

Orbit comparison : CNES GDR-D versus CNES GDR-C

Study variable	CNES GDR-D Orbit
Reference variable	CNES GDR-C Orbit
Missions	Envisat (<i>en</i>), Jason-1 (<i>j1</i>), Jason-2 (<i>j2</i>)
Period	[19007, 22438]

Creation date : 2012/01/17

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Study overview

In this study, the CNES GDR-D orbit solution has been compared to the CNES GDR-C orbit used in CNES/AVISO product to calculate the Jason-1, Jason-2 and Envisat sea-level height (SSH).

The impact of using these both orbits on the SSH calculation have been analyzed for Jason-1, Jason-2 and Envisat missions :

- for Envisat : from August 2002 (cycle 9) to December 2010 (Cycle 95)
- for Jason-1 : from January 2002 (cycle 1) to December 2010 (Cycle 330)
- for Jason-2 : from July 2008 (cycle 1) to December 2010 (Cycle 90)

The CNES GDR-D orbit have been provided by CNES in the framework of the SALP project. For more information see the Lucas Cerri' presentation: http://www.aviso.oceanobs.com/fileadmin/documents/OSTST/2011/oral/02_Thursday/Splinter%203%20POD/05_Cerri.pdf.

CNES GDR-C orbit are available in GDR products.

All the validation diagnostics displayed in this report has been performed in agreement with the Sea-Level CCI Product Validation Plan (PVP).

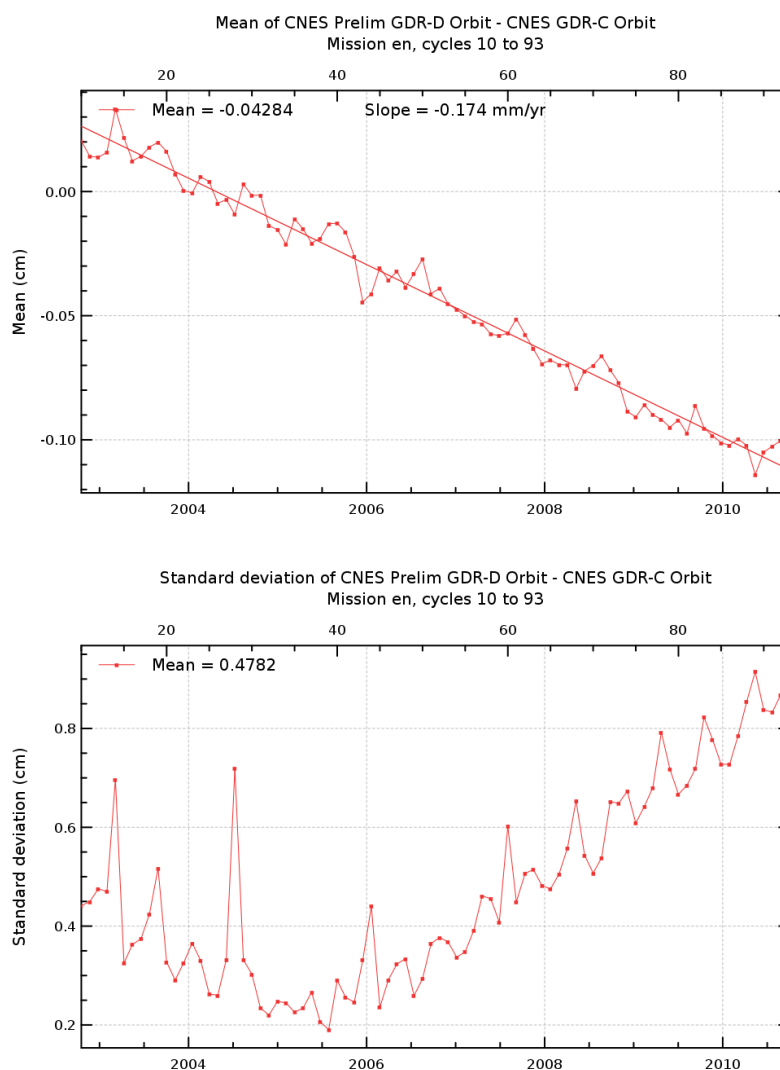
Diagnostic A001 (mission en)

Name : Temporal evolution of differences between both altimetric components

Input data : Along-track altimetric components

Description : The temporal evolution of global statistics (mean, variance, slope) of differences between 2 different standards of a same altimetric component (sea surface height correction, altimeter parameter, orbit) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) . These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses



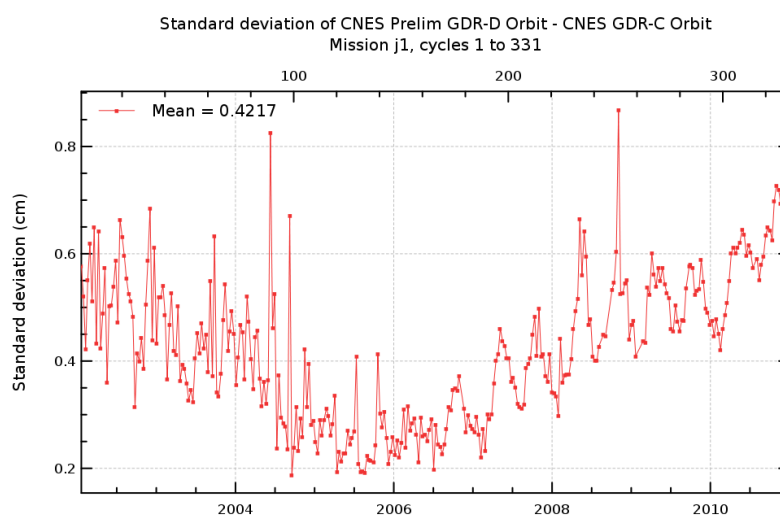
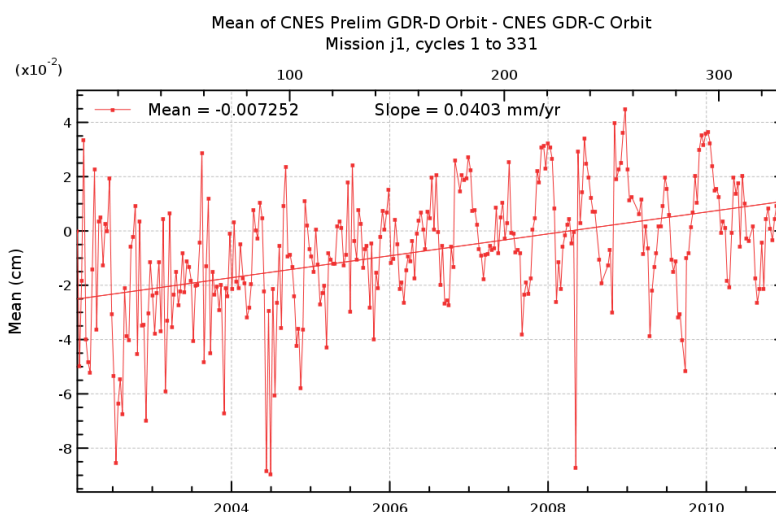
Diagnostic A001 (mission j1)

Name : Temporal evolution of differences between both altimetric components

Input data : Along-track altimetric components

Description : The temporal evolution of global statistics (mean, variance, slope) of differences between 2 different standards of a same altimetric component (sea surface height correction, altimeter parameter, orbit) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) . These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses



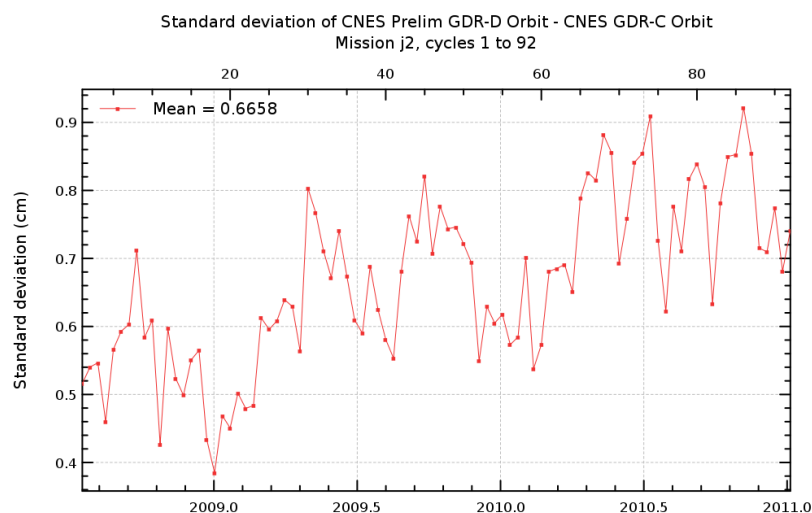
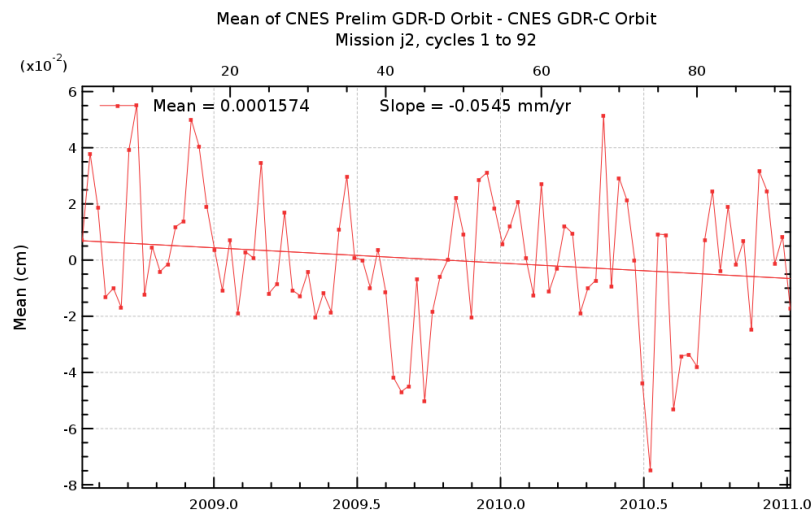
Diagnostic A001 (mission j2)

Name : Temporal evolution of differences between both altimetric components

Input data : Along-track altimetric components

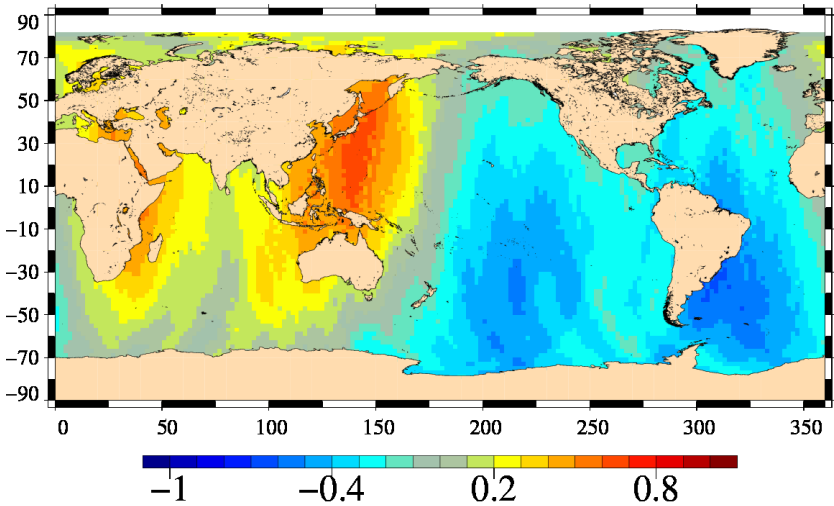
Description : The temporal evolution of global statistics (mean, variance, slope) of differences between 2 different standards of a same altimetric component (sea surface height correction, altimeter parameter, orbit) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) . These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

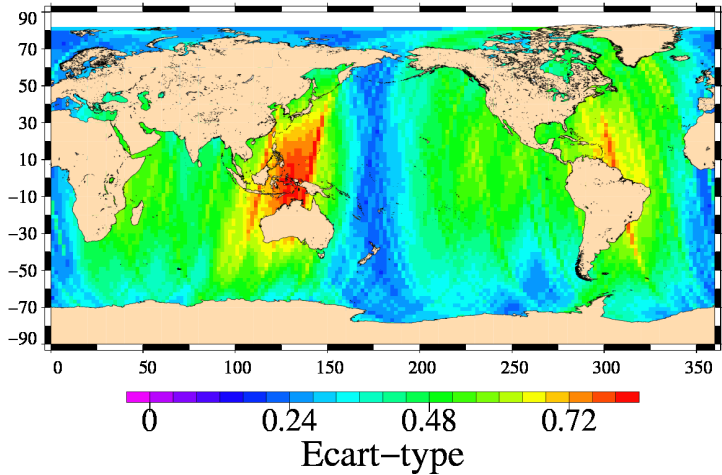


Diagnostic A002 (mission en)
Name : Map of differences between both altimetric components over all the period
Input data : Along-track altimetric components
Description : The map of global statistics (mean, standard deviation) of differences between 2 different standards of a same altimetric component (sea surface height correction, altimeter parameter, orbit) are calculated over a given period which is the longer as possible to have obtain reliable statically results. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Mean of CNES Prelim GDR-D Orbit – CNES GDR-C Orbit
Mission en, cycles 10 to 93



Moyenne
Standard deviation of CNES Prelim GDR-D Orbit – CNES GDR-C Orbit
Mission en, cycles 10 to 93



Diagnostic A002 (mission j1)

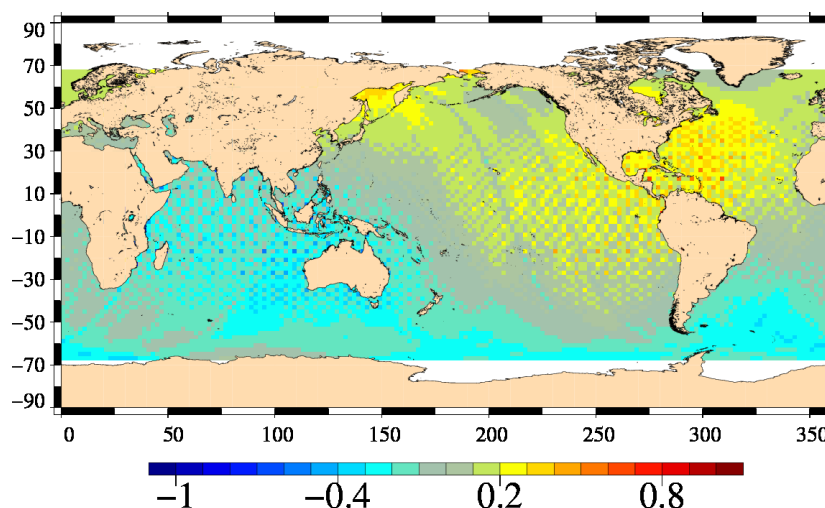
Name : Map of differences between both altimetric components over all the period

Input data : Along-track altimetric components

Description : The map of global statistics (mean, standard deviation) of differences between 2 different standards of a same altimetric component (sea surface height correction, altimeter parameter, orbit) are calculated over a given period which is the longer as possible to have obtain reliable statically results. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

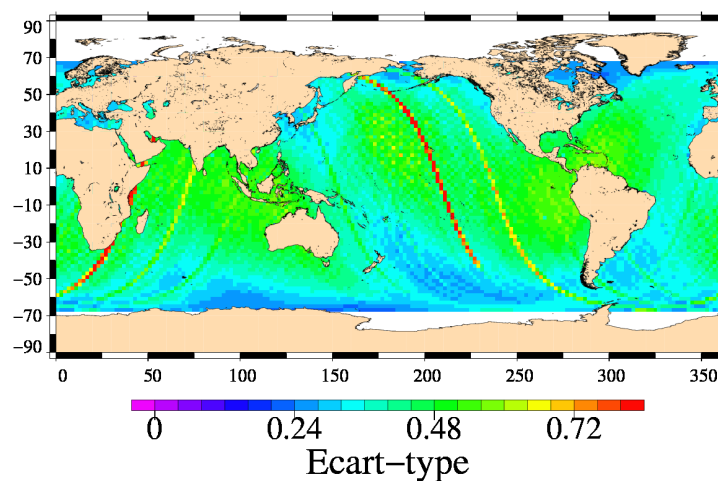
Diagnostic type : Global internal analyses

Mean of CNES Prelim GDR-D Orbit – CNES GDR-C Orbit
Mission j1, cycles 1 to 331



Moyenne

Standard deviation of CNES Prelim GDR-D Orbit – CNES GDR-C Orbit
Mission j1, cycles 1 to 331



Diagnostic A002 (mission j2)

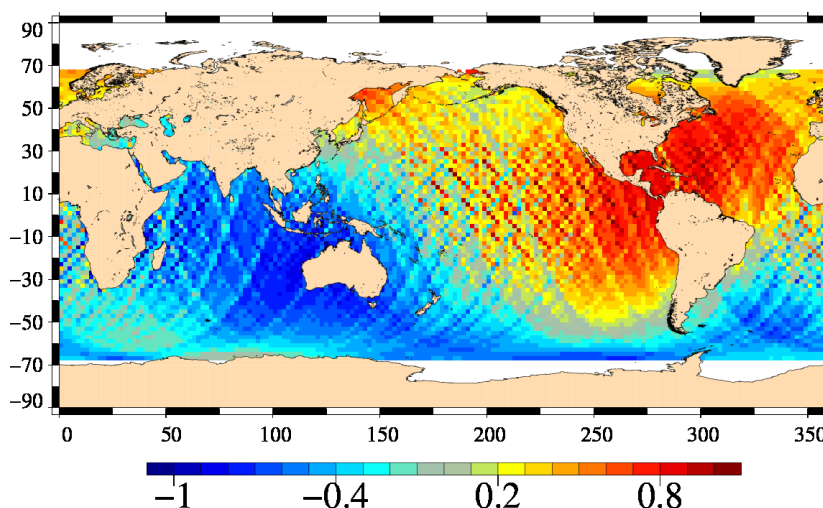
Name : Map of differences between both altimetric components over all the period

Input data : Along-track altimetric components

Description : The map of global statistics (mean, standard deviation) of differences between 2 different standards of a same altimetric component (sea surface height correction, altimeter parameter, orbit) are calculated over a given period which is the longer as possible to have obtain reliable statically results. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

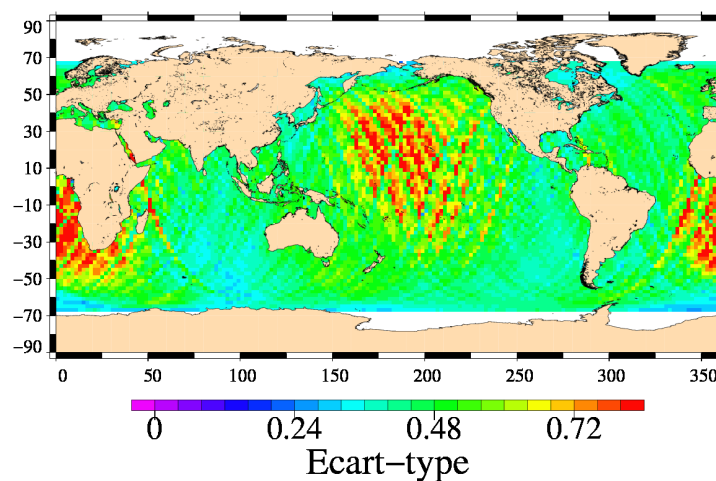
Diagnostic type : Global internal analyses

