BM	:: 3%	1/wk	250 m :: Land/R	N/A :: Sfc
					Dickinson	3366	BM			High_res :: Land	
					Dozier	2020	BM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	
					Kerr, Sorooshian	2014	BM	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
MISR	*AM*	*Albedo, Spectral, Land_sfc*	*Diner*	*2022*				*<=0.03 :: 0.01*	*1/(5-16 day) [d]*	*1.92 km :: G*	*N/A :: Sfc*
					Simard	2019	BM	2% ::		:: Canada/R	N/A :: Sfc
					Dickinson	3367	BM			High_res :: Land	
					Hansen	2017	BM	0.02 ::	1/wk	500 km :: Land	:: Sfc
MISR	*AM*	*Cloud Reflectance, Bi-directional, (BRDF)*	*Diner*	*2038**				*3% :: 1%*	*[variable] [d]*	*240 m :: R*	*N/A :: Trop*
					Wielicki	3615	BM	5% :: 2%	TBD	10 dg [Angle] :: G	N/A :: Cld
					Wielicki	2423	BM	5% :: 2%	1/day	0.2-2 km :: R	N/A :: Cloud
					Kerr, Sorooshian	2006	AM $-	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
					Sellers	2007	AM				
MISR	*AM*	*Cloud Reflectance, Bi-directional, (BRDF)*	*Diner*	*2039**				*3% :: 1%*	*[variable] [d]*	*1.92 km :: G*	*N/A :: Trop*
					Liu	2546	BM			:: G	N/A :: Cloud
					Wielicki	3615	BM	5% :: 2%	TBD	10 dg [Angle] :: G	N/A :: Cld
					Wielicki	2423	BM	5% :: 2%	1/day	0.2-2 km :: R	N/A :: Cloud
MISR	*AM*	*Aerosol Optical Depth*	*Diner*	*2298**				*0.05/10% :: 0.05/10%*	*1/(5-16 day) [d]*	*1.92 km :: R*	*Column :: Atmos*
					Isacks	2326	BM	5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
					Kerr, Sorooshian	2325	BM	10% :: 10%	1/(5-16 day)	10 km :: Land/R	:: Atmos
					Murakami	2327	AM	5-10% ::		:: G	N/A :: Atmos
					Moore	1008	AM-$-	50% ::	1/(2 day)	1 km :: G	
					Sellers	2288	AM	::			
					Mouginis-Mark	3273	AM	1 km ::	1/orbit, 1/day	1 km :: Land/L	N/A :: Plume_col
MISR	*AM*	*Aerosol Optical Depth*	*Diner*	*2299*				*0.05/10% :: 0.05/10%*	*1/(5-16 day) [d]*	*15.4 km :: G*	*Column :: Atmos*
					Hansen	1001	BM	tau=0.02 ::	1/wk	500 km :: G	:: Trop
					Hansen	2287	BM	tau=0.02 ::	1/wk	500 km :: G	:: Strat
					Hartmann	1002	BM	tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
					Dickinson	3383	AM			<0.5-1 deg :: G	
					Sellers	2288	AM	::			
					Wielicki	2289	AM	0.10 :: 0.10	1/day	1.25 dg :: G	N/A :: Atmos
					Harris	3444	AM	10%,0.05 :: 5%,0.02	2/day-1/day	20-50 km :: Ocean/R	
MISR	*AM*	*Pigment Conc, Phytoplankton*	*Diner*	*2588**				*30% :: 30%*	*1/(1-2 day) [d]*	*240 m :: Ocean/R*	*N/A :: TOO*
					Srokosz	2563	AM	10% :: 0.1mg	1/day	1 km :: Ocean [South Atlan]	N/A :: Sfc
					Abbott	2587	AM	35% :: 10%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
MISR	*AM*	*Pigment Conc, Phytoplankton*	*Diner*	*2589*				*30% :: 30%*	*1/(1-2 day) [d]*	*1.92 km :: Ocean/G,R*	*N/A :: TOO*
					Abbott	2587	BM	35% :: 10%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
					Rothrock	2590	BM		1/(2 day)	10 km :: Polar	N/A :: TOO
MISR	*AM*	*Land_sfc Reflectance, Bi-directional, (BRDF,*	*Diner*	*2631*				*5% :: 2%*	*1/(5-16 day) [d]*	*1.92 km :: G*	*N/A :: Sfc*
					Sellers	2034	BM				
					Wielicki	2043	BM	5% :: 2%	1/day [d]	0.2-2km :: R	N/A :: Sfc, Atmos
					Cihlar	3496	BM	0.05 :: 0.001	1 wk (for 1 yr)	:: Canada/R	N/A :: Sfc
					Dickinson	3370	AM			<0.5-1 deg :: Land	
					Dickinson	3371	AM			<0.5-1 deg :: Land	
					Dickinson	3369	AM			<0.5-1 deg :: G	
					Brewer	2426	AM	3% :: 1%	1/day, 1/seas	1.7 km :: Ocean	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MISR	*AM*	*Land_sfc Reflectance, Bi-directional, (BRDF,*	*Diner*	*2632*				*5% :: 2%*	*1/(5-16 day) [d]*	*240 m :: R*	*N/A :: Sfc*
					Sellers	2041	BM			250-500 m :: Land	
					Wielicki	2043	BM	5% :: 2%	1/day [d]	0.2-2km :: R	N/A :: Sfc, Atmos
					Kerr, Sorooshian	2042	BM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Kerr, Sorooshian	2046	BM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Cihlar	3496	BM	0.05 :: 0.001	1 wk (for 1 yr)	:: Canada/R	N/A :: Sfc
					Kerr, Sorooshian	2428	AM	3% :: 5%	1/(2 mo)	30 m :: Land/R	:: Sfc
					Brewer	2427	AM	3% :: 1%	1/day, 1/seas	.22 km :: Ocean/L	N/A :: Sfc
MISR	*AM*	*Vegetation Index, Normalized*	*Diner*	*2756*				*2% :: 2%*	*1/(5-16 day) [d]*	*1.92 km :: Land*	*N/A :: Sfc*
					Hansen	2742	AM	5% ::	1/wk	500 km :: Land	:: Sfc
MISR	*AM*	*Vegetation Index, Normalized*	*Diner*	*2757**				*2% :: 2%*	*1/(5-16 day) [d]*	*240 m :: Land/R*	*N/A :: Sfc*
					Isacks	2743	BM	1 :: 1	1/mo	240-500 m :: Land/R	N/A :: Sfc
MISR	*AM*	*Topographic Elevation, Land_sfc*	*Diner*	*2846**				*100 m :: 100 m*	*1/mission*	*500 m :: Land*	*N/A :: Sfc*
					Isacks	2838	BM	:: 120	1/mission	720 m :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2826	BM	50 m :: 50 m	1/mission	500 m :: Land	N/A :: Sfc
					Moore	2827	BM	1m ::			:: Sfc
					Barron	2823	BM		1/mission	10 km :: Land/R	30 m :: Sfc
					Dickinson	3410	BM			Low_res :: Land	
					Wielicki	2847	BM	200 m :: 200 m	1/mission	10 km :: Land	N/A :: Sfc
					Cihlar	3495	AM $-	5-10 m ::	once	30 m :: Canada/R	10 m :: Sfc
					Mouginis-Mark	3276	AM	10 m(ver) ::	1/mission	30 m :: Land/L	N/A :: Sfc
MISR	*AM*	*Eruption-Plume Height*	*Diner*	*3286**				*100 m :: 100 m*	*[variable] [d]*	*500 m :: Land/L*	*N/A :: Plume_top*
					Mouginis-Mark	3285	BM	200m(ver) ::	1/day	1 km :: Land/R	N/A :: Plume_col
MISR	*AM*	*Aerosol Optical Depth*	*Diner*	*3676*				*0.05/10% :: 0.05/10%*	*9,16 day; mo; seas; yr*	*15.4 km ? :: G*	*Column :: Atmos*
					Hansen	1001	BM	tau=0.02 ::	1/wk	500 km :: G	:: Trop
					Hartmann	1002	AM	tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
MISR	*AM*	*Aerosol Size-distribution*	*Diner*	*3678*				*15% :: 10%*	*9,16 day; mo; seas; yr*	*15.4 km ? :: G*	*Column :: Atmos*
					Bates	1019	BM	:: 20%	1/(5-16 day)	15.4 km :: G	Column :: Atmos
					Hartmann	1020	BM	20% :: 20%	1/day	20 km :: G	N/A :: 0-15 km
					Isacks	1024	AM	:: 20%	1/wk	2-15 km ::	Column :: Atmos
					Schoeberl	1021	AM	10% :: 5%	1/day	200 km :: G	1 km :: Strat
MISR	*AM*	*Albedo, Planetary Spectral, TOA*	*Diner*	*3679*				*<=0.03 :: 0.01*	*9,16 day; mo; seas; yr*	*1.92 km ? :: G*	*N/A :: TOA*
					Dickinson	3365	AM			<0.5-1 deg :: G	
MLS	*MO*	*BrO(Br^81-O) Conc*	*Waters*	*1030*				*:: 1x10-12*	*1/mo. [z. mean]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: 15-50 km*
					Grose	1026	BM	20% :: 15%	1/wk	30 x 4 dg :: G	3 km :: Strat
					Pyle	1027	BM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1028	BM	20% :: 1	1/wk	8 x 10 dg :: G	2 km :: Strat
MLS	*MO*	*CH3Cl Conc*	*Waters*	*1070*				*:: 1x10-11*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: TPSE, 40 km*
					Grose	1065	BM	15% :: 5%	1/wk	30 x 4 dg :: G	3 km :: Strat
					Schoeberl	1067	BM	15% :: 20	1/wk	8 x 10 dg :: G	3 km :: Strat
					Pyle	1066	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
MLS	*MO*	*ClO Conc*	*Waters*	*1107*				*<=5% :: 0.3-3x10-10*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: TPSE, 70 km*
					Grose	1103	BM	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1105	BM	10% :: 0.02	1/day	8 x 10 dg :: G	3 km :: Strat
					Pyle	1104	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
MLS	*MO*	*CO Conc*	*Waters*	*1124*				*<=5% :: 3x10-8*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: TPSE, 60 km*
					Grose	1116	BM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1121	BM	15% :: 5	1/day	8 x 10 dg :: G	3 km :: Mid-atmos

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MLS	*MO*	*CO Conc*	*Waters*	*1124*	Pyle	1119	BM	15% :: 5%	2/day	15 x 4 km :: G	2 km :: Strat
					Moore	1118	AM	25% :: 10%	1/day	100 km :: G	:: Trop
					Hansen	1117	AM	0.10% ::	1/wk	500 km ::	:: Trop
MLS	*MO*	*CO Conc*	*Waters*	*1125*				*<=5% :: 1x10-5*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: 60-100 km*
					Grose	1116	BM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1121	BM	15% :: 5	1/day	8 x 10 dg :: G	3 km :: Mid-atmos
					Pyle	1119	AM	15% :: 5%	2/day	15 x 4 km :: G	2 km :: Strat
MLS	*MO*	*H2O2 Conc*	*Waters*	*1171*				*:: 1x10-10*	*1/day [z. mean]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: 30-40 km*
					Schoeberl	1168	BM	20% :: .1t,.05s	1/wk	8 x 10 dg :: G	2 km :: Strat
					Grose	1166	AM	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Strat
					Pyle	1167	AM	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
MLS	*MO*	*HCl(H_Cl^35) Conc*	*Waters*	*1188*				*<=5% :: 0.1-10x10-10*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: TPSE, 90 km*
					Grose	1182	BM	15% :: 10%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1184	BM	15% :: 0.1	1/day	4 x 5 dg :: G	2 km :: Strat
					Pyle	1183	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Mouginis-Mark	3283	AM		1/day	:: G	N/A :: Plume_col
MLS	*MO*	*HCl(H_Cl^37) Conc*	*Waters*	*1189*				*<=5% :: 0.1-10x10-10*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: TPSE, 80 km*
					Grose	1182	BM	15% :: 10%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1184	BM	15% :: 0.1	1/day	4 x 5 dg :: G	2 km :: Strat
					Pyle	1183	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Mouginis-Mark	3283	AM		1/day	:: G	N/A :: Plume_col
MLS	*MO*	*HCN Conc*	*Waters*	*1191*				*<=5% :: 4x10-11*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: 20-65 km*
					Schoeberl	1190	BM	20% :: 0.01	1/wk	8 x 10 dg :: G	3 km :: Strat
MLS	*MO*	*HNO3 Conc*	*Waters*	*1203*				*<=5% :: 5x10-10*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: TPSE, 46 km*
					Grose	1198	AM	20% :: 5%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
					Schoeberl	1200	AM	15% :: 0.1	1/day	2 x 3 dg :: G	2 km :: Strat
					Pyle	1199	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
MLS	*MO*	*HO2 Conc*	*Waters*	*1216*				*:: 3-20x10-10*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: 30-80 km*
					Schoeberl	1214	BM	15% :: 0.02	1/day [d]	6 x 8 dg :: G	2 km :: Strat
					Pyle	1213	BM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
					Grose	1212	AM	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
MLS	*MO*	*HOCl Conc*	*Waters*	*1222*				*:: 3x10-11*	*1/day*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km :: 25-45 km*
					Schoeberl	1220	BM	20% :: 0.02	1/wk	8 x 10 dg :: G	3 km :: Strat
					Pyle	1219	BM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
					Grose	1218	AM	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
MLS	*MO*	*N2O Conc*	*Waters*	*1240*				*<=5% :: 1-10x10-8*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 65 km*
					Pyle	1231	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Grose	1229	AM	15% :: 5%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1232	AM	15% :: 10	1/day	2 x 3 dg :: G	2 km :: Strat
MLS	*MO*	*NO Conc*	*Waters*	*1266*				*:: 1-10x10-7*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: 30-120 km*
					Grose	1262	BM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1263	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1264	BM	15% :: .2s,1.0m	1/day [d]	4 x 5 dg :: G	2 km :: Mid-atmos
MLS	*MO*	*NO2 Conc*	*Waters*	*1274*				*:: 1-8x10-8*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: 30-60 km*
					Grose	1269	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1271	AM	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
					Pyle	1270	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MLS	*MO*	*O3 Conc*	*Waters*	*1319*				*<= 3% :: 1%(<50km)*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 110 km*
					Schoeberl	1313	BM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
					Pyle	1311	BM	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
					Bates	1305	AM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Murakami	1310	AM	10% ::			N/A :: TOA
					Hansen	1307	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Grose	1306	AM	2%,5% :: 2%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
MLS	*MO*	*O3O3(NU1.3) Conc*	*Waters*	*1326*				*:: 50%*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: 20-60 km*
					Schoeberl	1313	AM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
MLS	*MO*	*O3 Conc*	*Waters*	*1328*				*:: 10%*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 70 km*
					Schoeberl	1313	AM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
					Hansen	1307	AM	3% ::	1/wk	500 km :: G	:: Atmos
MLS	*MO*	*O3(N18OOO) Conc*	*Waters*	*1343*				*:: 20%*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: 20-60 km*
					Schoeberl	1342	BM	10% :: 10%	1/wk	8 x 10 dg :: G	5 km :: Strat
MLS	*MO*	*OClO Conc*	*Waters*	*1352*				*:: 3x10-11*	*1/mo. [z. mean]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 25 km*
					Schoeberl	1351	AM	20% :: 0.01	1/wk [n]	8 x 10 dg :: G	3 km :: Strat
					Grose	1349	AM	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
					Pyle	1350	AM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
MLS	*MO*	*SO2 Conc*	*Waters*	*1369*				*:: 5x10-10*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 30 km*
					Schoeberl	1366	BM	20% ::	1/wk	8 x 10 dg :: G	3 km :: Strat
					Mouginis-Mark	3288	AM		[near-real time ?]	1 km :: G	N/A :: Plume_col
					Mouginis-Mark	3289	AM		1/day	1 km :: G	N/A :: Plume_col
MLS	*MO*	*Pressure*	*Waters*	*1525*				*:: 1%(30-50km)*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 70 km*
					Grose	1516	AM	0.05 :: 2%	2/day	15 x 4 dg :: G	3 km :: Mid-atmos
MLS	*MO*	*Temperature Profile*	*Waters*	*1609*				*:: 2K <100km)*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 120 km*
					Bates	1569	AM $-	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
					Bates	1570	AM	1K;2K>50km :: 3;1K>50km	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Hansen	1573	AM	0.3 C ::	1/wk	500 km :: G	:: Strat
					Schoeberl	1582	AM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
					Grose	1572	AM	2 K :: 0.5 K	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
					Pyle	1581	AM	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
MLS	*MO*	*Wind Speed*	*Waters*	*1734*				*:: 10m/s*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: 60-110 km*
					Pyle	1714	BM	5 m/s :: 5 m/s	2/day	15 x 4 km :: G	2 km :: Strat
					Grose	1662	AM-$-	5m/s,10dg :: 5m/s,5dg	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
MLS	*MO*	*H2O Conc*	*Waters*	*1838*				*:: 2% <50km*	*2/day [d,n]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: TPSE, 100 km*
					Schoeberl	1821	BM	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
					Hansen	1864	AM	3% ::	1/wk	500 km :: G	Column :: Strat
					Schoeberl	1822	AM	10% :: 0.05	1/day	4 x 5 dg :: G	2.5 km :: Meso
					Hansen	1812	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Grose	1811	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Trop/meso
					Bates	1808	AM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Pyle	1819	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
MLS	*MO*	*Cloud Liq_water Content*	*Waters*	*1898*				*:: 5%*	*1/day [z. mean]*	*0.1 x 2.5 dg :: 82N-82S*	*2.5 km [1.2] :: Upper Trop*
					Dickinson	3357	AM			<0.5-1 deg :: G	
					Bates	1894	AM	:: 75%	1/(6 hr)	1 x 1 dg :: G	1yr :: 0-30 km
MODIS	*AM,PM*	*Chlorophyll_a Conc (via Fluorescence)*	*Abbott*	*2566**				*50-100% :: 35%*	*1/day, 1/wk*	*1 km :: Ocean/R,L*	*N/A :: TOO*
					Harris	3454	BM	40% :: 20%	2-10 days	0.25-1 km:: Ocean/R	
					Harris	3455	AM	20-30% :: 10-15%	1/day	1-20 km :: Ocean/R	

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Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Chlorophyll_a Conc (via Fluorescence)*	*Abbott*	*2566**	Srokosz	2563	AM	10% :: 0.1mg	1/day	1 km :: Ocean [South Atlan]	N/A :: Sfc
MODIS	*AM,PM*	*Chlorophyll_a Conc (via Fluorescence)*	*Abbott*	*2567**				*50-100% :: 35%*	*1/day, 1/wk*	*4 km :: Ocean/G,R*	*N/A :: TOO*
					Harris	3455	AM	20-30% :: 10-15%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Chlorophyll Fluorescence Line Height*	*Abbott*	*2575*				*.004 :: .001*	*1/day, 1/wk*	*4 km :: Ocean/G,R*	*N/A :: TOO*
					Harris	3462	BM	25% :: 5%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Chlorophyll Fluorescence Line Height*	*Abbott*	*2576*				*.004 :: .001*	*1/day, 1/wk*	*1 km :: Ocean/R,L*	*N/A :: TOO*
					Harris	3462	BM	25% :: 5%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Ocean Productivity, Primary, Near_sfc [via I*	*Abbott*	*2602**				*:: 50-100%*	*1/day, 1/wk*	*1 km :: Ocean-I/R,L*	*N/A :: TOO*
					Abbott	2597	BM		1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
					Harris	3460	BM	30% :: 5%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Ocean Productivity, Primary, Near_sfc [via I*	*Abbott*	*2603**				*:: 50-100%*	*1/day, 1/wk*	*4 km :: Ocean-I/G,R*	*N/A :: TOO*
					Harris	3460	BM	30% :: 5%	1/day	1-20 km :: Ocean/R	
					Hansen	2512	AM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
MODIS	*AM,PM*	*Land_sfc Emissivity*	*Barton*	*2110**				*0.01 :: 0.01*	*1/day, 1/wk*	*1 km :: G,R*	*N/A :: Sfc*
					Cihlar	3487	AM	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
MODIS	*AM,PM*	*Land_sfc Emissivity*	*Barton*	*2111**				*0.01 :: 0.01*	*1/day, 1/wk*	*50 km :: G,R*	*N/A :: Sfc*
					Dickinson	3373	BM			<0.5-1 deg :: Land	
					Cihlar	3487	BM	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
					Wielicki	2120	BM	0.025 :: 0.025	2/day [d,n]	1.25 dg :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Sea_sfc Temperature (SST)*	*Brown*	*2527*				*0.3-0.5 K :: 0.1-0.3 K*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean/L*	*N/A :: Sfc*
					Abbott	2504	BM	0.5 K :: 0.05 K	(1-2)/day	1-4 km :: Ocean [Southern]	N/A :: Sfc
					Harris	3451	BM	0.5-1 K :: 0.2-0.3 K	1/day	0.25-1 km :: Ocean/R	
					Srokosz	2520	BM	0.3 K(IR) :: 0.1 K	2/day	100-1 km :: Ocean [South Atlan	N/A :: Sfc
					Kerr, Sorooshian	1631	AM	1 K :: 1 K	2/day [d,n]	500 m :: Land/R	N/A :: Sfc
					Hansen	2512	AM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Hartmann	2513	AM	0.5 K :: 0.5 K	1/day	10 km :: Ocean	N/A :: Sfc
					Liu	2517	AM	0.5 :: 0.5	1/wk	10 km :: G	N/A :: Sfc
					Lau	2515	AM	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
MODIS	*AM,PM*	*Sea_sfc Temperature (SST)*	*Brown*	*2528*				*0.3-0.6K :: 0.1-0.3K*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean/G,R*	*N/A :: Sfc*
					Bates	2508	BM	0.3-0.6 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
					Brewer	2511	BM	0.5 K :: 0.5 K	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
					Harris	3452	BM	0.5-1 K :: 0.2-0.3 K	1/day	20 km :: Ocean/R	
					Murakami	2518	BM	0.2 K ::		:: G	N/A :: Sfc
					Rothrock	2519	BM	1 K :: 1 K	1/(2 day)	30 km :: G	N/A :: Sfc
					Hansen	2512	BM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Abbott	2505	AM	1 K :: 0.1 K	(1-2)/day	50 km :: Ocean [Southern]	N/A :: Sfc
					Barron	2506	AM	0.5 K ::	1/day	100 km :: Ocean	N/A :: Sfc
					Lau	2514	AM	0.5 K ::	1/wk	100 km :: Ocean	N/A :: Sfc
					Lau	2516	AM	0.5 K ::	1/day	50 km :: R	N/A :: Sfc
					Lau	2515	AM	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
					Wielicki	2521	AM	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc
					Bates	2509	AM	0.5 K :: 0.4 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
					Barron	2507	AM	0.5 K ::	1/day	10 km :: Ocean/R	N/A :: Sfc
					Hartmann	2513	AM	0.5 K :: 0.5 K	1/day	10 km :: Ocean	N/A :: Sfc
MODIS	*AM,PM*	*Sea_sfc Temperature (SST)*	*Brown*	*2529*				*0.3-0.6K :: 0.1-0.3K*	*1/day, 1/wk, 1/mo*	*4 km :: Ocean/R,L*	*N/A :: Sfc*
					Abbott	2504	BM	0.5 K :: 0.05 K	(1-2)/day	1-4 km :: Ocean [Southern]	N/A :: Sfc
					Barron	2507	BM	0.5 K ::	1/day	10 km :: Ocean/R	N/A :: Sfc
					Hartmann	2513	BM	0.5 K :: 0.5 K	1/day	10 km :: Ocean	N/A :: Sfc

