

NOAA Archive Services for Jason-2/OSTM

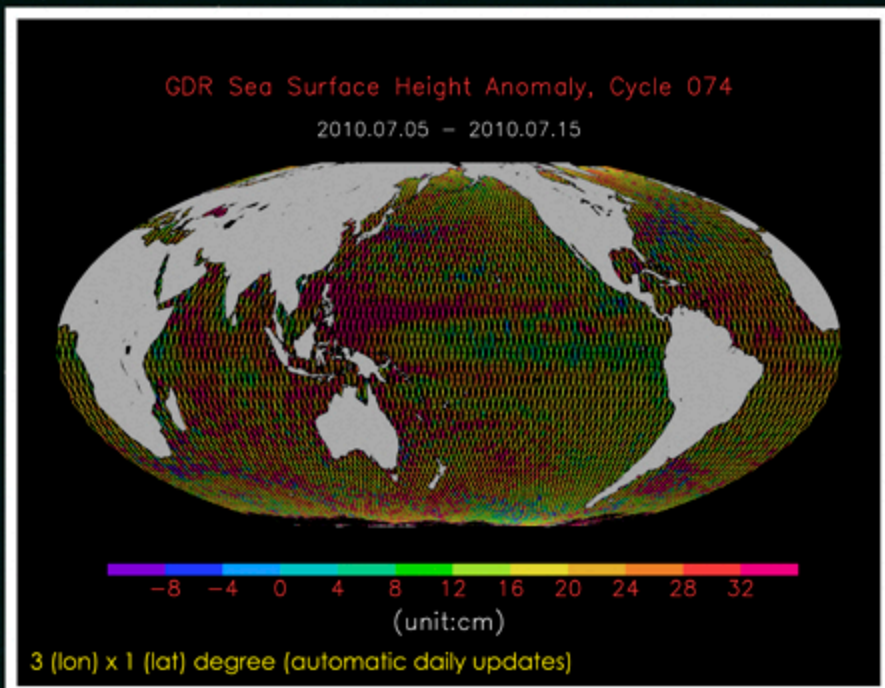
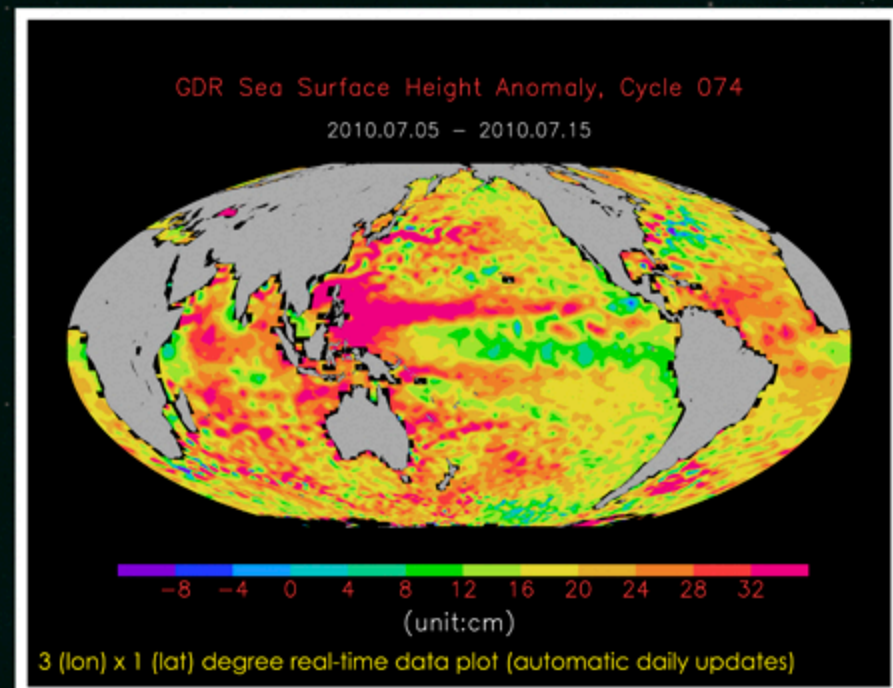


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INTRODUCTION

The NOAA National Oceanographic Data Center (NODC) provides near real-time and delayed-mode product distribution, rigorous archival services, and long-term data stewardship for the Jason-2/Ocean Surface Topography Mission (OSTM). In association with this effort, NODC is implementing a quality monitoring system known as the Rich Inventory which tracks multiple statistics and attributes for over twenty Jason-2 parameters in GDR and IGDR granules, and makes the results available to data managers and public users via a web interface in both graphical and numerical representations.