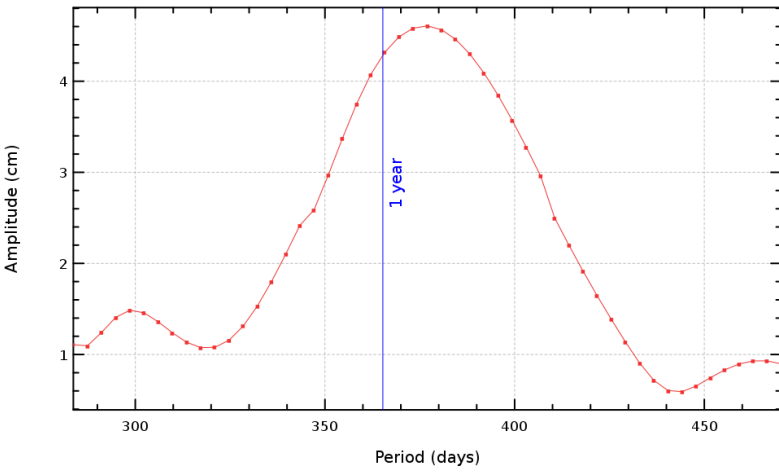
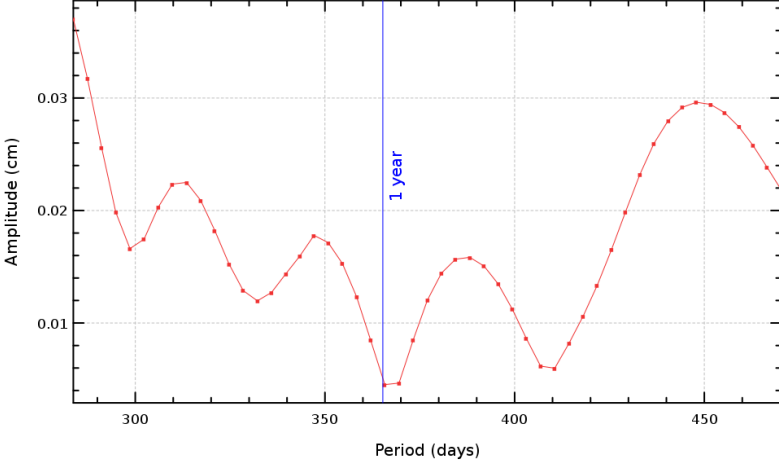
Mean of CNES Prelim GDR-D Orbit – CNES GDR-C Orbit
Mission j2, cycles 1 to 92



Moyenne

Standard deviation of CNES Prelim GDR-D Orbit – CNES GDR-C Orbit
Mission j2, cycles 1 to 92



Diagnostic A003_a (mission en)	
Name : Periodogram derived from temporal evolution of altimetric component differences	
Input data : Along-track altimetric components	
<p>Description : The periodogram derived from temporal and global altimetric component differences is calculated from cycle by cycle monitoring of altimetric component differences (derived from diagnostic A001). It is calculated from the mean or the variance differences. The Periodogram can be calculated for all the periods, but it can be focused on a dedicated period.</p>	
<div><p>Periodogram of the mean of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (reference period = 1 year; Mission en, cycles 10 to 93)</p><p>(x10⁻³)</p><p>Amplitude (cm)</p><p>Period (days)</p><p>1 year</p></div> <div><p>Periodogram of the standard deviation of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (reference period : Mission en, cycles 10 to 93)</p><p>Amplitude (cm)</p><p>Period (days)</p><p>1 year</p></div>	

Diagnostic A003_b (mission en)

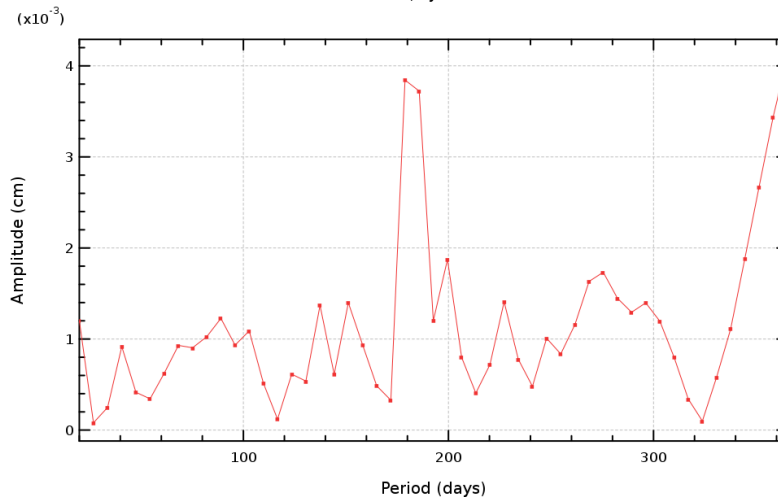
Name : Periodogram derived from temporal evolution of altimetric component differences

Input data : Along-track altimetric components

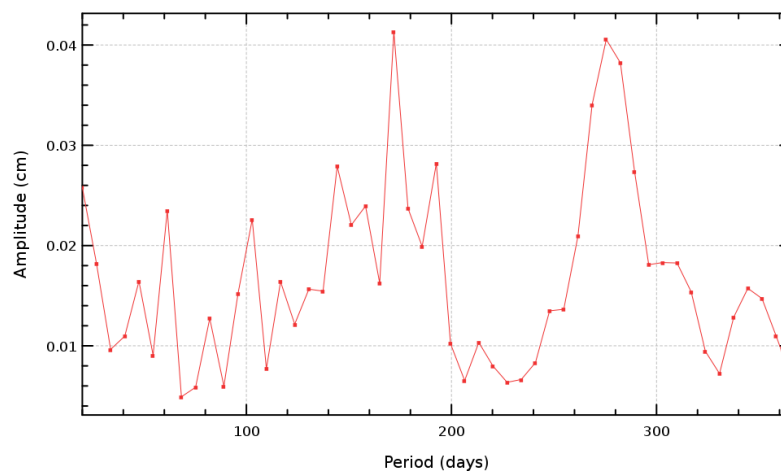
Description : The periodogram derived from temporal and global altimetric component differences is calculated from cycle by cycle monitoring of altimetric component differences (derived from diagnostic A001). It is calculated from the mean or the variance differences. The Periodogram can be calculated for all the periods, but it can be focused on a dedicated period.

Diagnostic type : Global internal analyses

Periodogram of the mean of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (period = [0, 1 year])
Mission en, cycles 10 to 93



Periodogram of the standard deviation of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (period = [0, 1
Mission en, cycles 10 to 93



Diagnostic A003_a (mission j1)

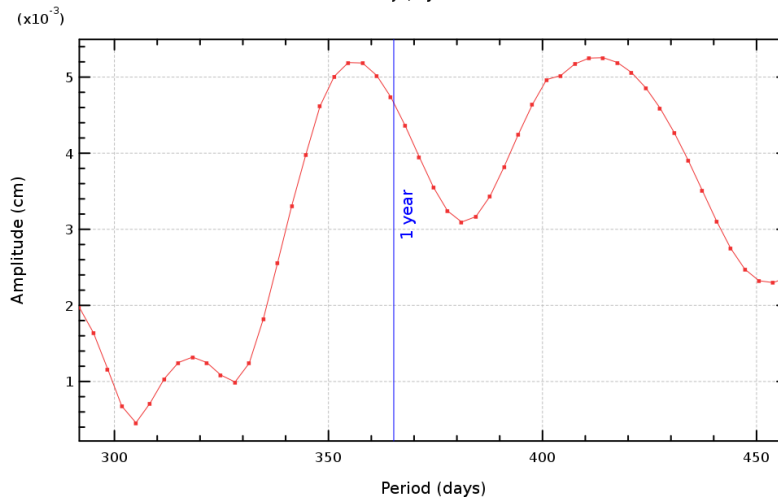
Name : Periodogram derived from temporal evolution of altimetric component differences

Input data : Along-track altimetric components

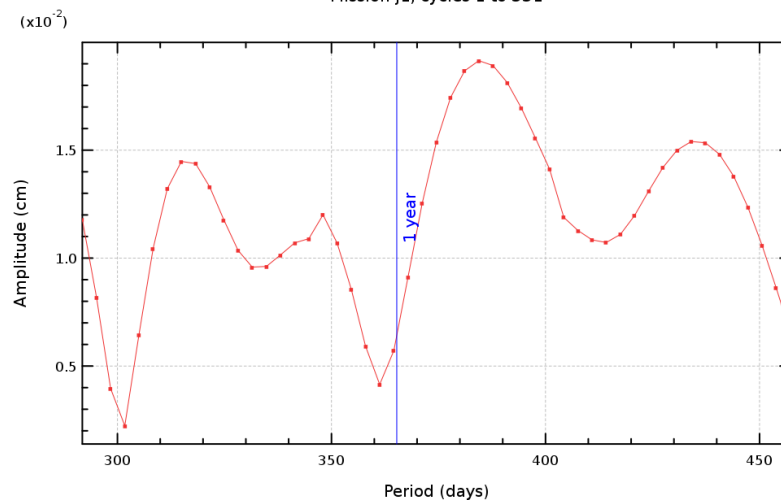
Description : The periodogram derived from temporal and global altimetric component differences is calculated from cycle by cycle monitoring of altimetric component differences (derived from diagnostic A001). It is calculated from the mean or the variance differences. The Periodogram can be calculated for all the periods, but it can be focused on a dedicated period.

Diagnostic type : Global internal analyses

Periodogram of the mean of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (reference period = 1 year)
Mission j1, cycles 1 to 331



Periodogram of the standard deviation of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (reference period = 1 year)
Mission j1, cycles 1 to 331



Diagnostic A003_b (mission j1)

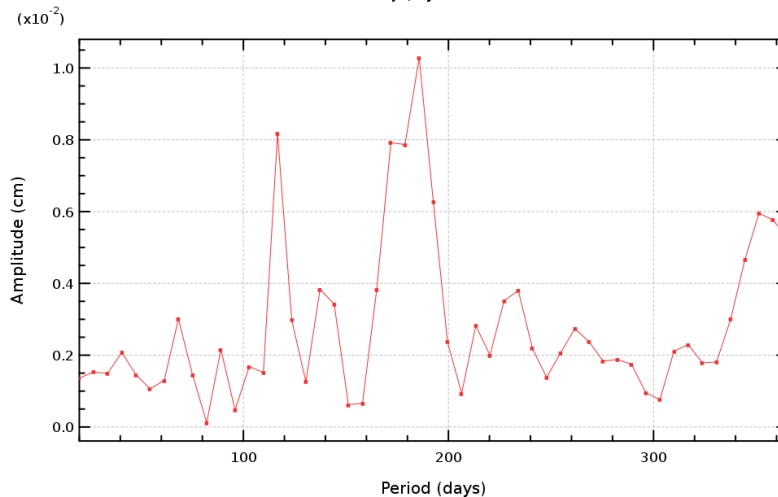
Name : Periodogram derived from temporal evolution of altimetric component differences

Input data : Along-track altimetric components

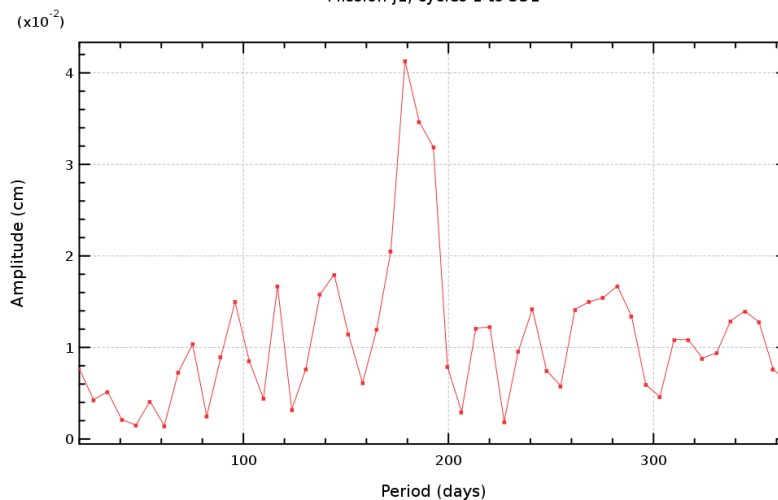
Description : The periodogram derived from temporal and global altimetric component differences is calculated from cycle by cycle monitoring of altimetric component differences (derived from diagnostic A001). It is calculated from the mean or the variance differences. The Periodogram can be calculated for all the periods, but it can be focused on a dedicated period.

Diagnostic type : Global internal analyses

Periodogram of the mean of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (period = [0, 1 year])
Mission j1, cycles 1 to 331



Periodogram of the standard deviation of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (period = [0, 1 year])
Mission j1, cycles 1 to 331



Diagnostic A003_a (mission j2)

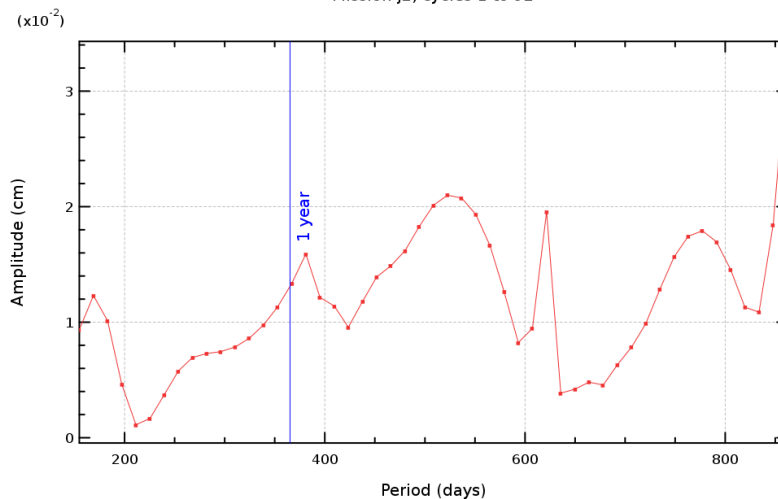
Name : Periodogram derived from temporal evolution of altimetric component differences

Input data : Along-track altimetric components

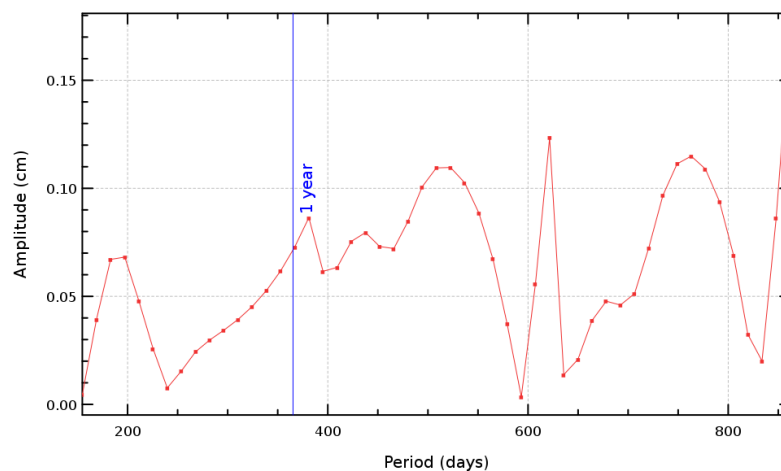
Description : The periodogram derived from temporal and global altimetric component differences is calculated from cycle by cycle monitoring of altimetric component differences (derived from diagnostic A001). It is calculated from the mean or the variance differences. The Periodogram can be calculated for all the periods, but it can be focused on a dedicated period.

Diagnostic type : Global internal analyses

Periodogram of the mean of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (reference period = 1 year)
Mission j2, cycles 1 to 92



Periodogram of the standard deviation of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (reference period :
Mission j2, cycles 1 to 92



Diagnostic A003_b (mission j2)

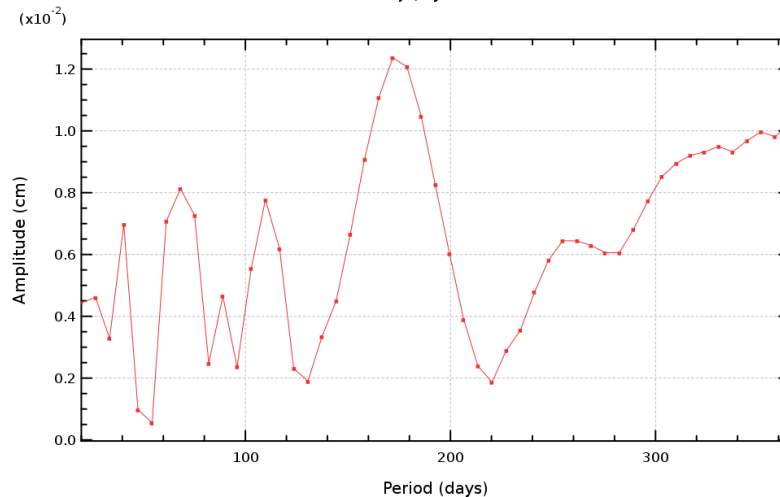
Name : Periodogram derived from temporal evolution of altimetric component differences

Input data : Along-track altimetric components

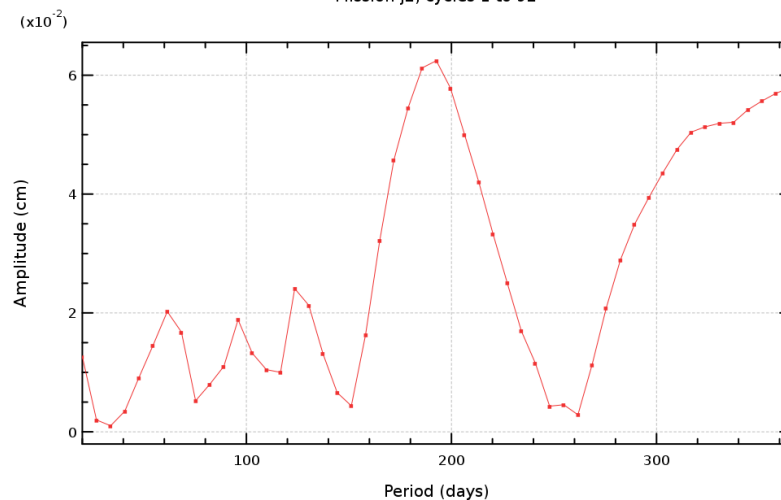
Description : The periodogram derived from temporal and global altimetric component differences is calculated from cycle by cycle monitoring of altimetric component differences (derived from diagnostic A001). It is calculated from the mean or the variance differences. The Periodogram can be calculated for all the periods, but it can be focused on a dedicated period.