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Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Sea_sfc Temperature (SST)*	*Brown*	*2529*	Liu	2517	BM	0.5 :: 0.5	1/wk	10 km :: G	N/A :: Sfc
					Brewer	2511	AM	0.5 K :: 0.5 K	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
					Hansen	2512	AM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Srokosz	2520	AM	0.3 K(IR) :: 0.1 K	2/day	100-1 km :: Ocean [South Atlan	N/A :: Sfc
MODIS	*AM,PM*	*Sea_sfc Temperature (SST)*	*Brown, Barton*	*2530*				*0.3-0.6K :: 0.1-0.3K*	*1/day, 1/wk, 1/mo*	*4 km :: Ocean/R,L*	*N/A :: Sfc*
					Abbott	2504	BM	0.5 K :: 0.05 K	(1-2)/day	1-4 km :: Ocean [Southern]	N/A :: Sfc
					Barron	2507	BM	0.5 K ::	1/day	10 km :: Ocean/R	N/A :: Sfc
					Liu	2517	BM	0.5 :: 0.5	1/wk	10 km :: G	N/A :: Sfc
					Hartmann	2513	BM	0.5 K :: 0.5 K	1/day	10 km :: Ocean	N/A :: Sfc
					Dickinson	3392	AM			<0.5-1 deg :: Ocean	
					Hansen	2512	AM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Srokosz	2520	AM	0.3 K(IR) :: 0.1 K	2/day	100-1 km :: Ocean [South Atlan	N/A :: Sfc
MODIS	*AM,PM*	*Sea_sfc Temperature (SST)*	*Brown, Barton*	*2531*				*0.3-0.6K :: 0.1-0.3K*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean/G,R*	*N/A :: Sfc*
					Bates	2508	BM	0.3-0.6 K :: 0.1-0.3 K	1/day, 1/wk, 1/mo	20 km :: Ocean/G,R	N/A :: Sfc
					Brewer	2511	BM	0.5 K :: 0.5 K	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
					Harris	3452	BM	0.5-1 K :: 0.2-0.3 K	1/day	20 km :: Ocean/R	
					Murakami	2518	BM	0.2 K ::		:: G	N/A :: Sfc
					Rothrock	2519	BM	1 K :: 1 K	1/(2 day)	30 km :: G	N/A :: Sfc
					Hansen	2512	BM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Abbott	2505	AM	1 K :: 0.1 K	(1-2)/day	50 km :: Ocean [Southern]	N/A :: Sfc
					Barron	2506	AM	0.5 K ::	1/day	100 km :: Ocean	N/A :: Sfc
					Dickinson	3392	AM			<0.5-1 deg :: Ocean	
					Lau	2514	AM	0.5 K ::	1/wk	100 km :: Ocean	N/A :: Sfc
					Lau	2516	AM	0.5 K ::	1/day	50 km :: R	N/A :: Sfc
					Lau	2515	AM	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
					Wielicki	2521	AM	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc
					Bates	2509	AM	0.5 K :: 0.4 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
					Barron	2507	AM	0.5 K ::	1/day	10 km :: Ocean/R	N/A :: Sfc
MODIS	*AM,PM*	*Sea_sfc Temperature (SST)*	*Brown, Barton*	*2532*				*0.3-0.4K :: 0.1-0.6K*	*1/day, 1/wk, 1/mo*	*50 km :: Ocean*	*N/A :: Sfc*
					Abbott	2505	BM	1 K :: 0.1 K	(1-2)/day	50 km :: Ocean [Southern]	N/A :: Sfc
					Dickinson	3392	BM			<0.5-1 deg :: Ocean	
					Lau	2516	BM	0.5 K ::	1/day	50 km :: R	N/A :: Sfc
					Murakami	2518	BM	0.2 K ::		:: G	N/A :: Sfc
					Barron	2506	BM	0.5 K ::	1/day	100 km :: Ocean	N/A :: Sfc
					Wielicki	2521	BM	1 K :: 0.5 K	1/wk	1.25 dg :: Ocean	N/A :: Sfc
					Hansen	2512	BM	0.2 C ::	1/wk	500 km :: Ocean	:: Sfc
					Lau	2514	BM	0.5 K ::	1/wk	100 km :: Ocean	N/A :: Sfc
					Lau	2515	BM	0.2 K :: 0.2 K	1/wk	200 km :: Ocean	N/A :: Sfc
					Rothrock	2519	AM	1 K :: 1 K	1/(2 day)	30 km :: G	N/A :: Sfc
					Bates	2509	AM	0.5 K :: 0.4 K	2/day [d,n]	50 km :: Ocean	N/A :: Sfc
MODIS	*AM,PM*	*Chlorophyll_a Conc*	*Carder*	*2569*				*50% :: 10%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean-III L*	*N/A :: TOO*
					Srokosz	2563	AM	10% :: 0.1mg	1/day	1 km :: Ocean [South Atlan]	N/A :: Sfc
MODIS	*AM,PM*	*Chlorophyll_a Conc*	*Carder*	*2570*				*50% :: 10%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean-III/G,R*	*N/A :: TOO*
					Harris	3454	BM	40% :: 20%	2-10 days	0.25-1 km:: Ocean/R	
					Harris	3455	BM	20-30% :: 10-15%	1/day	1-20 km :: Ocean/R	
					Harris	3456	BM	20-30% :: 10-15%	2-10 days	0.25-1 km :: Ocean/R	
					Srokosz	2563	AM	10% :: 0.1mg	1/day	1 km :: Ocean [South Atlan]	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Organic Matter Conc, Dissolved*	*Carder*	*2580**				*150% :: 30%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean*	*N/A :: TOO*
					Brewer	2561	BM	100% :: 10%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
					Harris	3457	BM	100% :: 30%	1/day	1-20 km :: Ocean/R	
					Brewer	2511	AM	0.5 K :: 0.5 K	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
MODIS	*AM,PM*	*Organic Matter Conc, Dissolved*	*Carder*	*2581**				*150% :: 30%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean/R,L*	*N/A :: TOO*
					Abbott	2579	BM	50% :: 20%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
					Harris	3457	BM	100% :: 30%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Ocean Water Attenuation Coef, PAR*	*Clark*	*2031**				*35% :: 10%*	*1/day, 1/wk*	*1 km :: Ocean-1/L*	*N/A :: TOO*
					Abbott	3204	BM	20% :: 5%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
MODIS	*AM,PM*	*Ocean Water Attenuation Coef, PAR*	*Clark*	*2032**				*35% :: 10%*	*1/day, 1/wk*	*20 km :: Ocean-1*	*N/A :: TOO*
					Brewer	3202	BM	25% :: TBD	1/day, 1/seas	20 km :: Ocean	N/A :: Sfc
MODIS	*AM,PM*	*Chlorophyll_a Conc*	*Clark*	*2571*				*30% :: 10%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean-1/ L*	*N/A :: TOO*
					Harris	3455	BM	20-30% :: 10-15%	1/day	1-20 km :: Ocean/R	
					Srokosz	2563	BM	10% :: 0.1mg	1/day	1 km :: Ocean [South Atlan]	N/A :: Sfc
MODIS	*AM,PM*	*Chlorophyll_a Conc*	*Clark*	*2572*				*30% :: 10%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean-1/G,R*	*N/A :: TOO*
					Harris	3455	BM	20-30% :: 10-15%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*PAR*	*Esaias*	*2330**				*TBD :: TBD*	*1/day*	*N/A :: G*	*N/A :: Atmos*
					Moore	2329	AM	20% :: 10%	1/day, 1/wk	500 m :: Land/R	
MODIS	*AM,PM*	*Ocean Productivity, Primary*	*Esaias*	*2606*				*<35% :: <20%*	*1/wk, 1/mo, 1/yr*	*20 km :: Ocean/G,R*	*N/A :: TOO*
					Harris	3460	BM	30% :: 5%	1/day	1-20 km :: Ocean/R	
					Brewer	2599	AM $-	50% :: 5%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
MODIS	*AM,PM*	*PAR, Sfc (IPAR)*	*Gordon*	*2267*				*10% :: 5%*	*1/day [d]*	*1 km :: Ocean*	*N/A :: Sfc*
					Abbott	2269	BM	5% :: 1%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: Sfc
					Brewer	2279	BM-	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
					Brewer	2280	BM-	20% :: 5%	1/day, 1/seas	30 m :: Ocean/L	
					Harris	3443	AM-	5% :: 2%	2/day	20-50 km :: Ocean/R	
MODIS	*AM,PM*	*Aerosol Angstrom Exponent*	*Gordon*	*2295*				*15% :: 5%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean/R,L*	*N/A :: Atmos*
					Harris	3442	BM	15% :: 5%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Aerosol Angstrom Exponent*	*Gordon*	*2296*				*15% :: 5%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean*	*N/A :: Atmos*
					Harris	3442	BM	15% :: 5%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Aerosol Radiance*	*Gordon*	*2344*				*10% :: 5%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean/G,R,L*	*N/A :: Atmos*
					Harris	3446	BM	10% :: 5%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Aerosol Radiance*	*Gordon*	*2345*				*10% :: 5%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean/G,R,L*	*N/A :: Atmos*
					Dickinson	3368	BM			<0.5-1 deg :: G	
					Harris	3446	BM	10% :: 5%	1/day	1-20 km :: Ocean/R	
					Cihlar	3494	BM	5% :: 10%	once	250-1000 m :: Canada/R	N/A :: Sfc
MODIS	*AM,PM*	*Phytoplankton Backscatter Coef*	*Gordon*	*2555**					*1/day, 1/wk, 1/mo*	*1 km :: Ocean/R*	*N/A :: TOO*
					Abbott	3209	BM	50% :: 20%	1/day	1-4 km :: Ocean	N/A :: N/A
MODIS	*AM,PM*	*Level-2 Radiance, Water-leaving*	*Gordon et al*	*2416*				*5% :: 5%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean/R,L*	*N/A :: Sfc*
					Harris	3447	BM	10% :: 5%	1/day	1-20 km :: Ocean/R	
					Barron	2238	AM-(::-)	10 :: 5	1/day	10 km :: R	N/A :: Sfc
					Brewer	2415	AM	10% :: TBD	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
MODIS	*AM,PM*	*Level-2 Radiance, Water-leaving*	*Gordon et al*	*2417*				*5% :: 5%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean/G,R*	*N/A :: Sfc*
					Brewer	2415	BM	10% :: TBD	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
					Harris	3447	BM	10% :: 5%	1/day	1-20 km :: Ocean/R	
					Barron	2187	BM-	10 :: 5	1/day	10 km :: R	N/A :: Sfc
					Barron	2238	AM-(::-)	10 :: 5	1/day	10 km :: R	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Pigment Conc*	*Gordon, Clark*	*2591*				*30% :: 10%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean/G,R*	*N/A :: TOO*
					Harris	3458	BM	30% :: 10%	1/day	1-20 km :: Ocean/R	
					Hansen	3077	BM	2% ::	1/wk	500 km :: Ocean	:: TOO
					Abbott	2587	AM	35% :: 10%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
					Rothrock	2590	AM		1/(2 day)	10 km :: Polar	N/A :: TOO
MODIS	*AM,PM*	*Pigment Conc*	*Gordon, Clark*	*2592*				*30% :: 10%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean/R,L*	*N/A :: TOO*
					Abbott	2587	BM	35% :: 10%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
					Harris	3458	BM	30% :: 10%	1/day	1-20 km :: Ocean/R	
					Rothrock	2590	AM		1/(2 day)	10 km :: Polar	N/A :: TOO
MODIS	*AM,PM*	*Ocean Water Attenuation Coef@490nm*	*Gordon, Clark*	*3199*				*25% :: 10%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean-I/ R,L*	*N/A :: TOO*
					Harris	3461	BM	25% :: 10%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Ocean Water Attenuation Coef@490nm*	*Gordon, Clark*	*3200*				*25% :: 10%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean-I/ R,L*	*N/A :: TOO*
					Harris	3461	BM	25% :: 10%	1/day	1-20 km :: Ocean/R	
					Abbott	3204	AM	20% :: 5%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
					Richey, Batista	3203	AM $-	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
MODIS	*AM,PM*	*Chlorophyll Fluorescence Line Curv*	*Hoge*	*2573*				*25% :: 8%*	*1/day, 1/wk*	*1 km :: Ocean/R*	*N/A :: TOO*
					Harris	3462	BM	25% :: 5%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Pigment Conc, Phycobillin [Phycoerythrin, et*	*Hoge*	*3319**				*50% :: 15%*	*1 day,wk,mo*	*20 km :: Ocean/GR*	*N/A :: TOO*
					Harris	3458	BM	30% :: 10%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Pigment Conc, Phycobillin [Phycoerythrin, et*	*Hoge*	*3320**				*50% :: 15%*	*1 day,wk,mo*	*1 km :: Ocean/RL*	*N/A :: TOO*
					Harris	3458	BM	30% :: 10%	1/day	1-20 km :: Ocean/R	
					Harris	3459	BM	20% :: 10%	2-10 days	0.25-1 km:: Ocean/R	
MODIS	*AM,PM*	*Pigment Conc [via Spectral Curv]*	*Hoge, Esaias*	*2593**				*50% :: 15%*	*1/day, 1/wk*	*1 km :: Ocean/R*	*N/A :: TOO*
					Harris	3458	BM	30% :: 10%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Pigment Conc [via Spectral Curv]*	*Hoge, Esaias*	*2594**				*50% :: 15%*	*1/day, 1/wk*	*20 km :: Ocean/R*	*N/A :: TOO*
					Harris	3458	BM	30% :: 10%	1/day	1-20 km :: Ocean/R	
					Hansen	3077	BM	2% ::	1/wk	500 km :: Ocean	:: TOO
MODIS	*AM,PM*	*Soil Brightness Index*	*Huete*	*2047*				*5% :: 5%*	*1/mo*	*1 km :: Land/R*	*N/A :: Sfc*
					Cihlar	3491	BM	10% :: 10%	1 wk	1 km :: Canada/R	N/A :: Sfc
					Barron	2796	AM-	10% :: 5%	1/mission	10 km :: Land/R	N/A :: Sfc
MODIS	*AM,PM*	*Soil Color Index*	*Huete*	*2095*				*10% :: 5%*	*1/mo*	*1 km :: Land/R*	*N/A :: Sfc*
					Barron	2794	AM-	10% :: 5%	1/mission	100 km :: Land	N/A :: Sfc
					Barron	2796	AM-	10% :: 5%	1/mission	10 km :: Land/R	N/A :: Sfc
MODIS	*AM,PM*	*Land_sfc Temperature-Difference, Day-Nigh*	*Huete*	*2537**				*1 K :: 1 K*	*1/day*	*856 m :: R*	*N/A :: Sfc*
					Dickinson	3395	BM			<0.5-1 deg :: G	
					Bates	2538	AM	0.5 K :: 0.25 K	1/day	50 km :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Vegetation Index*	*Justice, Huete et a*	*2749*				*0.01 :: 0.01*	*1/day, 1/wk, 1/mo*	*10 km :: Land*	*N/A :: Sfc*
					Murakami	2745	BM			:: Land	N/A :: Sfc
					Barron	2716	BM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
					Simard	2720	BM	10% ::		:: Canada/R	N/A :: Sfc
					Barron	2717	BM	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
					Hansen	2718	BM	5% ::	1/wk	500 km :: Land	:: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Vegetation Index*	*Justice, Huete et a*	*2749*	Hansen	2742	BM	5% ::	1/wk	500 km :: Land	:: Sfc
					Dickinson	3401	AM			Med-low_res :: Land	
					Simard	2788	AM	10% ::		:: Canada/R	N/A :: Sfc
					Hansen	2731	AM	5% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*Vegetation Index*	*Justice, Huete et a*	*2750*				*0.01 :: 0.01*	*1/day, 1/wk, 1/mo*	*0.5 km :: Land/R*	*N/A :: Sfc*
					Moore	2736	AM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Isacks	2719	AM		1/seas	1 km :: Land/R	N/A :: Sfc
					Isacks	2743	AM	1 :: 1	1/mo	240-500 m :: Land/R	N/A :: Sfc
					Cihlar	3504	AM	15% :: 15%	once	100 m :: Canada/R	N/A :: Sfc
MODIS	*AM,PM*	*Vegetation Index*	*Justice, Huete et a*	*2751*				*0.01 :: 0.01*	*1/day, 1/wk, 1/mo*	*1 km :: Land/R*	*N/A :: Sfc*
					Dickinson	3401	BM			Med-low_res :: Land	
					Isacks	2719	AM		1/seas	1 km :: Land/R	N/A :: Sfc
					Moore	2736	AM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Moore	2721	AM-	15% :: 15%	1/yr	1 km :: Land	:: Sfc
MODIS	*AM,PM*	*Land_sfc Reflectance, Directional*	*Kaufman et al*	*2429*				*0.01 :: 0.005*	*1/day*	*1 km :: G*	*N/A :: Sfc*
					Cihlar	3500	BM	0.05 :: 0.001	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Brewer	2426	AM	3% :: 1%	1/day, 1/seas	1.7 km :: Ocean	N/A :: Sfc
					Sellers	2034	AM				
MODIS	*AM,PM*	*Land_sfc Reflectance, Directional*	*Kaufman et al*	*2430*				*0.01 :: 0.005*	*1/day*	*0.5 km :: G*	*N/A :: Sfc*
					Cihlar	3500	BM	0.05 :: 0.001	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Sellers	2041	AM			250-500 m :: Land	
MODIS	*AM,PM*	*Land_sfc Reflectance, Directional*	*Kaufman et al*	*2431*				*0.01 :: 0.005*	*1/day*	*0.25 km :: G*	*N/A :: Sfc*
					Brewer	2427	BM	3% :: 1%	1/day, 1/seas	.22 km :: Ocean/L	N/A :: Sfc
					Cihlar	2437	BM	0.05 :: 0.001	1/(3 mo)	0.25 km :: Canada/R	N/A :: Atmos
					Cihlar	3500	BM	0.05 :: 0.001	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Sellers	2041	AM			250-500 m :: Land	
MODIS	*AM,PM*	*Fire Temperature*	*Kaufman, Justice*	*2471*				*10 C :: 5 C*	*1/day, 1/wk*	*1 km :: Land/R*	*N/A :: Sfc*
					Hansen	2662	AM	10% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*Fire Count*	*Kaufman, Justice*	*2663*					*1/day, 1/wk*	*1 km :: Land/R*	*N/A :: Sfc*
					Hansen	2662	AM	10% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*Fire Count*	*Kaufman, Justice*	*2664*					*1/day, 1/wk*	*10 km :: Land*	*N/A :: Sfc*
					Hansen	2662	BM	10% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*Fire Extent*	*Kaufman, Justice*	*2665*					*1/day, 1/wk*	*1 km :: Land/R*	*N/A :: Sfc*
					Hansen	2662	AM	10% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*Fire Extent*	*Kaufman, Justice*	*2666*					*1/day, 1/wk*	*1 dg :: Land*	*N/A :: Sfc*
					Dickinson	3398	BM			<0.5-1 deg :: Land	
					Hansen	2662	BM	10% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*Fire Class*	*Kaufman, Justice*	*2711*				*10 C :: 5 C*	*1/day, 1/wk*	*10 km :: Land*	*N/A :: Sfc*
					Hansen	2662	AM	10% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*Aerosol Mass Loading*	*Kaufman, Tanre*	*1017*				*30% :: 10%*	*1/day,1/mo*	*0.5 dg :: G,R*	*N/A :: Atmos*
					Harris	3424	BM	1% :: 1%	1/day	50 km :: Ocean/R	
					Mouginis-Mark	3282	BM		1/day	1 km :: Land/R	N/A :: Plume_col
					Isacks	1016	BM	30% :: 10%	1/wk	1-10 km :: Land/R	N/A :: Atmos
MODIS	*AM,PM*	*Precipitable Water*	*Kaufman, Tanre*	*1874*				*8% :: 6%*	*1/day*	*5 km :: Land*	*N/A :: Atmos*
					Barron	1860	BM	3% :: 1%	1/day	10 km :: R	Column :: Trop
					Murakami	1867	AM	20% ::			
					Abbott	1858	AM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Bates	1862	AM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Precipitable Water*	*Kaufman, Tanre*	*1874*	Kerr, Sorooshian	1865	AM	10% :: 10%	2/day	50 km :: Land	Column :: Atmos
MODIS	*AM,PM*	*Aerosol Optical Depth, Spectral*	*Kaufman, Tanre*	*2293*				*0.1 :: 0.05*	*1/day, 1/mo*	*0.5 dg :: Land*	*N/A :: Atmos*
					Dickinson	3383	BM			<0.5-1 deg :: G	
					Sellers	2288	BM	::			
					Sellers	1004	BM				
					Isacks	2326	AM	5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
					Hansen	1001	AM-	tau=0.02 ::	1/wk	500 km :: G	:: Trop
					Wielicki	2289	AM	0.10 :: 0.10	1/day	1.25 dg :: G	N/A :: Atmos
					Hansen	2287	AM	tau=0.02 ::	1/wk	500 km :: G	:: Strat
					Kerr, Sorooshian	2325	AM	10% :: 10%	1/(5-16 day)	10 km :: Land/R	:: Atmos
					Hartmann	1002	AM	tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
					Pyle	1003	AM		2/day	:: G	:: Strat
MODIS	*AM,PM*	*Level-2 Radiance, Land_leaving*	*Kaufman, Tanre*	*2380*				*10% :: 5%*	*1/day, 1/mo*	*10 km :: Land*	*N/A :: Sfc*
					Barron	2187	BM-	10 :: 5	1/day	10 km :: R	N/A :: Sfc
					Barron	2238	BM-	10 :: 5	1/day	10 km :: R	N/A :: Sfc
MODIS	*AM,PM*	*Precipitable Water*	*Kaufman, Tanre*	*3321*				*12% :: 8%*	*1 day, mo*	*1 km :: Land*	*N/A :: Atmos*
					Richey, Batista	1863	BM		1/wk	1 km :: R	Column :: Trop
					Richey, Batista	1810	AM	5% :: 5%	1/day	:: R	:: Trop
					Barron	1860	AM	3% :: 1%	1/day	10 km :: R	Column :: Trop
					Kerr, Sorooshian	1865	AM	10% :: 10%	2/day	50 km :: Land	Column :: Atmos
MODIS	*AM,PM*	*Precipitable Water*	*Kaufman, Tanre*	*3322*				*5% :: 3%*	*1 day, mo*	*1 dg :: Land*	*N/A :: Atmos*
					Barron	1861	BM	3% :: 1%	1/day	100 km :: G	Column :: Trop
					Dickinson	3355	BM			<0.5-1 deg :: G	
MODIS	*AM,PM*	*Cloud Cover*	*King*	*2081*				*10% :: 5%*	*2/day [d,n], 1/mo*	*5 km :: G*	*N/A :: Cloud*
					Barron	2050	BM	5 :: 5	1/day	10 km :: R	N/A :: Cloud
					Dickinson	3344	BM			Med_res :: G	
					Harris	3436	BM	5-10% :: 2-5%	2/day	5-50 km :: Ocean/R	
					Liu	2055	BM			:: Ocean	N/A :: Cloud
					Simard	2056	BM	5% ::		:: Canada/R	N/A :: Cloud
					Srokosz	2060	BM	5% :: 1%	2/day	10 km :: Ocean [South Atlan]	N/A :: Cloud
					Kerr, Sorooshian	2075	BM	5% :: 5%	1/day	10 km :: Land/R	N/A :: Cloud
					Moore	2057	BM	10% :: 10%	1/wk	1 km :: G	
					Isacks	2053	BM		1/wk	5 km :: Land/R	N/A :: Cloud
					Murakami	2058	AM	10% ::			N/A :: Cloud
					Bates	2072	AM $-	0.05 :: 0.025	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Hansen	2052	AM	3% ::	1/wk	500 km :: G	:: Cloud
					Barron	2049	AM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
					Lau	2054	AM	5% :: 5%	2/day	50 km :: R	N/A :: Atmos
					Wielicki	2061	AM	5% :: 2%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
					Sellers	2059	AM		4/day	100 km ::	0.5 km :: Trop
MODIS	*AM,PM*	*Cloud Cover*	*King*	*2082*				*10% :: 5%*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
					Barron	2049	BM	5 :: 5	1/day	100 km :: G	N/A :: Cloud
					Bates	2074	BM	10% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3345	BM			Low_res :: G	
					Rothrock	2076	BM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
					Hansen	2052	BM	3% ::	1/wk	500 km :: G	:: Cloud
					Liu	2055	AM			:: Ocean	N/A :: Cloud
					Bates	2069	AM $-		1/day	100 km :: G	0.5 km :: Trop

