NESDIS Consolidated Products List
12/14/94

I - Operational Products (CURRENT SYS → INC. NOAA HIT CLASS S/C)

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Category: Atmospheric Thermodynamic **Soundings** << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
1. Layer-Mean Virtual Temperatures (°K) SFC-850mb 70-50mb 850-700mb 50-30mb 700-500mb 30-10mb 500-400mb 10-5mb 400-300mb 5-2mb 300-200mb 2-1mb 200-100mb 1-0.4mb 100-70mb	POES	HIRS/2 MSU SSU	SFC-850mb 2.5°K 850mb-TROP 2.25°K TROP-2mb 3.0°K 2-0.4mb 3.5°K	80km at Nadir	15 Layers (σ layers)	N/A	Global	Orbitally	NMC Intn'l Global NWP Ctrs USAF/Navy	Soundings POP	Level Temps
2. Thickness Between Selected Standard Pressure Levels (m)	POES	HIRS/2 MSU SSU	Equivalent to goals for layer-mean virtual temperatures	500km at Nadir	15 Layers (σ layers)	N/A	Global	Orbitally	GTS Users	Soundings POP	Level Temps
3. Layer Precipitable Water (mm) SFC-850mb 700-500mb above 500mb	POES	HIRS/2 MSU	$\pm$30%	80km at Nadir	3 Layers	N/A	Global	Orbitally	NMC Intn'l Global NWP Ctrs ECMWF USAF/Navy GTS Users	Soundings POP	Level Temps Mixing Ratios
4. Tropopause Pressure (mb) and Temperature (°K)	POES	HIRS/2 MSU SSU	40mb 3°K	80km at Nadir	N/A	N/A	Global	Orbitally	NMC USAF/Navy GTS Users	Soundings POP	Level Temps

Category: Atmospheric Thermodynamic Soundings << Operational Products >> continued

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
5. Layer-Mean Virtual Temperatures (°K) SFC-850mb 70-50mb 850-700mb 50-30mb 700-500mb 30-10mb 500-400mb 400-300mb 300-200mb 200-100mb 100-70mb	DMSP	SSM/T	SFC-850mb 3.5°K 850mb-TROP 2.25°K TROP-10mb 2.25°K	175km at Nadir	11 Layers	N/A	Global	Orbitally	Intn'l Global NWP Ctrs	Soundings POP	Level Temps
6. Equivalent Blackbody Temperatures (°K) for 7 Channels of SSM/T	DMSP	SSM/T	±2°K	175km at Nadir	N/A	N/A	Global	Orbitally	NMC USAF/Navy	Soundings POP	Level Temps Processing
7. Tropopause Pressure (mb) and Temperature (°K)	DMSP	SSM/T	35mb 3.5°K	175km at Nadir	N/A	N/A	Global	Orbitally	Int'l Global NWP Ctrs USAF/Navy	Soundings POP	Level Temps
8. Equivalent Blackbody Temperatures (°K) for SSU, plus Selected HIRS/2 and MSU Channels	POES	HIRS/2 MSU SSU	±1°K	147km	N/A	N/A	Global	Orbitally	British Met. Office	Soundings POP	Level Temps Processing
9. Clear Equivalent Blackbody Temperature (°K)	POES	HIRS/2 MSU SSU	±1°K	80km at Nadir	N/A	N/A	Global	Orbitally	NMC ECMWF USAF/Navy GTS Users UK Met. Office Météo-France	Soundings POP	Level Temps Processing

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Category: Atmospheric Thermodynamic Soundings << Operational Products >>

continued

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
10. Vertical Tempreature Profiles (Point Temperatures) .1, .2, .5, 1.0, 1.5, 2, 3, 4, 5, 7, 10, 15, 20, 25, 30, 50, 60, 70, 85, 100, 115, 135, 150, 200, 250, 300, 350, 400, 430, 475, 500, 570, 620, 700, 780, 850, 920, 950, and 1000mb.	POES	HIRS/2 MSU SSU	SFC-700mb 2.5°K 700mb-TROP 2.0°K TROP-2mb 2.5°K 2-0.1mb 3.0°K OVER WATER SFC-TROP 2.0°K TROP-2mb 2.5°K 2-0.1mb 3.0°K	80km at Nadir	Minimum fo 40 Levels from SFC to 0.1mb	N/A	Global	Orbitally	NMC	Soundings POP	
11. Veritical Water Vapor Profiles ($g\ kg^{-1}$) 300, 350, 400, 430, 475, 500, 570, 620, 670, 700, 780, 850, 920, 950, and 1000mb.	POES	HIRS/2 MSU SSU	SFC-700mb 2.5 g/kg 700mb-TROP 2.0 g/kg TROP-2mb 2.5 g/kg 2-0.1mb 3.0 g/kg OVER WATER SFC-TROP 2.0 g/kg TROP-2mb 2.5 g/kg 2-0.1mb 30. g/kg	80km at Nadir	Minimum of 15 Levels from SFC to 0.1mb	N/A	Global	Orbitally	NMC	Soundings POP	Level Temps