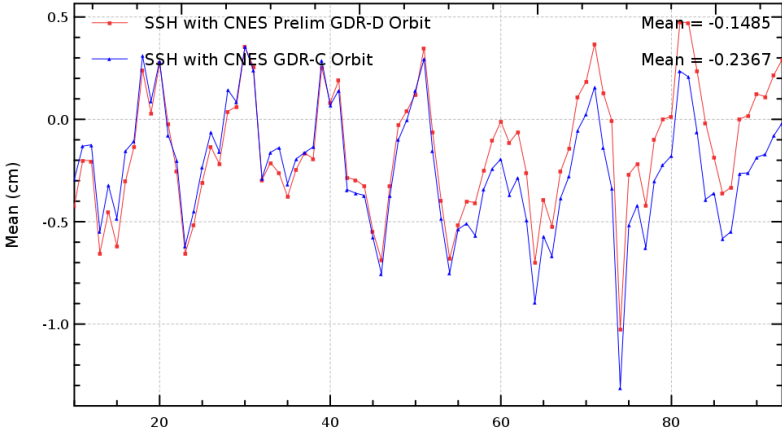
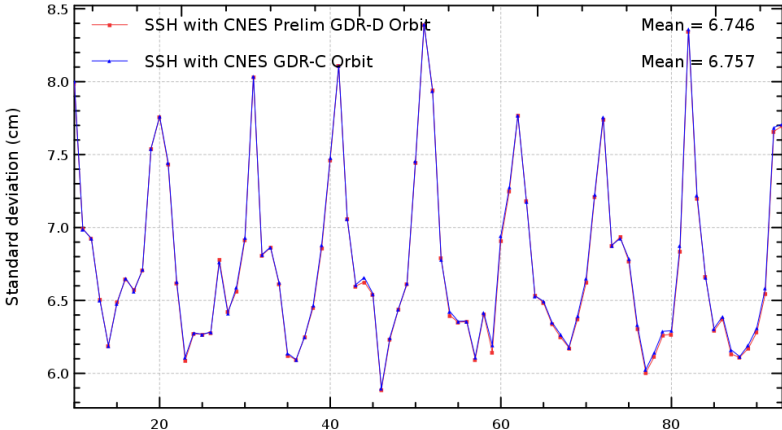
Diagnostic type : Global internal analyses

Periodogram of the mean of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (period = [0, 1 year])
Mission j2, cycles 1 to 92



Periodogram of the standard deviation of CNES Prelim GDR-D Orbit - CNES GDR-C Orbit (period = [0, 1 year])
Mission j2, cycles 1 to 92



Diagnostic A101 (mission en)	
Name : Temporal evolution of SSH crossovers	
Input data : Sea Surface Height (SSH) crossovers	
<p>Description : The temporal evolution of global statistics (mean, standard deviation) of SSH differences are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).</p>	
<div><div><div>Mean of SSH crossovers Mission en, cycles 10 to 93</div><div></div></div><div><div>Standard deviations of SSH crossovers Mission en, cycles 10 to 93</div><div></div></div></div>	

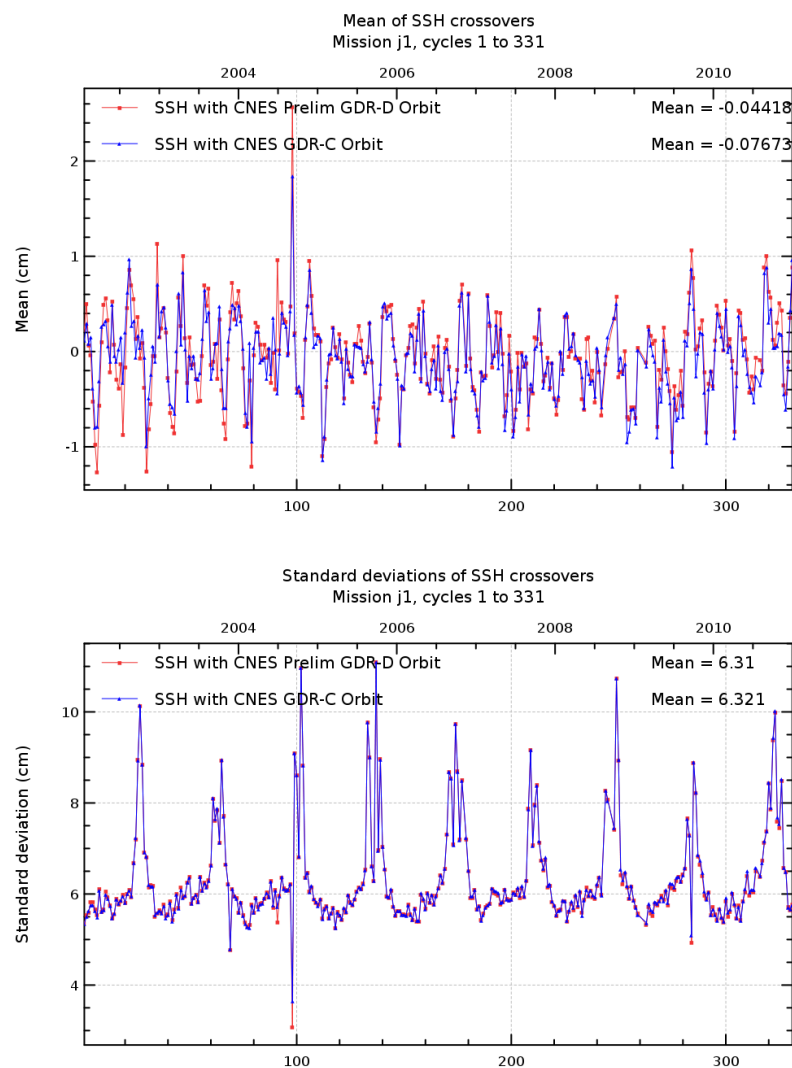
Diagnostic A101 (mission j1)

Name : Temporal evolution of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

Description : The temporal evolution of global statistics (mean, standard deviation) of SSH differences are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

Diagnostic type : Global internal analyses



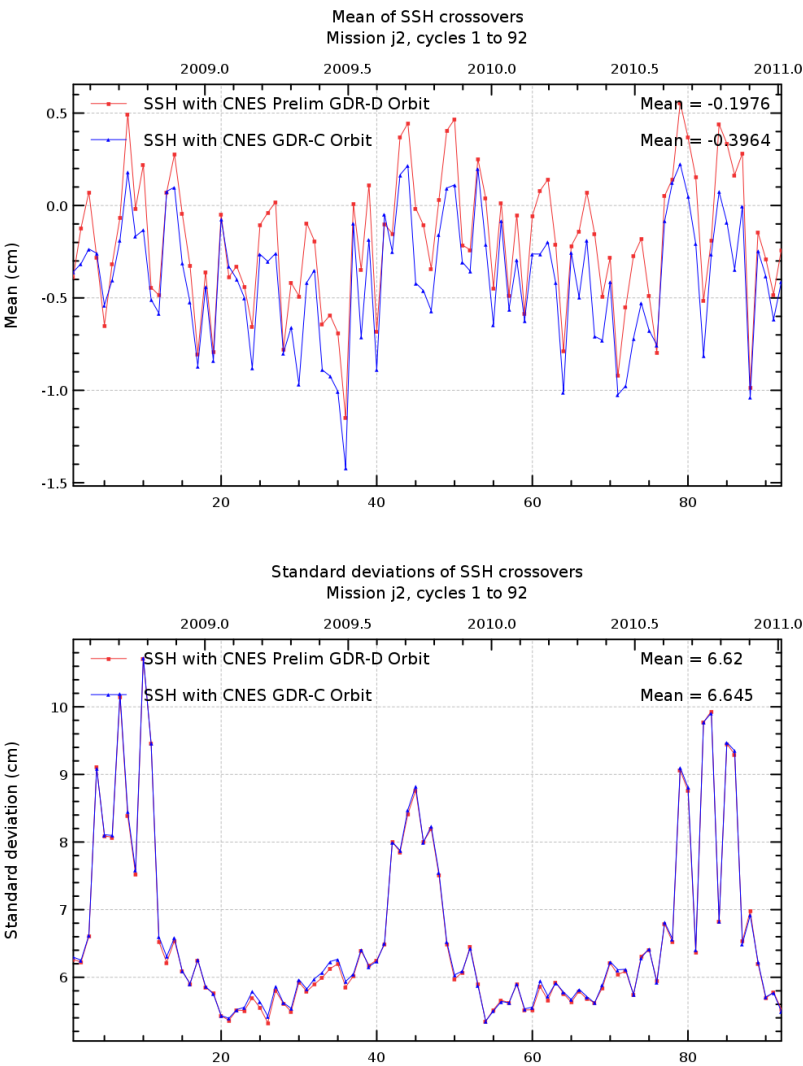
Diagnostic A101 (mission j2)

Name : Temporal evolution of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

Description : The temporal evolution of global statistics (mean, standard deviation) of SSH differences are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

Diagnostic type : Global internal analyses



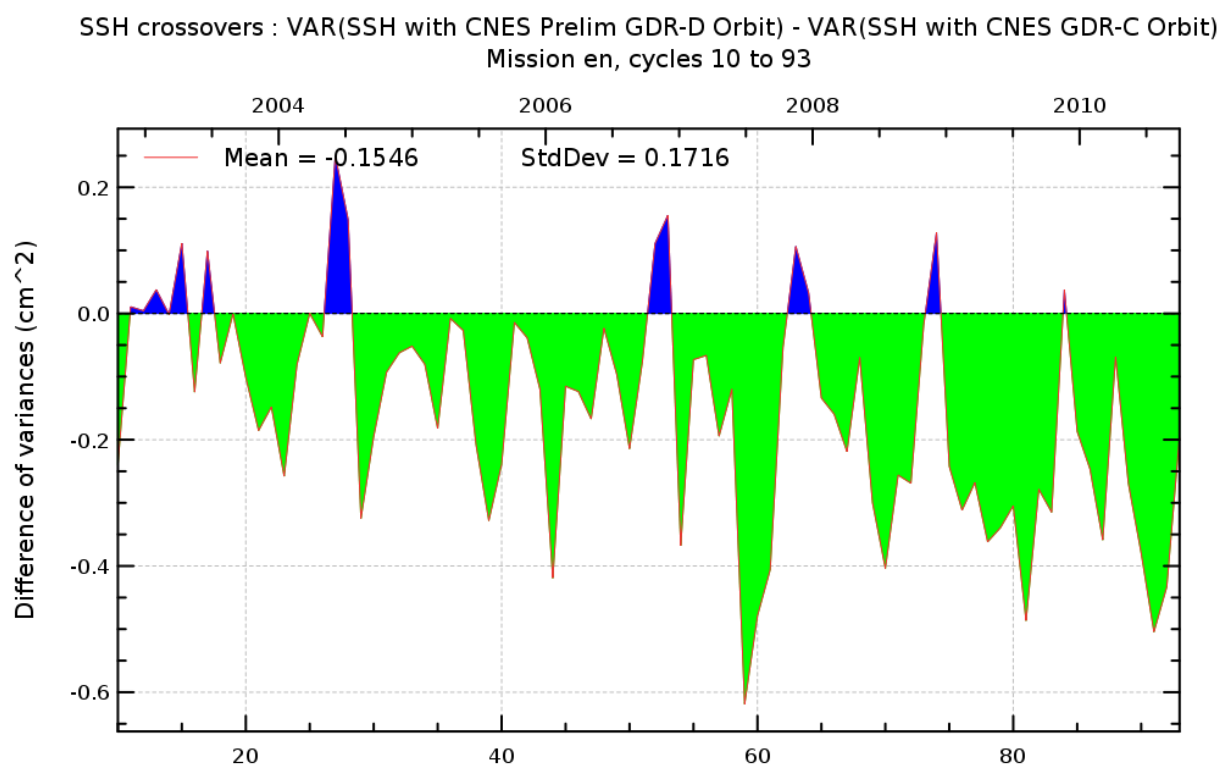
Diagnostic A102 (mission en)

Name : Differences between temporal evolution of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

Description : The difference of temporal evolution between the global statistics (mean, standard deviation) of SSH differences are calculated using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

Diagnostic type : Global internal analyses



Diagnostic A102 (mission j1)

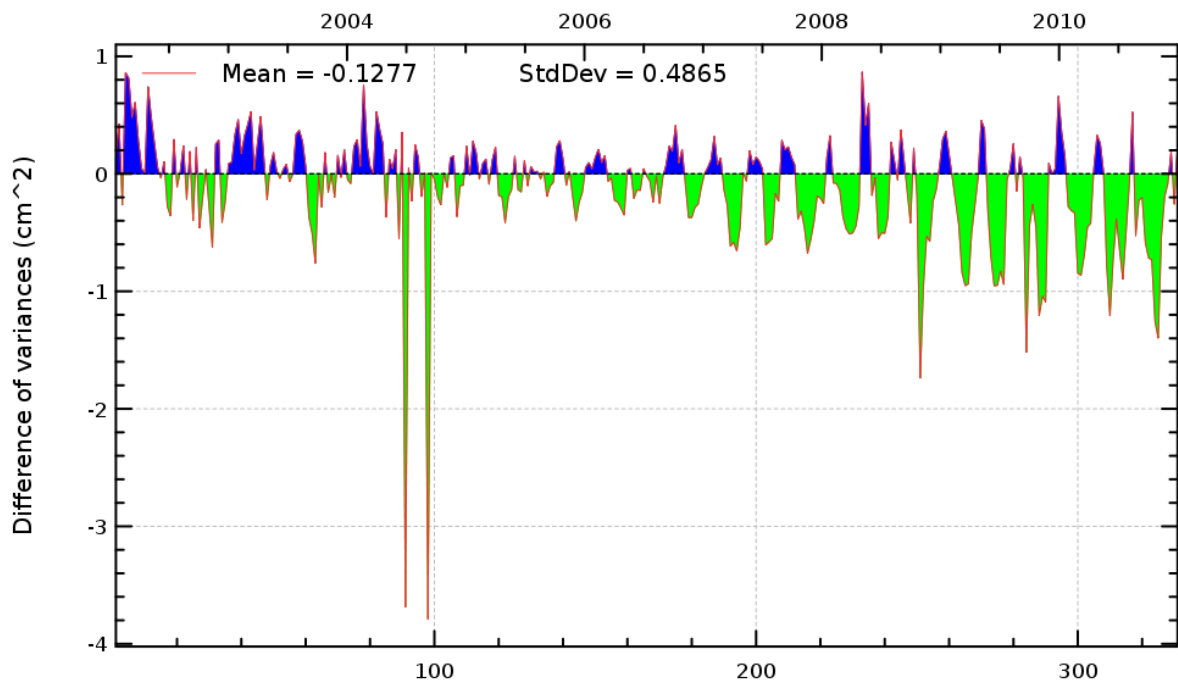
Name : Differences between temporal evolution of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

Description : The difference of temporal evolution between the global statistics (mean, standard deviation) of SSH differences are calculated using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

Diagnostic type : Global internal analyses

SSH crossovers : $\text{VAR}(\text{SSH with CNES Prelim GDR-D Orbit}) - \text{VAR}(\text{SSH with CNES GDR-C Orbit})$
Mission j1, cycles 1 to 331



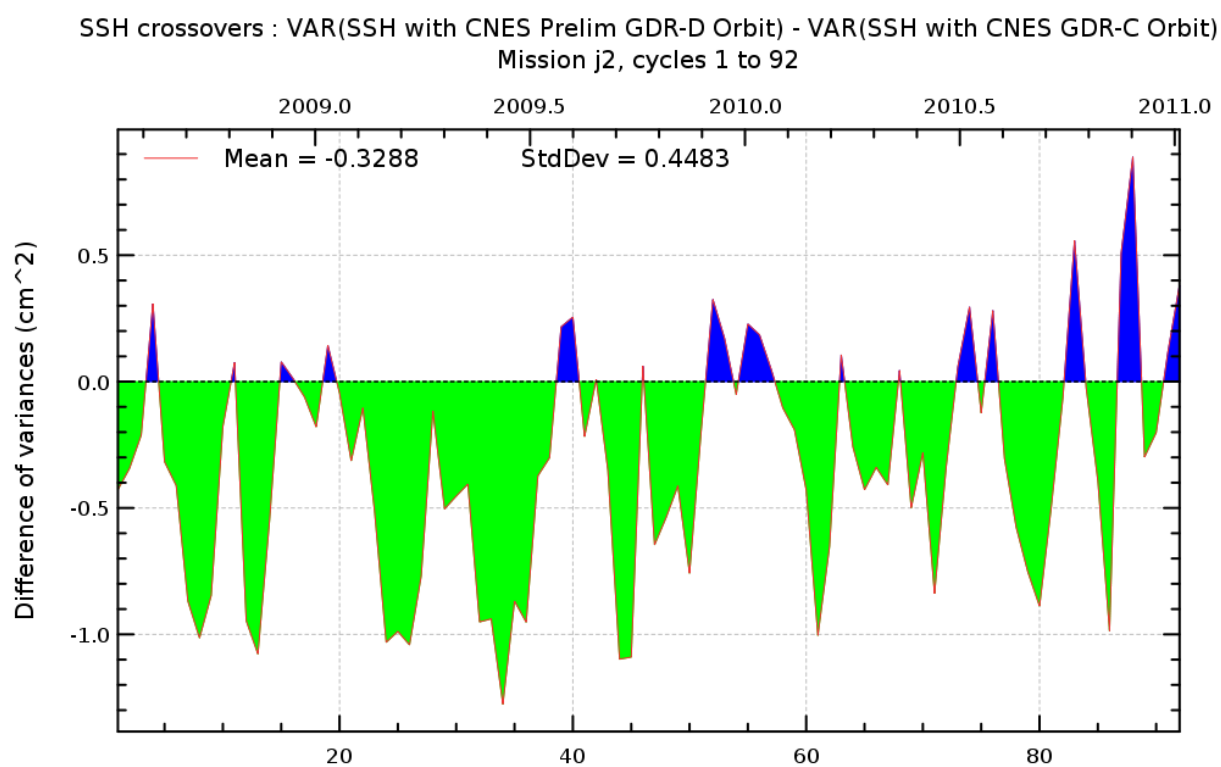
Diagnostic A102 (mission j2)

Name : Differences between temporal evolution of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

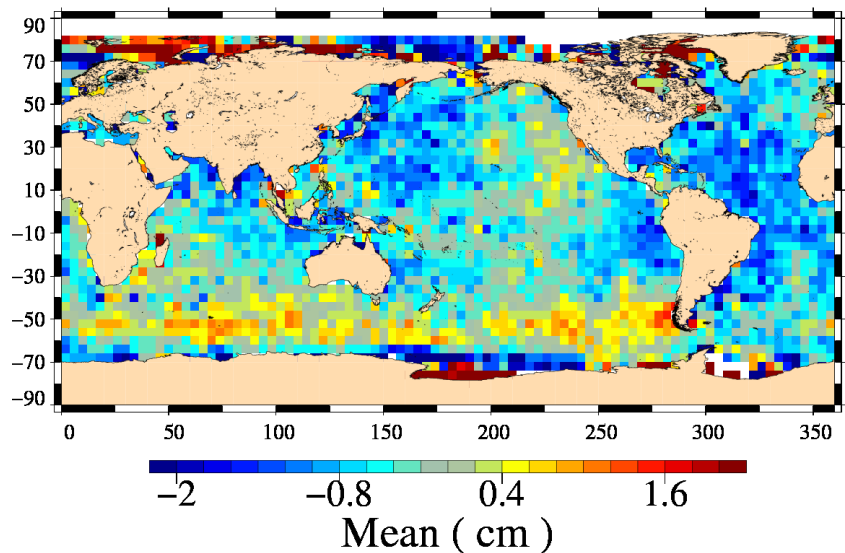
Description : The difference of temporal evolution between the global statistics (mean, standard deviation) of SSH differences are calculated using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

Diagnostic type : Global internal analyses

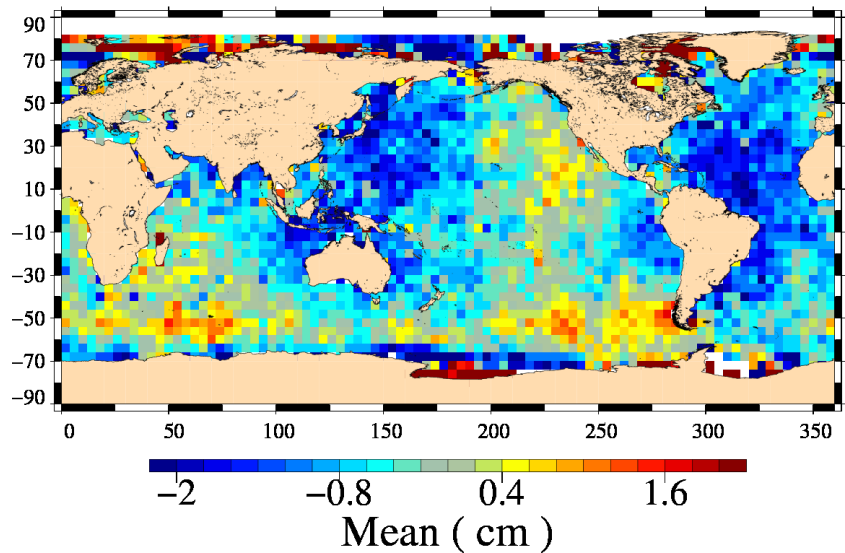


Diagnostic A103 (mission en)	
Name :	Map of SSH crossovers
Input data :	Sea Surface Height (SSH) crossovers
Description :	The differences between maps of SSH crossovers differences (mean, variance) are calculated using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

Mean of SSH with CNES Prelim GDR-D Orbit
Mission en, cycles 10 to 93



Mean of SSH with CNES GDR-C Orbit
Mission en, cycles 10 to 93



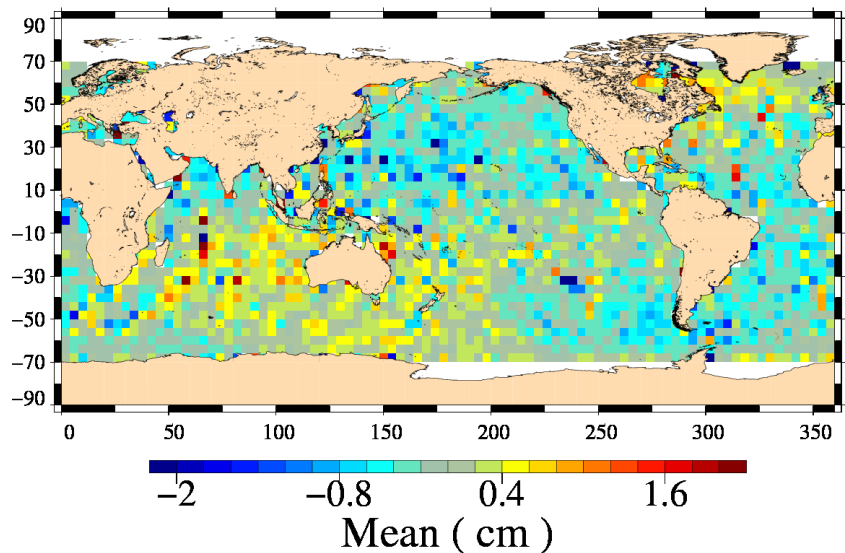
Diagnostic A103 (mission j1)