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Cloud Cover*	*King*	*2082*	Lau	2070	AM $-	5% :: 5%	1/day	100 km :: G	N/A ::
					Bates	2073	AM	:: 10%	1/(6 hr)	1 x 1 dg :: G	N/A :: Cloud
MODIS	*AM,PM*	*Cloud Optical Depth*	*King*	*2311*				*20% :: 10%*	*1/day [d]*	*5 km :: G*	*N/A :: Cloud*
					Harris	3445	BM	10-20% :: 5-10%	2/day-1/day	5-50 km :: Ocean/R	
					Isacks	2326	BM	5-15% :: 1-10%	1/wk	10-50 km :: Land/R	Column :: Atmos
					Kerr, Sorooshian	2325	BM	10% :: 10%	1/(5-16 day)	10 km :: Land/R	:: Atmos
					Bates	2304	BM		1/day	15 x 45 km :: G	N/A :: Cloud
					Barron	2302	BM	3% :: 3%	1/day	10 km :: Ocean/R	N/A :: Cloud
					Hartmann	2306	BM	25% :: 0.25	1/day	10 km :: Ocean	N/A :: Cloud
					Dickinson	3382	AM			<0.5-1 deg :: G	
MODIS	*AM,PM*	*Cloud Optical Depth*	*King*	*2312*				*20% :: 10%*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
					Bates	2305	BM	20% :: 10%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3382	BM			<0.5-1 deg :: G	
					Dickinson	3383	BM			<0.5-1 deg :: G	
					Rothrock	2544	BM	0.1 :: 0.1	1/day	100 km :: Polar	N/A :: Cloud
					Barron	2301	AM	3% :: 3%	1/day	100 km :: Ocean	N/A :: Cloud
					Bates	2304	AM		1/day	15 x 45 km :: G	N/A :: Cloud
MODIS	*AM,PM*	*Cloud Drop Phase*	*King, Menzel*	*1764*				*90% Conf :: 90% Conf*	*1/day*	*5 km :: G*	*N/A :: Cloud*
					Wielicki	1760	BM	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
					Hartmann	1785	AM-	0.02 :: 0.02	1/day	10 km :: Ocean	N/A :: Cloud
					Wielicki	1761	AM	90% Conf :: 90% Conf	6/day [d,n]	25-100 km :: G	N/A :: Atmos
MODIS	*AM,PM*	*Cloud Drop Phase*	*King, Menzel*	*1765*				*90% Conf :: 90% Conf*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
					Bates	1759	BM		1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3346	BM			<0.5-1 deg :: G	
MODIS	*AM,PM*	*Cloud Drop Size(Effective Radius)*	*King, Menzel*	*1780*				*0-40% :: 5%*	*1/day*	*5 km :: G*	*N/A :: Cloud*
					Wielicki	1771	BM	25% :: 10%	1/(16 day)	.03-10 km :: R	N/A :: Atmos
					Dickinson	3347	AM			<0.5-1 deg :: G	
					Wielicki	1772	AM	30% :: 10%	6/day [d,n]	25-100 km :: G	N/A :: Atmos
MODIS	*AM,PM*	*Cloud Drop Size(Effective Radius)*	*King, Menzel*	*1781*				*0-40% :: 5%*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
					Bates	1777	BM	0-40% :: 5%	1/day, 1/mo	1 dg :: G	N/A :: Cloud
					Dickinson	3347	AM			<0.5-1 deg :: G	
MODIS	*AM,PM*	*O3 Total Burden*	*Menzel*	*1333*				*15-20DU :: 10DU*	*2/day, 1/day*	*5 km :: G*	*Column :: Atmos*
					Murakami	1331	BM	5-10% :: 2-10%			
					Kerr, Sorooshian	1308	BM	5% :: 5%	1/day	25 km :: G	Column :: Atmos
MODIS	*AM,PM*	*O3 Total Burden*	*Menzel*	*1334*				*15-20DU :: 10DU*	*1/day, 1/mo*	*0.5 dg :: G*	*Column :: Atmos*
					Murakami	1331	AM	5-10% :: 2-10%			
					Moore	1309	AM	25% :: 10%	1/day	100 km :: G	:: Atmos
					Kerr, Sorooshian	1308	AM	5% :: 5%	1/day	25 km :: G	Column :: Atmos
MODIS	*AM,PM*	*Cloud Pressure, Top*	*Menzel*	*1528*				*50 mb :: 20 mb*	*2/day*	*5 km :: G*	*N/A :: Cloud*
					Bates	1527	BM	50 mb :: 20 mb	2/day	5 km :: G	N/A :: Cloud
					Dickinson	3330	BM			<0.5-1 deg :: G	
					Kerr, Sorooshian	1417	BM	:: 0.5 km	1/hr	1 km :: Land/R	:: Cloud
					Harris	3437	BM	0.5 :: 0.3	2/day	20-50 km :: Ocean/R	
					Murakami	1418	AM	1 km ::			:: Cloud
					Barron	1413	AM	100 m :: 25 m	1/day	10 km :: R	100 m :: Cloud
MODIS	*AM,PM*	*Cloud Pressure, Top*	*Menzel*	*1529*				*50 mb :: 20 mb*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
					Hansen	1399	BM	50 m ::	1/wk	500 km :: G	:: Cloud
					Dickinson	3330	AM			<0.5-1 deg :: G	

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Cloud Pressure, Top*	*Menzel*	*1529*	Barron	1412	AM	100 m :: 25 m	1/day	100 km :: G	100 m :: Cloud
					Murakami	1418	AM	1 km ::			:: Cloud
					Rothrock	1419	AM	0.2km :: 0.2km	1/day	100 km :: Polar	:: Cloud
MODIS	*AM,PM*	*Precipitable Water*	*Menzel*	*1875*				*10 mm :: 5 mm*	*2/day*	*5 km :: G*	*N/A :: Atmos*
					Abbott	1858	BM	10% :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	Column :: Trop
					Barron	1860	BM	3% :: 1%	1/day	10 km :: R	Column :: Trop
					Murakami	1867	BM	20% ::			
					Harris	3440	BM	5% :: 3%	2/day	20-50 km :: Ocean/R	
					Srokosz	1868	BM	1kg/m^2 :: 0.1kg/m^2	2/day	10 km :: Ocean [South Atlan]	N/A :: Atmos
					Bates	1862	BM	5% :: 3%	2/day [d,n]	50 km :: G	N/A :: Trop
					Kerr, Sorooshian	1865	BM	10% :: 10%	2/day	50 km :: Land	Column :: Atmos
					Harris	3439	BM		1/day	10-25 km :: Ocean/R	
					Liu	1866	AM	0.5 :: 0.5	1/day	25 km :: Ocean	Column :: Trop
MODIS	*AM,PM*	*Cloud Emissivity*	*Menzel*	*2126*				*0.10 :: 0.05*	*2/day*	*5 km :: G*	*N/A :: Cloud*
					Dickinson	3372	BM			<0.5-1 deg :: G	
					Moore	2360	BM	10% :: 10%	1/wk	1 km :: G	:: Cloud
MODIS	*AM,PM*	*Cloud Emissivity*	*Menzel*	*2127*				*0.10 :: 0.05*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
					Dickinson	3372	BM			<0.5-1 deg :: G	
MODIS	*AM,PM*	*Cloud Temperature, Top*	*Menzel*	*2466*				*2 C :: 1 C*	*1/day, 1/mo*	*1 dg :: G*	*N/A :: Cloud*
					Barron	2458	BM	2 :: 1	1/day	100 km :: G	N/A :: Cloud
					Dickinson	3387	BM			<0.5-1 deg :: G	
					Sellers	2457	BM				
					Hansen	2461	BM	5% ::	1/wk	500 km :: G	:: Cloud
MODIS	*AM,PM*	*Cloud Temperature, Top*	*Menzel*	*2467*				*2 C :: 1 C*	*2/day*	*5 km :: G*	*N/A :: Cloud*
					Harris	3449	BM	1-2 K :: 0.5-1 K	2/day-1/day	5-50 km :: Ocean/R	
					Sellers	2457	BM				
					Barron	2459	BM	2 :: 1	1/day	10 km :: R	N/A :: Cloud
					Kerr, Sorooshian	2462	BM	5% :: 5%	1/hr	500 m :: Land/R	:: Cloud
					Bates	2460	AM	1 K :: 0.5 K	2/day [d,n]	15 x 45 km :: G	N/A :: Cloud
					Dickinson	3387	AM			<0.5-1 deg :: G	
MODIS	*AM,PM*	*Albedo, Spectral, TOA*	*Muller, Strahler*	*2001*				*10% :: 5%*	*1/(3-8 day)*	*1 km :: Land/R*	*N/A :: TOA*
					Barron	2023	AM	3 ::	1/day	100 km :: G	N/A :: TOA
					Bates	1995	AM		1/day	50 km :: Land	N/A :: Sfc
					Kerr, Sorooshian	2009	AM	10% :: 10%	1/day	25 km :: Land/R	:: TOA
MODIS	*AM,PM*	*Land_sfc Reflectance, Directional*	*Muller, Strahler*	*2434*				*5% :: 3%*	*1/day*	*1 km :: R*	*N/A :: Sfc*
					Cihlar	3500	BM	0.05 :: 0.001	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Sellers	2034	AM				
MODIS	*AM,PM*	*Albedo, Spectral, Land_sfc*	*Muller, Strahler,*	*3665**				*5% :: 3%*	*1/day*	*1 km :: Land/R*	*N/A :: Sfc*
					Dickinson	3367	BM			High_res :: Land	
					Simard	2019	AM	2% ::		:: Canada/R	N/A :: Sfc
					Hansen	2024	AM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Barron	2013	AM	1% :: 1%	1/wk	10 km :: G	N/A :: Sfc
					Isaacs	1998	AM	:: 3%	1/wk	250 m :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2014	AM	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Albedo, Total [SW], Land_sfc*	*Muller, Strahler,*	*3666**				*5% :: 3%*	*1/day*	*1 km :: Land/R*	*N/A :: Sfc*
					Simard	2019	AM	2% ::		:: Canada/R	N/A :: Sfc
					Hansen	2024	AM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Barron	2013	AM	1% :: 1%	1/wk	10 km :: G	N/A :: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Albedo, Total [SW], Land_sfc*	*Muller, Strahler,'*	*3666**	Isacks	1998	AM	:: 3%	1/wk	250 m :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2014	AM	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Albedo, Total [SW], TOA*	*Muller, Strahler,'*	*3667**				*5% :: 3%*	*1/day*	*1 km :: Land/R*	*N/A :: TOA*
					Barron	2023	BM	3 ::	1/day	100 km :: G	N/A :: TOA
					Dickinson	3365	BM			<0.5-1 deg :: G	
MODIS	*AM,PM*	*Land_sfc Reflectance, Bidirectional (BRDF)*	*Muller, Strahler,'*	*3669**				*5% :: 3%*	*1/day*	*1 km :: Land/R*	*N/A :: Sfc*
					Wielicki	2043	BM	5% :: 2%	1/day [d]	0.2-2km :: R	N/A :: Sfc, Atmos
					Sellers	2034	AM				
					Kerr, Sorooshian	2042	AM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Kerr, Sorooshian	2046	AM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Dickinson	3370	AM			<0.5-1 deg :: Land	
					Dickinson	3371	AM			<0.5-1 deg :: Land	
					Dickinson	3369	AM			<0.5-1 deg :: G	
					Sellers	2041	AM			250-500 m :: Land	
MODIS	*AM,PM*	*Land_sfc Roughness*	*Muller, Tanre*	*3670**				*5% :: 3%*	*1/day*	*1 km :: Land/R*	*N/A :: Sfc*
					Kerr, Sorooshian	1549	BM	0.1 m :: 0.2 m	1/seas	25 km :: Land	N/A :: Sfc
					Lau	1551	BM	10% :: 10%	1/wk	10 km :: Land/R	N/A :: Sfc
					Barron	1545	BM	10% :: 0.1	1/mission, 1/yr	10 km :: Land/R	N/A :: Sfc
					Barron	1547	BM	10% :: 0.1	1/mission, 1/yr	100 km :: Land	N/A :: Sfc
					Kerr, Sorooshian	1552	BM	0.1 cm :: 0.2 cm	2/mo	25 km :: Land	N/A :: Sfc
					Dickinson	3404	AM			Med-low_res :: Land	
MODIS	*AM,PM*	*Organic Matter Conc, Dissolved*	*Parslow et al*	*2582*				*150% :: 30%*	*1/day, 1/wk, 1/mo*	*20 km :: Ocean [Southern]*	*N/A :: TOO*
					Harris	3457	BM	100% :: 30%	1/day	1-20 km :: Ocean/R	
					Brewer	2561	AM	100% :: 10%	1/day, 1/seas	20 km :: Ocean	N/A :: TOO
MODIS	*AM,PM*	*Organic Matter Conc, Dissolved*	*Parslow et al*	*2583*				*150% :: 30%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean [Southern]R,L*	*N/A :: TOO*
					Abbott	2579	BM	50% :: 20%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: TOO
					Harris	3457	BM	100% :: 30%	1/day	1-20 km :: Ocean/R	
MODIS	*AM,PM*	*Vegetation Index, Leaf Area, (LAI)*	*Running*	*2680**				*0.1-0.25 :: 5-20%*	*1/day, 1/wk*	*pixel_size :: Land/G,R,L*	*N/A :: N/A*
					Cihlar	3499	BM	10% :: 1%	1 wk	1 km :: Canada/R	N/A :: Sfc
					Dickinson	3406	BM			Low_res :: Land	
					Schimel	2679	BM	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Barron	2673	BM	0.5 :: 0.2	1/day	100 km :: Land	N/A :: Sfc
					Barron	2674	BM	0.5 :: 0.2	1/day	10 km :: Land/R	N/A :: Sfc
					Barron	2675	BM	0.5 :: 0.2	1/day	30 m :: Land/L	N/A :: Sfc
					Bates	2676	BM		1/mo	60 m :: Land	N/A :: Sfc
					Schimel	2678	BM	10% :: 1%	1/wk, 1/mo	30 m :: 6 sites/L	N/A :: Sfc
					Lau	2677	BM	10% :: 10%	1/seas	1 km :: Land/R	N/A :: Sfc
MODIS	*AM,PM*	*Vegetation Productivity, Primary*	*Running*	*2703**				*100 :: 5-30%*	*1/wk, 1/mo, 1/yr*	*1 km :: Land/G,R*	*N/A :: N/A*
					Schimel	2698	BM	20% :: 5%	1/yr	500 m :: 6 sites/L	N/A :: Sfc
MODIS	*AM,PM*	*Level-1B Radiance, MODIS<3um*	*Salomonson*	*2338*				*5%(1π) :: RMS<NEdL*	*1/day*	*0.5 km :: G*	*N/A :: N/A*
					Sellers	2389	BM				
					Srokosz	3310	BM	0.05% ::	1/day	1 km :: R	N/A :: Atmos
					Wielicki	2390	BM	W5%,LW.1K :: SW2%,LW.1	2/day [d,n]	0.25-1 km :: R	N/A :: Atmos
					Schoeberl	2413	BM	5% :: 2%	1/day	:: G	:: Strat
MODIS	*AM,PM*	*Level-1B Radiance, MODIS<3um*	*Salomonson*	*2339*				*5%(1π) :: RMS<NEdL*	*1/day*	*1 km :: G*	*N/A :: N/A*
					Sellers	2389	BM				
					Srokosz	3310	BM	0.05% ::	1/day	1 km :: R	N/A :: Atmos
					Wielicki	2390	BM	W5%,LW.1K :: SW2%,LW.1	2/day [d,n]	0.25-1 km :: R	N/A :: Atmos

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Level-1B Radiance, MODIS<3um*	*Salomonson*	*2339*	Schoeberl	2413	BM	5% :: 2%	1/day	:: G	:: Strat
MODIS	*AM,PM*	*Level-1B Radiance, MODIS>3um*	*Salomonson*	*2340*				*1%(1x) :: RMS<NEdL*	*1/day*	*1 km :: G*	*N/A :: N/A*
					Sellers	2389	BM				
					Srokosz	3310	BM	0.05% ::	1/day	1 km :: R	N/A :: Atmos
					Wielicki	2390	BM	W5%,LW.1K :: SW2%,LW.1	2/day [d,n]	0.25-1 km :: R	N/A :: Atmos
					Schoeberl	2374	AM	1%(-1K) :: 0.5%	1/day	100 km :: G	1.5 km :: Strat
MODIS	*AM,PM*	*Level-1B Radiance, MODIS<3um*	*Salomonson*	*2392*				*5%(1x) :: RMS<NEdL*	*1/day*	*0.25 km :: G*	*N/A :: N/A*
					Sellers	2389	BM				
					Srokosz	3310	BM	0.05% ::	1/day	1 km :: R	N/A :: Atmos
					Wielicki	2390	BM	W5%,LW.1K :: SW2%,LW.1	2/day [d,n]	0.25-1 km :: R	N/A :: Atmos
					Schoeberl	2413	BM	5% :: 2%	1/day	:: G	:: Strat
MODIS	*AM,PM*	*Snow Cover*	*Salomonson*	*3020*				*<=5% :: <=5%*	*1/day, 1/wk*	*10 km :: Land*	*N/A :: Sfc*
					Barron	3005	BM	5% :: 5%	1/day	10 km :: Land/R	N/A :: Sfc
					Bates	3007	BM	<=5% :: <=5%	1/day, 1/wk	10 km :: Land	N/A :: Sfc
					Dickinson	3415	BM			Low_res :: Land	
					Murakami	3014	BM	10% ::		:: Land	N/A :: Sfc
					Simard	3026	BM	10km ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
					Wielicki	3016	BM	10% :: 5%	1/day	50 km :: Land	N/A :: Sfc
					Barron	3003	BM	5% :: 5%	1/day	100 km :: Land	N/A :: Sfc
					Hansen	3009	BM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Sellers	3015	BM		1/(1-4 day)	100 km ::	:: Sfc
					Lau	3013	AM	50 :: 10	1/wk	1 km :: Land/L	N/A :: Sfc
					Bates	3006	AM		2/day [d,n]	50 km :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Snow Cover*	*Salomonson*	*3021*				*<=5% :: <=5%*	*1/day, 1/wk*	*1 km :: Land/R*	*N/A :: Sfc*
					Dickinson	3416	BM			Med_res :: Land	
					Isacks	3010	BM	5% :: 2%	1/mo	1 km :: Land/R	N/A :: Sfc
					Lau	3013	BM	50 :: 10	1/wk	1 km :: Land/L	N/A :: Sfc
					Murakami	3014	BM	10% ::		:: Land	N/A :: Sfc
					Hansen	3009	AM	0.02 ::	1/wk	500 km :: Land	:: Sfc
					Sellers	3015	AM		1/(1-4 day)	100 km ::	:: Sfc
MODIS	*AM,PM*	*Sea_Ice Max Extent*	*Salomonson*	*3153*				*<=5% :: <=5%*	*1/day, 1/wk, 1/mo*	*10 km :: Ocean/Cryo*	*N/A :: Sfc*
					Barron	3168	BM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3161	BM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3190	BM	10km/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
					Srokosz	3158	BM	0.1 dg :: 0.01 dg	1/day	N/A :: Ocean/Cryo	N/A :: Sfc
					Abbott	3156	BM		1/day	25 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3162	BM	25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
					Barron	3160	BM	5% :: 5%	1/day	100 km :: Ocean/Cryo	N/A :: Sfc
					Rothrock	3189	BM	0.05 :: 0.05	1/(3 day)	25 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3157	BM	25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
					Bates	3148	AM	10% :: 10%	2/day [d,n]	50 km :: Ocean/Cryo	N/A :: Sfc
MODIS	*AM,PM*	*Sea_Ice Max Extent*	*Salomonson*	*3154*				*<=5% :: <=5%*	*1/day, 1/wk, 1/mo*	*1 km :: Ocean/Cryo,R*	*N/A :: Sfc*
					Srokosz	3158	AM	0.1 dg :: 0.01 dg	1/day	N/A :: Ocean/Cryo	N/A :: Sfc
					Abbott	3156	AM		1/day	25 km :: Ocean/Cryo	N/A :: Sfc
					Barron	3161	AM	5% :: 5%	1/day	10 km :: Ocean/Cryo	N/A :: Sfc
					Simard	3157	AM	25km ::	1/(7 day)	25 km :: Canada/R	N/A :: Sfc
MODIS	*AM,PM*	*Cloud Cover*	*Salomonson?*	*3641*				*10% :: 5%*	*1/mo (day & night)*	*0.25 km :: G*	*N/A :: Cloud*
					Dickinson	3343	BM			High_res :: G	

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Land_Cover Type*	*Strahler, Huete et*	*2669*				*10% :: 5%*	*1/mo, 1/seas*	*1 km :: Land*	*N/A :: Sfc*
					Isacks	2732	BM		1/seas	1 km :: Land/R	N/A :: Sfc
					Moore	2721	BM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Moore	2736	BM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Dickinson	3401	BM			Med-low_res :: Land	
					Isacks	2719	BM		1/seas	1 km :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2630	BM	5% :: 5%	1/seas	:: Land/R	N/A :: Sfc
					Dickinson	3408	BM			Low_res :: Land	
					Moore	2800	AM	15% :: 15%	1/yr	1 km :: Land	:: Sfc
					Barron	2716	AM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
					Hansen	2764	AM	5% ::	1/wk	500 km :: Land	:: Sfc
					Lau	3061	AM-	100 ::	1/wk	1 km :: Land/R	N/A :: Sfc
					Barron	2728	AM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
					Dickinson	3405	AM			<0.5-1 deg :: Land	
MODIS	*AM,PM*	*Land_Cover Type*	*Strahler, Huete et*	*2670*				*10% :: 5%*	*1/mo, 1/seas*	*5 km :: Land*	*N/A :: Sfc*
					Dickinson	3405	BM			<0.5-1 deg :: Land	
					Kerr, Sorooshian	2630	BM	5% :: 5%	1/seas	:: Land/R	N/A :: Sfc
					Simard	2788	BM	10% ::		:: Canada/R	N/A :: Sfc
					Simard	2720	BM	10% ::		:: Canada/R	N/A :: Sfc
					Barron	2716	BM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
					Barron	2717	BM	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
					Hansen	2718	BM	5% ::	1/wk	500 km :: Land	:: Sfc
					Hansen	2764	BM	5% ::	1/wk	500 km :: Land	:: Sfc
					Barron	2798	BM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
					Barron	2728	BM	5 ? :: 5 ?	1/yr	10 km :: Land/R	N/A :: Sfc
					Barron	2797	BM	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
					Barron	2730	BM	5 ? :: 5 ?	1/yr	100 km :: Land	N/A :: Sfc
					Barron	2786	BM	5 :: 5	1/seas	100 km :: Land	N/A :: Sfc
					Hansen	2731	BM	5% ::	1/wk	500 km :: Land	:: Sfc
					Sellers	2740	BM		1/(1-4 day)	100 km ::	:: Sfc
					Barron	2785	BM	5 :: 5	1/seas	10 km :: Land/R	N/A :: Sfc
					Dickinson	3401	AM			Med-low_res :: Land	
MODIS	*AM,PM*	*Land_Cover Type-Change*	*Strahler, Huete et*	*2672*				*10% :: 7%*	*1/seas*	*5 km :: Land*	*N/A :: Sfc*
					Hansen	2658	AM $-	10% ::	1/wk	500 km :: Land	:: Sfc
MODIS	*AM,PM*	*PAR, Incident, (IPAR)*	*Tanre*	*2268**				*200 :: 5 - 20%*	*1/day, 1/wk*	*1 km :: G,R*	*N/A :: Atmos*
					Abbott	2269	BM	5% :: 1%	1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: Sfc
					Schimel	2265	BM	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Cihlar	3498	BM	10% :: 1%	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Cihlar	3490	BM		1 wk	1 km^2 ::	N/A :: Sfc
					Moore	2329	BM	20% :: 10%	1/day, 1/wk	500 m :: Land/R	
					Schimel	2263	BM	10% :: 1%	1/day	500 m :: 6 sites/L	N/A :: Sfc
					Harris	3443	AM-	5% :: 2%	2/day	20-50 km :: Ocean/R	
MODIS	*AM,PM*	*Aerosol Size-distribution (Radius-Dispersion, Tanre, Kaufman*		*1022*				*10-30% :: 10%*	*1/day,1/mo*	*0.5 dg :: G,R*	*N/A :: Atmos*
					Harris	3423	BM	0.1 :: 0.05	1/day	50 km :: Ocean/R	
					Schoeberl	1021	BM	10% :: 5%	1/day	200 km :: G	1 km :: Strat
					Hartmann	1020	BM	20% :: 20%	1/day	20 km :: G	N/A :: 0-15 km
					Bates	1019	AM	:: 20%	1/(5-16 day)	15.4 km :: G	Column :: Atmos
					Isacks	1024	AM	:: 20%	1/wk	2-15 km ::	Column :: Atmos

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Aerosol Optical Depth, Spectral*	*Tanre, Kaufman*	*2294*				*0.05 :: 0.02*	*1/day, 1/mo*	*0.5 dg :: Ocean*	*N/A :: Atmos*
					Sellers	2288	BM	::			
					Sellers	1004	BM				
					Harris	3444	BM	10%,0.05 :: 5%,0.02	2/day-1/day	20-50 km :: Ocean/R	
					Murakami	2327	AM	5-10% ::		:: G	N/A :: Atmos
					Hansen	1001	AM-	tau=0.02 ::	1/wk	500 km :: G	:: Trop
					Wielicki	2289	AM	0.10 :: 0.10	1/day	1.25 dg :: G	N/A :: Atmos
					Hansen	2287	AM	tau=0.02 ::	1/wk	500 km :: G	:: Strat
					Hartmann	1002	AM	tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
					Pyle	1003	AM		2/day	:: G	:: Strat
MODIS	*AM,PM*	*Land_sfc Roughness*	*Tanre, Muller*	*1556**				*15% :: 5 - 8%*	*1/day, 1/wk*	*1 km :: G,R*	*N/A :: Sfc*
					Dickinson	3331	BM			High_res :: Land	
					Kerr, Sorooshian	1552	BM	0.1 cm :: 0.2 cm	2/mo	25 km :: Land	N/A :: Sfc
					Lau	1551	BM	10% :: 10%	1/wk	10 km :: Land/R	N/A :: Sfc
					Mouginis-Mark	3287	BM	3-24 cm ::	1/yr	30 m :: Land/L	N/A :: Sfc
					Dickinson	3404	AM			Med-low_res :: Land	
MODIS	*AM,PM*	*Land_sfc Roughness*	*Tanre, Muller*	*1557**				*15% :: 5 - 8%*	*1/day, 1/wk*	*10 km :: G,R*	*N/A :: Sfc*
					Barron	1545	BM	10% :: 0.1	1/mission, 1/yr	10 km :: Land/R	N/A :: Sfc
					Dickinson	3332	BM			Low_res :: Land	
					Dickinson	3404	BM			Med-low_res :: Land	
					Lau	1551	BM	10% :: 10%	1/wk	10 km :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	1549	BM	0.1 m :: 0.2 m	1/seas	25 km :: Land	N/A :: Sfc
					Barron	1547	BM	10% :: 0.1	1/mission, 1/yr	100 km :: Land	N/A :: Sfc
					Kerr, Sorooshian	1552	BM	0.1 cm :: 0.2 cm	2/mo	25 km :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Albedo, Land_sfc*	*Tanre, Muller*	*2015**				*15% :: 5 - 8%*	*1/day, 1/wk*	*1 km :: G,R*	*N/A :: Sfc*
					Dickinson	3367	BM			High_res :: Land	
					Dickinson	3363	AM			<0.5-1 deg :: G	
					Simard	2019	AM	2% ::		:: Canada/R	N/A :: Sfc
					Hartmann	1997	AM	1% :: 0.5%	1/day	20 km :: G	N/A ::
					Isacks	1998	AM	:: 3%	1/wk	250 m :: Land/R	N/A :: Sfc
					Kerr, Sorooshian	2014	AM	10% :: 10%	1/wk	500 m :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Albedo, Land_sfc*	*Tanre, Muller*	*2016**				*15% :: 5 - 8%*	*1/day, 1/wk*	*10 km :: G,R*	*N/A :: Sfc*
					Barron	2013	BM	1% :: 1%	1/wk	10 km :: G	N/A :: Sfc
					Hartmann	1997	BM	1% :: 0.5%	1/day	20 km :: G	N/A ::
					Dickinson	3363	BM			<0.5-1 deg :: G	
					Simard	2019	AM	2% ::		:: Canada/R	N/A :: Sfc
					Bates	1995	AM		1/day	50 km :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Land_sfc Reflectance, Bi-directional, (BRDF,Tanre, Muller*		*2424**				*15% :: 5 - 8%*	*1/day, 1/wk*	*1 km :: G,R*	*N/A :: Sfc*
					Cihlar	3500	BM	0.05 :: 0.001	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Kerr, Sorooshian	2042	AM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Kerr, Sorooshian	2046	AM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Sellers	2041	AM			250-500 m :: Land	
MODIS	*AM,PM*	*Land_sfc Reflectance, Bi-directional, (BRDF,Tanre, Muller*		*2425**				*15% :: 5 - 8%*	*1/day, 1/wk*	*10 km :: G,R*	*N/A :: Sfc*
					Brewer	2426	BM	3% :: 1%	1/day, 1/seas	1.7 km :: Ocean	N/A :: Sfc
					Dickinson	3370	BM			<0.5-1 deg :: Land	
					Dickinson	3371	BM			<0.5-1 deg :: Land	
					Dickinson	3369	BM			<0.5-1 deg :: G	
					Sellers	2034	AM				

