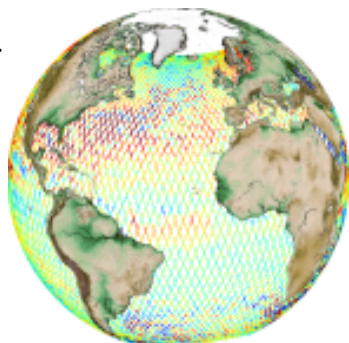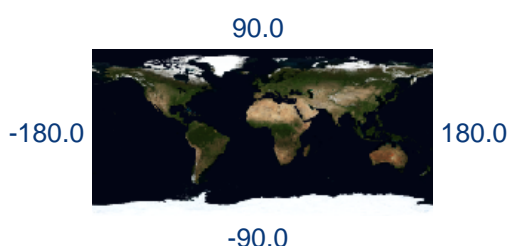>

GLOBAL OCEAN ALONG-TRACK L3 SEA SURFACE HEIGHTS REPROCESSED (1993-ONGOING)

PRODUCT IDENTIFIER	SEALEVEL_GLO_PHY_L3_REP_OBSERVATIONS_008_045

GEOGRAPHICAL COVERAGE

90.0

-180.0   180.0

-90.0

Areas :
global-ocean
arctic-ocean
baltic-sea
north-west-shelf-seas
iberian-biscay-irish-seas

VARIABLES	sea_surface_height_above_sea_level (SSH)
	sea_surface_height_above_geoid (SSH)
OBSERVATION/MODELS	satellite-observation
PRODUCT TYPE	multi-year
PROCESSING LEVEL	L3
DATA ASSIMILATION	undefined
SPATIAL RESOLUTION	7km x 7km
VERTICAL COVERAGE (m)	Surface
COORDINATE REFERENCE SYSTEM	undefined
FEATURE TYPE	Swath
TEMPORAL COVERAGE	from 1993-01-01 to 2018-01-18
TEMPORAL RESOLUTION	instantaneous
UPDATE FREQUENCY	biannually
PRODUCTION UNIT	SL-CLS-TOULOUSE-FR

GLOBAL OCEAN ALONG-TRACK L3 SEA SURFACE HEIGHTS REPROCESSED (1993-ONGOING)

Short description:

Altimeter satellite along-track sea surface heights anomalies (SLA) computed with respect to a twenty-year 2012 mean. All the missions are homogenized with respect to a reference mission (see QUID document or http://duacs.cls.fr [1] pages for processing details). The product gives additional variables (e.g. Absolute Dynamic Topography, ADT) that can be used to change the physical content for specific needs. This product is processed by the DUACS multimission altimeter data processing system. It serves in near-real time the main operational oceanography and climate forecasting centers in Europe and worldwide. It processes data from all altimeter missions: Jason-3, Sentinel-3A, HY-2A, Saral/AltiKa, Cryosat-2, Jason-2, Jason-1, T/P, ENVISAT, GFO, ERS1/2. It provides a consistent and homogeneous catalogue of products for varied applications, both for near real time applications and offline studies. To produce SLA in delayed-time (REPROCESSED), the system uses the Geophysical Data Records which are computed from a Precise Orbit Ephemeris (POE) and are delivered within 3 months depending on the mission. Reanalysis products are more precise than NRT products. The system acquires and then synchronizes altimeter data and auxiliary data; each mission is homogenized using the same models and corrections. The Input Data Quality Control checks that the system uses the best altimeter data. The multi-mission cross-calibration process removes any residual orbit error, or long wavelength error (LWE), as well as large scale biases and discrepancies between various data flows; all altimeter fields are interpolated at crossover locations and dates. After a repeat-track analysis, a mean profile, which is peculiar to each mission, or a Mean Sea Surface (MSS) (when the orbit is non repetitive) is subtracted to compute sea level anomaly. The MSS is available via the Aviso+ dissemination (http://www.aviso.altimetry.fr/en/data/products/auxiliary-products/mss.html [2]). Data are then cross validated, filtered from residual noise and small scale signals (sla_filtered variable). The ADT (Absolute Dynamic Topography, adt_filtered variable) is then computed as follows: adt_filtered=sla_filtered+MDT where MDT is the Mean Dynamic Topography distributed by Aviso+ (http://www.aviso.altimetry.fr/en/data/products/auxiliary-products/mdt.html [3]).
"'Associated products'"
A time invariant product [4] describing the noise level of along-track measurements is available. It is a gridded product delivered only over global ocean. For each mission two files are provided: one for filtered products and one for unfiltered products. For Mediterranean and Black seas, one value is given, as described in the QUID document.