Category: Atmospheric **Winds** <<· Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
12. Low-Level Winds (Picture Pair)	GOES	VISSR	$\pm$2-6 ms^{-1} $\pm$30 degrees	8km	N/A	2.5°	Hemispheric	every 6 hours	NMC NHC GTS Users	Winds POP	
13. Cloud Motion Winds (CO_2 Manual Winds)	GOES	VISSR	SFC-700mb: $\pm$2-6 ms^{-1} 700-100mb: $\pm$5-8 ms^{-1}	8km	~25mb	N/A	Hemispheric	every 6 hours	NMC NHC GTS Users	Winds POP	
14. Cloud Motion Winds (CO_2 Autowinds)	GOES	VISSR	SFC-700mb: $\pm$2-6 ms^{-1} 700-100mb: $\pm$5-8 ms^{-1}	8km	~25mb	N/A	Hemispheric	every 6 hours	NMC NHC GTS Users	Winds POP	
15. Gradient Winds 700, 500, 400mb	GOES	VAS	$\pm$5-7 ms^{-1}	14km	3 levels		Regional	every 6 hours	NMC NHC	Winds POP	
16. Ocean Surface Wind Speeds (Navy Algorithm)	DMSP	SSM/I	TBD	25km	N/A	N/A	Global	every 6 hours (two S/C)	NMC NHC CoastWatch	Winds POP	

NESDIS Consolidated Products List 12/14/94

Category: Ozone << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
17. Level Ozone 100, 70, 50, 30, 20, 15.0, 10.0, 7.0, 5.0, 4.0, 3.0, 2.0, 1.5, 1.0, 0.7, 0.5, 0.4, 0.3mb	POES	SBUV/2	±5%	200km	9 Levels	N/A	Global	Daily	CAC NASA	Ozone POP	
18. Layer Ozone 1000-250mb 250-125mb 125-62.5mb 62.5-31.2mb 31.2-15.6mb 15.6-7.8mb 7.8-3.9mb 3.9-1.96mb 1.96-0.98mb 0.98-0.49mb 0.49-0.24mb 0.24-0.01mb	POES	SBUV/2	±5%	200km	12 Layers	N/A	Global	Daily	CAC NASA	Ozone POP	
19. Total Ozone	POES	SBUV/2	±1%	200km	N/A	N/A	Global	Daily	CAC NASA	Ozone POP	
20. Total Ozone	POES	TOVS	±5% Dobson Units	80km at Nadir	N/A	N/A	Global	Orbitally	CAC USAF/Navy Europeans	Ozone POP	TOVS Level Temps

NESDIS Consolidated Products List 12/14/94

Category: Aerosol << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
21. Global Aerosol Observations (Optical Depth Units)	POES	AVHRR	.03-.05 ODU	8km	N/A	8-25km spacing	Global	Every 6 hours	NASA CAC USAF/Navy Universities	Image-Cloud-Aerosol POP (ICAPOP)	
22. Aerosol Global Analyzed Field (Optical Depth Units)	POES	AVHRR	.03-.05 ODU	N/A	N/A	1° x 1° LAT/LON	Global 70°N - 70°S	Once per week	NASA CAC USAF/Navy Universities	ICAPOP	
23. Aerosol Daily Summary File (Optical Depth Units)	POES	AVHRR	.03-.05 ODU	N/A	N/A	10° x 10° LAT/LON	Global	Every 6 hours	NASA CAC USAF/Navy Universities	ICAPOP	
24. Aerosol Extreme Events Observation File (Optical Depth Units)	POES	AVHRR	.03-.05 ODU	8km	N/A	8-25km spacing	Global	Every 6 hours	NASA CAC USAF/Navy Universities	ICAPOP	
25. Aerosol Monthly Mean Field File (Optical Depth Units)	POES	AVHRR	.03-.05 ODU	N/A	N/A	1° x 1° LAT/LON	Global 70°N - 70°S	Once per month	NASA CAC USAF/Navy Universities	ICAPOP	