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MODIS	*AM,PM*	*Land_sfc Reflectance, Bi-directional, (BRDF, Tanre, Muller*		*2425**	Brewer	2427	AM	3% :: 1%	1/day, 1/seas	.22 km :: Ocean/L	N/A :: Sfc
					Kerr, Sorooshian	2042	AM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
					Kerr, Sorooshian	2046	AM	10% :: 10%	1/seas	N/A :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Land_sfc Temperature*	*Wan*	*2484*				*1 C :: 1 C*	*1/day, 1/wk*	*1 km :: Land/R*	*N/A :: Sfc*
					Dickinson	3391	BM			Med_res :: Land	
					Mouginis-Mark	3290	BM	10 C ::	[near-real time ?]	1 km :: G	N/A :: Sfc
					Richey, Batista	2476	BM		1/day	:: Land/R	N/A :: Sfc
					Cihlar	3503	BM	0.5 K :: 1.0 K	1 day	250-1000 m :: Canada/R	N/A :: Sfc
					Moore	2535	BM				:: Sfc
					Kerr, Sorooshian	2456	BM	0.5 K :: 0.5 K	2/day [d,n]	500 m :: Land/R	:: Sfc
					Lau	2502	BM	1 K :: 1 K	1/(3 day)	1 km :: Land/R	N/A :: Sfc
					Harris	3450	BM	0.5 :: 0.2	2/day	20-50 km :: Ocean/R	
					Sellers	2478	BM	::		500 m ::	
					Isacks	2496	BM	1-3 :: 1	1/wk	1 km :: Land/R	N/A :: Sfc
					Simard	3312	BM	1.3 :: 1.0 ?	2/day	1 km :: R/Canada	N/A :: Sfc
					Dozier	2500	AM	1 K :: 0.3 K	1/wk	500 m :: Snow/L	
					Kerr, Sorooshian	1631	AM	1 K :: 1 K	2/day [d,n]	500 m :: Land/R	N/A :: Sfc
					Schimel	1632	AM-	10% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
					Barron	2474	AM	1 :: 0.5	1/day	100 km :: G	N/A :: Sfc
					Barron	2472	AM	1 :: 0.5	1/day	30 m :: Land/L	N/A :: Sfc
MODIS	*AM,PM*	*Land_sfc Temperature*	*Wan*	*2485*				*1-3 C :: 1 C*	*1/day, 1/wk*	*10 km :: Land*	*N/A :: Sfc*
					Barron	2473	BM	1 :: 0.5	1/day	10 km :: Land/R	N/A :: Sfc
					Dickinson	3391	BM			Med_res :: Land	
					Richey, Batista	2476	BM		1/day	:: Land/R	N/A :: Sfc
					Harris	3450	BM	0.5 :: 0.2	2/day	20-50 km :: Ocean/R	
					Barron	3051	BM	1 K ::	1/wk	10 km :: Land/Cryo	N/A :: Sfc
					Dickinson	3388	BM			<0.5-1 deg :: Land/Cryo	
					Dickinson	3394	BM			<0.5-1 deg :: Land	
					Barron	2474	BM	1 :: 0.5	1/day	100 km :: G	N/A :: Sfc
					Barron	3052	BM	1 K ::	1/wk	100 km :: Land/Cryo	N/A :: Sfc
					Simard	3313	BM	1.3 :: 1.0 ?	2/day	10 km :: R/Canada	N/A :: Sfc
					Hansen	2477	AM	0.2 C ::	1/wk	500 km :: Land	:: Sfc
					Wielicki	2479	AM	1 K :: 0.5 K	4/day [d,n]	1.25 dg :: Land	N/A :: Sfc
MODIS	*AM,PM*	*Land_sfc Emissivity*	*Wan*	*3323**				*0.05 :: 0.02*	*1 day, 1 wk*	*1 km :: Land/R*	*N/A :: Sfc*
					Cihlar	3487	AM	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
					Isacks	2125	AM		1/yr	15-90 m :: Land/L	N/A :: Sfc
MODIS	*AM,PM*	*Land_sfc Emissivity*	*Wan*	*3324**				*0.05 :: 0.02*	*1 day, 1 wk*	*10 km :: Land*	*N/A :: Sfc*
					Bates	2121	BM		1/day	10 km :: Polar	N/A :: Sfc
					Dickinson	3373	BM			<0.5-1 deg :: Land	
					Cihlar	3487	BM	0.025 :: 0.025	10 day	1.25 deg :: Canada/R	N/A :: Sfc
					Bates	2112	BM	0.05 :: 0.025	2/day [d,n]	50 km :: Land	N/A :: Sfc
MOPITT	*AM1*	*CH4 Total Burden*	*Drummond*	*1096*				*:: 1%*	*1/(12 s) [?]*	*120 km :: G*	*Column :: Atmos*
					Hansen	1075	AM	0.10% ::	1/wk	500 km :: Wetlands	:: Trop
					Hansen	1076	AM		1/wk	500 km :: G	:: Trop
MOPITT	*AM1*	*CO Conc*	*Drummond*	*1126*				*:: 10%*	*1/(0.4 s) [?]*	*22 km :: G*	*3-4 km :: 0-15 km*
					Dickinson	3325	BM				
					Moore	1118	BM	25% :: 10%	1/day	100 km :: G	:: Trop
					Schoeberl	1120	BM	15% :: 5	1/day	2 x 3 dg :: G	2 km :: Trop

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Requirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
MOPITT	*AM1*	*CO Conc*	*Drummond*	*1126*	Hansen	1117	BM	0.10% ::	1/wk	500 km ::	:: Trop
					Pyle	1119	AM	15% :: 5%	2/day	15 x 4 km :: G	2 km :: Strat
					Grose	1116	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
MOPITT	*AM1*	*CO Total Burden*	*Drummond*	*1137*				*:: 10%*	*1/(4 s) [?]*	*66 km :: G [dy]*	*Column :: Atmos*
					Moore	1118	AM	25% :: 10%	1/day	100 km :: G	:: Trop
					Hansen	1117	AM	0.10% ::	1/wk	500 km ::	:: Trop
SAFIRE	*MO*	*CH4 Conc*	*Russell*	*1086*				*:: 7% (15-55km)*	*1/(18-72 s) [?]*	*25 x 1-5 dg :: 86S-86N*	*1.5 km :: 10-65 km*
					Murakami	1374	BM	20% ::			N/A :: TOA
					Grose	1074	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1077	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1078	AM	15% :: 0.05	1/day	2 x 3 dg :: G	1.5 km :: Strat
SAFIRE	*MO*	*H2O2 Conc*	*Russell*	*1172*				*:: 7% (30-35 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-50 km*
					Grose	1166	BM	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Strat
					Pyle	1167	BM	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1168	AM	20% :: .1t,.05s	1/wk	8 x 10 dg :: G	2 km :: Strat
SAFIRE	*MO*	*HBr Conc*	*Russell*	*1180*				*:: 10% (25-35 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 15-40 km*
					Grose	1176	BM	25% :: 10%	1/day	30 x 4 dg :: G	3 km :: Strat
					Schoeberl	1178	BM	20% :: 1	1/wk	8 x 10 dg :: G	3 km :: Strat
					Pyle	1177	BM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
SAFIRE	*MO*	*HCl Conc*	*Russell*	*1187*				*:: 5% (25-55 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 10-65 km*
					Mouginis-Mark	3283	AM		1/day	:: G	N/A :: Plume_col
					Grose	1182	AM	15% :: 10%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1184	AM	15% :: 0.1	1/day	4 x 5 dg :: G	2 km :: Strat
					Pyle	1183	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
SAFIRE	*MO*	*HCN Conc*	*Russell*	*1192*				*:: 35% (25-30 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 25-35 km*
					Schoeberl	1190	AM	20% :: 0.01	1/wk	8 x 10 dg :: G	3 km :: Strat
SAFIRE	*MO*	*HF Conc*	*Russell*	*1197*				*:: 15% (40-60 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 40-60 km*
					Grose	1193	BM	25% :: 10%	1/day	30 x 4 dg :: G	3 km :: Strat
					Schoeberl	1195	BM	15% :: 0.05	1/day	4 x 5 dg :: G	2 km :: Strat
					Pyle	1194	BM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
SAFIRE	*MO*	*HNO3 Conc*	*Russell*	*1204*				*:: 7% (15-40 km)*	*1/(18-72 s) [?]*	*25 x 1-5 dg :: 86S-86N*	*1.5 km :: 10-45 km*
					Schoeberl	1200	AM	15% :: 0.1	1/day	2 x 3 dg :: G	2 km :: Strat
					Pyle	1199	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Grose	1198	AM	20% :: 5%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
SAFIRE	*MO*	*HO2 Conc*	*Russell*	*1217*				*:: 7% (30-60 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-75 km*
					Grose	1212	BM	25% :: 10%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
					Schoeberl	1214	AM	15% :: 0.02	1/day [d]	6 x 8 dg :: G	2 km :: Strat
					Pyle	1213	AM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
SAFIRE	*MO*	*HOCl Conc*	*Russell*	*1223*				*:: 7% (35-40 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-45 km*
					Grose	1218	BM	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
					Schoeberl	1220	AM	20% :: 0.02	1/wk	8 x 10 dg :: G	3 km :: Strat
					Pyle	1219	AM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
SAFIRE	*MO*	*N2O Conc*	*Russell*	*1241*				*:: 15% (20-35 km)*	*1/(18-72 s) [?]*	*25 x 1-5 dg :: 86S-86N*	*1.5 km :: 20-40 km*
					Schoeberl	1232	AM	15% :: 10	1/day	2 x 3 dg :: G	2 km :: Strat
					Grose	1229	AM	15% :: 5%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
SAFIRE	*MO*	*N2O5 Conc*	*Russell*	*1255*				*:: 10% (20-40 km)*	*1/(18-72 s) [?]*	*25 x 1-5 dg :: 86S-86N*	*1.5-3 km :: 10-45 km*
					Grose	1250	AM	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1252	AM	15% :: 20%	1/day	8 x 10 dg :: G	3 km :: Strat

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
SAFIRE	*MO*	*N2O5 Conc*	*Russell*	*1255*	Pyle	1251	AM	20% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
SAFIRE	*MO*	*NO2 Conc*	*Russell*	*1275*				*:: 5% (20-55 km)*	*1/(18-72 s) [?]*	*25 x 1-5 dg :: 86S-86N*	*1.5 km :: 15-60 km*
					Schoeberl	1271	AM	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
					Pyle	1270	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Grose	1269	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
SAFIRE	*MO*	*O(3P) Conc*	*Russell*	*1298*				*:: 15%(110-180 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 90-180 km*
					Grose	1294	BM	30% :: 10%	1/wk	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1296	BM	15% :: 10%	1/wk [d]	8 x 10 dg :: G	3 km :: Strat
					Pyle	1295	BM	15% :: 5%	1/wk	15 x 4 km :: G	2 km :: Strat
SAFIRE	*MO*	*O3 Conc*	*Russell*	*1320*				*:: 5% (10-70 km)*	*1/(18-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*1.5-3 km :: 10-100 km*
					Bates	1305	AM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Grose	1306	AM	2%,5% :: 2%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Murakami	1310	AM	10% ::			N/A :: TOA
					Schoeberl	1312	AM	10% :: 10%	1/day	4 x 5 dg :: G	2.5 km :: Trop
					Pyle	1311	AM	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1313	AM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
SAFIRE	*MO*	*O3O3(NU1,3) Conc*	*Russell*	*1327*				*:: 15% (20-30 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-35 km*
					Schoeberl	1313	AM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
SAFIRE	*MO*	*O3(NU2) Conc*	*Russell*	*1329*				*:: 10% (20-40 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-50 km*
					Schoeberl	1313	AM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
SAFIRE	*MO*	*O3(O^18_OO) Conc*	*Russell*	*1344*				*:: 15% (20-30 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-35 km*
					Schoeberl	1342	AM	10% :: 10%	1/wk	8 x 10 dg :: G	5 km :: Strat
SAFIRE	*MO*	*O3(^18OOO) Conc*	*Russell*	*1345*				*:: 15% (20-35 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-40 km*
					Schoeberl	1342	AM	10% :: 10%	1/wk	8 x 10 dg :: G	5 km :: Strat
SAFIRE	*MO*	*OH Conc*	*Russell*	*1360*				*:: 7% (30-75 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 20-90 km*
					Grose	1355	BM	25% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1356	BM	10% :: .02s,.05m	1/day [d]	6 x 8 dg :: G	2 km :: Mid-atmos
					Pyle	1211	BM	20% :: 10%	2/day	15 x 4 km :: G	2 km :: Strat
SAFIRE	*MO*	*Pressure*	*Russell*	*1526*				*:: <2% (16-70 km)*	*1/(18-72 s) [?]*	*25 x 1-5 dg :: 86S-86N*	*1.5 km :: 10-110 km*
					Grose	1516	AM	0.05 :: 2%	2/day	15 x 4 dg :: G	3 km :: Mid-atmos
SAFIRE	*MO*	*Temperature Profile*	*Russell*	*1610*				*:: <0.5K(16-65 km)*	*1/(18-72 s) [?]*	*25 x 1-5 dg :: 86S-86N*	*1.5 km :: 10-110 km*
					Bates	1570	AM	1K;2K>50km :: .3;1K>50km	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Grose	1572	AM	2 K :: 0.5 K	2/day	15 x 4 dg :: G	2 km :: Mid-atmos
					Bates	1569	AM $-	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
					Hansen	1573	AM	0.3 C ::	1/wk	500 km :: G	:: Strat
					Pyle	1581	AM	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
					Schoeberl	1582	AM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
SAFIRE	*MO*	*H2O Conc*	*Russell*	*1839*				*:: 5% (20-80 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 10-100 km*
					Grose	1811	BM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Trop/meso
					Schoeberl	1822	AM	10% :: 0.05	1/day	4 x 5 dg :: G	2.5 km :: Meso
					Hansen	1864	AM	3% ::	1/wk	500 km :: G	Column :: Strat
					Hansen	1812	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Bates	1808	AM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Schoeberl	1821	AM	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
SAFIRE	*MO*	*H2O (HDO) Conc*	*Russell*	*1857*				*:: 7% (20-50 km)*	*1/(36-72 s) [?]*	*25 x 2.5-5 dg :: 86S-86N*	*3 km :: 10-60 km*
					Schoeberl	1856	BM	10% :: 10%	1/day	8 x 10 dg :: G	3 km :: Strat
SAGE-III	*AERO,CHEM*	*Aerosol Extinction Coef*	*McCormick*	*1012*				5% :: 5%	*1/(2 min), 30/day*	*<2 x <1 dg :: G*	*1 km :: 0-40 km*
					Bates	1005	BM		1/(1-3 day) [few day]	100 km :: G	1 km :: Atmos

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
SAGE-III	*AERO,CHEM*	*Aerosol Extinction Coef*	*McCormick*	*1012*	Dickinson	3374	BM			<0.5-1 deg :: G	
					Mouginis-Mark	3264	BM		1/wk	:: G	:: Trop
					Hartmann	1002	BM	tau=0.02 ::	1/day	20 km :: G	3 km :: 0-15 km
					Sellers	1004	AM				
					Mouginis-Mark	3263	AM		1/wk	:: G	:: Strat
					Schoeberl	1010	AM-$-	10% :: 5%	1/day	200 km :: G	1 km :: Strat
					Grose	1006	AM $-	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
					Kerr, Sorooshian	1007	AM-$-	5% :: 5%	1/day	25 km :: Land	3 km :: Atmos
					Hansen	2287	AM	tau=0.02 ::	1/wk	500 km :: G	:: Strat
					Murakami	2327	AM	5-10% ::		:: G	N/A :: Atmos
SAGE-III	*AERO,CHEM*	*NO2 Conc*	*McCormick*	*1276*				*10% :: 10%*	*1/(2 min), 30/day*	*<2 x <1 dg :: Polar*	*1 km :: 10-50 km*
					Grose	1269	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1271	AM	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
					Pyle	1270	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
SAGE-III	*AERO,CHEM*	*NO2 Conc*	*McCormick*	*1277*				*10% :: 15%*	*1/(2 min), 30/day*	*<2 x <1 dg :: G*	*1 km :: 20-50 km*
					Schoeberl	1271	BM	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
					Hansen	1372	AM-	2% ::	1/wk	500 km :: G	:: Trop
					Grose	1269	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1270	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
SAGE-III	*AERO,CHEM*	*NO3 Conc*	*McCormick*	*1282*				*10% :: 10%*	*1/(2 min), 30/day*	*<2 x <1 dg :: G*	*1 km :: 20-55 km*
					Grose	1279	BM	20% :: 10%	1/day [n]	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1280	BM	25% :: 10%	1/day [n]	15 x 4 km :: G	3 km :: Strat
SAGE-III	*AERO,CHEM*	*O3 Conc*	*McCormick*	*1321*				*6% :: 5 %*	*1/(2 min), 30/day*	*<2 x <1 dg :: Polar*	*1 km :: 6-85 km*
					Murakami	1310	BM	10% ::			N/A :: TOA
					Bates	1305	AM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Schoeberl	1313	AM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
					Hansen	1307	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Schoeberl	1312	AM	10% :: 10%	1/day	4 x 5 dg :: G	2.5 km :: Trop
					Moore	1309	AM	25% :: 10%	1/day	100 km :: G	:: Atmos
					Pyle	1311	AM	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
					Grose	1306	AM	2%,5% :: 2%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
SAGE-III	*AERO,CHEM*	*OClO Conc*	*McCormick*	*1353*				*20% :: 20%*	*1/(2 min), 30/day*	*<2 x <1 dg :: G*	*2 km :: 15-25 km*
					Grose	1349	BM	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
					Schoeberl	1351	BM	20% :: 0.01	1/wk [n]	8 x 10 dg :: G	3 km :: Strat
					Pyle	1350	BM	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
SAGE-III	*AERO,CHEM*	*Cloud Height, Top, PSC*	*McCormick*	*1437*				*0.2 km :: 5%*	*1/(2 min), 30/day*	*<2 x <1 dg :: G*	*1 km :: Strat/Trop*
					Pyle	1404	BM		2/day	:: G	:: Strat
					Grose	3307	AM	20% :: 10%	2/day	15 x 4 dg :: G	2 km :: Strat
SAGE-III	*AERO,CHEM*	*Temperature Profile*	*McCormick*	*1611*				*2 K :: 2K*	*1/(2 min), 30/day*	*<2 x <1 dg :: G*	*1 km :: 6-55 km*
					Schoeberl	1582	BM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
					Bates	1570	AM	1K;2K>50km :: 3;1K>50km	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Hansen	1573	AM	0.3 C ::	1/wk	500 km :: G	:: Strat
					Bates	1569	AM $-	:: 1-2 K		1.8 x .16 dg :: G	3 km :: 20-60 km
					Pyle	1581	AM	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
SAGE-III	*AERO,CHEM*	*Temperature Profile*	*McCormick*	*1612*				*2 K :: 2 K*	*1/(2 min), 30/day*	*<2 x <1 dg :: Polar*	*1 km :: 6-70 km*
					Schoeberl	1582	AM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
					Hansen	1573	AM	0.3 C ::	1/wk	500 km :: G	:: Strat

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
SAGE-III	*AERO,CHEM*	*H2O Conc*	*McCormick*	*1840*				*10% :: 10%*	*1/(2 min), 30/day*	*<2 x <1 dg :: Polar*	*1 km :: 3-50 km*
					Hansen	1812	AM	3% ::	1/wk	500 km :: G	:: Atmos
SAGE-III	*AERO,CHEM*	*H2O Conc*	*McCormick*	*1841*				*10% :: 15%*	*1/(2 min), 30/day*	*<2 x <1 dg :: G*	*1 km :: 3-50 km*
					Hansen	1864	AM	3% ::	1/wk	500 km :: G	Column :: Strat
					Hansen	1812	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Schoeberl	1821	AM	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: O-Strat
					Bates	1808	AM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Pyle	1819	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
SOLSTICE	*MO*	*Irradiance, UV Solar [0.0015 nm res.]*	*Rottman*	*2277*				*<5% :: <1%*	*1/hr*	*N/A :: N/A*	*N/A :: NA*
					Brewer	2275	BM	20% :: 5%	1/day, 1/seas	30 m :: Ocean/L	
					Brewer	2276	BM	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
					Pyle	2273	BM	:: 1%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	2411	AM	5% :: 2%	1/day	:: G	:: Strat
SOLSTICE	*MO*	*Irradiance, UV Solar [0.1 nm res.]*	*Rottman*	*2278*				*<5% :: <1%*	*1/hr*	*N/A :: N/A*	*N/A :: NA*
					Schoeberl	2411	BM	5% :: 2%	1/day	:: G	:: Strat
					Brewer	2275	BM	20% :: 5%	1/day, 1/seas	30 m :: Ocean/L	
					Brewer	2276	BM	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
					Grose	2271	BM	5% :: 1%	2/day	15 x 4 dg :: G	:: TOA
					Pyle	2273	BM	:: 1%	2/day	15 x 4 km :: G	3 km :: Strat
SOLSTICE	*MO*	*Level-1B Irradiance, SOLSTICE*	*Rottman*	*2398*					*1/hr*	*2 dg :: G*	*1 km :: Mid_atm*
					Brewer	2276	AM-	20% :: 5%	1/day, 1/seas	20 km :: Ocean	
STIKSCAT	*CHEM*	*Wind Velocity, Sea_sfc*	*Freilich*	*1679*				*:: 7%, 16 deg*	*1/(2 day)*	*1 dg :: Ocean*	*N/A :: Near_Sfc*
					Dickinson	3338	BM			<0.5-1 deg :: Ocean	
					Harris	3434	BM	7%,14% :: 5%,10%	2 days	100 km :: Ocean/R	N/A :: Sfc
					Rothrock	1669	BM	2 m/s :: 2 m/s	1/day	100 km :: Polar	N/A :: Near_sfc
					Barron	1657	BM	1 m/s,? :: 1 m/s,?	1/day	100 km :: Ocean	N/A :: Sfc
					Hansen	1663	BM	10% ::	1/wk	500 km :: Ocean	:: Sfc
					Lau	1739	AM	0.5 m/s :: 2%	2/day	100 km :: G	N/A :: Sfc
					Rothrock	1670	AM	2 m/s :: 2 m/s	1/day	25 km :: Polar	N/A :: Sfc
					Srokosz	1684	AM	5%,5 dg :: .01m/s,1dg	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
					Hartmann	1664	AM	2 m/s :: 2 m/s	1/day	50 km :: Ocean	N/A :: Sfc
STIKSCAT	*CHEM*	*Wind Velocity, Sea_sfc*	*Freilich*	*1680*				*:: 10%; 16 deg*	*1/(2 day)*	*25 km :: Ocean*	*N/A :: Near_Sfc*
					Abbott	1753	BM	10%,<20dg :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	N/A :: Sfc
					Bates	1658	BM	:: 10%; 20 dg		25 km :: Ocean	N/A :: Near_sfc
					Harris	3433	BM	10%,20% :: 5%,10%	1 day	25 km :: Ocran/R	N/A :: Sfc
					Liu	1702	BM	10 dg :: 10 dg	1/day	25 km :: Ocean	N/A :: Sfc
					Liu	1713	BM	1 :: 1	1/day	25 km :: Ocean	N/A :: Sfc
					Rothrock	1670	BM	2 m/s :: 2 m/s	1/day	25 km :: Polar	N/A :: Sfc
					Srokosz	1716	BM	1 m/s :: 0.1 m/s	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
					Srokosz	1684	BM	5%,5 dg :: .01m/s,1dg	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
					Srokosz	1703	BM	10 dg :: 1 dg	1/day	25 km :: Ocean [South Atlan]	
					Hartmann	1664	BM	2 m/s :: 2 m/s	1/day	50 km :: Ocean	N/A :: Sfc
					Barron	1653	BM	1 m/s,? :: 1 m/s,?	1/day	10 km :: Ocean/R	N/A :: Sfc
					Dickinson	3338	AM			<0.5-1 deg :: Ocean	
					Barron	1657	AM	1 m/s,? :: 1 m/s,?	1/day	100 km :: Ocean	N/A :: Sfc
					Rothrock	1669	AM	2 m/s :: 2 m/s	1/day	100 km :: Polar	N/A :: Near_sfc
STIKSCAT	*CHEM*	*Wind Stress*	*Freilich*	*1746*						*:: Ocean*	*:: Sfc*
					Bates	1742	BM			:: Ocean	:: Sfc