Name : Map of SSH crossovers

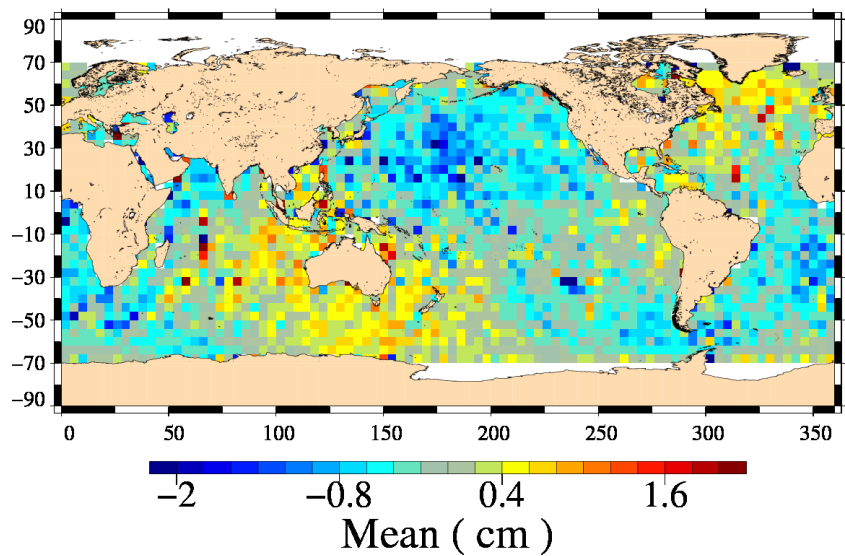
Input data : Sea Surface Height (SSH) crossovers

Description : The differences between maps of SSH crossovers differences (mean, variance) are calculated using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

Mean of SSH with CNES Prelim GDR-D Orbit
Mission j1, cycles 1 to 331



Mean of SSH with CNES GDR-C Orbit
Mission j1, cycles 1 to 331



Diagnostic A103 (mission j2)

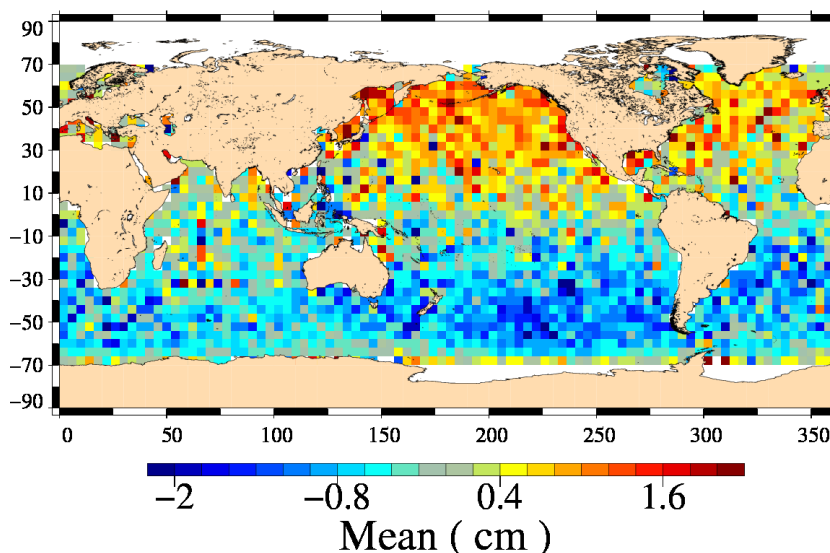
Name : Map of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

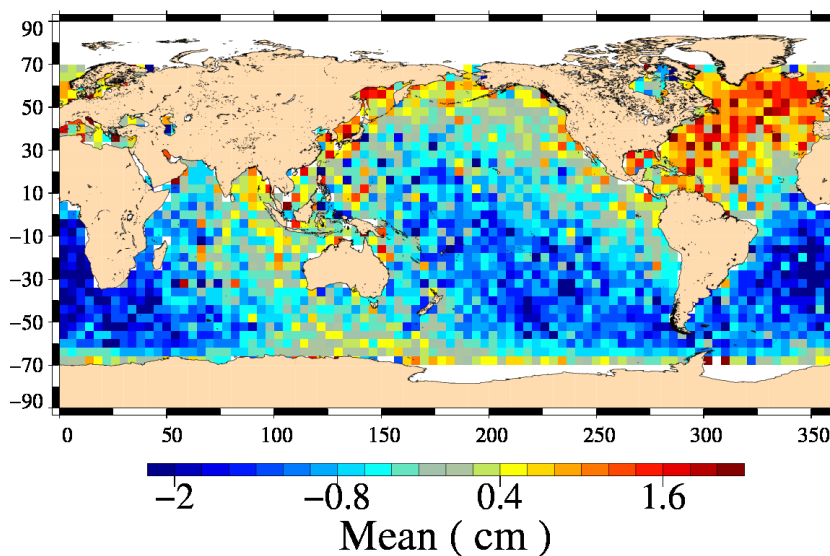
Description : The differences between maps of SSH crossovers differences (mean, variance) are calculated using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

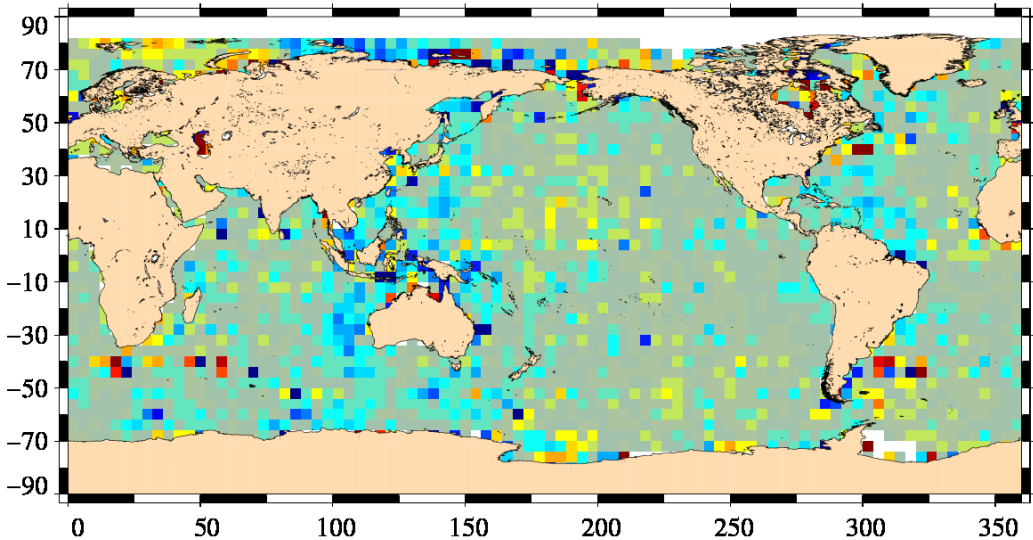
Diagnostic type : Global internal analyses

Mean of SSH with CNES Prelim GDR-D Orbit
Mission j2, cycles 1 to 92



Mean of SSH with CNES GDR-C Orbit
Mission j2, cycles 1 to 92



Diagnostic type : Global internal analyses	Diagnostic A104 (mission en)
	Name : Differences between maps of SSH crossovers
	Input data : Sea Surface Height (SSH) crossovers
	Description : The differences between maps of SSH crossovers (derived from diagnostic A103) are calculated from the SSH crossover differences (mean, standard deviation) using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).
	<div><div>$\text{VAR}(\text{SSH with CNES Prelim GDR-D Orbit}) - \text{VAR}(\text{SSH with CNES GDR-C O})$ Mission en, cycles 10 to 93</div><div><div>SSH crossovers : difference of variances (cm^2)</div></div></div>

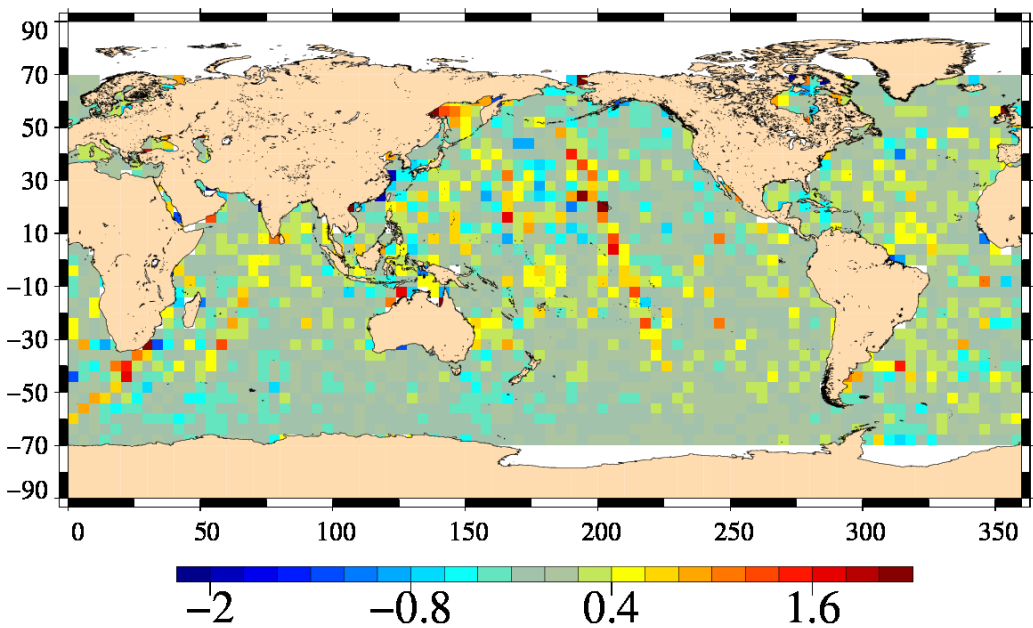
Diagnostic A104 (mission j1)

Name : Differences between maps of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

Description : The differences between maps of SSH crossovers (derived from diagnostic A103) are calculated from the SSH crossover differences (mean, standard deviation) using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

$\mathfrak{z}(\text{SSH with CNES Prelim GDR-D Orbit}) - \text{VAR}(\text{SSH with CNES GDR-C O})$
Mission j1, cycles 1 to 331



SSH crossovers : difference of variances (cm²)

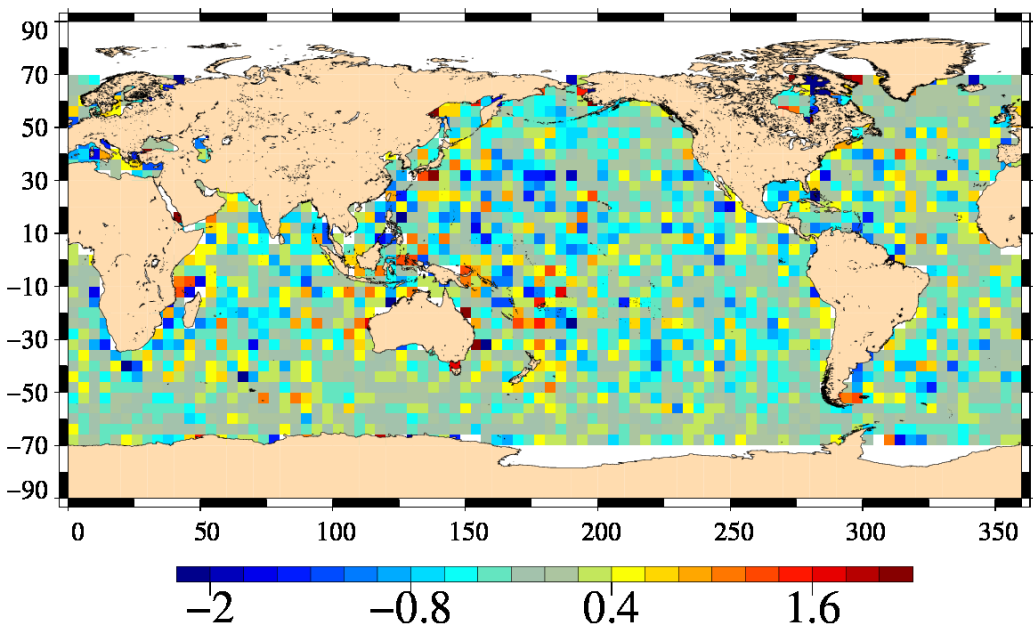
Diagnostic A104 (mission j2)

Name : Differences between maps of SSH crossovers

Input data : Sea Surface Height (SSH) crossovers

Description : The differences between maps of SSH crossovers (derived from diagnostic A103) are calculated from the SSH crossover differences (mean, standard deviation) using successively both altimetric components in the SSH calculation. SSH crossovers are the differences between ascending and descending passes for time differences between both passes lower than 10 days (in order to reduce the effect of the oceanic variability).

$\text{VAR}(\text{SSH with CNES Prelim GDR-D Orbit}) - \text{VAR}(\text{SSH with CNES GDR-C Orbit})$
Mission j2, cycles 1 to 92



SSH crossovers : difference of variances (cm^2)

Diagnostic type : Global internal analyses	Diagnostic A201 a (mission en)	
	Name : Temporal evolution of Sea Level Anomaly (SLA)	
	Input data : Along track SLA	
	<p>Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.</p>	
	<div>Global MSL Mission en, cycles 10 to 93</div> <p>Mean (cm)</p> <p>SLA with CNES Prelim GDR-D Orbit</p> <p>SLA with CNES GDR-C Orbit</p> <p>Slope = 0.602 m</p> <p>Slope = 0.782 m</p>	

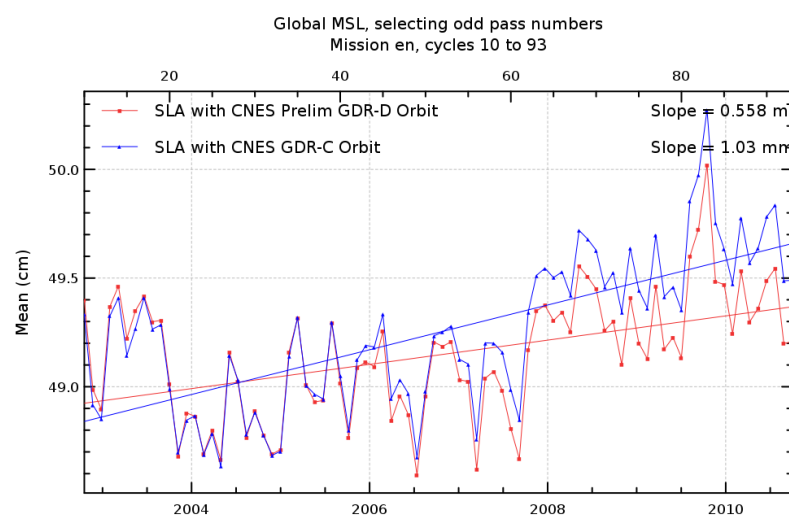
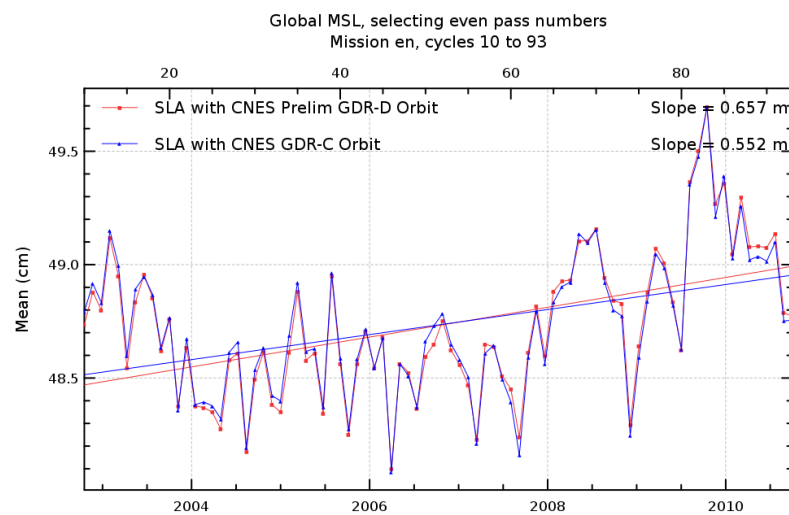
Diagnostic A201_b (mission en)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



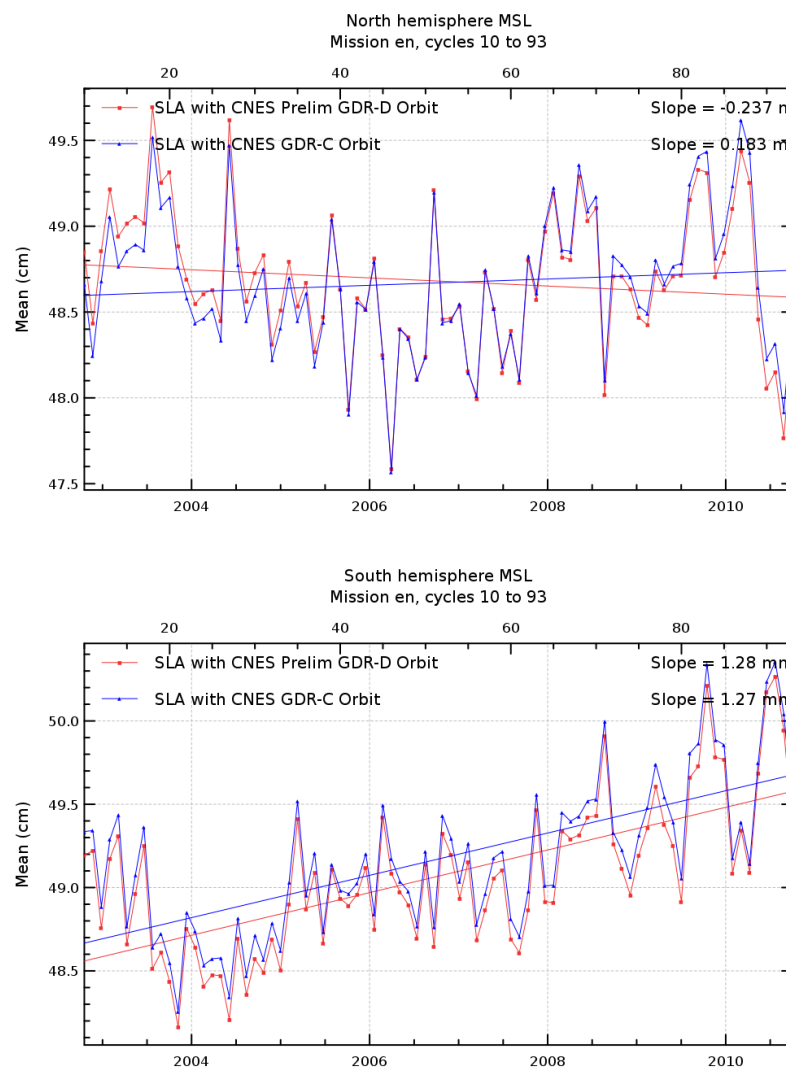
Diagnostic A201_c (mission en)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



Diagnostic A201_d (mission en)