NESDIS Consolidated Products List 12/14/94

Category: Cloud/Image Products << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
26. Convective Cloud Top Height Analysis	GOES	VISSR	±5000 feet	8km	1000-100mb	N/A	Hemispheric	Every 6 hours	NMC	ICAPOP	
27. Cloud Amount (%) and Cloud Top Pressure (mb)	POES	HIRS/2	±15% 20-70mb	20km at Nadir	1000-100mb	1° Lat/Lon	Global	Orbitally	NMC ECMWF USAF/Navy GTS Users	ICAPOP	TOVS Level Temps
28. ASOS Cloud Cover Supplement	GOES	VAS	Amount: ±1 category Height: ~5000 feet	Site Specific 5 x 5 VAS Pixels	Above 10,000 ft	N/A	CONUS	Every hour	NWS WFO's NMC NCDC Commercial	ICAPOP	
29. Real-Time Nephanalysis Cloud Amount/Type Cloud Base/Top Height Time/Source Flags	DMSP	OLS	±20%	N/A	4 Layers	40km at 60° Lat	Global	4 per day	NMC	ICAPOP	
30. PSG Mapped Mosaics (polar-stereographic)	POES	AVHRR	N/A	5.9km	N/A	N/A	Global	Daily	NCDC	ICAPOP	
31. Mercator Mosaics	POES	AVHRR	N/A	9.8km	N/A	N/A	Tropical 40N-40S	Daily	NCDC	ICAPOP	
32. 7 Day Composite	POES	AVHRR	N/A	11.9km	N/A	N/A	Global	Daily	NESDIS/ ORA	ICAPOP	
33. Stretched Gridded	POES	AVHRR	N/A	4km	N/A	N/A	Global	Orbitally	NWS NESDIS/ SAB	ICAPOP	
34. End-of-Day - Polar - Mercator	POES	AVHRR	N/A	23.8km	N/A	N/A	Global	Once per day	NWS	ICAPOP	
35. PSG/Mercator Fax/WEFAX	POES	AVHRR	N/A	11.9km	N/A	N/A	Optional	91 per day	NWS Fax/WEFAX recipients	ICAPOP	

NESDIS Consolidated Products List

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Category: **Precipitation** Products << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
36. Interactive Mositure Analysis (Bogus)	GOES	VISSR	13 Categories	8km	6 Levels	LFM Grid	LFM Oceanic Area	2 per day	NMC	Precipitation POP	
37. Total Precipitable Water (VDUC/MIDAS)	GOES	MSI	n/a	14km	N/A	N/A	North America	Hourly	NSSFC NMC	Precipitation POP	
38. Lifted Index (VDUC/MIDAS)	GOES	MSI	N/A	14km	N/A	N/A	North America	Hourly	NSSFC NMC	Precipitation POP	
39. Total Precipitable Water (Navy Algorithm)	DMSP	SSM/I	TBD	25km at Nadir	N/A	N/A	Global (two S/C)	Every 6 hours	NMC NHC	Precipitation POP	
40. Interactive Precipitation Estimates (IFFA)	GOES	VISSR	±30%	8km	N/A	N/A	CONUS and Puerto Rico	30-60 minutes, as needed	NWS WFO's NWS RFC's NMC	Precipitation POP	
41. Instantaneous Rainfall Rate (mm) (Navy Algorithm)	DMSP	SSM/I	TBD	25km	N/A	N/A	Global (two S/C)	Every 6 hours	CAC NMC		

NESDIS Consolidated Products List 12/14/94

Category: Radiation Budget Products << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
42. Daily Radiation Budget Day/Night Outgoing Longwave Absorbed Solar Energy Available. Solar Energy Histograms	POES	AVHRR/2	7 Watts m^2	N/A	N/A	2.5° x 2.5° LAT/LON 125 x 125km^2 Polar Stereo.	Global (two S/C)	Daily, Monthly Seasonal	NMC/CAC, ERL, NASA BMRC (Australian Research Center) Academia NMC/ Coupled Model Project OA, NCAR NMC/ Development Division	Radiation Budget POP	