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
STIKSCAT	*CHEM*	*Wind Stress*	*Freilich*	*1746*	Lau	1743	BM	0.01 ::		:: Ocean	N/A :: Sfc
					Murakami	1744	BM	0.01 ::		:: Ocean	N/A :: Sfc
					Tapley	1745	BM	10% ::	4/day	50 km :: Ocean	N/A :: Sfc
STIKSCAT	*CHEM*	*Level-1B Backscatter Coef*	*Freilich*	*2108*				*:: 0.25 dB*		*25 km :: G*	*N/A :: Sfc*
					Brewer	2097	BM	10% :: TBD	1/day, 1/seas	25 km :: Ocean	N/A :: Sfc
					Srokosz	2109	BM	0.3 dB :: 0.1 dB	1/day	25 km :: Ocean [South Atlan]	N/A :: Sfc
TES	*CHEM*	*CH4 Conc*	*Beer*	*1087*				*:: 14 ppb*	*1/(16 day)*	*16 x 5 km :: G*	*4-6 km :: 0-12 km*
					Grose	1074	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1077	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Hansen	1075	AM	0.10% ::	1/wk	500 km :: Wetlands	:: Trop
					Hansen	1076	AM		1/wk	500 km :: G	:: Trop
TES	*CHEM*	*CH4 Conc*	*Beer*	*1088*				*:: 30 ppb*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Grose	1074	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1077	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1078	AM	15% :: 0.05	1/day	2 x 3 dg :: G	1.5 km :: Strat
TES	*CHEM*	*CH4 Conc*	*Beer*	*1089*				*:: 40 ppb*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Hansen	1075	BM	0.10% ::	1/wk	500 km :: Wetlands	:: Trop
					Hansen	1076	BM		1/wk	500 km :: G	:: Trop
					Grose	1074	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1077	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
TES	*CHEM*	*CO Conc*	*Beer*	*1127*				*:: 10 ppb*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Schoeberl	1121	AM	15% :: 5	1/day	8 x 10 dg :: G	3 km :: Mid-atmos
					Pyle	1119	AM	15% :: 5%	2/day	15 x 4 km :: G	2 km :: Strat
TES	*CHEM*	*CO Conc*	*Beer*	*1128*				*:: 15 ppb*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Hansen	1117	AM	0.10% ::	1/wk	500 km ::	:: Trop
					Grose	1116	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1120	AM	15% :: 5	1/day	2 x 3 dg :: G	2 km :: Trop
TES	*CHEM*	*CO Conc*	*Beer*	*1129*				*:: 3 ppb*	*1/(16 day)*	*16 x 5 km :: G*	*4-6 km :: 0-12 km*
					Dickinson	3325	AM				
					Hansen	1117	AM	0.10% ::	1/wk	500 km ::	:: Trop
					Schoeberl	1120	AM	15% :: 5	1/day	2 x 3 dg :: G	2 km :: Trop
TES	*CHEM*	*HNO3 Conc*	*Beer*	*1205*				*:: 3 ppt*	*1/(16 day)*	*160 x 23 km :: G*	*2.3 km :: 4-12 km*
					Grose	1198	AM	20% :: 5%	2/day	30 x 10 dg :: G	3 km :: Mid-atmos
					Pyle	1199	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
TES	*CHEM*	*HNO3 Conc*	*Beer*	*1206*				*:: 3 ppt*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Schoeberl	1200	AM	15% :: 0.1	1/day	2 x 3 dg :: G	2 km :: Strat
					Pyle	1199	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
TES	*CHEM*	*N2O Conc*	*Beer*	*1243*				*:: 10 ppt*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Grose	1229	AM	15% :: 5%	1/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Schoeberl	1232	AM	15% :: 10	1/day	2 x 3 dg :: G	2 km :: Strat
TES	*CHEM*	*NH3 Conc*	*Beer*	*1256*				*:: 300 ppt*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Hansen	1372	AM-	2% ::	1/wk	500 km :: G	:: Trop
TES	*CHEM*	*NO Conc*	*Beer*	*1268*				*:: 25 ppt*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Schoeberl	1264	AM	15% :: .2s,1.0m	1/day [d]	4 x 5 dg :: G	2 km :: Mid-atmos
					Grose	1262	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
					Pyle	1263	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
TES	*CHEM*	*NO2 Conc*	*Beer*	*1278*				*:: 500 ppt*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Grose	1269	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
TES	*CHEM*	*NO2 Conc*	*Beer*	*1278*	Schoeberl	1271	AM	10% ::	1/day	4 x 5 dg :: G	2 km :: Mid-atmos
					Pyle	1270	AM	15% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
TES	*CHEM*	*O3 Conc*	*Beer*	*1323*				*:: 20 ppb*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Murakami	1310	AM	10% ::			N/A :: TOA
					Hansen	1307	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Schoeberl	1313	AM	10% :: 5%	1/day	2 x 3 dg :: G	1.5 km :: Mid-atmos
					Pyle	1311	AM	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
TES	*CHEM*	*O3 Conc*	*Beer*	*1324*				*:: 3 ppb*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Murakami	1310	AM	10% ::			N/A :: TOA
					Hansen	1307	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Schoeberl	1312	AM	10% :: 10%	1/day	4 x 5 dg :: G	2.5 km :: Trop
					Moore	1309	AM	25% :: 10%	1/day	100 km :: G	:: Atmos
					Pyle	1311	AM	5% :: 2%	2/day	15 x 4 km :: G	3 km :: Strat
TES	*CHEM*	*O3 Conc*	*Beer*	*1325*				*:: 13 ppb*	*1/(16 day)*	*16 x 5 km :: G*	*4-6 km :: 0-12 km*
					Murakami	1310	AM	10% ::			N/A :: TOA
					Schoeberl	1312	AM	10% :: 10%	1/day	4 x 5 dg :: G	2.5 km :: Trop
					Hansen	1307	AM	3% ::	1/wk	500 km :: G	:: Atmos
					Moore	1309	AM	25% :: 10%	1/day	100 km :: G	:: Atmos
TES	*CHEM*	*SO2 Conc*	*Beer*	*1370*				*:: 600 ppt*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Mouginis-Mark	3289	BM		1/day	1 km :: G	N/A :: Plume_col
					Mouginis-Mark	3288	BM		[near-real time ?]	1 km :: G	N/A :: Plume_col
					Schoeberl	1366	AM	20% ::	1/wk	8 x 10 dg :: G	3 km :: Strat
TES	*CHEM*	*Temperature Profile*	*Beer*	*1614*				*:: 2 K*	*1/(16 day)*	*16 x 5 km :: G*	*1 km, 4-6 km :: 0-12 km*
					Isacks	1576	AM	1 :: 0.4	1/wk	50 km :: Land/R	1 km :: Trop
					Hartmann	1575	AM	1 :: 1	1/day	10 km :: Ocean	1 km :: 0-15 km
					Barron	1565	AM	1 K :: 0.5 K	1/day	10 km :: R	1 km :: Trop
					Pyle	1581	AM	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
					Schoeberl	1582	AM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
					Srokosz	1584	AM	1 K :: 0.1 K	2/day	10 km :: Ocean [South Atlan]	
TES	*CHEM*	*Temperature Profile*	*Beer*	*1615*				*:: 2 K*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Pyle	1581	AM	2 K :: 0.5 K	2/day	15 x 4 km :: G	2 km :: Strat
					Schoeberl	1582	AM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
TES	*CHEM*	*Temperature Profile*	*Beer*	*1616*				*:: 2 K*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Schoeberl	1582	AM	2 K :: 1 K	1/day	2 x 2 dg :: G	2 km :: Atmos
TES	*CHEM*	*H2O Conc, Tropospheric*	*Beer*	*1842*				*:: 50 ppm*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 4-12 km*
					Grose	1811	AM	15% :: 5%	2/day	30 x 4 dg :: G	3 km :: Trop/meso
					Tapley	1825	AM	5% ::	4/day	50 km :: G	1 km :: Atmos
					Hansen	1813	AM	3% ::	1/wk	500 km :: G	:: Trop
TES	*CHEM*	*H2O Conc, Stratospheric*	*Beer*	*1843*				*:: 0.5 ppm*	*1/(16 day)*	*160 x 23 km :: G*	*2-3 km :: 13-30 km*
					Hansen	1864	BM	3% ::	1/wk	500 km :: G	Column :: Strat
					Bates	1808	AM	5-10% :: 1-5%	2/day	4 x 4 dg :: G	1-1.5 km :: 10-80 km
					Pyle	1819	AM	10% :: 5%	2/day	15 x 4 km :: G	3 km :: Strat
					Schoeberl	1821	AM	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
TES	*CHEM*	*H2O Conc*	*Beer*	*1844*				*:: 50 ppm*	*1/(16 day)*	*16 x 5 km :: G*	*4-6 km :: 0-12 km*
					Isacks	1815	AM	10% :: 0.05	1/wk	50 km :: Land/R	2 km :: Trop
					Barron	1806	AM	10% :: 5%	1/day	10 km :: R	:: Trop
					Hansen	1813	AM	3% ::	1/wk	500 km :: G	:: Trop
					Schoeberl	1821	AM	10% :: 5%t,0.05s	1/day	2 x 3 dg :: G	1.5 km :: 0-Strat
TES	*CHEM*	*CO2 Conc*	*Beer*	*3637*					*1/(16 day)*	*16 x 5 km :: L*	

Appendix M: IDS Input Requirements and Match Products by Instrument

Instrument Output Data Product					IDS Input Reqirements			Accuracy	Temporal	Horizontal	Vertical
Instrument	Platforms	Product Name	TM	Prod #	Investigator	Prod #	Match Type	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
TES	*CHEM*	*CO2 Conc*	*Beer*	*3637*					*1/(16 day)*	*16 x 5 km :: L*	
					Sellers	1141	BM				
					Grose	1138	BM	1% :: 0.5%	1/mo	ZM :: G	10 km :: Mid-atmos
					Hansen	1139	BM	0.2 ppm ::	1/wk	500 km :: G	:: Trop
					Kerr, Sorooshian	1140	BM	15% :: 15%	1/day	50 km :: G	1 km :: Atmos
TES	*CHEM*	*HCl Conc*	*Beer*	*3638*					*1/(16 day)*	*16 x 5 km :: L*	
					Mouginis-Mark	3283	BM		1/day	:: G	N/A :: Plume_col