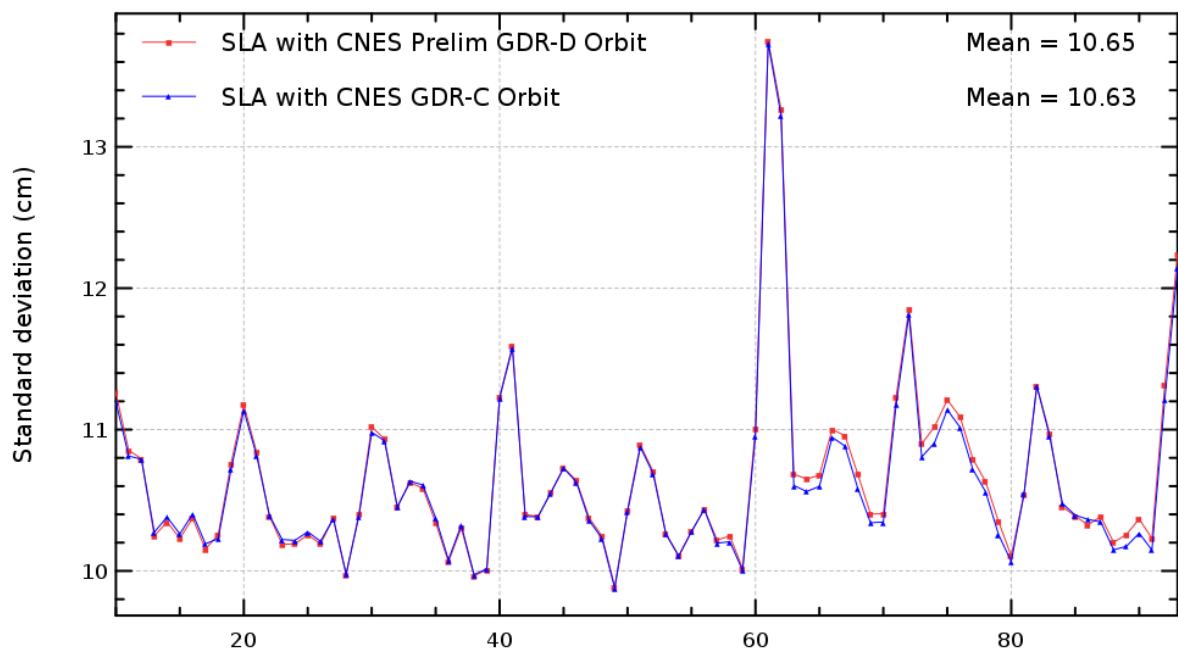
Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses

Global MSL
Mission en, cycles 10 to 93



Diagnostic A201_e (mission en)

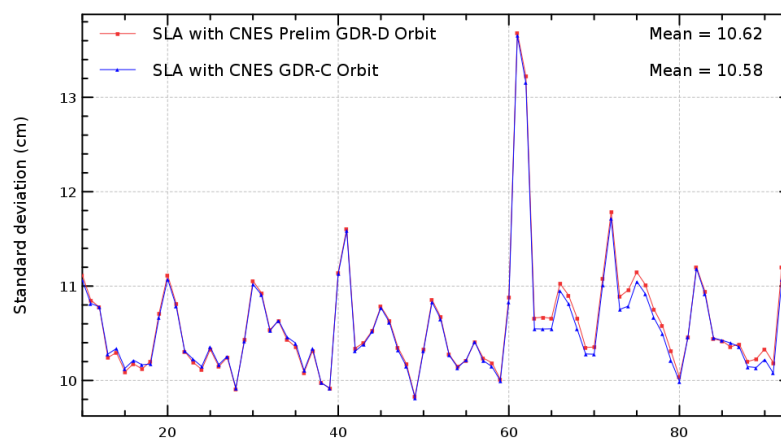
Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

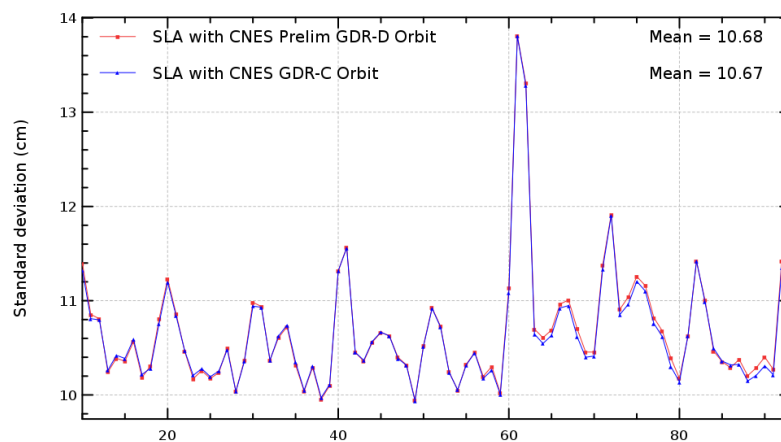
Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses

Global MSL, selecting even pass numbers
Mission en, cycles 10 to 93



Global MSL, selecting odd pass numbers
Mission en, cycles 10 to 93



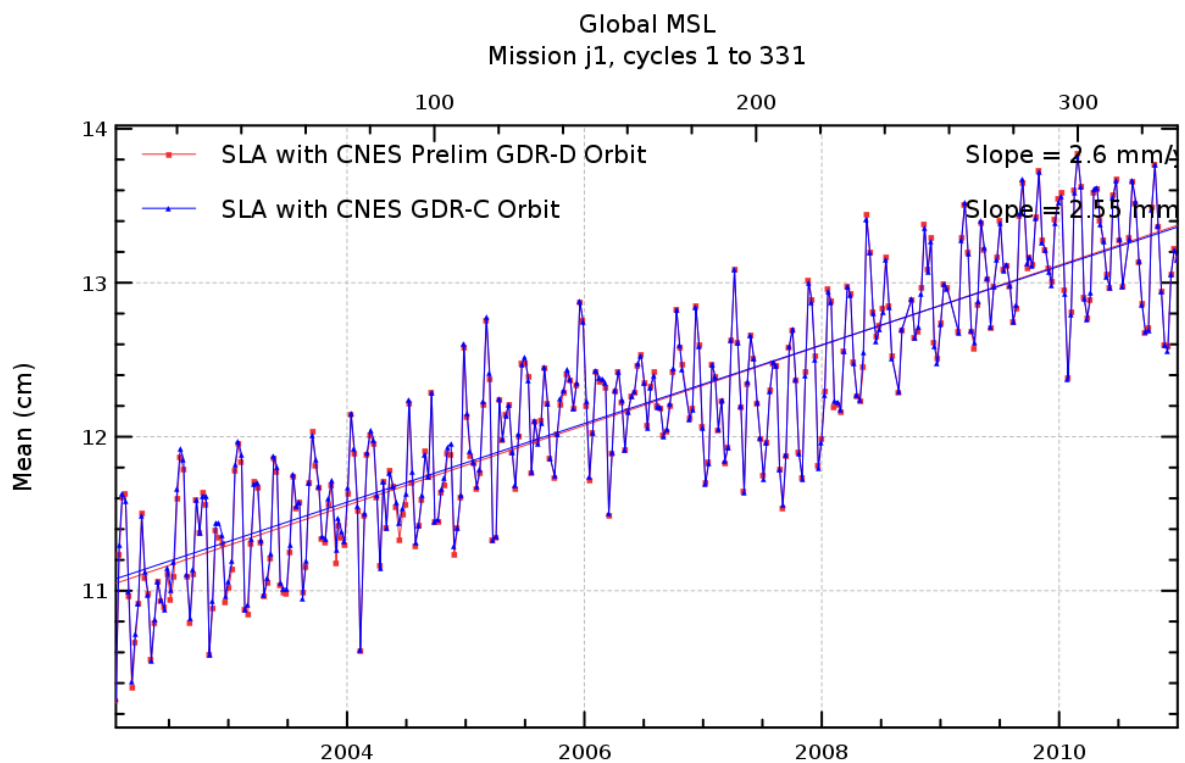
Diagnostic A201_a (mission j1)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



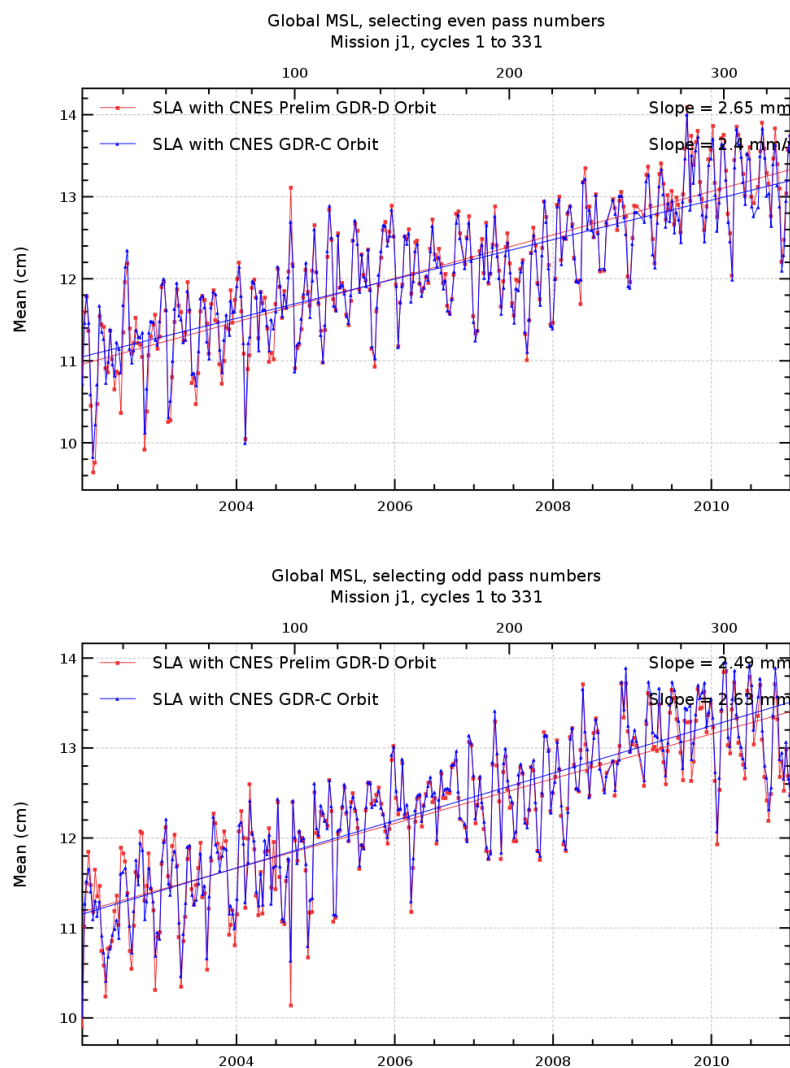
Diagnostic A201_b (mission j1)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetitivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



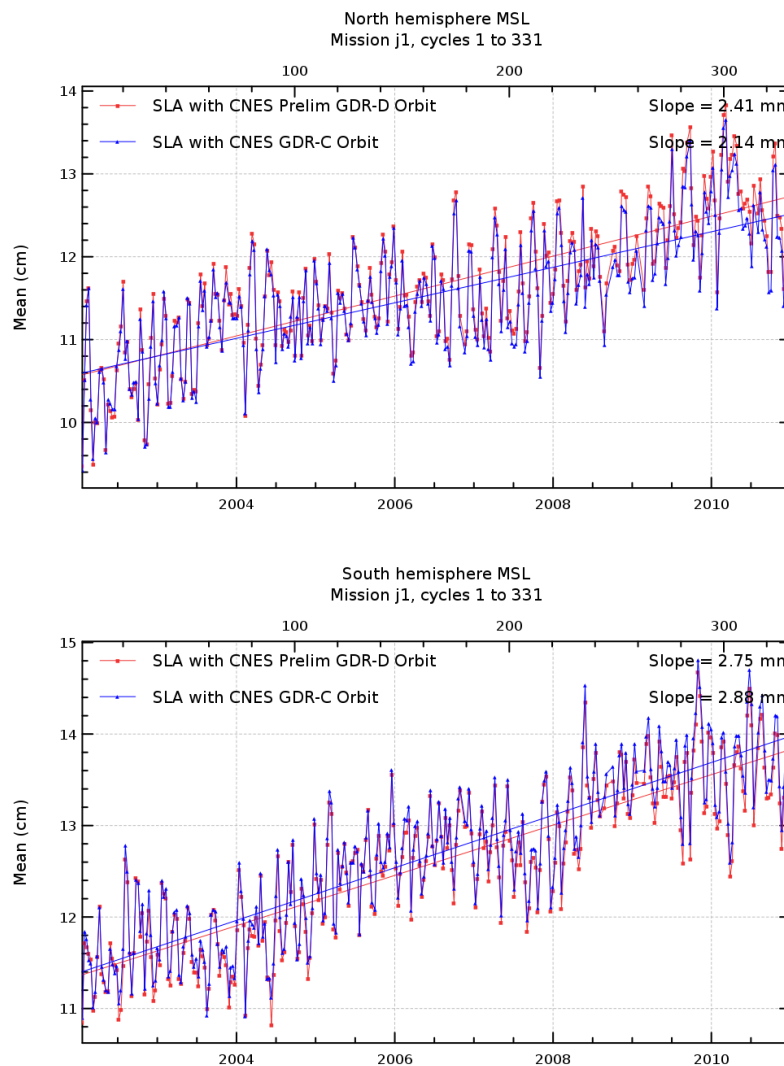
Diagnostic A201_c (mission j1)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



Diagnostic A201_d (mission j1)

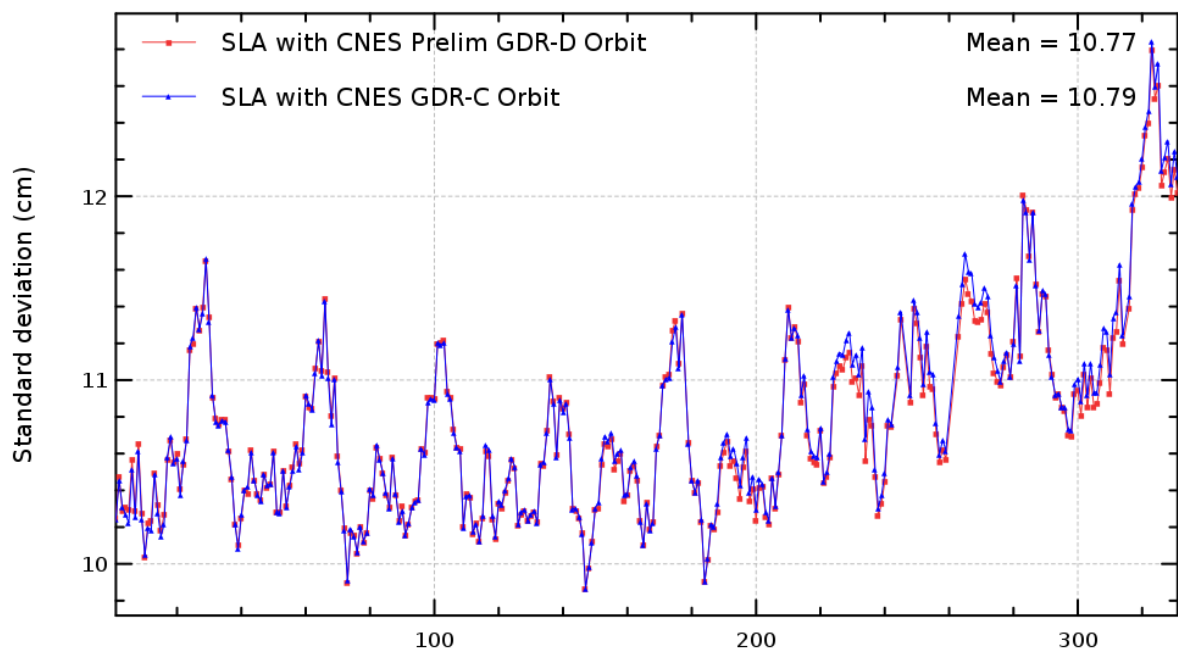
Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses

Global MSL
Mission j1, cycles 1 to 331



Diagnostic A201_e (mission j1)

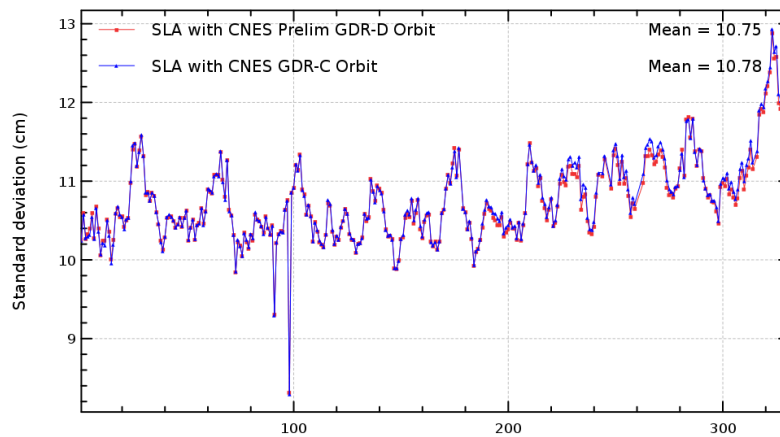
Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

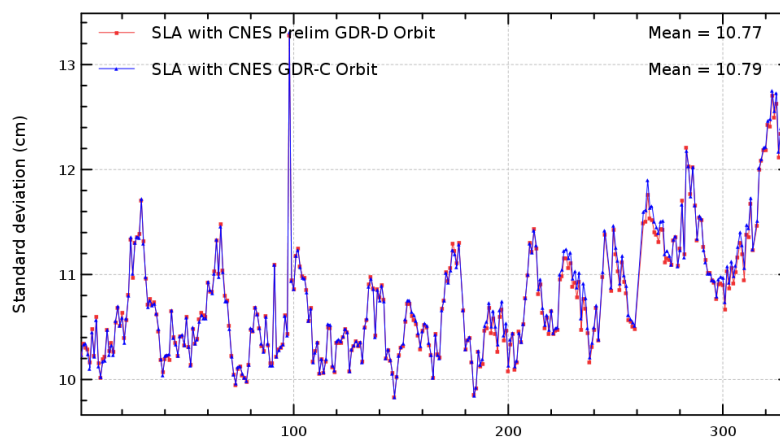
Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses

Global MSL, selecting even pass numbers
Mission j1, cycles 1 to 331



Global MSL, selecting odd pass numbers
Mission j1, cycles 1 to 331



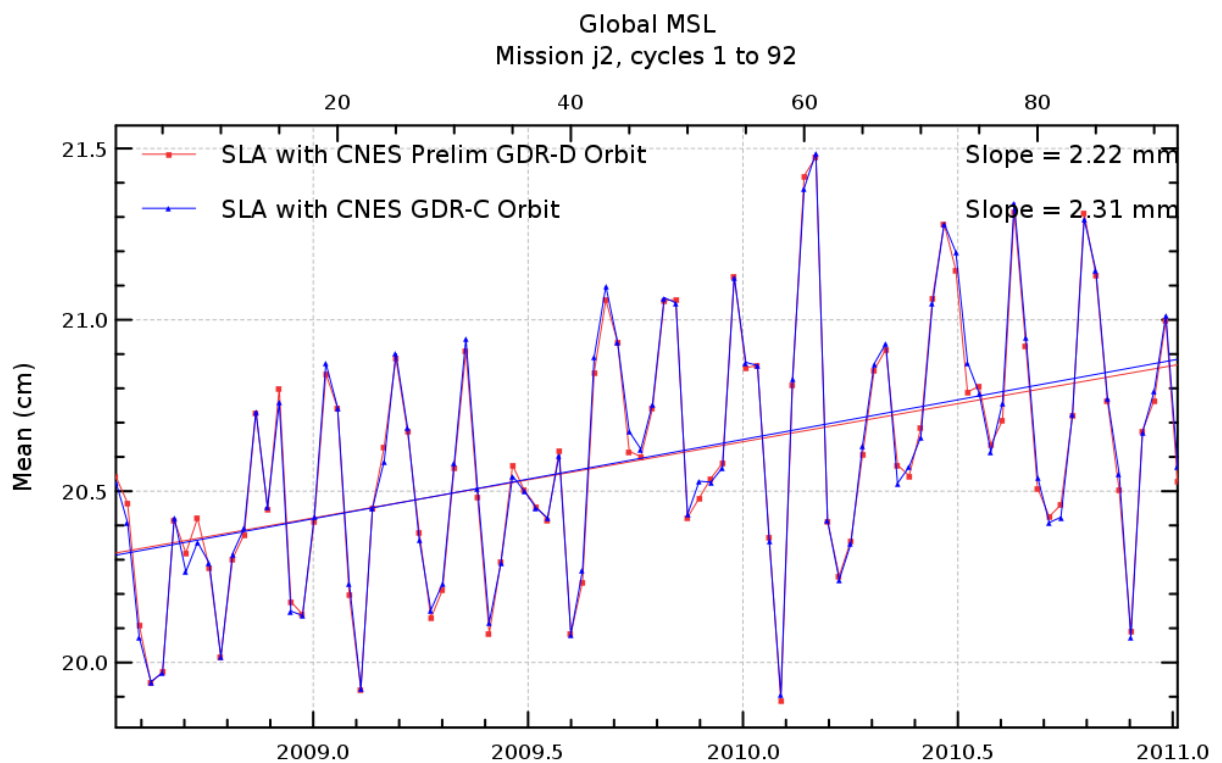
Diagnostic A201_a (mission j2)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetitivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