NESDIS Consolidated Products List 12/14/94

Category: Ocean Sciences Products << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
43. Global SST Observations	POES	AVHRR	±0.5°C	8km	N/A	8-25km spacing	Global	Every 8 hours	CAC, NMC NCDC GTS	Ocean POP	1B AVHRR/HIRS and #45
44. Local SST Analyzed Fields	POES	AVHRR	±0.5°C	N/A	N/A	14km x 14km LAT/LON	U.S. Coastal Waters	Twice per week	CAC, NCDC OPC & CoastGuard NMC	Ocean POP	#43
45. Global SST Analyzed Field	POES	AVHRR	±0.5°C	N/A	N/A	1° x 1° LAT/LON	Global 70°N - 70°S	Daily (field) Weekly (chart)	CAC, NCDC OPC	Ocean POP	#43
46. Regional SST Analyzed Field	POES	AVHRR	±0.5°C	N/A	N/A	0.5° x 0.5° LAT/LON	U.S. Coastal Waters	Twice Weekly	NMC, CAC OPC NCDC	Ocean POP	#43
47. Monthly Mean SST	POES	AVHRR	±0.5°C	N/A	N/A	2.5° x 2.5° LAT/LON	Global 70°N - 70°S	Monthly	NCDC	Ocean POP	#43 and #51
48. SST Matchup Database	POES	AVHRR	N/A	N/A	N/A	N/A	Global 70°N - 70°S	Monthly	NESDIS Navy NCDC	Ocean POP	#43 and #51
49. Target Matchup Database	POES	AVHRR	N/A	N/A	N/A	N/A	User Specified Locations	Monthly	NCDC Univ MD NESDIS	Ocean POP	1B AVHRR
50. Statistics and Verification Data File	POES	AVHRR	N/A	N/A	N/A	N/A	N/A	Quarterly	NCDC	Ocean POP	
51. Independent SST Monthly Storage File	Ships/Buoys	N/A	N/A	N/A	N/A	N/A	Ship Routes Buoy Site	Monthly	NCDC NESDIS	Ocean POP	NMC Ship/Buoy File

46 - can be deleted when we go to the experimental (Global SST analysis)
47 - can be eliminated
50 - can be eliminated

Category: Ocean Sciences Products << Operational Products >>
continued

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
52. HRPT/LAC Oceanic Imagery	POES	AVHRR	N/A	1.1km	N/A	N/A	Global	Up to 4 times per day via GOES-Tap	NIC NWS Sea Grant NCDC	Ocean POP	
53. Mapped CoastWatch (SST and Visible) (JR)	POES	AVHRR	N/A	1.2-5km	N/A	N/A	Regional	Twice per day via OPC and/or NODC	NIC NMFS NOAA NWS NODC	Ocean POP	1B AVHRR
54. GAC Oceanic Imagery	POES	AVHRR	N/A	4.0km	N/A	N/A	Global	Twice per day via GOES-TAP	NIC	Ocean POP	
55. GOES Oceanic Sectors	GOES	VISSR	N/A	8km	N/A	N/A	Hemispheric	Every 30 minutes	NIC NHC CAC	Ocean POP	
56. CoastWatch Validation Database System (QC'd Target and SST Matchup)	POES (K,L,M)	AVHRR	N/A	N/A	N/A	NN/A	U.S. Coast	Orbitally	CoastWatch Sites NESDIS	Ocean POP	#51 and #53
57. Mapped AVHRR (Ice) Imagery	POES	AVHRR	N/A	5.9km (GAC) 2.9km (LAC)	N/A	N/A	Ice Areas North of 50°N and South of 50°S	Twice per day	NIC	Ocean POP	

57 - can be eliminated [met with NIC Image and Ocean Co-chairs]

Category: **Land** Sciences Products << Operational Products >>

PRODUCT	SATELLITE	SENSORS	ACCURACY	HORIZONTAL RESOLUTION	VERTICAL RESOLUTION	GRID SIZE	COVERAGE	FREQUENCY	PRIMARY CUSTOMER	PRODUCT OVERSIGHT	CRITICAL DEPENDENCY
58. Snow Cover Analysis (Chart)	POES GOES METEOSAT GMS	AVHRR VISSR	N/A	4km	N/A	N/A	Northern Hemisphere	1 per week	CAC NCDC USDA Universities Industry	Surface POP	
59. Snow Cover Analysis (Digitized Field)	POES GOES METEOSAT GMS	AVHRR VISSR	N/A	N/A	N/A	NMC 89 x 89 Grid	Northern Hemisphere	1 per week	CAC NMC NCDC	Surface POP	
60. Snow Cover Monthly - Monthly Mean - Monthly Frequency - Monthly Anomaly	POES GOES METEOSAT GMS	AVHRR VISSR	N/A	N/A	N/A	NMC 89 x 89 Grid	Northern Hemisphere	1 per month	CAC NMC NCDC USDA Universities Industry	Surface POP	
61. Snow/Ice Cover (Navy Algorithm)	DMSP	SSM/I	TBD	25km	N/A	N/A	Global (two S/C)	Every 6 hours	CAC NMC JIC	Snow Surface POP Sea Ice OPOP	
62. Air Force SNOW	DMSP	OLS Model	N/A	N/A	N/A	1/8 Mesh	Global (two Hemispheres)	Daily	NMC Forecast Model	Surface POP	
63. Vegetation Index AVHRR Mapped Clear Radiances	POES	AVHRR	N/A	24km	N/A	N/A	Global	1 per week	CAC NMC NWS Universities Industry	Surface POP	