IDS Input Requirements Not Met by EOS Instruments until Year 2001

Appendix N

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Abbott	*Ocean Wave Height, Significant*	*3130*						*10% :: 5%*	*1/(10-20 day)*	*10-20 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	AM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Abbott	*Pigment Conc, Phycoerythrin*	*2584*						*50% :: 20%*	*1/(1-2 day)*	*1-4 km :: Ocean [Southern]*	*N/A :: TOO*
			HIRIS	AM2	Davis, Melack	3072	AM-	100% :: 50%	1/(>=2 day)	60-90 m :: Ocean-1/L	N/A :: TOO
Abbott	*Sea_Level Height*	*3105*						*5 cm :: 3 cm*	*1/(10-20 day)*	*10-20 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Abbott	*Wind Speed, Sea_sfc*	*1707*						*10% :: 5%*	*1/(10-20 day)*	*25 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	1735	BM	2 m/s ::		7 km :: Ocean	N/A :: Sfc
Abbott	*Wind Speed, Sea_sfc*	*1708*						*10% :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*N/A :: Sfc*
			ALT	ALT	Fu	1735	BM	2 m/s ::		7 km :: Ocean	N/A :: Sfc
Abbott	*Wind Velocity, Sea_sfc*	*1753*						*10%,<20dg :: 5%*	*1/(1-2 day)*	*25 km :: Ocean [Southern]*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Barron	*Cloud Cover*	*2049*						*5 :: 5*	*1/day*	*100 km :: G*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Barron	*Cloud Cover*	*2050*						*5 :: 5*	*1/day*	*10 km :: R*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Barron	*Cloud Cover*	*2051*						*5 :: 5*	*1/day*	*30 m :: L*	*N/A :: Cloud*
			HIRIS	AM2	Welch	2079	BM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
Barron	*Cloud Height, Base*	*1382*						*100 m :: 50 m*	*1/day*	*30 m :: L*	*100 m :: Cloud*
			HIRIS	AM2	Welch	1390	BM	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
Barron	*Cloud Height, Top*	*1413*						*100 m :: 25 m*	*1/day*	*10 km :: R*	*100 m :: Cloud*
			GLRS-A	ALT	Spinhirne et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
Barron	*Cloud Height, Top*	*1414*						*100 m :: 25 m*	*1/day*	*30 m :: L*	*100 m :: Cloud*
			HIRIS	AM2	Welch, Goetz	1426	BM	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
			GLRS-A	ALT	Spinhirne et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
Barron	*Cloud Optical Depth*	*2303*						*3% :: 3%*	*1/day*	*30 m :: Ocean/L*	*N/A :: Cloud*
			HIRIS	AM2	Welch	2309	BM	3% :: 1.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	N/A :: Cloud
Barron	*Drainage_Network Structure*	*2905*						*30 m ::*	*1/(3 mo)*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM-	:: 30%		30 m :: L	N/A :: Sfc
Barron	*Humidity Profile*	*1806*						*10% :: 5%*	*1/day*	*10 km :: R*	*:: Trop*
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Barron	*Ice_Sheet Elevation*	*2906*						*100 ::*	*1/(3 mo)*	*10 km :: Land/Cryo*	*:: Sfc*
			ALT	ALT	Zwally	2911	BM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
			GLRS-A	ALT	Bentley	2912	AM	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Elevation*	*2907*						*100 ::*	*1/(3 mo)*	*100 km :: Land/Cryo*	*:: Sfc*
			ALT	ALT	Zwally	2911	BM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Thickness*	*3053*						*100 ::*	*1/(3 mo)*	*10 km :: Land/Cryo*	*:: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Thickness*	*3054*						*100 ::*	*1/(3 mo)*	*100 km :: Land/Cryo*	*30 m :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Barron	*Ice_Sheet Velocity*	*2929*						::		*:: Land/Cryo*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2897	BM	10 mm/day :: 10 mm/day	1/mo	N/A :: Land/Cryo	N/A :: Sfc
			HIRIS	AM2	Kieffer	2932	BM	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
			HIRIS	AM2	Kieffer	2895	AM	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Ice Sheet Velocity*	*2929*	HIRIS	AM2	Kieffer	2930	AM	10^-6 :: variable	1/yr	100 m :: Land/Cryo	N/A :: Sfc
Barron	*PBL Height*	*1510*						*75 m ::*	*1/day*	*10 km :: R*	*100 m :: Mixed lyr*
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Barron	*PBL Height*	*1511*						*75 m ::*	*1/day*	*100 km :: G*	*100 m :: Mixed lyr*
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Barron	*Precipitable Water*	*1859*						*3% :: 1%*	*1/day*	*30 m :: L*	*Column :: Trop*
			HIRIS	AM2	Goetz	1873	BM	10% :: 3%	1/(1-3 min), 1/(2-16 day)	30 m :: L	Column :: Trop
Barron	*Snow Cover*	*3004*						*5% :: 5%*	*1/day*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Barron	*Soil Composition*	*2795*						*10% :: 5%*	*1/mission*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Rowan, Clark	2766	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2772	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2776	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2784	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Barron	*Soil Extent*	*2799*						*5 ? :: 5 ?*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Soil Proportion, Bare*	*2787*						*5 :: 5*	*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Suspended-Solids Conc, Lake Water*	*2804*						*25% ::*		*10 km :: Land/R-Lakes*	*N/A :: Sfc*
			HIRIS	AM2	Carder, Melack	3315	BM	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
Barron	*Temperature Profile*	*1565*						*1 K :: 0.5 K*	*1/day*	*10 km :: R*	*1 km :: Trop*
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Barron	*Vegetation Biomass, Dead*	*2612*						*25% :: 15%*	*1/mission*	*30 m :: L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Biomass, Dead*	*2613*						*25% :: 15%*	*1/mission*	*10 km :: R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Biomass, Green*	*2615*						*25% :: 15%*	*1/mission*	*30 m :: L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Biomass, Green*	*2616*						*25% :: 15%*	*1/mission*	*10 km :: R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Extent*	*2715*						*5 ? :: 5 ?*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Index, Leaf Area, (LAI)*	*2675*						*0.5 :: 0.2*	*1/day*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Structure*	*2639*							*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Structure*	*2640*							*1/seas*	*10 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Type*	*2728*						*5 ? :: 5 ?*	*1/yr*	*10 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Vegetation Type*	*2729*						*5 ? :: 5 ?*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Barron	*Vegetation Type Boundaries*	*2739*						*30 m ::*	*1/(3 mo)*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Barron	*Wind Velocity, Sea_sfc*	*1653*						*1 m/s,? :: 1 m/s,?*	*1/day*	*10 km :: Ocean/R*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Barron	*Wind Velocity, Sea_sfc*	*1657*						*1 m/s,? :: 1 m/s,?*	*1/day*	*100 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1680	AM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Bates	*Aerosol Layer Boundary Height*	*1013*						*75 m ::*		*2-200 km :: G*	*75 m :: Atmos*
			GLRS-A	ALT	Spinhirne et al	1014	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Bates	*Aerosol XXX*	*1005*							*1/(1-3 day) [few day]*	*100 km :: G*	*1 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Bates	*Cloud Cover, Cirrus*	*2069*							*1/day*	*100 km :: G*	*0.5 km :: Trop*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Bates	*Cloud Cover, Cirrus*	*2072*						*0.05 :: 0.025*	*2/day [d,n]*	*15 x 45 km :: G*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Bates	*Cloud Height, Base*	*1383*						*:: 100 mb*		*25 km :: G*	*100 mb :: Cloud*
			GLRS-A	ALT	Spinhirne et al	1389	AM	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
Bates	*Cloud Height, Cirrus*	*1401*						*500 m ::*	*2/day*	*50 km :: G*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
Bates	*Cloud Height, Stratoform*	*1406*						*50 m ::*	*2/day*	*50 km :: G*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	1400	BM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
Bates	*Cloud Liq_water Content*	*1894*						*:: 75%*	*1/(6 hr)*	*1 x 1 dg :: G*	*hr :: 0-30 km*
			MLS	MO	Waters	1898	AM	:: 5%	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Upper Trop
Bates	*Cloud Optical Depth*	*2304*							*1/day*	*15 x 45 km :: G*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne et al	2308	AM	0.1 ::		2-200 km :: G	N/A :: Cloud
Bates	*Geopotential Height Gradient*	*1499*						*0.04m/km ::*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1500	BM	0.04m/km :: 0.04m/km	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-80 km
Bates	*H2O Conc*	*1808*						*5-10% :: 1-5%*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: 10-80 km*
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			TES	CHEM	Beer	1843	AM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Bates	*O3 Conc*	*1305*						*5-10% :: 1-5%*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: 10-80 km*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
Bates	*Ocean Wave Height*	*3126*						*20% :: 20%*	*1/day*	*50-75 m :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	AM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Bates	*Ocean Wave Height, Along-track*	*3128*						*>.5m,10% ::*		*7 km :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	BM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Bates	*PBL Height*	*1512*						*75 m ::*		*2-200 km :: G*	*75 m :: Trop*
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Bates	*Sea_Level Height, Along-track*	*3111*						*10 cm ::*		*7 km :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Bates	*Temperature Profile*	*1569*						*:: 1-2 K*		*1.8 x .16 dg :: G*	*3 km :: 20-60 km*
			HIRDLS	CHEM	Barnett, Gille	1608	AM	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			GGI	ALT	Melbourne	1606	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 2-5/50-60 km
			GGI	ALT	Melbourne	1605	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
Bates	*Temperature Profile*	*1570*						*1K;2K>50km :: .3;1K>50km*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: 10-80 km*
			HIRDLS	CHEM	Barnett, Gille	1608	BM	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
Bates	*Tropopause Height, Aerosol_located*	*1642*						*75 m ::*		*200 km :: G*	*75 m :: Trop*
			GLRS-A	ALT	Spinhirne et al	1014	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Bates	*Vegetation Index, Leaf Area, (LAI)*	*2676*							*1/mo*	*60 m :: Land*	*N/A :: Sfc*
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Bates	*Wind Stress*	*1742*								*:: Ocean*	*:: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc
Bates	*Wind Velocity, Geostrophic*	*1685*						*2 m/s ::*	*2/day*	*4 x 4 dg :: G*	*1-1.5 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1687	BM	3 m/s :: 3 m/s	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
Bates	*Wind Velocity, Sea_sfc*	*1658*						*:: 10%; 20 dg*		*25 km :: Ocean*	*N/A :: Near_sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Brewer	*Gelbstoff Absorption Coef@300nm*	*3213*						*50% :: 10%*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3215	BM-	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Brewer	*Gelbstoff Absorption Coef@300nm*	*3214*						*50% :: 10%*	*1/day, 1/seas*	*20 km :: Ocean*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3215	BM-	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Brewer	*Irradiance, UV Solar*	*2275*						*20% :: 5%*	*1/day, 1/seas*	*30 m :: Ocean/L*	
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Brewer	*Irradiance, UV Solar*	*2276*						*20% :: 5%*	*1/day, 1/seas*	*20 km :: Ocean*	
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2398	AM-		1/hr	2 dg :: G	1 km :: Mid_atm
Brewer	*Land_sfc Reflectance, Directional*	*2427*						*3% :: 1%*	*1/day, 1/seas*	*.22 km :: Ocean/L*	*N/A :: Sfc*
			HIRIS	AM2	Gerstl	2035	AM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
Brewer	*Level-1B Backscatter, STIKSCAT*	*2097*						*10% :: TBD*	*1/day, 1/seas*	*25 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	2108	BM	:: 0.25 dB		25 km :: G	N/A :: Sfc
Brewer	*Level-2 Radiance, Water-leaving*	*2414*						*10% :: TBD*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Goetz	2370	BM				
Brewer	*Ocean Productivity, Primary*	*2600*						*50% :: 5%*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Davis, Melack et	2601	BM	100% :: 50%	1/(>=2 day)	30-90 m :: Ocean/L	N/A :: TOO
Brewer	*Organic Carbon Conc, Dissolved*	*2562*						*100% :: 10%*	*1/day, 1/seas*	*30 m :: Ocean/L*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3314	BM	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO
Brewer	*Sea_Level Height*	*3106*						*5% :: 1%*	*1/day, 1/seas*	*7 km :: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Brewer	*Sea Level Height*	*3106*	ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Cihlar	*Vegetation Reflectance, Bi-directional, (BRDF)*	*3496*						*0.05 :: 0.001*	*1 wk (for 1 yr)*	*:: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Gerstl	2035	AM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
Cihlar	*Vegetation Structure*	*3502*								*1 km :: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Cihlar	*Vegetation Type*	*3504*						*15% :: 15%*	*once*	*100 m :: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Albedo, Cloud*	*3361*								*<0.5-1 deg :: G*	
			HIRIS	AM2	Welch	2008	BM	5% :: 5%		90 m :: R	:: Cloud
Dickinson	*Albedo, Snow*	*3364*								*High res :: Land*	
			HIRIS	AM2	Dozier	2440	BM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Dickinson	*CO Conc*	*3325*									
			TES	CHEM	Beer	1129	AM	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Dickinson	*Cloud Drop Size-distribution*	*3348*								*<0.5-1 deg :: G*	
			HIRIS	AM2	Welch	1776	BM	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
Dickinson	*Cloud Liq-water Content*	*3357*								*<0.5-1 deg :: G*	
			MLS	MO	Waters	1898	AM	:: 5%	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: Upper Trop
Dickinson	*Cloud Optical Depth, SW*	*3382*								*<0.5-1 deg :: G*	
			GLRS-A	ALT	Spinhirne et al	2308	AM	0.1 ::		2-200 km :: G	N/A :: Cloud
Dickinson	*Cloud Pressure, Top*	*3330*								*<0.5-1 deg :: G*	
			HIRDLS	CHEM	Barnett, Gille	1531	AM	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
Dickinson	*PBL Height*	*3329*									
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Dickinson	*Vegetation Biomass, Green*	*3397*								*<0.5-1 deg :: Land*	
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Vegetation Extent*	*3400*								*High res :: Land*	
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Vegetation Height*	*3402*								*Med-low res :: Land*	
			HIRIS	AM2	Ustin	2656	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Vegetation Type*	*3405*								*<0.5-1 deg :: Land*	
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Dickinson	*Wind Velocity, Sea_sfc*	*3338*								*<0.5-1 deg :: Ocean*	
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1680	AM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Dozier	*Albedo, Spectral, Land_sfc*	*2020*						*5% :: 1%*	*1/wk, 1/mo*	*50 m :: Land/L*	
			HIRIS	AM2	Dozier	2440	AM-	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Dozier	*Snow Contaminant Conc*	*2767*						*20% :: 20%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	2768	BM	20% :: 20%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Dozier	*Snow Cover*	*3008*						*10% :: 10%*	*1/wk, 1/mo*	*50 x 50 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Dozier	*Snow Cover, Wet*	*3028*						*10% :: 10%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	3030	BM	10% :: 10%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
			HIRIS	AM2	Dozier	3029	AM	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Dozier	*Snow Grain Size*	*3037*						*200% :: 200%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	3038	BM	200% :: 200%	1/wk, 1/mo	50 [km?] :: Snow/L	N/A :: Sfc
Dozier	*Snow Liq-water Content*	*3039*						*100% :: 100%*	*1/wk, 1/mo*	*50 m :: Snow/L*	
			HIRIS	AM2	Dozier	2943	BM	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Grose	*Aerosol Conc*	*1006*						*20% :: 10%*	*2/day*	*15 x 4 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Grose	*BrO Conc*	*1026*						*20% :: 15%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1030	BM	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
Grose	*CFC-11(CFCl3) Conc*	*1050*						*15% :: 5%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Grose	*CFC-12(CF2Cl2) Conc*	*1042*						*15% :: 5%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Grose	*CH3Cl Conc*	*1065*						*15% :: 5%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1070	BM	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
Grose	*CH4 Conc*	*1074*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	AM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			TES	CHEM	Beer	1089	AM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1088	AM	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Grose	*CO Conc*	*1116*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1124	BM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			MLS	MO	Waters	1125	BM	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
			TES	CHEM	Beer	1128	AM	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Grose	*CO2 Conc*	*1138*						*1% :: 0.5%*	*1/mo*	*ZM :: G*	*10 km :: Mid-atmos*
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Grose	*ClO Conc*	*1103*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1107	BM	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
Grose	*Cloud XXX, PSC*	*3307*						*20% :: 10%*	*2/day*	*15 x 4 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1408	BM	0.4 km :: 0.4 km	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Strat
			GLRS-A	ALT	Spinhirne et al	1405	AM	150 m ::	1/(2-16 day)	2-200 km :: Polar	75 m :: Strat
Grose	*H2O Conc*	*1811*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Tropmeso*
			SAFIRE	MO	Russell	1839	BM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km (1.2) :: TPSE, 100 km
			TES	CHEM	Beer	1842	AM	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			HIRDLS	CHEM	Barnett, Gille	1837	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
Grose	*H2O2 Conc*	*1166*						*25% :: 10%*	*2/day*	*30 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1172	BM	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
			MLS	MO	Waters	1171	AM	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
Grose	*HBr Conc*	*1176*						*25% :: 10%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1180	BM	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
Grose	*HCl Conc*	*1182*						*15% :: 10%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1188	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
			SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Grose	*HF Conc*	*1193*						*25% :: 10%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1197	BM	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Grose	*HNO3 Conc*	*1198*						*20% :: 5%*	*2/day*	*30 x 10 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
			MLS	MO	Waters	1203	AM	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
			SAFIRE	MO	Russell	1204	AM	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
			TES	CHEM	Beer	1205	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2.3 km :: 4-12 km
Grose	*HO2 Conc*	*1212*						*25% :: 10%*	*2/day*	*30 x 10 dg :: G*	*3 km :: Mid-atmos*
			SAFIRE	MO	Russell	1217	BM	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km
			MLS	MO	Waters	1216	AM	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
Grose	*HOCl Conc*	*1218*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1223	BM	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
			MLS	MO	Waters	1222	AM	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
Grose	*Irradiance, Solar*	*2271*						*5% :: 1%*	*2/day*	*15 x 4 dg :: G*	*:: TOA*
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Grose	*N2O Conc*	*1229*						*15% :: 5%*	*1/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
			SAFIRE	MO	Russell	1241	AM	:: 15% (20-35 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 20-40 km
			MLS	MO	Waters	1240	AM	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
			TES	CHEM	Beer	1243	AM	:: 10 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Grose	*N2O5 Conc*	*1250*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1254	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
			SAFIRE	MO	Russell	1255	AM	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
Grose	*NO Conc*	*1262*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1266	BM	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
			TES	CHEM	Beer	1268	AM	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Grose	*NO2 Conc*	*1269*						*15% :: 5%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1273	BM	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
			MLS	MO	Waters	1274	AM	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
			SAFIRE	MO	Russell	1275	AM	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
			TES	CHEM	Beer	1278	AM	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Grose	*O(3P) Conc*	*1294*						*30% :: 10%*	*1/wk*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			SAFIRE	MO	Russell	1298	BM	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
Grose	*O3 Conc*	*1306*						*2%,5% :: 2%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
Grose	*OClO Conc*	*1349*						*20% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1352	AM	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
Grose	*OH Conc*	*1355*						*25% :: 10%*	*2/day*	*30 x 4 dg :: G*	*3 km :: Mid-atmos*
			SAFIRE	MO	Russell	1360	BM	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
Grose	*Pressure*	*1516*						*0.05 :: 2%*	*2/day*	*15 x 4 dg :: G*	*3 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1524	BM	0.1% :: 0.1%	2/day [d,n]	4 x 4 dg :: G	0.2 km :: 7-80 km
			MLS	MO	Waters	1525	AM	:: 1%(30-50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
			SAFIRE	MO	Russell	1526	AM	:: <2% (16-70 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
Grose	*Temperature Profile*	*1572*						*2 K :: 0.5 K*	*2/day*	*15 x 4 dg :: G*	*2 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1608	BM	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Grose	*Wind Velocity*	*1662*						*5m/s,10dg :: 5m/s,5dg*	*2/day*	*15 x 4 dg :: G*	*2 km :: Mid-atmos*
			MLS	MO	Waters	1734	AM-	:: 10m/s	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 60-110 km
Hansen	*Aerosol Optical Depth*	*1001*						*tau=0.02 ::*	*1/wk*	*500 km :: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
Hansen	*Aerosol Optical Depth*	*2287*						*tau=0.02 ::*	*1/wk*	*500 km :: G*	*:: Strat*
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Hansen	*Albedo, Snow*	*2017*						*0.02 ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			HIRIS	AM2	Dozier	2440	AM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Hansen	*CFC-XXX Conc*	*1057*							*1/wk*	*500 km :: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Hansen	*CH4 Conc*	*1075*						*0.10% ::*	*1/wk*	*500 km :: Wetlands*	*:: Trop*
			TES	CHEM	Beer	1089	BM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			HIRDLS	CHEM	Barnett, Gille	1085	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
Hansen	*CH4 Conc*	*1076*							*1/wk*	*500 km :: G*	*:: Trop*
			TES	CHEM	Beer	1089	BM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			HIRDLS	CHEM	Barnett, Gille	1085	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
Hansen	*CO Conc*	*1117*						*0.10% ::*	*1/wk*	*500 km ::*	*:: Trop*
			TES	CHEM	Beer	1129	AM	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			MLS	MO	Waters	1124	AM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			TES	CHEM	Beer	1128	AM	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Hansen	*CO2 Conc*	*1139*						*0.2 ppm ::*	*1/wk*	*500 km :: G*	*:: Trop*
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Hansen	*Cloud Cover*	*2052*						*3% ::*	*1/wk*	*500 km :: G*	*:: Cloud*
			GLRS-A	ALT	Spinhime	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Hansen	*Cloud Height*	*1399*						*50 m ::*	*1/wk*	*500 km :: G*	*:: Cloud*
			HIRDLS	CHEM	Barnett, Gille	1531	AM	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
Hansen	*H2O Conc, Stratospheric*	*1864*						*3% ::*	*1/wk*	*500 km :: G*	*Column :: Strat*
			TES	CHEM	Beer	1843	BM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			HIRDLS	CHEM	Barnett, Gille	1837	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
Hansen	*Humidity Profile*	*1812*						*3% ::*	*1/wk*	*500 km :: G*	*:: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
Hansen	*Humidity Profile*	*1813*						*3% ::*	*1/wk*	*500 km :: G*	*:: Trop*
			TES	CHEM	Beer	1842	AM	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Hansen	*Industrial_Emissions Conc*	*1372*						*2% ::*	*1/wk*	*500 km :: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1085	AM-	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			TES	CHEM	Beer	1256	AM-	:: 300 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Hansen	*Irradiance, Solar*	*2272*						*0.05% ::*	*1/wk*	*500 km :: G*	*:: TOA*
			ACRIM	MO	Willson	2274	BM	0.1% :: 0.0005%	1/(2 min)	N/A :: N/A	N/A :: TOA
Hansen	*N2O Conc*	*1230*							*1/wk*	*500 km :: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
Hansen	*O3 Conc*	*1307*						*3% ::*	*1/wk*	*500 km :: G*	*:: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			MLS	MO	Waters	1328	AM	:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Hansen	*Snow Cover*	*3009*						*0.02 ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			HIRIS	AM2	Dozier	3019	AM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Hansen	*Temperature Profile*	*1573*						*0.3 C ::*	*1/wk*	*500 km :: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1608	BM	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			GGI	ALT	Melbourne	1605	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
Hansen	*Vegetation Type*	*2731*						*5% ::*	*1/wk*	*500 km :: Land*	*:: Sfc*
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Hansen	*Wind Velocity, Sea_sfc*	*1663*						*10% ::*	*1/wk*	*500 km :: Ocean*	*:: Sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Harris	*Chlorophyll_a Conc*	*3454*						*40% :: 20%*	*2-10 days*	*0.25-1 km:: Ocean/R*	
			HIRIS	AM2	Carder, Melack	2565	AM	100% :: 50%	1/(2 day) [d]	60-90 m :: Ocean-II/L	N/A :: TOO
Harris	*Chlorophyll_a Conc*	*3456*						*20-30% :: 10-15%*	*2-10 days*	*0.25-1 km :: Ocean/R*	
			HIRIS	AM2	Carder, Davis	2564	AM	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Harris	*Cloud Cover*	*3436*						*5-10% :: 2-5%*	*2/day*	*5-50 km :: Ocean/R*	
			GLRS-A	ALT	Spinhime	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Harris	*Gelbstoff Absorption Coef*	*3453*						*20% :: 10%*	*2-10 days*	*0.25-1 km:: Ocean/R*	
			HIRIS	AM2	Carder, Melack	3215	BM	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean-I/L	N/A :: TOO
Harris	*Level-1B Backscatter Coef, HIRIS*	*3448*						*20% :: 10%*	*2-10 days*	*0.25-1 km :: Ocean/R*	
			HIRIS	AM2	Carder, Melack	3210	BM-	50% :: 25%	1/(2 day) [d]	30-90 m :: Ocean/L	N/A :: Sfc
Harris	*Ocean Productivity, Primary*	*3460*						*30% :: 5%*	*1/day*	*1-20 km :: Ocean/R*	
			HIRIS	AM2	Davis, Melack et	2601	AM	100% :: 50%	1/(>=2 day)	30-90 m :: Ocean/L	N/A :: TOO
Harris	*Ocean Wave Height*	*3431*						*10-20% :: 5-20%*	*1-10 days*	*7-25 km :: Ocean/R*	
			ALT	ALT	Fu	3129	BM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Harris	*Pigment Conc, Accessory*	*3459*						*20% :: 10%*	*2-10 days*	*0.25-1 km:: Ocean/R*	
			HIRIS	AM2	Davis, Melack	3072	BM	100% :: 50%	1/(>=2 day)	60-90 m :: Ocean-I/L	N/A :: TOO
Harris	*Sea_Level Height, Along-track*	*3427*						*2% :: 1%*	*1-10 days*	*7-25 km :: Ocean/R*	
			ALT	ALT	Fu	3112	BM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Harris	*Sea_sfc Topographic Height*	*3429*						*2% :: 1%*	*1-10 days*	*7-25 km :: Ocean/R*	
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Harris	*Wind Speed, Sea_sfc*	*3435*						*5-10% :: 2-10%*	*1-10 days*	*1-25 km :: Ocean/R*	*N/A :: Sfc*
			ALT	ALT	Fu	1735	BM	2 m/s ::		7 km :: Ocean	N/A :: Sfc
Harris	*Wind Velocity*	*3433*						*10%,20% :: 5%,10%*	*1 day*	*25 km :: Ocean/R*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Harris	*Wind Velocity*	*3434*						*7%,14% :: 5%,10%*	*2 days*	*100 km :: Ocean/R*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Hartmann	*Cloud Drop Size-distribution*	*1775*						*20% :: 20%*	*1/day*	*10 km :: G*	*0-15 km :: Cloud*
			HIRIS	AM2	Welch	1776	AM	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
Hartmann	*Cloud Optical Depth*	*2306*						*25% :: 0.25*	*1/day*	*10 km :: Ocean*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	2300	AM	20% ::	1/(2-16 day)	1-100 km :: G	
Hartmann	*Temperature Profile*	*1575*						*1 :: 1*	*1/day*	*10 km :: Ocean*	*1 km :: 0-15 km*
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Hartmann	*Wind Velocity, Sea_sfc*	*1664*						*2 m/s :: 2 m/s*	*1/day*	*50 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Isacks	*Aerosol Layer Boundary Height*	*1015*						*75 m ::*	*1/event, 1/mo*	*2 km :: Land/R*	*75 m :: Atmos*
			GLRS-A	ALT	Spinhirne et al	1014	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Isacks	*Drainage_Network Structure*	*2902*							*1/mission, 1/yr*	*15-30 m :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM-	:: 30%		30 m :: L	N/A :: Sfc
Isacks	*Glacier Cover*	*2923*						*5% :: 2%*	*1/seas*	*10-30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	2922	BM	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
			HIRIS	AM2	Kieffer	2895	AM	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
Isacks	*Humidity Profile*	*1815*						*10% :: 0.05*	*1/wk*	*50 km :: Land/R*	*2 km :: Trop*
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Isacks	*Ice_Sheet Elevation*	*2908*						*0.1 ::*	*2/yr*	*10 m :: Land/Cyro*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	AM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Isacks	*Landform Feature Distribution*	*2851*							*1/mission*	*15-30 m :: Land/R*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	2858	BM	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
			HIRIS	AM2	Kieffer, Clark	2884	BM	:: 30%		30 m :: L	N/A :: Sfc
Isacks	*Mineral Conc, Rock-Soil*	*2778*							*1/mission, 1/mo*	*15-30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Rowan, Clark	2766	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2772	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2776	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2784	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Isacks	*Optical Depth, Total*	*2326*						*5-15% :: 1-10%*	*1/wk*	*10-50 km :: Land/R*	*Column :: Atmos*
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
Isacks	*River Channel Patterns*	*2982*								*15-30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM	:: 30%		30 m :: L	N/A :: Sfc
Isacks	*Snow Cover*	*3011*						*5% :: 2%*	*1/seas*	*15-30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Isacks	*Temperature Profile*	*1576*						*1 :: 0.4*	*1/wk*	*50 km :: Land/R*	*1 km :: Trop*
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Isacks	*Vegetation Biomass, Green*	*2617*						*40% :: 15%*	*1/mo*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Isacks	*Vegetation Index*	*2743*						*1 :: 1*	*1/mo*	*240-500 m :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Isacks	*Vegetation Index*	*2744*						*1 :: 0.5*	*1/mo*	*30-60 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Aerosol Conc*	*1007*						*5% :: 5%*	*1/day*	*25 km :: Land*	*3 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1992	AM-	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Kerr, Sorooshian	*Albedo, Cloud*	*2006*						*5% :: 5%*	*1/hr*	*500 m :: Land/R*	*:: Cloud*
			HIRIS	AM2	Welch	2008	AM	5% :: 5%		90 m :: R	:: Cloud
Kerr, Sorooshian	*CO2 Conc*	*1140*						*15% :: 15%*	*1/day*	*50 km :: G*	*1 km :: Atmos*
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Kerr, Sorooshian	*Cloud Cover*	*2075*						*5% :: 5%*	*1/day*	*10 km :: Land/R*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
			HIRIS	AM2	Welch	2079	AM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
Kerr, Sorooshian	*Cloud Height, Base*	*1385*						*200m :: 200m*	*1/hr*	*1 km :: Land*	*100 mb :: Trop*
			GLRS-A	ALT	Spinhirne et al	1389	BM	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
			HIRIS	AM2	Welch	1390	AM	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
Kerr, Sorooshian	*Cloud Height, Top*	*1417*						*:: 0.5 km*	*1/hr*	*1 km :: Land/R*	*:: Cloud*
			GLRS-A	ALT	Spinhirne et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
			HIRIS	AM2	Welch, Goetz	1426	AM	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
Kerr, Sorooshian	*Cloud Liq_water Content*	*1905*								*30 m :: Land/R*	*:: Cloud*
			HIRIS	AM2	Welch	2281	AM	30% :: 10%		90 m :: R	:: Cloud
Kerr, Sorooshian	*Land_sfc Reflectance, Directional*	*2428*						*3% :: 5%*	*1/(2 mo)*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Slater	2432	BM	3% :: 1%	1/mo	30 m :: Land/R,L	N/A :: Sfc
			HIRIS	AM2	Gerstl	2035	AM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Pressure*	*1518*						*5% :: 5%*	*1/hr*	*25 km :: Land*	*3 km :: Trop*
			HIRDLS	CHEM	Barnett, Gille	1524	BM	0.1% :: 0.1%	2/day [d,n]	4 x 4 dg :: G	0.2 km :: 7-80 km
Kerr, Sorooshian	*Soil Mineral Type*	*2802*							*1/yr*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Rowan, Clark	2772	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Clark	2784	AM	10% :: 5%	1/seas	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Soil Reflectance, Bi-directional, (BRDF)*	*2042*						*10% :: 10%*	*1/seas*	*N/A :: Land*	*N/A :: Sfc*
			HIRIS	AM2	Gerstl	2035	BM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Structure-Location, Significant Mappable*	*2882*							*1/yr*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	BM	:: 30%		30 m :: L	N/A :: Sfc
Kerr, Sorooshian	*Temperature Profile*	*1577*						*1 K :: 1 K*	*2/day*	*50 km :: Land*	*1 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1608	AM	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
Kerr, Sorooshian	*Vegetation Biome Area*	*2630*						*5% :: 5%*	*1/seas*	*:: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	AM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Density*	*2634*								*60 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	BM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Height*	*2636*						*10% :: 10%*	*1/seas*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin	2656	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Reflectance, Bi-directional, (BRDF)*	*2046*						*10% :: 10%*	*1/seas*	*N/A :: Land*	*N/A :: Sfc*
			HIRIS	AM2	Gerstl	2035	BM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Spatial Density*	*2638*						*20% :: 10%*		*60 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin	2657	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	*Vegetation Type*	*2733*							*1/seas*	*30 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Lau	*Albedo, Snow*	*2018*						*10% :: 10%*	*1/wk*	*100 m :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	2440	BM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Lau	*Cloud Cover*	*2054*						*5% :: 5%*	*2/day*	*50 km :: R*	*N/A :: Atmos*
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Lau	*Cloud Cover, Cirrus*	*2070*						*5% :: 5%*	*1/day*	*100 km :: G*	*N/A ::*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Lau	*Cloud Height, Cirrus*	*1402*						*100 m ::*	*2/day*	*50 km :: G*	*N/A :: Atmos*
			GLRS-A	ALT	Spinhirne	1410	AM	0.2 ::	1/(2-16 day)	1-10 km :: G	75 m ::
			GLRS-A	ALT	Spinhirne	1400	AM	75 m ::	1/(2-16 day)	.2-10 km :: G	75 m ::
Lau	*Drainage_Basin Boundary*	*2904*						*100m^2 :: 100m^2*	*1/mission*	*10 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM-	:: 30%		30 m :: L	N/A :: Sfc
Lau	*River Channel Geometry, Major-stream*	*3049*						*10 :: 10*	*1/mission*	*30 m :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer, Clark	2884	AM	:: 30%		30 m :: L	N/A :: Sfc
Lau	*Snow Cover*	*3012*						*50 :: 10*	*1/wk*	*100 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
Lau	*Vegetation Type*	*2734*							*1/seas*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman	2644	BM	10% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Lau	*Wind Speed*	*1739*						*0.5 m/s :: 2%*	*2/day*	*100 km :: G*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Lau	*Wind Stress*	*1743*						*0.01 ::*		*:: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc
Liu	*Cloud Cover*	*2055*								*:: Ocean*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Liu	*Topographic Elevaton, Sea_sfc*	*3123*						*3 cm :: 3 cm*		*:: Ocean*	*N/A :: Sfc*
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
			ALT	ALT	Fu	3112	AM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Liu	*Wind Direction*	*1702*						*10 dg :: 10 dg*	*1/day*	*25 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Liu	*Wind Speed, Sea_sfc*	*1713*						*1 :: 1*	*1/day*	*25 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Moore	*Aerosol Conc*	*1008*						*50% ::*	*1/(2 day)*	*1 km :: G*	
			HIRIS	AM2	Gerstl	2292	AM-	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
Moore	*Aerosol Conc*	*1009*						*50% ::*	*1/(2 day)*	*30 m :: L*	
			HIRIS	AM2	Gerstl	2292	AM-	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
Moore	*CO Conc*	*1118*						*25% :: 10%*	*1/day*	*100 km :: G*	*:: Trop*
			MLS	MO	Waters	1124	AM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
Moore	*Cloud Cover*	*2057*						*10% :: 10%*	*1/wk*	*1 km :: G*	
			HIRIS	AM2	Welch	2079	AM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
Moore	*O3 Conc*	*1309*						*25% :: 10%*	*1/day*	*100 km :: G*	*:: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1318	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Moore	*PAR*	*2328*						*20% :: 10%*	*1/day, 1/wk*	*30 m :: Land/L*	
			HIRIS	AM2	Ustin, Wessman	2030	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Pigment Conc, Non-photosynthetic*	*2695*						*20% :: 20%*	*1/(16 day)*	*1 km :: Land/R*	*:: Sfc*
			HIRIS	AM2	Wessman, Aber	2648	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Moore	*Pigment Conc, Non-photosynthetic*	*2695*	HIRIS	AM2	Wessman, Aber	2687	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Pigment Conc, Non-photosynthetic*	*2696*						*20% :: 20%*	*1/(16 day)*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Wessman, Aber	2648	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Wessman, Aber	2687	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*River Floodplain Extent*	*2915*						*20% :: 20%*	*1/wk*	*1-25 km :: Land*	
			GLRS-A	ALT	Schutz et al	2858	AM	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
Moore	*Snow Liq-water Content*	*3027*							*1/wk*	*1 km :: Land*	*:: Sfc*
			HIRIS	AM2	Dozier	2943	BM	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Moore	*Vegetation Biomass, Green*	*2618*						*40% :: 15%*	*1/(2-16 day)*	*500 m :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Biomass, Green*	*2619*						*40% :: 15%*	*1/(2-16 day)*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Cellulose Conc*	*2647*						*20% :: 20%*	*1/(16 day)*	*30 m :: Land/L*	
			HIRIS	AM2	Wessman, Aber	2648	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Chlorophyll Conc*	*2649*						*20% :: 10%*	*1/day, 1/wk*	*30 m :: Land/L*	
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Chlorophyll Conc*	*2650*						*20% :: 10%*	*1/day, 1/wk*	*1 km :: Land/R*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Extent*	*2721*						*15% :: 15%*	*1/yr*	*1 km :: Land*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Leaf Water Content*	*2760*						*20% :: 20%*	*1/day, 1/wk*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Wessman, Goetz	2761	BM	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Lignin Conc*	*2684*						*20% :: 20%*	*1/(16 day)*	*30 m :: Land/L*	
			HIRIS	AM2	Wessman, Aber	2687	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Moore	*Vegetation Water Content*	*2762*						*20% :: 20%*	*1/day, 1/wk*	*30 m :: Land/L*	*:: Sfc*
			HIRIS	AM2	Wessman, Goetz	2761	AM-	50% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Aerosol Conc, Stratospheric*	*3263*							*1/wk*	*:: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Mouginis-Mark	*Aerosol Conc, Tropospheric*	*3264*							*1/wk*	*:: G*	*:: Trop*
			HIRDLS	CHEM	Barnett, Gille	1992	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Mouginis-Mark	*Eruption-Plume Dispersal*	*3273*						*1 km ::*	*1/orbit, 1/day*	*1 km :: Land/L*	*N/A :: Plume_col*
			HIRIS	AM2	Gerstl	2292	AM	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
Mouginis-Mark	*Eruption-Plume HCl Content (Mass Eruption Rate)*	*3283*							*1/day*	*:: G*	*N/A :: Plume_col*
			TES	CHEM	Beer	3638	BM		1/(16 day)	16 x 5 km :: L	
			MLS	MO	Waters	1188	AM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	AM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
			SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Mouginis-Mark	*Eruption-Plume Height*	*3285*						*200m(ver) ::*	*1/day*	*1 km :: Land/R*	*N/A :: Plume_col*
			GLRS-A	ALT	Spinhirne et al	1014	AM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Mouginis-Mark	*Eruption_Plume SO2 Conc Spike*	*3288*							*[near-real time ?]*	*1 km :: G*	*N/A :: Plume_col*
			TES	CHEM	Beer	1370	BM	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			MLS	MO	Waters	1369	AM	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
Mouginis-Mark	*Eruption_Plume SO2 Content (Mass Eruption Rate)*	*3289*							*1/day*	*1 km :: G*	*N/A :: Plume_col*
			TES	CHEM	Beer	1370	BM	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			MLS	MO	Waters	1369	AM	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
Mouginis-Mark	*Lava-Flow Advance Rate*	*3262*						*30 m(hor) ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Rowan, Goetz	3299	AM		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Mouginis-Mark	*Lava-Flow Advance Rate*	*3262*	HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Lava-Flow Areal Change*	*3266*						*(30m)^2 ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Rowan, Goetz	3299	AM		1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Lava-Flow Temperature*	*3292*						*10 C ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Temperature, PBL*	*3302*							*1/day*	*30 m :: Land/R*	*N/A :: Plume_col*
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Mouginis-Mark	*Volcano Deformation*	*3269*						*1 cm(ver) ::*	*1/day*	*cm [?] :: [30 km^2/10]*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	3271	BM	5/yr-100/d ::	1/day, 1/yr	1 km :: Land/L	:: Sfc
Mouginis-Mark	*Volcano Elevation Change*	*3274*						*1-5 (ver) ::*	*2/day [d,n]*	*30 m :: Land/L*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	3271	BM	5/yr-100/d ::	1/day, 1/yr	1 km :: Land/L	:: Sfc
Mouginis-Mark	*Volcano Elevation Change*	*3278*						*10 m(ver) ::*	*1/event*	*30 m :: Land/L*	*N/A :: Sfc*
			GLRS-A	ALT	Cohen, Schutz et	2831	BM	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
Mouginis-Mark	*Volcano Morphology*	*3284*							*4/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			GLRS-A	ALT	Schutz et al	2858	BM	100-500mm ::	1/wk, 1/yr	0.1-10 km :: Land	100-500 mm :: Sfc
			GLRS-A	ALT	Cohen, Schutz et	2831	AM	5 mm/yr ::	1/yr	100-900 km :: Land/R	:: Sfc
Mouginis-Mark	*Volcano Temperature, Eruption Spike*	*3290*						*10 C ::*	*[near-real time ?]*	*1 km :: G*	*N/A :: Sfc*
			HIRIS	AM2	Rowan, Goetz	3294	AM	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Mouginis-Mark	*Volcano Temperature-Change*	*3295*						*1 C ::*	*1/yr*	*30 m :: Land/L*	*N/A :: Sfc*
			HIRIS	AM2	Rowan, Goetz	3294	AM-	10 C :: 5 C	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Murakami	*Aerosol Extinction Coef*	*2327*						*5-10% ::*		*:: G*	*N/A :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
Murakami	*Cloud Cover*	*2058*						*10% ::*			*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Murakami	*Cloud Height, Top*	*1418*						*1 km ::*			*:: Cloud*
			HIRDLS	CHEM	Barnett, Gille	1531	AM	5-10% :: 5-10%	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Trop
Murakami	*O3 Conc*	*1310*						*10% ::*			*N/A :: TOA*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	AM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Murakami	*Topographic Elevaton, Sea_sfc*	*3122*						*0.01 ::*			*N/A :: Sfc*
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
			ALT	ALT	Fu	3112	AM	10 cm ::		7 km :: Ocean	N/A :: Sfc
Murakami	*Trace Gas Conc*	*1374*						*20% ::*			*N/A :: TOA*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	BM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
Murakami	*Wind Stress*	*1744*						*0.01 ::*		*:: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Pyle	*Aerosol XXX*	*1003*							*2/day*	*:: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1992	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Pyle	*BrO Conc*	*1027*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1030	BM	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
Pyle	*CFC-11(CFCl3) Conc*	*1051*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Pyle	*CFC-12(CF2Cl2) Conc*	*1043*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Pyle	*CH3Cl Conc*	*1066*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1070	BM	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
Pyle	*CH4 Conc*	*1077*						*10% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	AM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			TES	CHEM	Beer	1087	AM	:: 14 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
			TES	CHEM	Beer	1088	AM	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1089	AM	:: 40 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Pyle	*CO Conc*	*1119*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			MLS	MO	Waters	1124	BM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			MLS	MO	Waters	1125	AM	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
			TES	CHEM	Beer	1127	AM	:: 10 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Pyle	*ClO Conc*	*1104*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1107	BM	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
Pyle	*Cloud Height, PSC*	*1404*							*2/day*	*:: G*	*:: Strat*
			HIRDLS	CHEM	Barnett, Gille	1408	BM	0.4 km :: 0.4 km	2/day [d,n]	4 x 4 dg :: G	0.4 km :: Strat
			GLRS-A	ALT	Spinhirne et al	1405	AM	150 m ::	1/(2-16 day)	2-200 km :: Polar	75 m :: Strat
Pyle	*H2O Conc*	*1819*						*10% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1837	AM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			TES	CHEM	Beer	1843	AM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Pyle	*H2O2 Conc*	*1167*						*20% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1172	BM	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
			MLS	MO	Waters	1171	AM	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
Pyle	*HBr Conc*	*1177*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1180	BM	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
Pyle	*HCl Conc*	*1183*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1188	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
			SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Pyle	*HF Conc*	*1194*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1197	BM	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
Pyle	*HNO3 Conc*	*1199*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
			MLS	MO	Waters	1203	AM	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
			SAFIRE	MO	Russell	1204	AM	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
			TES	CHEM	Beer	1205	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2.3 km :: 4-12 km
			TES	CHEM	Beer	1206	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Pyle	*HNOx Conc*	*1210*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
Pyle	*HO2 Conc*	*1213*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1216	BM	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
			SAFIRE	MO	Russell	1217	AM	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km
Pyle	*HOCl Conc*	*1219*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1222	BM	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
			SAFIRE	MO	Russell	1223	AM	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
Pyle	*Irradiance, Solar*	*2273*						*:: 1%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Pyle	*N2O Conc*	*1231*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1240	BM	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
Pyle	*N2O5 Conc*	*1251*						*20% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1254	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
			SAFIRE	MO	Russell	1255	AM	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
Pyle	*NO Conc*	*1263*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1266	BM	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
			TES	CHEM	Beer	1268	AM	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Pyle	*NO2 Conc*	*1270*						*15% :: 5%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1273	BM	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
			MLS	MO	Waters	1274	AM	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
			SAFIRE	MO	Russell	1275	AM	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
			TES	CHEM	Beer	1278	AM	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Pyle	*O(3P) Conc*	*1295*						*15% :: 5%*	*1/wk*	*15 x 4 km :: G*	*2 km :: Strat*
			SAFIRE	MO	Russell	1298	BM	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
Pyle	*O3 Conc*	*1311*						*5% :: 2%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	BM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Pyle	*OClO Conc*	*1350*						*25% :: 10%*	*2/day*	*15 x 4 km :: G*	*3 km :: Strat*
			MLS	MO	Waters	1352	AM	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
Pyle	*OH Conc*	*1211*						*20% :: 10%*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			SAFIRE	MO	Russell	1360	BM	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km
Pyle	*Temperature Profile*	*1581*						*2 K :: 0.5 K*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
			TES	CHEM	Beer	1615	AM	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
Pyle	*Wind Speed*	*1714*						*5 m/s :: 5 m/s*	*2/day*	*15 x 4 km :: G*	*2 km :: Strat*
			MLS	MO	Waters	1734	BM	:: 10m/s	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 60-110 km
Richey, Batista	*Lake Water Chlorophyll Conc*	*2654*						*20% :: 10%*	*1/wk*	*1 km :: Land/R*	*N/A :: TOO*
			HIRIS	AM2	Carder, Melack	3314	AM-	100% :: 50%	(>=2)/day	30-90 m :: Ocean/L+Land/Lakes	N/A :: TOO