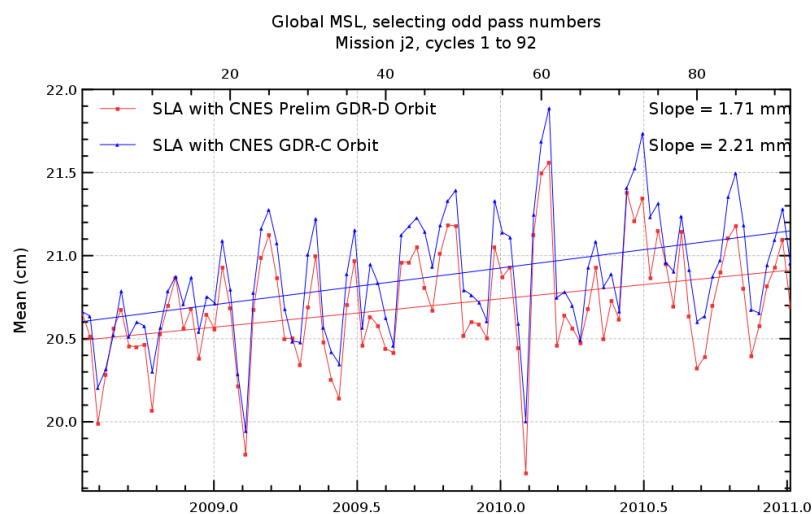
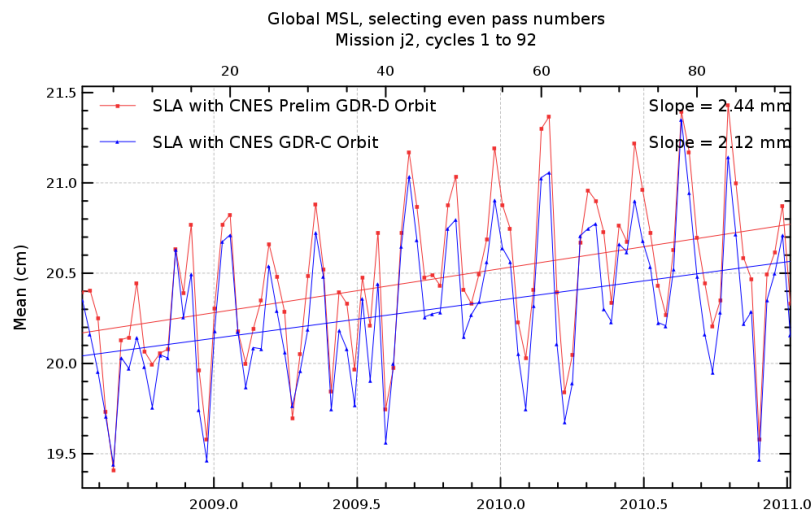
Diagnostic A201_b (mission j2)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



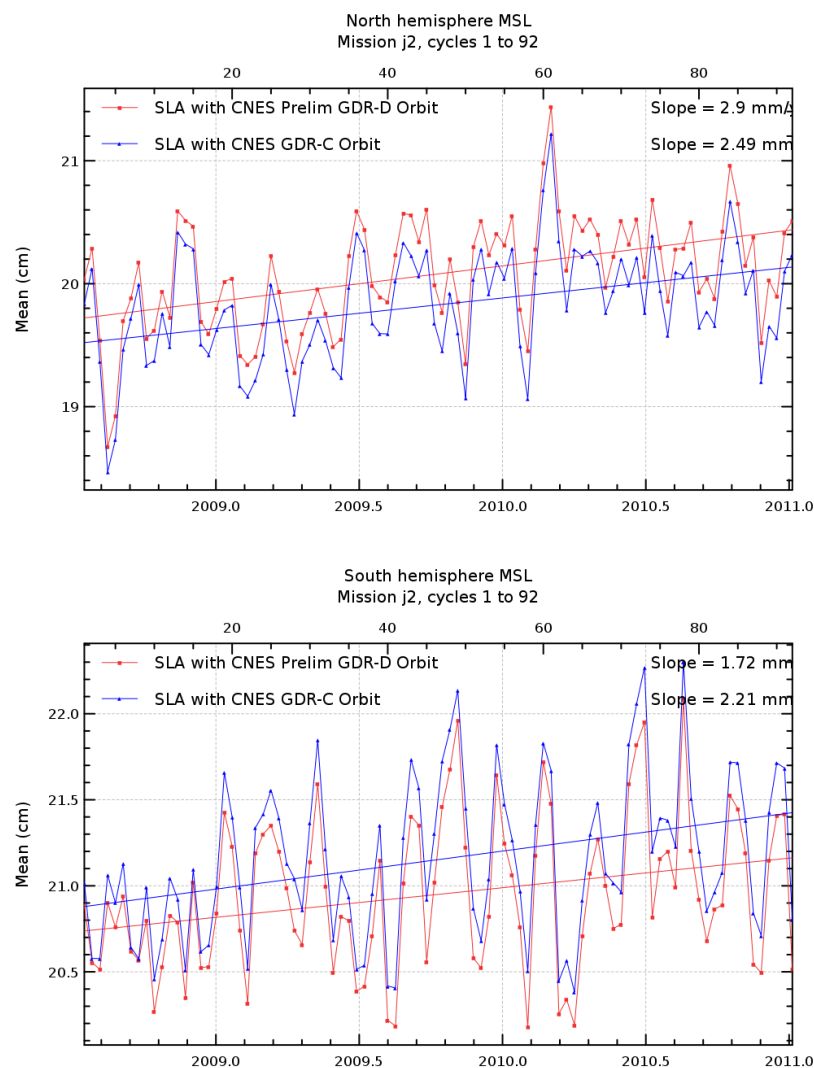
Diagnostic A201_c (mission j2)

Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses



Diagnostic A201_d (mission j2)

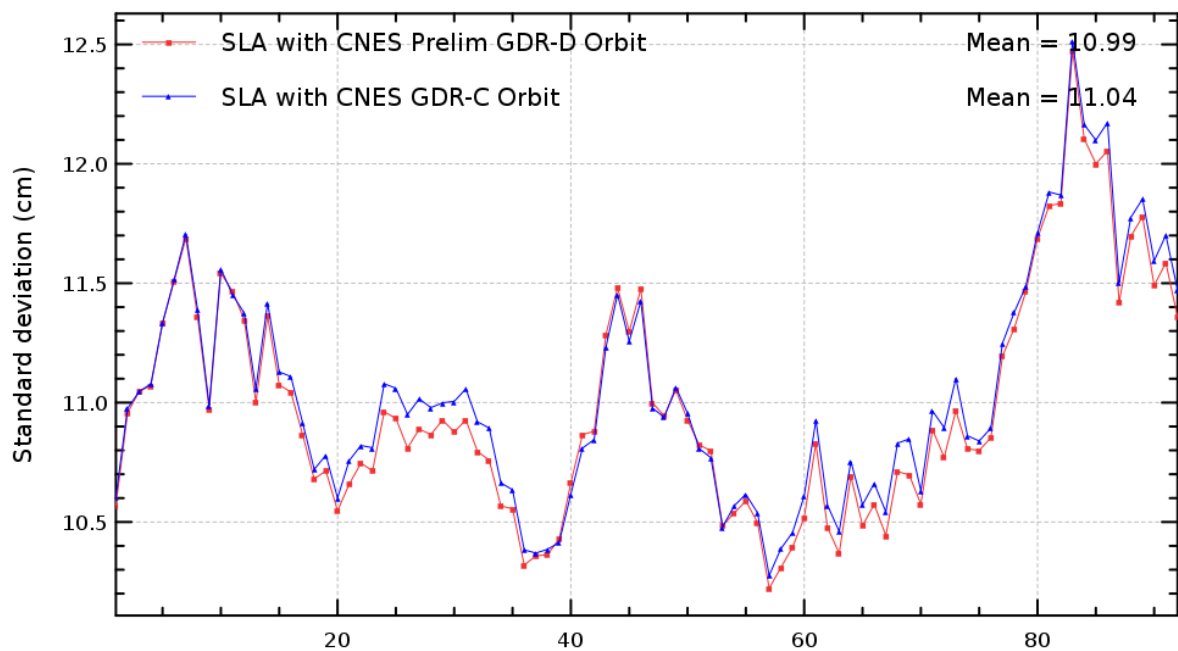
Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses

Global MSL
Mission j2, cycles 1 to 92



Diagnostic A201_e (mission j2)

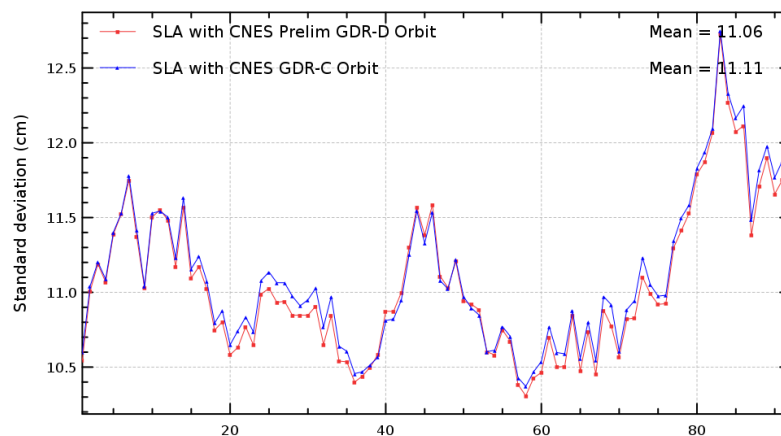
Name : Temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

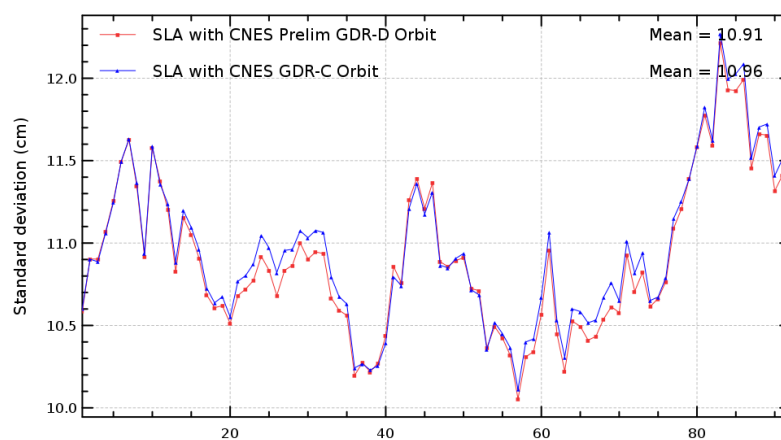
Description : The temporal evolution of SLA statistics (mean, standard deviation) are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in the SLA calculation. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) , or separating North and South hemispheres.

Diagnostic type : Global internal analyses

Global MSL, selecting even pass numbers
Mission j2, cycles 1 to 92



Global MSL, selecting odd pass numbers
Mission j2, cycles 1 to 92



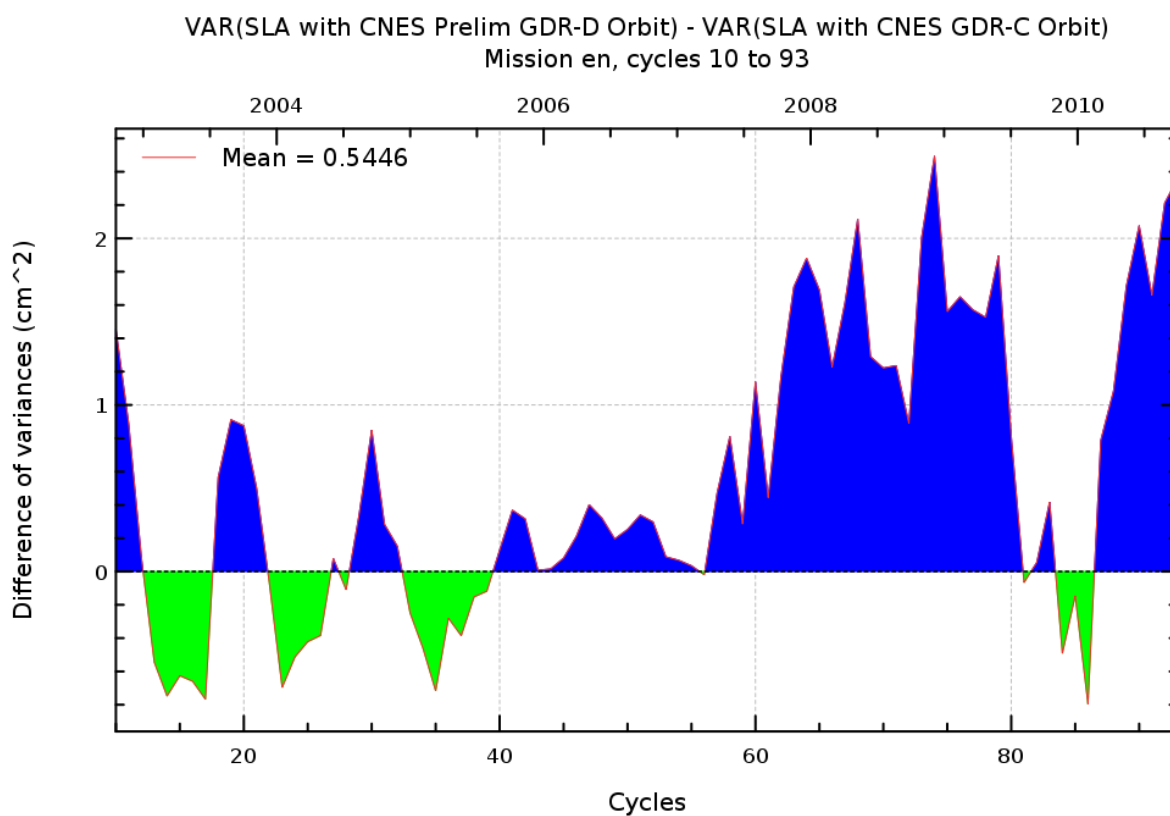
Diagnostic A202_a (mission en)

Name : Differences between temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The differences between temporal evolution of SLA are calculated from statistics derived from diagnostic A201 (mean, variance) using 2 different components in the SLA calculation. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) or separating North and South hemispheres.

Diagnostic type : Global internal analyses



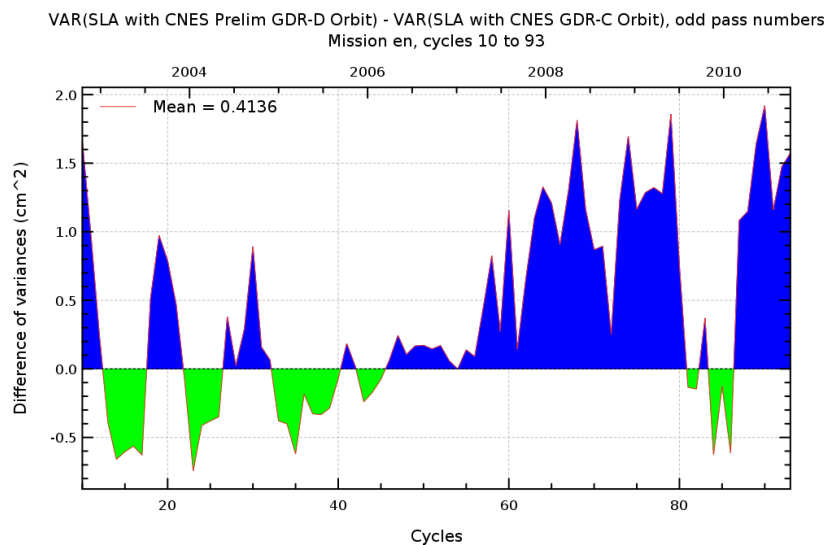
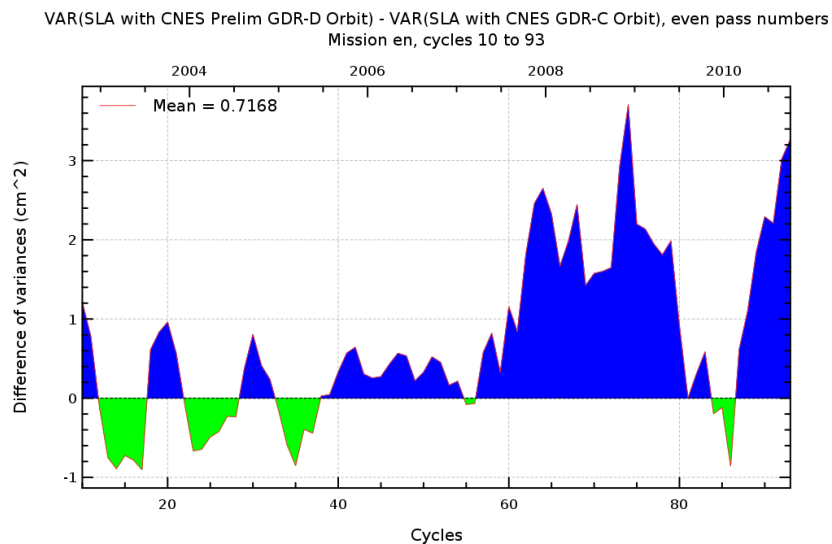
Diagnostic A202_b (mission en)

Name : Differences between temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The differences between temporal evolution of SLA are calculated from statistics derived from diagnostic A201 (mean, variance) using 2 different components in the SLA calculation. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) or separating North and South hemispheres.

Diagnostic type : Global internal analyses

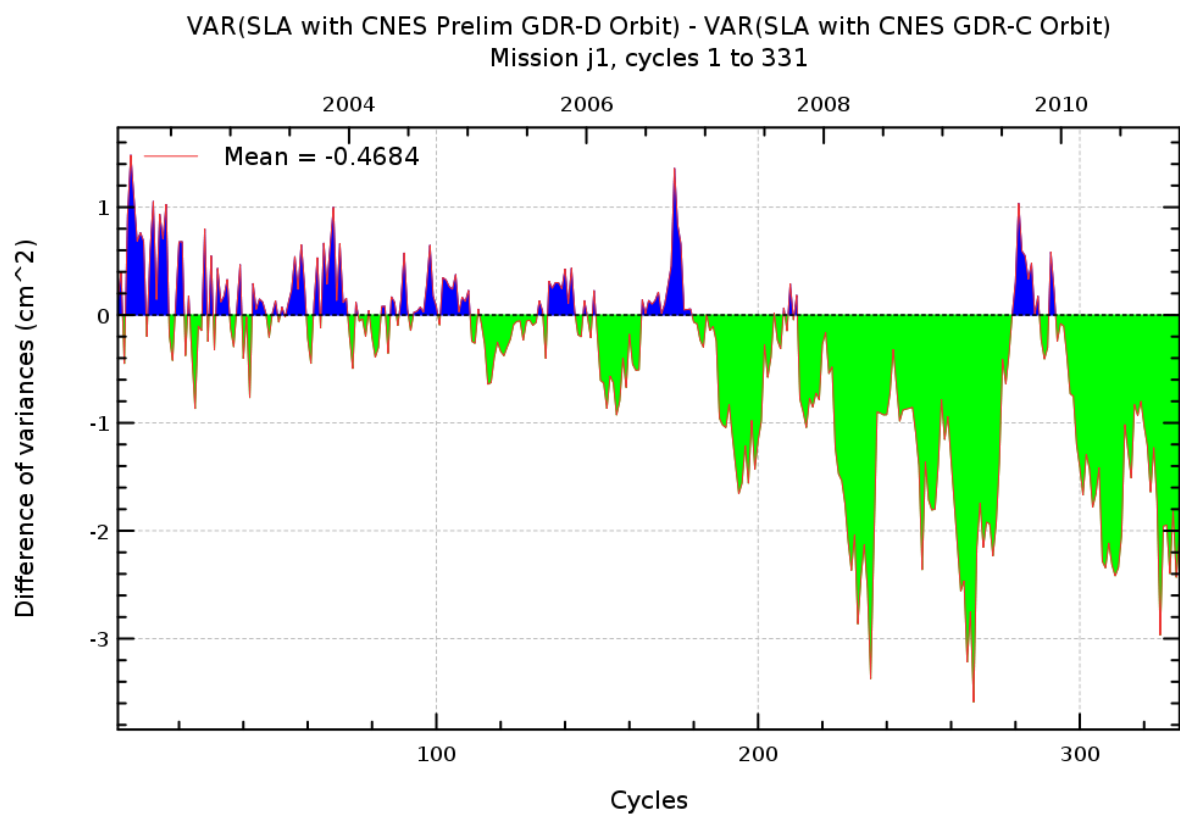


Diagnostic A202_a (mission j1)

Name : Differences between temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The differences between temporal evolution of SLA are calculated from statistics derived from diagnostic A201 (mean, variance) using 2 different components in the SLA calculation. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) or separating North and South hemispheres.