DATA ARCHIVE

The archive strategy developed by NODC utilizes the NOAA Comprehensive Large Array-data Stewardship System (CLASS) to provide the information technology infrastructure to support ingestion, archival storage, and basic access to the Jason-2 data. NODC has also established ftp, http, and OPeNDAP servers to provide complementary ways to access all Level-2 O/I/GDRs. The NODC has produced highly detailed and comprehensive Federal Geographic Data Committee (FGDC) Remote Sensing Profile metadata which now serve the CLASS system for OSTM/Jason-2 data distribution. These records are also serving as the base records for NODC's first efforts to create quality metadata as International Organization for Standardization (ISO) 19115 records (see <http://www.nodc.noaa.gov/SatelliteData/Jason2/>).

ARCHIVE QUALITY ASSURANCE

The NODC Jason-2 Rich Inventory uses a distributed database maintained by partners at NOAA's National Geophysical Data Center.

Granule Type Overview

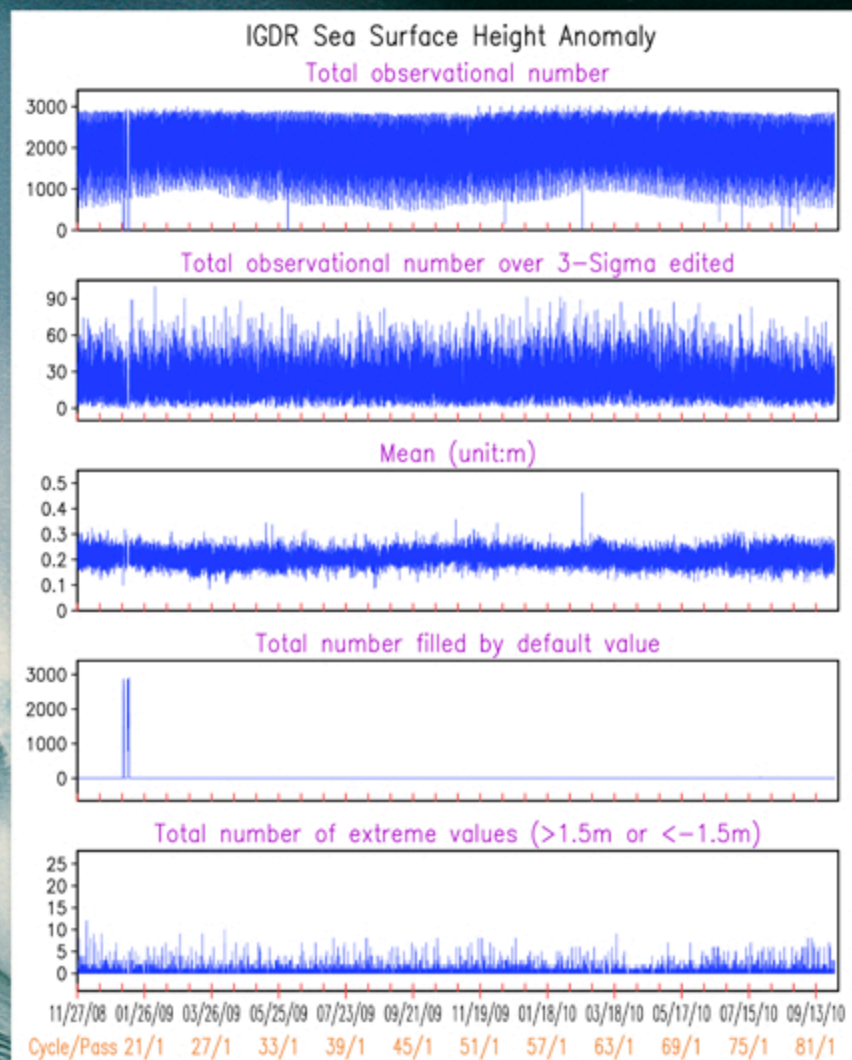
NESDIS Rich Inventory

Granule Type Properties

Granule Type: JASON2 GDR
 Metadata ID: GOV/NOAA/CLASS2-3GDR
 Description: Quality Monitor the JASON-2 First Geophysical Data Record (GDR) Granule Data
 Last Update: 2010-01-06 10:59:01.0