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Richey, Batista	*Precipitable Water*	*1863*							*1/wk*	*1 km :: R*	*Column :: Trop*
			HIRIS	AM2	Goetz	1872	AM	10% :: 3%	1/(1-3 min), 1(2-16 day)	30 m :: L	Column :: Atmos
Richey, Batista	*Vegetation Biomass*	*2627*						*20% :: 20%*	*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Richey, Batista	*Vegetation Physiography*	*2693*						*10% :: 10%*	*1/mo*	*1 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2657	AM-	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Richey, Batista	*Vegetation Structure*	*2726*							*1/seas*	*1 km :: Land/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Rothrock	*Wind Velocity, Sea_sfc*	*1669*						*2 m/s :: 2 m/s*	*1/day*	*100 km :: Polar*	*N/A :: Near_sfc*
			STIKSCAT	CHEM	Freilich	1679	BM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1680	AM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Rothrock	*Wind Velocity, Sea_sfc*	*1670*						*2 m/s :: 2 m/s*	*1/day*	*25 km :: Polar*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Schimel	*PAR, Intercepted, (IPAR)*	*2264*						*10% :: 1%*	*1/wk*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2030	BM-	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Chlorophyll Conc*	*2651*						*10% :: 1%*	*1/wk*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Chlorophyll Conc*	*2652*						*10% :: 1%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2653	BM	25% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Index, Leaf Area, (LAI)*	*2678*						*10% :: 1%*	*1/wk, 1/mo*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin et al	2746	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Lignin Conc*	*2685*						*20% :: 1%*	*1/seas*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman, Aber	2687	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Lignin Conc*	*2686*						*20% :: 1%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Wessman, Aber	2687	BM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Structure*	*2641*						*:: 5%*	*1/yr*	*30 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Structure*	*2642*						*:: 5%*	*1/yr*	*500 m :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schimel	*Vegetation Structure*	*2643*						*:: 5%*	*[multiple]*	*[multiple] :: 6 sites/L*	*N/A :: Sfc*
			HIRIS	AM2	Ustin	2657	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin	2656	AM	40% :: 20%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Schoeberl	*Aerosol Conc*	*1010*						*10% :: 5%*	*1/day*	*200 km :: G*	*1 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1992	AM-	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Schoeberl	*BrO Conc*	*1028*						*20% :: 1*	*1/wk*	*8 x 10 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1030	BM	:: 1x10-12	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 15-50 km
Schoeberl	*CFC-11(CFCl3) Conc*	*1052*						*15% :: 10*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1055	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km
Schoeberl	*CFC-12(CF2Cl2) Conc*	*1044*						*15% :: 10*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1047	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-30 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Schoeberl	*CH3Cl Conc*	*1067*						*15% :: 20*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1070	BM	:: 1x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 40 km
Schoeberl	*CH4 Conc*	*1078*						*15% :: 0.05*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1085	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-65 km
			SAFIRE	MO	Russell	1086	AM	:: 7% (15-55km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-65 km
			TES	CHEM	Beer	1088	AM	:: 30 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*CO Conc*	*1120*						*15% :: 5*	*1/day*	*2 x 3 dg :: G*	*2 km :: Trop*
			TES	CHEM	Beer	1128	AM	:: 15 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1129	AM	:: 3 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Schoeberl	*CO Conc*	*1121*						*15% :: 5*	*1/day*	*8 x 10 dg :: G*	*3 km :: Mid-atmos*
			MLS	MO	Waters	1124	BM	<=5% :: 3x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 60 km
			MLS	MO	Waters	1125	BM	<=5% :: 1x10-5	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 60-100 km
			TES	CHEM	Beer	1127	AM	:: 10 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*ClO Conc*	*1105*						*10% :: 0.02*	*1/day*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1107	BM	<=5% :: 0.3-3x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 70 km
Schoeberl	*H2O (HDO) Conc*	*1856*						*10% :: 10%*	*1/day*	*8 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1857	BM	:: 7% (20-50 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-60 km
Schoeberl	*H2O Conc*	*1821*						*10% :: 5%t,0.05s*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: 0-Strat*
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	BM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
			TES	CHEM	Beer	1843	AM	:: 0.5 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1844	AM	:: 50 ppm	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Schoeberl	*H2O Conc*	*1822*						*10% :: 0.05*	*1/day*	*4 x 5 dg :: G*	*2.5 km :: Meso*
			HIRDLS	CHEM	Barnett, Gille	1837	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1838	AM	:: 2% <50km	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 100 km
			SAFIRE	MO	Russell	1839	AM	:: 5% (20-80 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-100 km
Schoeberl	*H2O2 Conc*	*1168*						*20% :: .1t,.05s*	*1/wk*	*8 x 10 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1171	BM	:: 1x10-10	1/day [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-40 km
			SAFIRE	MO	Russell	1172	AM	:: 7% (30-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
Schoeberl	*HBr Conc*	*1178*						*20% :: 1*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1180	BM	:: 10% (25-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 15-40 km
Schoeberl	*HCN Conc*	*1190*						*20% :: 0.01*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1191	BM	<=5% :: 4x10-11	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 20-65 km
			SAFIRE	MO	Russell	1192	AM	:: 35% (25-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 25-35 km
Schoeberl	*HCl Conc*	*1184*						*15% :: 0.1*	*1/day*	*4 x 5 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1188	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 90 km
			MLS	MO	Waters	1189	BM	<=5% :: 0.1-10x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 80 km
			SAFIRE	MO	Russell	1187	AM	:: 5% (25-55 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 10-65 km
Schoeberl	*HF Conc*	*1195*						*15% :: 0.05*	*1/day*	*4 x 5 dg :: G*	*2 km :: Strat*
			SAFIRE	MO	Russell	1197	BM	:: 15% (40-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 40-60 km
Schoeberl	*HNO3 Conc*	*1200*						*15% :: 0.1*	*1/day*	*2 x 3 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1202	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-40 km
			MLS	MO	Waters	1203	AM	<=5% :: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: TPSE, 46 km
			SAFIRE	MO	Russell	1204	AM	:: 7% (15-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-45 km
			TES	CHEM	Beer	1206	AM	:: 3 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Schoeberl	*HO2 Conc*	*1214*						*15% :: 0.02*	*1/day [d]*	*6 x 8 dg :: G*	*2 km :: Strat*
			MLS	MO	Waters	1216	BM	:: 3-20x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 30-80 km
			SAFIRE	MO	Russell	1217	AM	:: 7% (30-60 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-75 km
Schoeberl	*HOCl Conc*	*1220*						*20% :: 0.02*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1222	BM	:: 3x10-11	1/day	0.1 x 2.5 dg :: 82N-82S	2.5 km :: 25-45 km
			SAFIRE	MO	Russell	1223	AM	:: 7% (35-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-45 km
Schoeberl	*N2O Conc*	*1232*						*15% :: 10*	*1/day*	*2 x 3 dg :: G*	*2 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1239	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-60 km
			MLS	MO	Waters	1240	AM	<=5% :: 1-10x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 65 km
			SAFIRE	MO	Russell	1241	AM	:: 15% (20-35 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 20-40 km
			TES	CHEM	Beer	1243	AM	:: 10 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*N2O5 Conc*	*1252*						*15% :: 20%*	*1/day*	*8 x 10 dg :: G*	*3 km :: Strat*
			HIRDLS	CHEM	Barnett, Gille	1254	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 15-45 km
			SAFIRE	MO	Russell	1255	AM	:: 10% (20-40 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5-3 km :: 10-45 km
Schoeberl	*NO Conc*	*1264*						*15% :: .2s,1.0m*	*1/day [d]*	*4 x 5 dg :: G*	*2 km :: Mid-atmos*
			MLS	MO	Waters	1266	BM	:: .1-10x10-7	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-120 km
			TES	CHEM	Beer	1268	AM	:: 25 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
Schoeberl	*NO2 Conc*	*1271*						*10% ::*	*1/day*	*4 x 5 dg :: G*	*2 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1273	BM	5-10% :: 3-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 10-55 km
			MLS	MO	Waters	1274	AM	:: 1-8x10-8	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 30-60 km
			SAFIRE	MO	Russell	1275	AM	:: 5% (20-55 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 15-60 km
			TES	CHEM	Beer	1278	AM	:: 500 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Schoeberl	*O(3P) Conc*	*1296*						*15% :: 10%*	*1/wk [d]*	*8 x 10 dg :: G*	*3 km :: Strat*
			SAFIRE	MO	Russell	1298	BM	:: 15%(110-180 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 90-180 km
Schoeberl	*O3 Conc*	*1312*						*10% :: 10%*	*1/day*	*4 x 5 dg :: G*	*2.5 km :: Trop*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			TES	CHEM	Beer	1324	AM	:: 3 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
			TES	CHEM	Beer	1325	AM	:: 13 ppb	1/(16 day)	16 x 5 km :: G	4-6 km :: 0-12 km
Schoeberl	*O3 Conc*	*1313*						*10% :: 5%*	*1/day*	*2 x 3 dg :: G*	*1.5 km :: Mid-atmos*
			HIRDLS	CHEM	Barnett, Gille	1318	BM	5-10% :: 1-10%	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			MLS	MO	Waters	1319	BM	<= 3% :: 1%(<50km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 110 km
			SAFIRE	MO	Russell	1320	AM	:: 5% (10-70 km)	1/(18-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	1.5-3 km :: 10-100 km
			TES	CHEM	Beer	1323	AM	:: 20 ppb	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			SAFIRE	MO	Russell	1327	AM	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
			MLS	MO	Waters	1328	AM	:: 10%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 70 km
			SAFIRE	MO	Russell	1329	AM	:: 10% (20-40 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-50 km
			MLS	MO	Waters	1326	AM	:: 50%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
Schoeberl	*O3(18^OOO) Conc*	*1342*						*10% :: 10%*	*1/wk*	*8 x 10 dg :: G*	*5 km :: Strat*
			MLS	MO	Waters	1343	BM	:: 20%	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: 20-60 km
			SAFIRE	MO	Russell	1344	AM	:: 15% (20-30 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-35 km
			SAFIRE	MO	Russell	1345	AM	:: 15% (20-35 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-40 km
Schoeberl	*OClO Conc*	*1351*						*20% :: 0.01*	*1/wk [n]*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1352	AM	:: 3x10-11	1/mo. [z. mean]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 25 km
Schoeberl	*OH Conc*	*1356*						*10% :: .02s,.05m*	*1/day [d]*	*6 x 8 dg :: G*	*2 km :: Mid-atmos*
			SAFIRE	MO	Russell	1360	BM	:: 7% (30-75 km)	1/(36-72 s) [?]	25 x 2.5-5 dg :: 86S-86N	3 km :: 20-90 km

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Schoeberl	*Radiation Intensity, UV*	*2411*						*5% :: 2%*	*1/day*	*:: G*	*:: Strat*
			SOLSTICE	MO	Rottman	2278	BM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
			SOLSTICE	MO	Rottman	2277	AM	<5% :: <1%	1/hr	N/A :: N/A	N/A :: NA
Schoeberl	*SO2 Conc*	*1366*						*20% ::*	*1/wk*	*8 x 10 dg :: G*	*3 km :: Strat*
			MLS	MO	Waters	1369	BM	:: 5x10-10	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 30 km
			TES	CHEM	Beer	1370	AM	:: 600 ppt	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Schoeberl	*Temperature Profile*	*1582*						*2 K :: 1 K*	*1/day*	*2 x 2 dg :: G*	*2 km :: Atmos*
			HIRDLS	CHEM	Barnett, Gille	1608	BM	1K;2K>50km :: 0.3K;1K>50km	2/day [d,n]	4 x 4 dg :: G	1 km :: 7-80 km
			GGI	ALT	Melbourne	1605	AM	1 K :: 1 K	700 ret/day	1-200 km :: G	1 km :: 5 - 50 km
			MLS	MO	Waters	1609	AM	:: 2K <100km)	2/day [d,n]	0.1 x 2.5 dg :: 82N-82S	2.5 km [1.2] :: TPSE, 120 km
			SAFIRE	MO	Russell	1610	AM	:: <0.5K(16-65 km)	1/(18-72 s) [?]	25 x 1-5 dg :: 86S-86N	1.5 km :: 10-110 km
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
			TES	CHEM	Beer	1615	AM	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 13-30 km
			TES	CHEM	Beer	1616	AM	:: 2 K	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Sellers	*Aerosol Optical Depth*	*2288*						::			
			GLRS-A	ALT	Spinhirne et al	2291	AM	20% ::	1/(2-16 day)	2-200 km :: G	N/A :: Atmos
			HIRIS	AM2	Gerstl	2292	AM	0.05 :: 0.01	1/(2-16 day)	100 m :: L	Column :: Atmos
Sellers	*Aerosol XXX*	*1004*									
			GLRS-A	ALT	Spinhirne et al	1014	AM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Atmos
Sellers	*Albedo, Cloud*	*2007*									
			HIRIS	AM2	Welch	2008	BM	5% :: 5%		90 m :: R	:: Cloud
Sellers	*CO2 Conc*	*1141*									
			TES	CHEM	Beer	3637	BM		1/(16 day)	16 x 5 km :: L	
Sellers	*Land_sfc Reflectance, Bi-directional Spectral, (BRL*	*2041*								*250-500 m :: Land*	
			HIRIS	AM2	Gerstl	2035	BM	5% :: 5%	1/(16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Slater	2432	AM	3% :: 1%	1/mo	30 m :: Land/R,L	N/A :: Sfc
Sellers	*PBL Height*	*1513*									
			GLRS-A	ALT	Spinhirne et al	1514	BM	150 m ::	1/(2-16 day)	2-200 km :: G	75 m :: Trop
Sellers	*Vegetation Biomass*	*2628*									
			HIRIS	AM2	Ustin, Wessman	2620	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
			HIRIS	AM2	Ustin, Wessman	2614	BM	30% :: 15%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Sellers	*Vegetation Cover*	*2740*							*1/(1-4 day)*	*100 km ::*	*:: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Simard	*Albedo, Snow*	*2019*						*2% ::*		*:: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	2440	AM	5% :: 1%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Simard	*Cloud Cover*	*2056*						*5% ::*		*:: Canada/R*	*N/A :: Cloud*
			GLRS-A	ALT	Spinhirne	2078	AM	1% ::	1/(2-16 day)	10-200 km :: G	N/A ::
Simard	*Glacier Displacement*	*2894*						*10 cm ::*	*1/yr, 1/seas*	*:: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Kieffer	2895	BM	1% :: 0.2%	1/yr	30 m :: Glacier/L	N/A :: Sfc
Simard	*Ice_Sheet Displacement*	*2896*						*10 cm ::*	*1/yr, 1/seas*	*:: Canada/R*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2897	BM	10 mm/day :: 10 mm/day	1/mo	N/A :: Land/Cryo	N/A :: Sfc
			HIRIS	AM2	Kieffer	2932	AM	10^-6 :: variable	1/yr	100 m :: Cryo	N/A :: Sfc
Simard	*Ice_Sheet Elevation*	*2909*						*100 mm ::*	*1/(3 mo)*	*10 km :: Land/R*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	AM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Simard	*Ice_Sheet Elevation*	*2910*						*100 mm ::*	*1/(3 mo)*	*100 km :: Land*	*N/A :: Sfc*
			ALT	ALT	Zwally	2911	BM	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Simard	*Ice_Sheet Thickness*	*3055*						*100 mm ::*	*1/(3 mo)*	*10 km :: Land/R*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Simard	*Ice_Sheet Thickness*	*3056*						*100 mm ::*	*1/(3 mo)*	*100 km :: Land*	*N/A :: Sfc*
			GLRS-A	ALT	Bentley	2912	BM-	100 mm :: 100 mm	1/mo	75 m :: Land/Cryo	N/A :: Sfc
			ALT	ALT	Zwally	2911	BM-	.5m-5m ::	1/yr	15 km :: Land/Cryo	N/A :: Sfc
Simard	*Snow State*	*3043*								*:: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Dozier	3019	BM	5% :: 2%	1/wk, 1/mo	50 m :: Cryo/L	N/A :: Sfc
			HIRIS	AM2	Dozier	3029	BM	5% :: 2%	1/wk, 1/mo	50 m :: Glacier/L	N/A :: Sfc
			HIRIS	AM2	Dozier	3038	AM	200% :: 200%	1/wk, 1/mo	50 [km?] :: Snow/L	N/A :: Sfc
			HIRIS	AM2	Dozier	2943	AM	100% :: 100%	1/wk, 1/mo	50 m :: Snow/L	N/A :: Sfc
Simard	*Vegetation Extent*	*2720*						*10% ::*		*:: Canada/R*	*N/A :: Sfc*
			HIRIS	AM2	Ustin, Wessman	2741	AM	20% :: 10%	1/(2-16 day)	30 m :: Land/L	N/A :: Sfc
Srokosz	*Level-1B Backscatter Coef, ALT*	*2096*						*0.2dB :: 0.1dB*	*1/(10 day)*	*10 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			ALT	ALT	Fu	3464	BM				
Srokosz	*Level-1B Backscatter Coef, STIKSCAT*	*2109*						*0.3 dB :: 0.1 dB*	*1/day*	*25 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	2108	BM	:: 0.25 dB		25 km :: G	N/A :: Sfc
Srokosz	*Level-1B Backscatter Waveforms, ALT*	*3125*						*0.02(bin) :: 0.1dB*	*1/(10 day)*	*10 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			ALT	ALT	Fu	3464	BM				
Srokosz	*Ocean Wave Height, Significant*	*3131*						*>(.5m,5%) :: 0.1m*	*1/day*	*10 km :: Ocean/R*	*N/A :: Sfc*
			ALT	ALT	Fu	3129	BM	>.5m,10% ::		7 km :: Ocean	N/A :: Sfc
Srokosz	*Temperature Profile*	*1584*						*1 K :: 0.1 K*	*2/day*	*10 km :: Ocean [South Atlan]*	
			TES	CHEM	Beer	1614	AM	:: 2 K	1/(16 day)	16 x 5 km :: G	1 km, 4-6 km :: 0-12 km
Srokosz	*Topographic Elevaton, Sea_sfc*	*3107*						*0.02m :: 0.01m*	*1/(10 day)*	*10 km :: Ocean/R*	*N/A :: Sfc*
			ALT	ALT	Fu	3108	BM	5cm et al ::	1/(16 day)	25 km :: Ocean	N/A :: Sfc
Srokosz	*Wind Direction*	*1703*						*10 dg :: 1 dg*	*1/day*	*25 km :: Ocean [South Atlan]*	
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Srokosz	*Wind Speed, Sea_sfc*	*1716*						*1 m/s :: 0.1 m/s*	*1/day*	*25 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
Srokosz	*Wind Velocity, Friction*	*1684*						*5%,5 dg :: .01m/s,1dg*	*1/day*	*25 km :: Ocean [South Atlan]*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1680	BM	:: 10%; 16 deg	1/(2 day)	25 km :: Ocean	N/A :: Near_Sfc
			STIKSCAT	CHEM	Freilich	1679	AM	:: 7%, 16 deg	1/(2 day)	1 dg :: Ocean	N/A :: Near_Sfc
Tapley	*Humidity Profile*	*1825*						*5% ::*	*4/day*	*50 km :: G*	*1 km :: Atmos*
			TES	CHEM	Beer	1842	AM	:: 50 ppm	1/(16 day)	160 x 23 km :: G	2-3 km :: 4-12 km
Tapley	*Wind Stress*	*1745*						*10% ::*	*4/day*	*50 km :: Ocean*	*N/A :: Sfc*
			STIKSCAT	CHEM	Freilich	1746	BM			:: Ocean	:: Sfc
Wielicki	*Aerosol Optical Depth*	*2289*						*0.10 :: 0.10*	*1/day*	*1.25 dg :: G*	*N/A :: Atmos*
			GLRS-A	ALT	Spinhirne	2300	AM	20% ::	1/(2-16 day)	1-100 km :: G	
Wielicki	*Cloud Cover*	*2077*						*2% :: 2%*	*1/(16 day)*	*30 m :: R*	*N/A :: Atmos*
			HIRIS	AM2	Welch	2079	BM	1% :: 0.5%	1/(1-3 min), 1/(2-16 day)	30 m :: L	:: Cloud
Wielicki	*Cloud Drop Phase*	*1760*						*25% :: 10%*	*1/(16 day)*	*.03-10 km :: R*	*N/A :: Atmos*
			HIRIS	AM2	Welch	1762	AM		1/(2-16 day)	30 m :: L	N/A :: Cloud
Wielicki	*Cloud Drop Size*	*1771*						*25% :: 10%*	*1/(16 day)*	*.03-10 km :: R*	*N/A :: Atmos*
			HIRIS	AM2	Welch	1776	AM	20% :: 10%	1/(2-16 day)	30 m :: L	:: Cloud
			HIRIS	AM2	Welch	1778	AM	10 um ::	1/(2-16 day)	30 m :: L	:: Cloud
Wielicki	*Cloud Height, Base*	*1387*						*0.1 km :: 0.1 km*	*1/(16 day)*	*0.2 km :: R*	*0.1 km :: Atmos*
			GLRS-A	ALT	Spinhirne et al	1389	AM	75 m ::	1/(2-16 day)	.2-100 km :: G	75 m :: Cloud
			HIRIS	AM2	Welch	1390	AM	50 m :: 50 m	1/(2-16 day)	30 m :: L	N/A :: Cloud