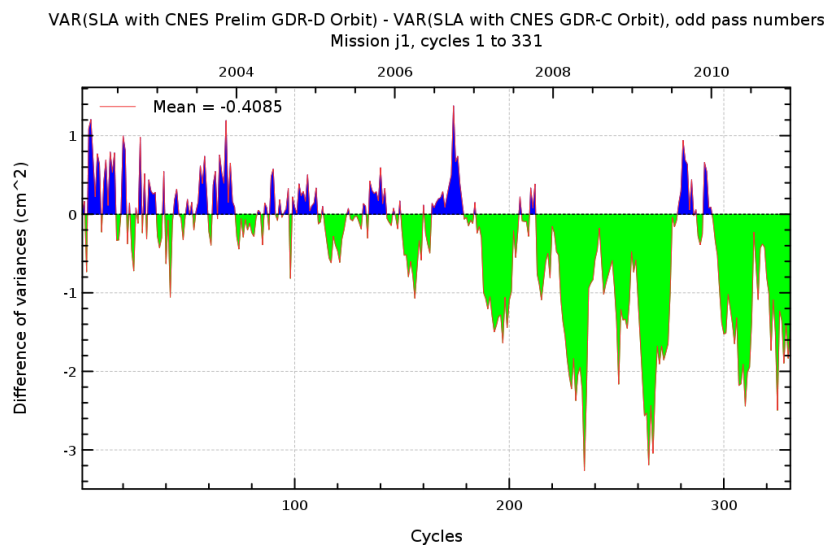
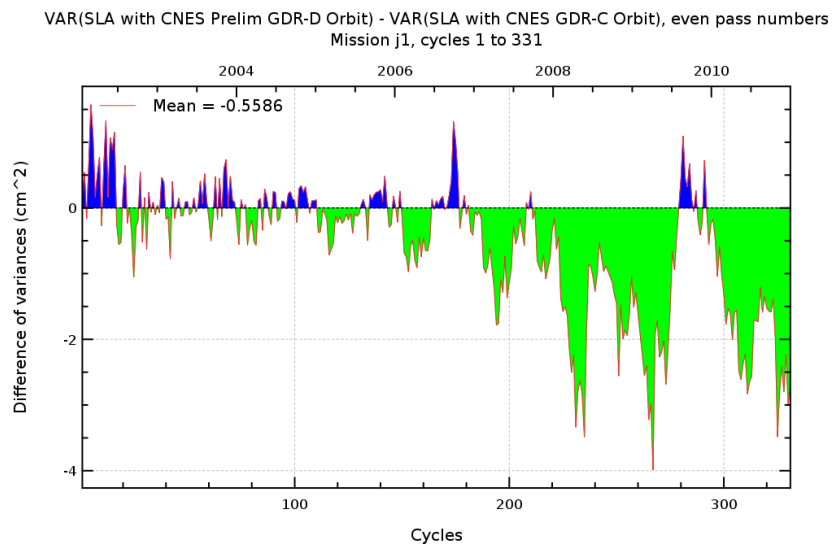
Diagnostic A202_b (mission j1)

Name : Differences between temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The differences between temporal evolution of SLA are calculated from statistics derived from diagnostic A201 (mean, variance) using 2 different components in the SLA calculation. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) or separating North and South hemispheres.

Diagnostic type : Global internal analyses

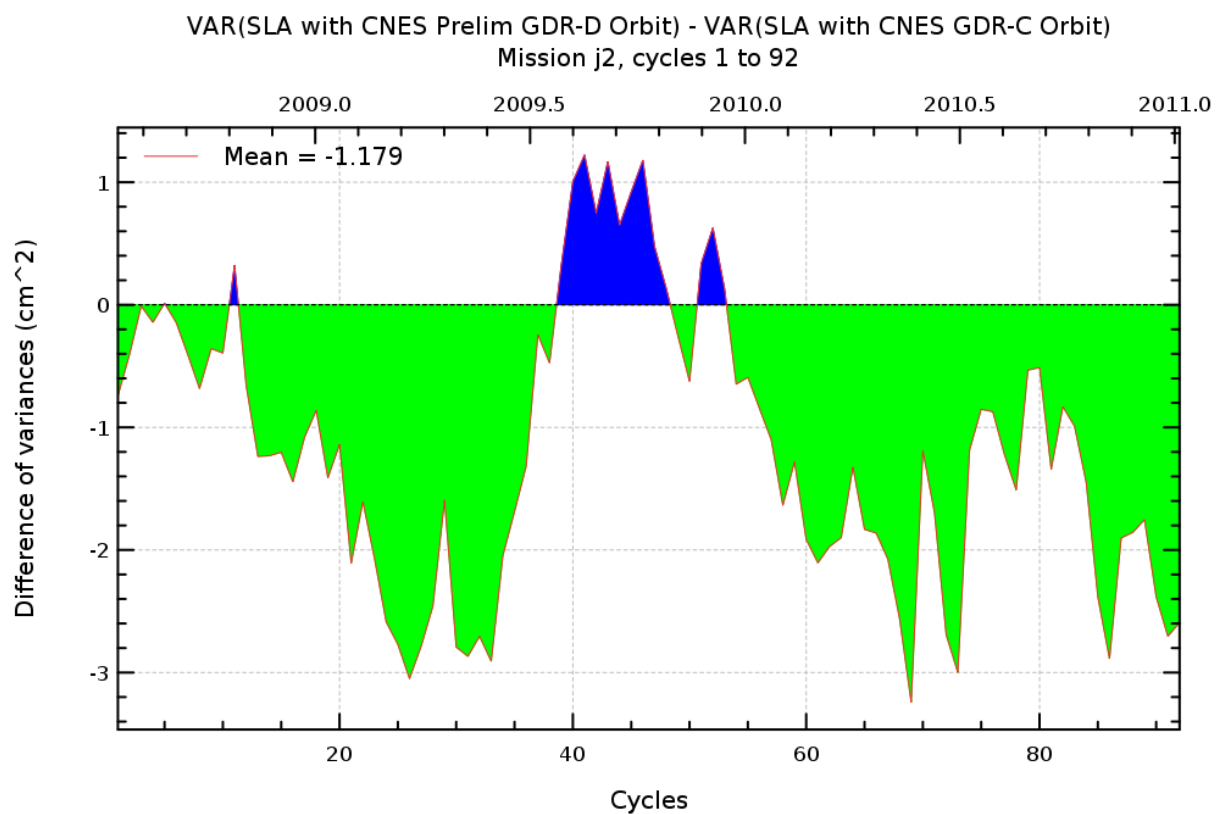


Diagnostic A202_a (mission j2)

Name : Differences between temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The differences between temporal evolution of SLA are calculated from statistics derived from diagnostic A201 (mean, variance) using 2 different components in the SLA calculation. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) or separating North and South hemispheres.



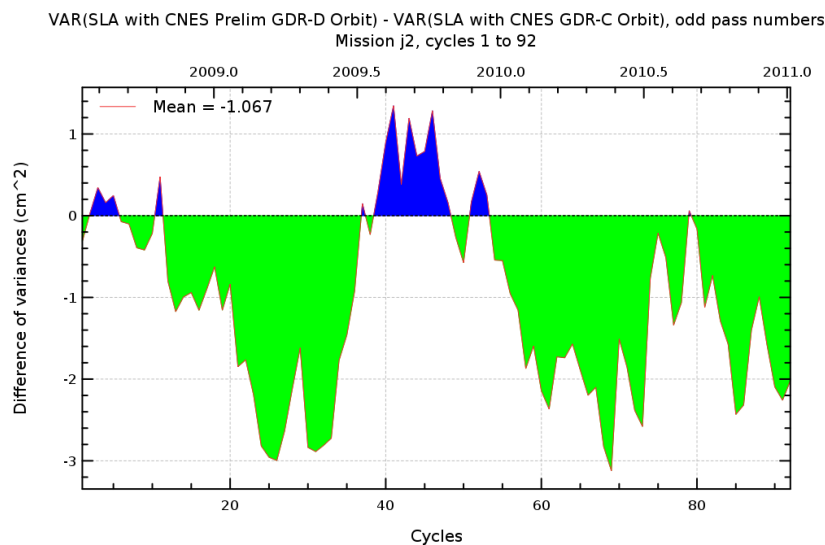
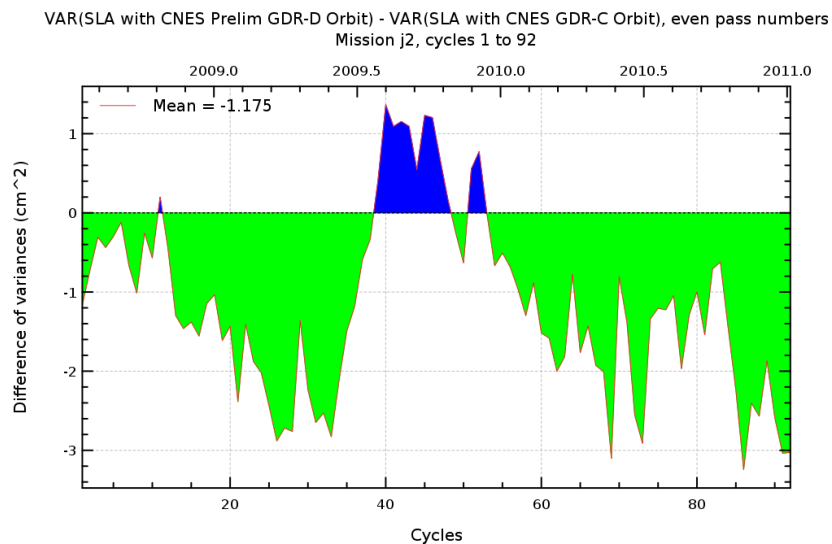
Diagnostic A202_b (mission j2)

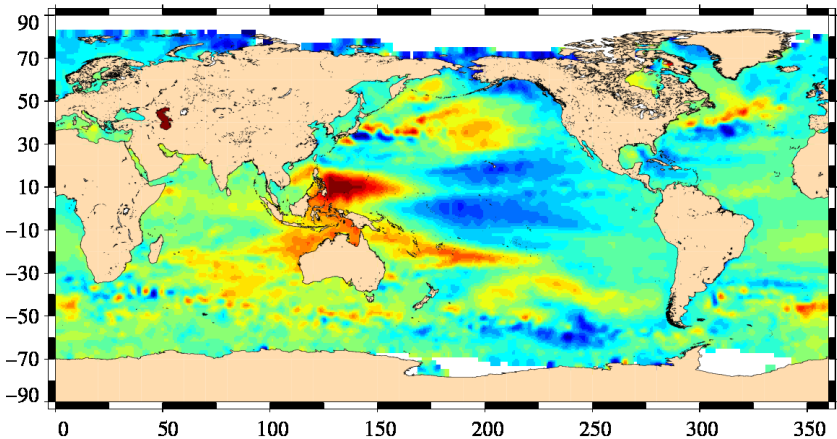
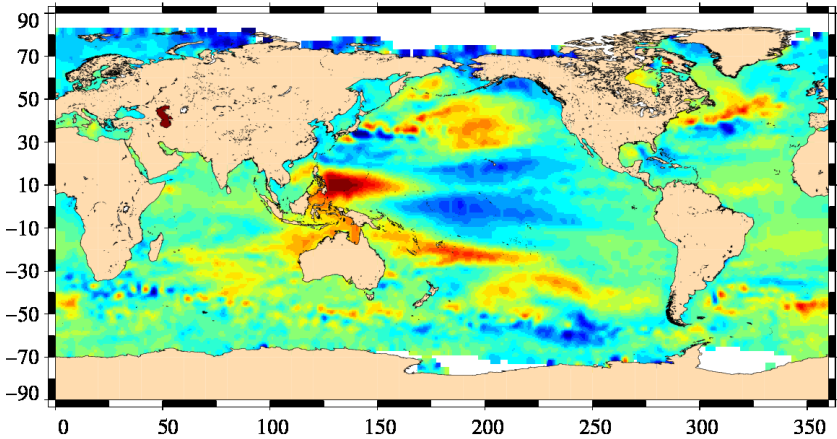
Name : Differences between temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The differences between temporal evolution of SLA are calculated from statistics derived from diagnostic A201 (mean, variance) using 2 different components in the SLA calculation. They are calculated globally, but also separating ascending and descending passes (except for SLA Grids) or separating North and South hemispheres.

Diagnostic type : Global internal analyses



Diagnostic type : Global internal analyses	Diagnostic A203_a (mission en)	
	Name : Map of Sea Level Anomaly (SLA) over all the period	
	Input data : Along track SLA	
	Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.	
	<div>SLA with CNES Prelim GDR-D Orbit trends Mission en, cycles 10 to 93</div>  <div>-22.19865 -8.7862 4.62624 18.03869 Trends (mm/yr)</div> <div>SLA with CNES GDR-C Orbit trends Mission en, cycles 10 to 93</div>  <div>-20.8212 -8.12335 4.57449 17.27234 Trends (mm/yr)</div>	

Diagnostic A203_b (mission en)

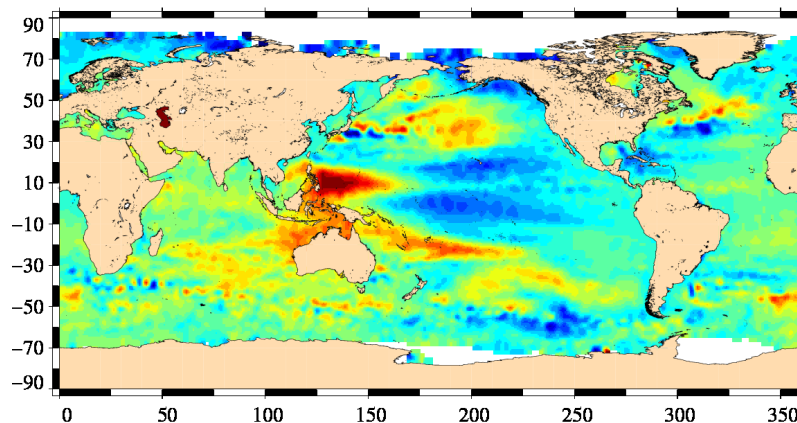
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

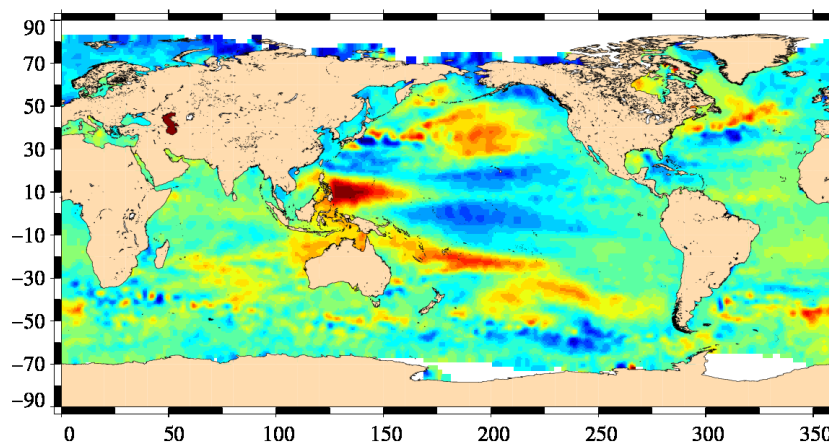
SLA with CNES Prelim GDR-D Orbit trends : even pass numbers
Mission en, cycles 10 to 93



-22.05638 -8.66348 4.72942 18.12232

Trends (mm/yr)

SLA with CNES GDR-C Orbit trends : even pass numbers
Mission en, cycles 10 to 93



-20.8789 -8.24705 4.38479 17.01663

Trends (mm/yr)

Diagnostic A203_c (mission en)

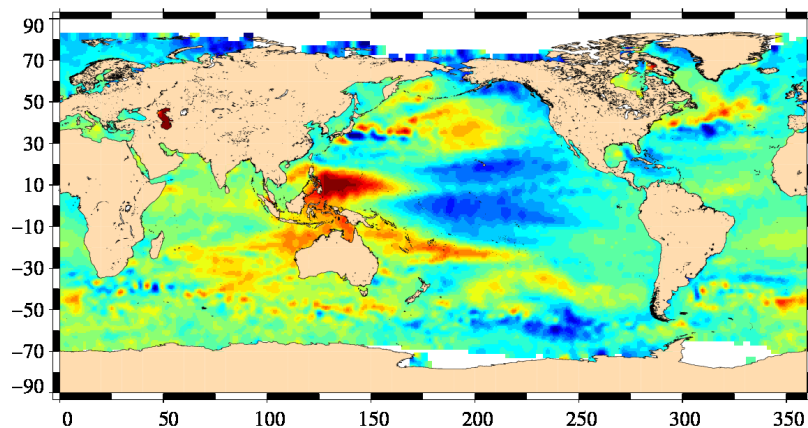
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

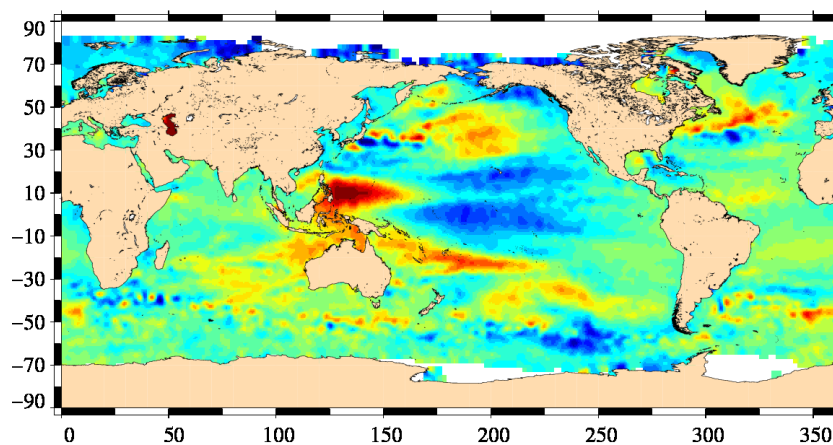
Diagnostic type : Global internal analyses

SLA with CNES Prelim GDR-D Orbit trends : odd pass numbers
Mission en, cycles 10 to 93



Trends (mm/yr)

SLA with CNES GDR-C Orbit trends : odd pass numbers
Mission en, cycles 10 to 93



Trends (mm/yr)

Diagnostic A203_a (mission j1)