Granule Type Parameters

Name	Standard Name	Long Name	Description	Units	Precision	Last Update
swh_c	Sea surface wave significant height	C band corrected significant waveheight	C band corrected significant waveheight	m	0.001	2009-09-03 08:20:54.0
mean_topography	Mean topography above geoid	Mean dynamic topography above geoid	Mean dynamic topography above geoid	m	0.001	2008-06-03 14:10:49.0
sig0_c	Surface backscatter scattering coefficient of radar wave	C band corrected backscatter coefficient	C band corrected backscatter coefficient	dB	0.001	2009-09-03 08:20:54.0
th_340	Surface brightness temperature	34 GHz main beam brightness temperature	34 GHz main beam brightness temperature	K	0.001	2009-09-03 08:20:54.0
wind_speed_ah	Wind speed	Altimeter wind speed	Altimeter wind speed	m/s	0.001	2009-09-03 08:20:54.0
th_230	Surface brightness temperature	23.8 GHz main beam brightness temperature	23.8 GHz main beam brightness temperature	K	0.001	2009-09-03 08:20:54.0
agc_c	Automatic gain control	C band corrected AGC	C band corrected AGC	dB	0.001	2008-06-03 14:10:49.0
wind_speed_rad	Wind speed	Radiometer wind speed	Radiometer wind speed	m/s	0.001	2009-09-03 08:20:54.0
isoa_corr_ah_ka	Altimeter range correction due to ionosphere	Altimeter ionospheric correction on Ka band	Altimeter ionospheric correction on Ka band	m	0.001	2009-09-03 08:20:54.0
geoid	Geoid height above reference ellipsoid	Geoid height	Geoid height	m	0.001	2008-06-03 14:10:49.0
hathyometry	hathyometry	ocean depth/land elevation	ocean depth/land elevation	m	0.001	2008-06-03 14:10:49.0
th_187	Surface brightness temperature	18.7 GHz main beam brightness temperature	18.7 GHz main beam brightness temperature	K	0.001	2009-09-03 08:20:54.0
mean_sea_surface	Mean sea surface height	Mean sea surface height above reference ellipsoid	Mean sea surface height above reference ellipsoid	m	0.001	2009-09-03 08:20:54.0
swh_ka	Sea surface wave significant height	Ka band corrected significant waveheight	Ka band corrected significant waveheight	m	0.001	2009-09-03 08:20:54.0
rad_liquid_water	Atmosphere cloud liquid water content	Radiometer liquid water content	Radiometer liquid water content	kg/m ³	0.001	2008-06-03 14:10:49.0
agc_ka	Automatic gain control	Ka band corrected AGC	Ka band corrected AGC	dB	0.001	2008-06-03 14:10:49.0
sig0_ka	Surface backscatter scattering coefficient of radar wave	Ka band corrected backscatter coefficient	Ka band corrected backscatter coefficient	dB	0.001	2009-09-03 08:20:54.0
sea_state_bias_ka	Sea surface height bias due to sea surface roughness	Sea state bias correction in Ka band	Sea state bias correction in Ka band	m	0.001	2009-09-03 08:20:54.0
tsa	Sea surface height above sea level	Sea surface height anomaly	Sea surface height anomaly	m	0.001	2009-09-03 08:20:54.0
sea_state_bias_c	Sea surface height bias due to sea surface roughness	Sea state bias correction in C band	Sea state bias correction in C band	m	0.001	2009-09-03 08:20:54.0
rad_water_vapor	Atmosphere water vapor content	Radiometer water vapor content	Radiometer water vapor content	kg/m ³	0.001	2008-06-03 14:10:49.0



The figure shows statistics of the total observation number, observation number with a value over 3 times the standard deviation, number filled by default values, and number of extreme values in each data file in an ascending or descending pass. The x-coordinate represents the time frame and corresponding cycle number.

ARCHIVE QUALITY ASSURANCE WEB PAGES AND VISUALIZATIONS

The NODC will also soon provide visualizations of the Rich Inventory statistical values and access to them via a Live Access Server and OPeNDAP, as well as the real-time visualizations for the observations for some parameters.