Appendix N: IDS Input Requirements Not Met until Year 2001

IDS Input Data Product			EOS Instrument Output Data Product					Accuracy	Temporal	Horizontal	Vertical
Investigator	Product Name	Prod #	Instr.	Platform	Investigator	Prod #	Match	Abs :: Rel	Resolution	Resol :: Cover.	Resol :: Cover.
Wielicki	*Cloud Height, Top*	*1421*						*0.1 km :: 0.1 km*	*1/(16 day)*	*0.2 km :: R*	*0.1 km :: Atmos*
			GLRS-A	ALT	Spinhirne et al	1425	AM	75 m ::	1/(2-16 day)	200 m :: G	75 m :: Cloud
			HIRIS	AM2	Welch, Goetz	1426	AM	500 m :: 250 m	1/(2-16 day)	30 m :: L	N/A :: Cloud
Wielicki	*Cloud Reflectance, Bi-directional, (BRDF)*	*2423*						*5% :: 2%*	*1/day*	*0.2-2 km :: R*	*N/A :: Cloud*
			HIRIS	AM2	Welch	2037	AM	:: 1%		30 m :: R	:: Cloud

IDS Input Requirements Not Met at All by EOS Instruments

Appendix O

Science Processing Support Office (SPSO)

Goddard Space Flight Center

August 1992

Appendix O: IDS Input Requirements Not Met at All by EOS Instruments

Investigator	IDS Input Data Product Name	Prod #	Accuracy Abs :: Real	Temporal Resolution	Horizontal Resol :: Cover.	Vertical Resol :: Cover.
Abbott	Ocean Productivity, Primary, Near sfc	2598		1/(1-2 day)	1-4 km :: Ocean [Southern]	N/A :: Near_sfc
Abbott	Wind Velocity	1754	10%,<20dg :: 5%	1/(1-2 day)	25 km :: Ocean [Southern]	1 km :: Trop
Barron	Erosion Rock Weathering	2807		1/mission	10 km :: Land/R	N/A :: Sfc
Barron	Erosion Rock Weathering	2808		1/mission	100 km :: Land	N/A :: Sfc
Barron	Radiative Flux, LW	2186	10 :: 5	1/day	30 m :: L	N/A :: Sfc
Barron	Radiative Flux, SW	2236	10 :: 5	1/day	30 m :: L	N/A :: Sfc
Barron	River Channel Geometry	2888	10% :: 10%	1/seas	1 m :: Land/L	N/A :: Sfc
Barron	River Extent	3063	10% :: 10%	1/day	30 m :: Land/L	N/A :: Sfc
Barron	River Extent	3064	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
Barron	Snow Water Equivalent	2998	10% :: 10%	1/day	10 km :: Land/R	N/A :: Sfc
Barron	Snow Water Equivalent	2999	10% :: 10%	1/day	30 m :: Land/L	N/A :: Sfc
Barron	Soil Moisture	2948	0.05 :: 0.02	1/day	30 m :: Land/L	N/A :: Sfc
Barron	Suspended-Solids Conc, River Water	2805	25% ::		10 km :: Land/R-Rivers	N/A :: Sfc
Barron	Vegetation Moisture, Root-zone	2950	0.1 :: 0.05	1/day	100 km :: Land	N/A :: Sub_sfc
Barron	Vegetation Moisture, Root-zone	2951	0.1 :: 0.05	1/day	10 km :: Land/R	N/A :: Sfc
Barron	Vegetation Moisture, Root-zone	2952	0.1 :: 0.05	1/day	30 m :: Land/L	N/A :: Sub_sfc
Barron	Wind Velocity	1650	1 m/s :: 0.5 m/s	1/day	30 m :: L	1 km :: 0-12 km
Barron	Wind Velocity	1651	1 m/s :: 0.5 m/s	1/day	10 km :: R	1 km :: 0-12 km
Barron	Wind Velocity	1652	1 m/s :: 0.5 m/s	1/day	100 km :: L	1 km :: 0-12 km
Barron	Wind Velocity, Land_sfc	1654	1 :: 1	1/day	100 km :: Land	N/A :: Sfc
Barron	Wind Velocity, Land_sfc	1655	1 :: 1	1/day	30 m :: Land/L	N/A :: Sfc
Barron	Wind Velocity, Land_sfc	1656	1 :: 1	1/day	10 km :: Land/R	N/A :: Sfc
Bates	Angular Momentum	1378	1% ::		:: G	:: Atmos
Bates	Cloud Radiative Forcing	2421		1/wk	500 km :: G	:: Atmos
Bates	Heat Flux, Latent	1464	10 :: 10	1/day	100 km :: Ocean	N/A :: Sfc
Bates	Heat Flux, Latent	1465	:: 20%	1/(3 day)	100 km :: >60 dgLAT	
Bates	Heat Flux, Sensible	1476	:: 20%	1/day	100 km :: > 60 dgLAT	
Bates	Heating, Latent	1463			25 km :: G	10 lvl :: Trop
Bates	Ocean Water Salinity	3080		1/(3 day)	100 km :: > 60 dgLAT	:: TOO
Bates	Ocean Water Temperature, Internal	3115		1/(3 day)	100 km :: > 60 dgLAT	:: lvl [?]
Bates	Ocean Wave Power Spectrum, 2-D	3463			:: Ocean	N/A :: Sfc
Bates	Precipitation Conc, Ice	1949			10 km :: G	7 lvl :: Trop
Bates	Precipitation Rate, Rain	1954			10 km :: G	7 lvl :: Trop
Bates	Precipitation_Drop Phase, Sfc	1966			10 km :: G	N/A :: Sfc
Bates	Sea_Ice Roughness	1555	100 mm ::	1/(3 mo)	:: Polar	N/A :: Sfc
Bates	Soil Moisture	2959	10-25% :: 5-10%	1/(3 day), 1/wk	60-100 m :: Land	N/A :: Sfc
Bates	Torque, Friction	1640	5% ::		:: G	:: Atmos
Bates	Wind Velocity	1659	:: <2 m/s	1/(12 min)	3.1 x 1.8 dg :: G	3 km :: 38-60 km
Bates	Wind Velocity	1660	:: <5 m/s	1/(12 min)	1.8 x 3.1 dg :: G	3 km :: 20-38 km
Bates	Wind Velocity	1661	1-5 m/s ::	2/day	100 km :: G	1 km :: Atmos
Bates	Wind Velocity, LAWS Line-of-sight (Level-1B	2382				
Brewer	Heat Flux, Latent	1467		1/day, 1/seas	:: Ocean	N/A :: Sfc
Brewer	Heat Flux, Sensible	1477		1/day, 1/seas	:: Ocean	N/A :: Sfc
Brewer	Ocean Water Attenuation Coef, Diffuse	3201	25% :: TBD	1/day, 1/seas	30 m :: Ocean/L	N/A :: Sfc

Appendix O: IDS Input Requirements Not Met at All by EOS Instruments

Investigator	IDS Input Data Product Name	Prod #	Accuracy Abs :: Real	Temporal Resolution	Horizontal Resol :: Cover.	Vertical Resol :: Cover.
Cihlar	Level-1B Backscatter Coef, SAR_EOS	2102	2 dB :: 1 dB	1/(3 mo)	25 m :: Canada/R	N/A :: Sfc
Cihlar	Sea_sfc Reflectance Factor, MODIS-T	2438	0.05 :: 0.001	1/(3 mo)	0.5 km :: Canada/R	
Cihlar	Soil Hydraulic Properties	3492	5-10% :: 5%	once	1 km :: Canada/R	N/A :: Sfc
Cihlar	Vegetation Moisture, Root-zone	3501	10% :: 20%	1 wk (in grow. seas)	1 km :: Canada/R	N/A :: Sub_sfc
Dickinson	Electric Conductivity	3419			<0.5-1 deg :: G	
Dickinson	Electric Field Strength, DC	3420			<0.5-1 deg :: G	
Dickinson	Heat Flux, Latent	3327			<0.5-1 deg :: Ocean	
Dickinson	Heat Flux, Sensible	3328			<0.5-1 deg :: Ocean	
Dickinson	Heating, Diabatic,	3326			<0.5-1 deg :: G	
Dickinson	Moisture Flux, Horizontal,	3356			<0.5-1 deg :: G	N/A : Trop
Dickinson	Precipitation Rate, Snow	3360			<0.5-1 deg :: G	
Dickinson	Radiation Budget	3385			<0.5-1 deg :: G	
Dickinson	Sea_Ice Thickness	3418			<0.5-1 deg :: Ocean/Cryo	
Dickinson	Snow Depth	3414			Med_res :: Land	
Dickinson	Soil Moisture	3413			High_res :: Land	
Dickinson	Vegetation Moisture, Root-zone	3399			<0.5-1 deg :: Land	
Dickinson	Vegetation Rooting Depth	3403			<0.5-1 deg :: Land	
Dickinson	Vegetation Water Potential	3407			Low_res :: Land	
Dickinson	Wind Speed, Land_sfc	3339			<0.5-1 deg :: Land	
Dickinson	Wind Velocity	3335			<0.5-1 deg :: G	
Dickinson	Wind Velocity, Divergent Horizontal	3336			<0.5-1 deg :: G	
Dickinson	Wind Velocity, Rotational Horizontal	3337			<0.5-1 deg :: G	
Dickinson	X-Ray Images	3421			<0.5-1 deg :: G	
Dozier	Heat Flux, Sfc	2131	10% :: 10%	1/wk	50 m :: Land/L	N/A :: Sfc
Dozier	Snow Water Equivalent	3000	20% :: 20%	1/wk, 1/mo	50 m :: Land/L	N/A :: Sfc
Grose	ClONO2 Conc	1108	20% :: 10%	2/day	30 x 4 dg :: G	3 km :: Strat
Grose	HNO4 Conc	1207	50% :: 10%	2/day	30 x 4 dg :: G	3 km :: Mid-atmos
Hansen	CO2 Partial Pressure	3075	2% ::	1/wk	500 km :: Ocean	:: TOO
Hansen	Ocean Water Salinity	3079	0.02% ::	1/wk	500 km :: Ocean	:: TOO
Hansen	Ocean Water Temperature, Internal	3116		1/wk	500 km :: Ocean	:: Sub_sfc
Harris	Ocean Wave Direction	3430	10 :: 10	1/day	10 deg :: Ocean/R	
Harris	Ocean Wave Length	3432	10% :: 10%	1/day	1-10 km :: Ocean/R	
Harris	Sea_sfc Feature position	3425	120 m :: 60 m	1 wk	0.25-1 km:: Ocean/R	
Harris	Sea_sfc Feature velocity	3426	20% :: 10%	1 wk	0.25-1 km:: Ocean/R	
Hartmann	Wind Velocity	1665	4 m/s :: 4 m/s	1/day	100 km :: G	:: 0-15 km
Isacks	Geodetic Site Position, Horizontal	2863	3 mm :: 1 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
Isacks	Geodetic Site Position, Vertical	2865	5 mm :: 2 mm	1/seas, 1/yr	point :: Land/R	N/A :: Sfc
Isacks	Pressure, Sfc	1517			:: Land/R	N/A :: Sfc
Isacks	Sand Depth	2780	0.5 :: 0.5	1/seas	50 m :: Land/L	N/A :: Sfc
Isacks	Snow Depth	3031	20% :: 20%	1/seas	30 m :: Land/L	N/A :: Sfc
Isacks	Soil Moisture	2963	10% :: 5%	1/mo, 1/yr	60-100 m :: Land/L	N/A :: Sfc
Isacks	Topographic Elevation, Land_sfc	2844	0.1 :: 0.1	1/mission, 1/seas	1 m :: Land/L	N/A :: Sfc
Isacks	Wind Velocity	1666	:: 0.4	1/wk	100 km :: Land/R	:: Trop
Kerr, Sorooshian	Humidity, Relative, Near_sfc	1881	10% :: 10%	1/hr	1 km :: Land/R	N/A :: Sfc

Appendix O: IDS Input Requirements Not Met at All by EOS Instruments

Investigator	IDS Input Data Product Name	Prod #	Accuracy Abs :: Real	Temporal Resolution	Horizontal Resol :: Cover.	Vertical Resol :: Cover.
Kerr, Sorooshian	Infiltration Capacity	2936		1/yr	30 m :: Land/R	
Kerr, Sorooshian	Land Heat Capacity	2855			30 m :: Land/R	N/A :: Sfc
Kerr, Sorooshian	Precipitation Amount, Rain, Monthly	1957	10% :: 10%	1/mo	500 m :: Land/L	N/A :: Sfc
Kerr, Sorooshian	Radiative Flux, LW, Up	2192	15% :: 15%	[diurnal]	500 m :: Land/R	:: TOA
Kerr, Sorooshian	Soil Bulk Density	2791	5% :: 5%	1/yr	1 km :: Land	N/A :: Sfc
Kerr, Sorooshian	Soil Hydraulic Conditions, Unsaturated	2917	0.05 ::		30 m :: Land/R	:: Sfc
Kerr, Sorooshian	Vegetation Biomass, Sub_sfc	2624		1/(1-3 yr) [few yr]	1120 m :: Land/R	:: Sub_sfc
Kerr, Sorooshian	Vegetation Rooting Depth	2707	20% :: 20%	1/yr	30 m :: Land/R	
Kerr, Sorooshian	Vegetation Stomatal Resistance	2709		1/seas	30 m :: Land/R	
Kerr, Sorooshian	Vegetation Water Content, Integrated	2758	20% :: 20%	2/wk	500 m :: Land/R	N/A :: Sfc
Kerr, Sorooshian	Wind Flux(Draw)	1706		1/day	25 km :: Land	10 km :: Trop
Kerr, Sorooshian	Wind Speed, Land_sfc	1711	5 m/s :: 5 m/s	1/hr	25 km :: Land/R	N/A :: Sfc
Lau	Heat Flux, Latent	1468	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
Lau	Heat Flux, Sensible	1479	10% :: 10%	1/hr	30 m :: Land/L	N/A :: Sfc
Lau	Heating Rate, Latent	1501	0.5 C/day :: 5%	1/mo	500 km :: G	2 km :: Trop
Lau	Heating Rate, Latent	1502	1 C/day :: 5%	1/day	50 km :: R	1 km :: Trop
Lau	Inundation Extent	2938	10% :: 5%	1/wk	100 m :: Land/L	N/A :: Sfc
Lau	Ocean Water Salinity	3081	10% :: 10%	1/wk	500 km :: Ocean/Trop	
Lau	Ocean Water Temperature, Internal	3218	0.5 K ::	1/day	10 km :: Ocean/R	10 m :: Sub_sfc
Lau	Precipitation Depth	2981	10% :: 10%	1/day	1 km :: Land/R	N/A :: Sfc
Lau	Precipitation Rate	1960	25% :: 10%	1/hr	100 m :: Land/L	N/A :: Sfc
Lau	Precipitation Storm Depth (Precip-thickness)	1965	10% :: 10%	1/hr	100 m :: Land/L	N/A :: Sfc
Lau	Pressure, Sfc	1533	5% ::	1/day	100 km :: G	N/A :: Sfc
Lau	River Floodplain Extent	2914	10% :: 5%	1/wk	100 m :: Land/L	N/A :: Sfc
Lau	Runoff	2985	5% :: 5%	1/day	:: Land/L,R	N/A :: Sfc
Lau	Snow Depth	3032	5 cm :: 5 cm	1/wk	5 km :: Land/R	N/A :: Sfc
Lau	Snow Depth	3033	5 cm :: 5 cm	1/wk	30 m :: Land/R	N/A :: Sfc
Lau	Snow Water Equivalent	2996	10 mm :: 10 mm	1/wk	30 m :: Land/L	N/A :: Sfc
Lau	Snow Water Equivalent	2997	10 mm :: 10 mm	1/wk	5 km :: Land/R	N/A :: Sfc
Lau	Soil Moisture	2964	10% :: 5%	1/(3 day)	50 m :: Land/L	N/A :: Sfc
Lau	Wind Speed	1712	1 m/s :: 2%	2/day	100 km :: G	1 km :: Trop
Lau	Wind Speed, PBL	1738	20% :: 10%	1/hr	30 m :: Land/L	N/A :: PBL
Liu	Wind Velocity	1667	1 :: 1	1/day	25 km :: Ocean	:: Trop
Moore	Inundation Extent	2939	20% :: 20%	1/wk, 1/mo	1-25 km :: Land	:: Sfc
Moore	Inundation Extent	2942	20% :: 20%	1/wk	1-25 km :: Land	
Moore	Precipitation Amount, Snow	1983	10% :: 10%	1/wk	1 km :: G	
Moore	River Discharge	2889	5% :: 5%	1/wk, 1/mo	few sites :: Land	:: Sfc
Moore	River Stage (Flooding)	2984		1/wk, 1/mo	point :: Land	:: Sfc
Moore	Snow Water Equivalent	3046		1/wk	1 km :: Land	:: Sfc
Moore	Vegetation N Conc	2688	20% :: 20%	1/(16 day)	1 km :: Land/R	
Moore	Vegetation N Conc	2689	20% :: 20%	1/(16 day)	30 m :: Land/L	
Mouginis-Mark	Lava-Flow Thickness	3297	5 cm(ver) ::	1/event	30 m :: Land/L	N/A :: Sfc
Murakami	Aerosol Backscatter	2105	10-50% ::			
Murakami	Heat Flux, Net	1475	5% ::			

Appendix O: IDS Input Requirements Not Met at All by EOS Instruments

Investigator	IDS Input Data Product Name	Prod #	Accuracy Abs :: Real	Temporal Resolution	Horizontal Resol :: Cover.	Vertical Resol :: Cover.
Murakami	Snow Mass	3040	10% ::		:: Land	N/A :: Sfc
Murakami	Wind Velocity	1668	10% :: TBD			
Pyle	BrONO2 Conc	1031	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
Pyle	CH3Br Conc	1061	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
Pyle	ClONO2 Conc	1109	25% :: 10%	2/day	15 x 4 km :: G	3 km :: Strat
Richey, Batista	Lake Water Chemistry, XXX	2812	[10%],5% :: [5%].10%	1/wk	1 km :: Land/R	N/A :: Sfc
Richey, Batista	River Floodplain Extent	2913	10% :: 10%	1/seas	1 km :: Land/R	N/A :: Sfc
Richey, Batista	River Stage (Flooding)	2983	5 cm :: 5%	1/seas	100 m :: Land/R	N/A :: Sfc
Richey, Batista	River Water Attenuation Coef	3205	10% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
Richey, Batista	River Water Chemistry	2809	[10%],5% :: [5%].10%	1/wk	1 km :: Land/R	N/A :: Sfc
Richey, Batista	River Water Chlorophyll Conc	2655	20% :: 10%	1/wk	1 km :: Land/R	N/A :: TOO
Richey, Batista	Vegetation Moisture, Root-zone	2708	[20%],10% :: [10%],20%	1/seas	1 km :: Land/R	N/A :: Sfc
Rothrock	Ocean Water Salinity, Sub ice	3083	0.02 o/oo :: 0.02 o/oo	1/(3 day)	500 km :: Polar	N/A :: TOO
Rothrock	Ocean Water Temperature, Internal	3117	0.02 K :: 0.02 K	1/(3 day)	500 km :: Polar	-lvl ::
Rothrock	Pressure, Sfc	1519	1 mb :: 1 mb	1/day	500 km :: Polar	N/A :: Sfc
Rothrock	Sea_Ice Temperature	2490	2 K :: 2 K	1/(3 day)	25 km :: Polar	N/A :: Sfc
Schimel	Vegetation N Conc	2690	20% :: 1%	1/seas	30 m :: 6 sites/L	N/A :: Sfc
Schimel	Vegetation N Conc	2691	20% :: 1%	[multiple]	[multiple] :: 6 sites/L	N/A :: Sfc
Schoeberl	C2H6 Conc	1037	20% :: 0.2	1/wk	8 x 10 dg :: G	3 km :: Strat
Schoeberl	CH3Br Conc	1062	20% :: 2	1/wk	8 x 10 dg :: G	3 km :: Strat
Schoeberl	ClONO2 Conc	1110	15% :: 0.05	1/day	8 x 10 dg :: G	3 km :: Strat
Schoeberl	DMS Conc	1158	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Trop
Schoeberl	Electron Energy Spectra	3226	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
Schoeberl	HNO4 Conc	1208	20% :: 0.02	1/wk	8 x 10 dg :: G	3 km :: Strat
Schoeberl	OCS Conc	1354	20% :: 0.1	1/wk	8 x 10 dg :: G	3 km :: Strat
Schoeberl	PAN Conc	1365	20% :: 0.01	1/day	8 x 10 dg :: G	3 km :: Strat
Schoeberl	Proton Energy Spectra	3255	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 50-700 km
Schoeberl	Wind Velocity	1671	2 m/s :: 3 m/s	1/day	200 x 200 km :: G	2 km :: Strat
Schoeberl	X-Ray Energy Spectra	3258	20% :: 15%	1/day	5 dgLAT :: G	N/A :: 15-110 km
Sellers	Level-1B Radiance, MODIS-T	3485				
Sellers	Wind Speed	1715	1 m/s ::	4/day	100 km ::	0.5 km :: Trop
Simard	Snow Depth	3034	5 cm/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
Simard	Snow Water Equivalent	3045	10 mm/10% ::	1/(7 day)	10 km :: Canada/R	N/A :: Sfc
Simard	Soil Hydraulic Properties	2916	10% ::		:: Canada/R	N/A :: Sfc
Simard	Vegetation Moisture, Root-zone	2953	10% ::		:: Canada/R	N/A :: Sfc
Srokosz	Level-1B Backscatter, SAR	2106	0.2 dB :: TBD	[occasional]	25 m :: Ocean [South Atlan]	N/A :: Sfc
Srokosz	Wind Velocity	1672	2m/s :: 1m/s	1/day	25 km :: Ocean [South Atlan]	500 m ::
Tapley	Pressure, Sfc	1520	1-5 mb ::	4/day	50 km :: G	N/A :: Sfc
Wielicki	Level-1B Radiance, AVHRR(ESA?)	2355	SW5%,LW.2K :: SW2%,LW.2K	2/day [d,n]	1 km :: R	N/A :: Atmos
Wielicki	Wind Velocity	1673	5 m/s :: 2 m/s	4/day [d,n]	1.25 dg :: G	1 km :: Atmos

Quick Reference for Appendices

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