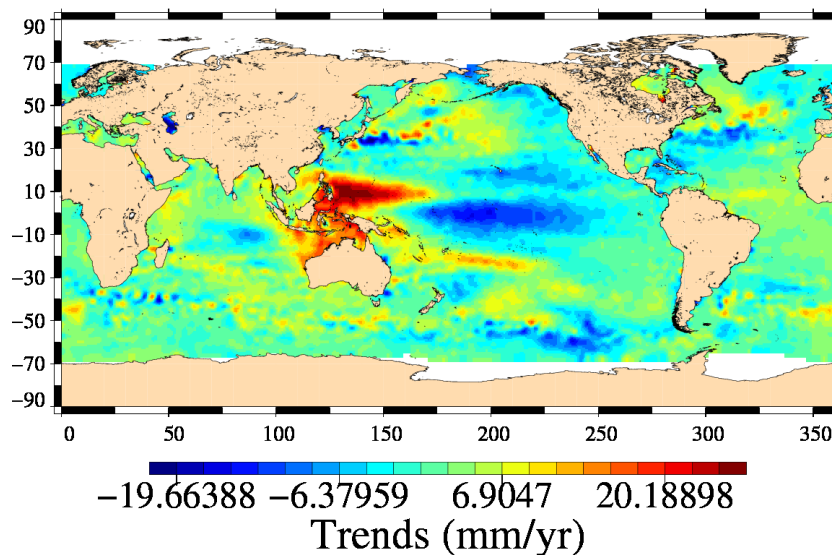
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

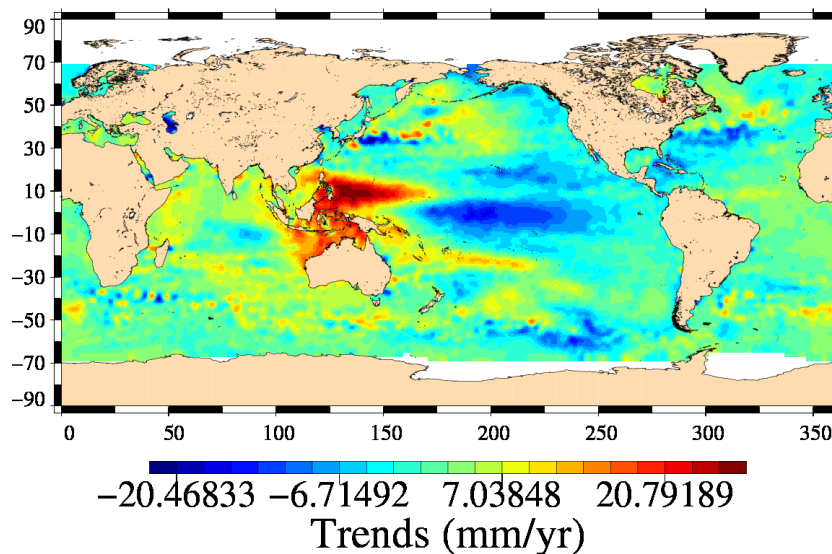
Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

SLA with CNES Prelim GDR-D Orbit trends
Mission j1, cycles 1 to 331



SLA with CNES GDR-C Orbit trends
Mission j1, cycles 1 to 331



Diagnostic A203_b (mission j1)

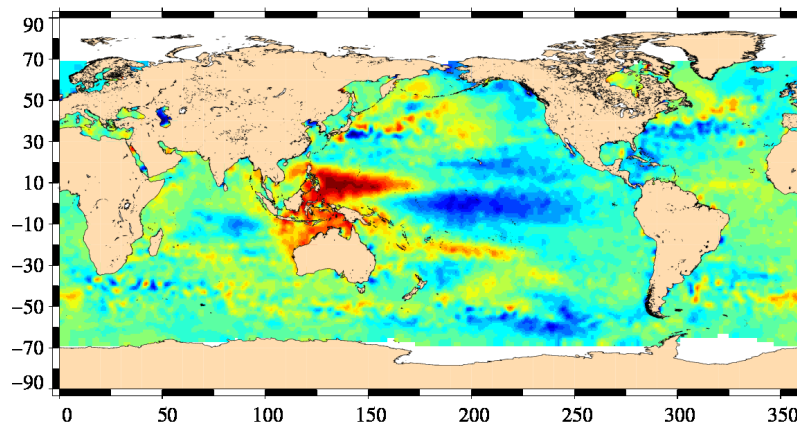
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

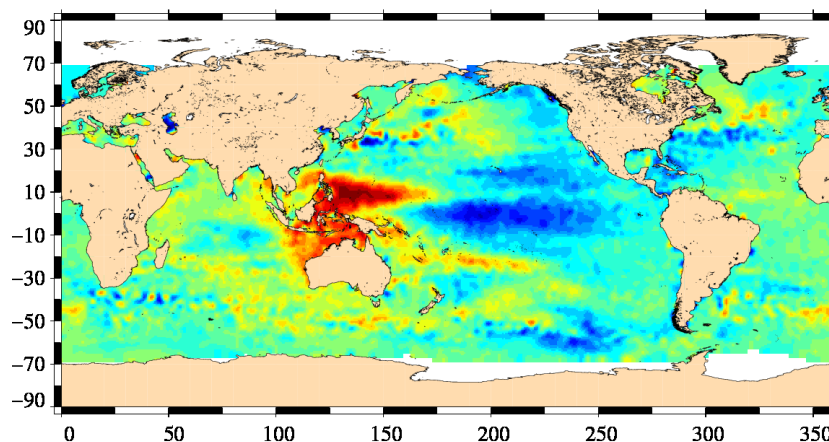
SLA with CNES Prelim GDR-D Orbit trends : even pass numbers
Mission j1, cycles 1 to 331



-18.73121 -5.94928 6.83266 19.61459

Trends (mm/yr)

SLA with CNES GDR-C Orbit trends : even pass numbers
Mission j1, cycles 1 to 331



-19.93082 -6.55725 6.81632 20.18988

Trends (mm/yr)

Diagnostic A203_c (mission j1)

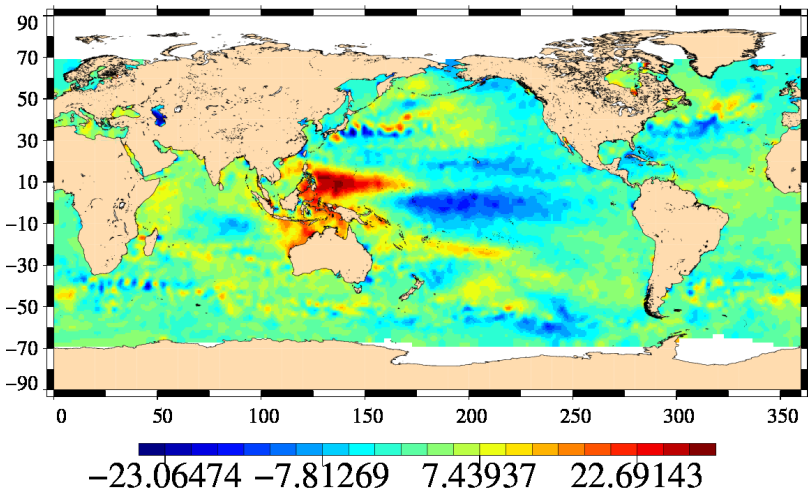
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

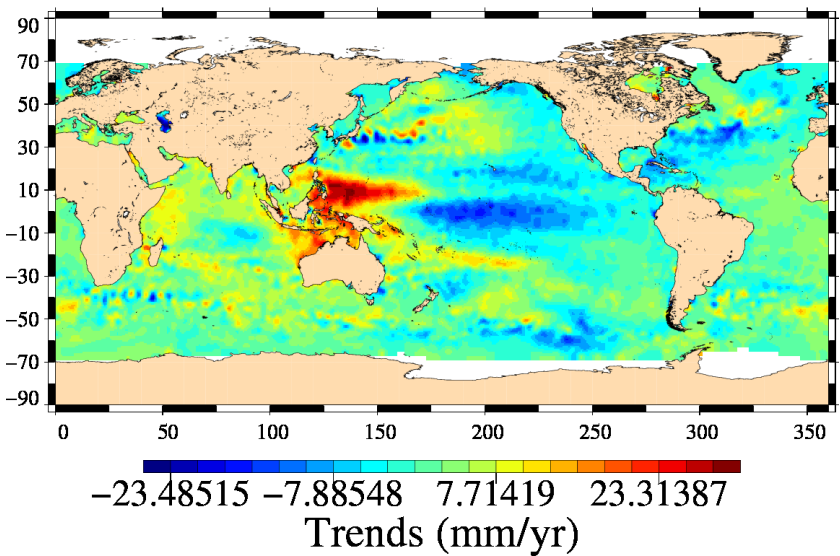
Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

SLA with CNES Prelim GDR-D Orbit trends : odd pass numbers
Mission j1, cycles 1 to 331



Trends (mm/yr)
SLA with CNES GDR-C Orbit trends : odd pass numbers
Mission j1, cycles 1 to 331



Diagnostic A203_a (mission j2)

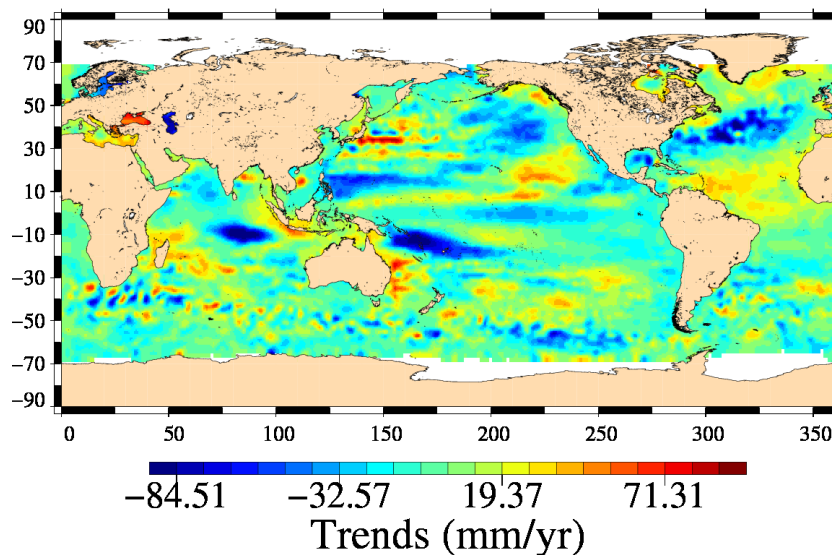
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

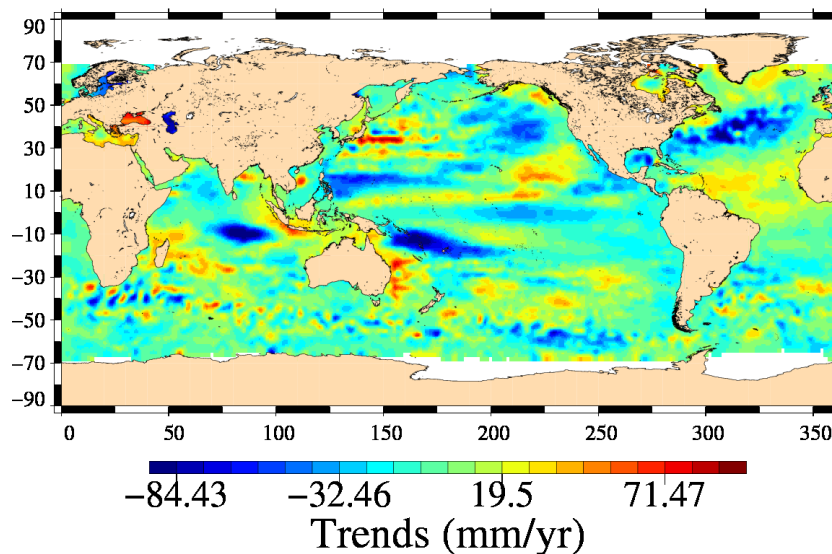
Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

SLA with CNES Prelim GDR-D Orbit trends
Mission j2, cycles 1 to 92



SLA with CNES GDR-C Orbit trends
Mission j2, cycles 1 to 92



Diagnostic A203_b (mission j2)

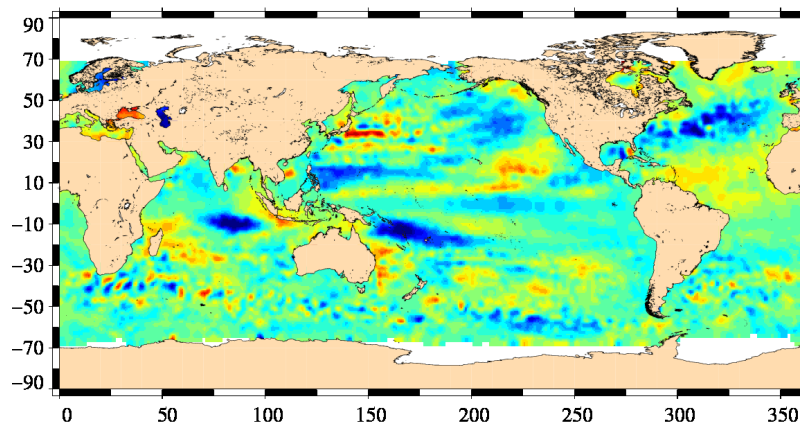
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

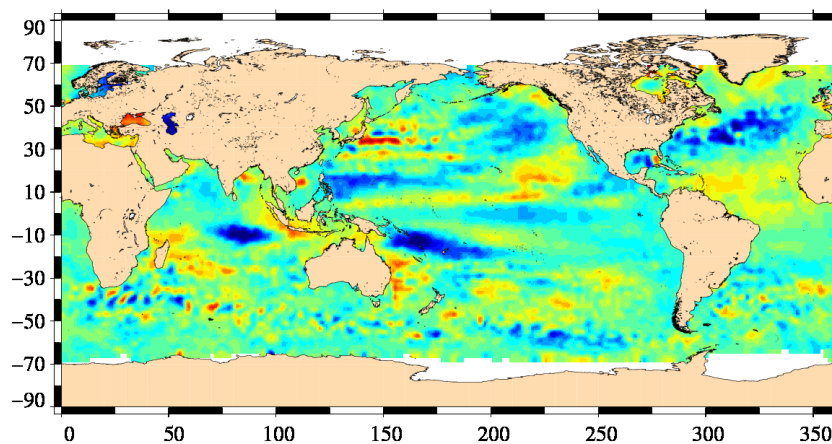
SLA with CNES Prelim GDR-D Orbit trends : even pass numbers
Mission j2, cycles 1 to 92



-90.04 -34.66 20.71 76.09

Trends (mm/yr)

SLA with CNES GDR-C Orbit trends : even pass numbers
Mission j2, cycles 1 to 92



-90.34 -34.93 20.48 75.88

Trends (mm/yr)

Diagnostic A203_c (mission j2)

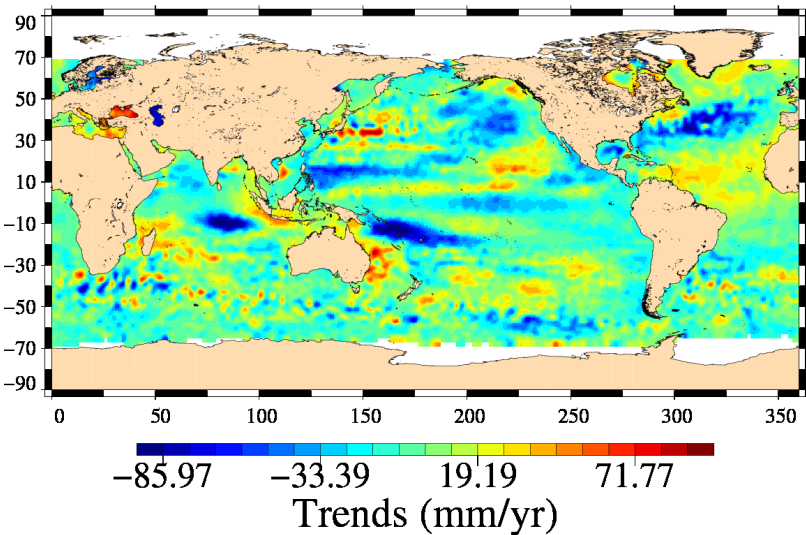
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

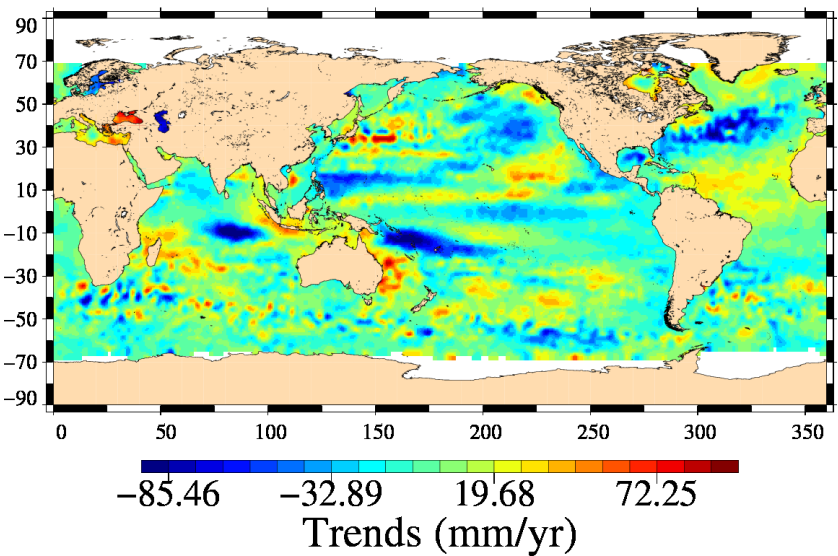
Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

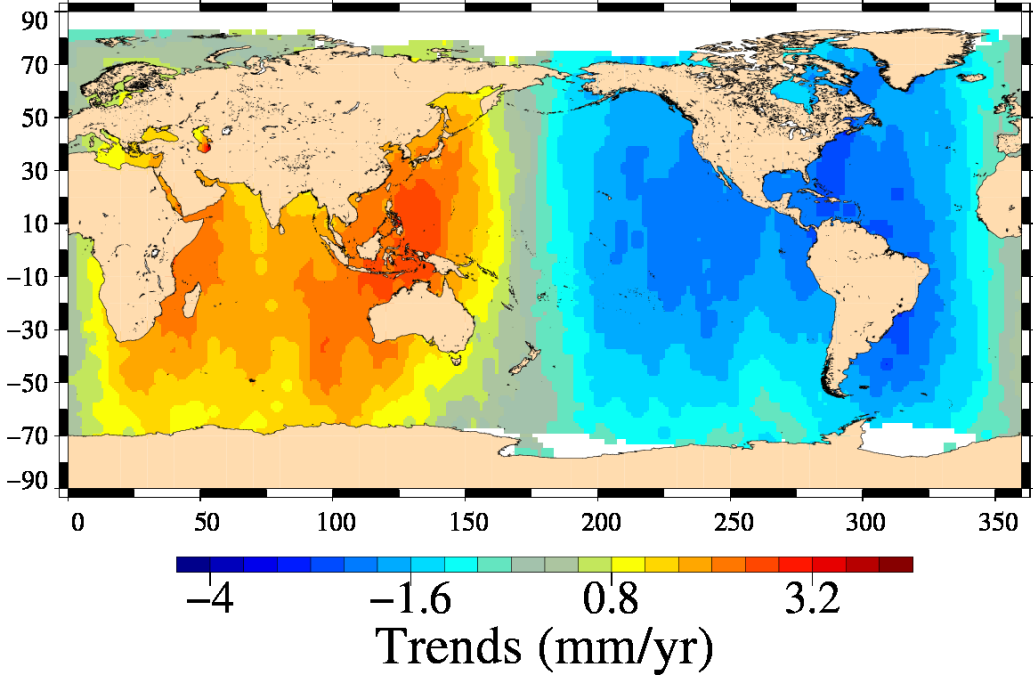
Diagnostic type : Global internal analyses

SLA with CNES Prelim GDR-D Orbit trends : odd pass numbers
Mission j2, cycles 1 to 92



SLA with CNES GDR-C Orbit trends : odd pass numbers
Mission j2, cycles 1 to 92



Diagnostic type : Global internal analyses	Diagnostic A204_a (mission en)	
	Name : Differences between maps of SLA	
	Input data : Along track SLA	
	Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).	
	<p>with CNES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit tr Mission en, cycles 10 to 93</p> 	

Diagnostic A204.b (mission en)

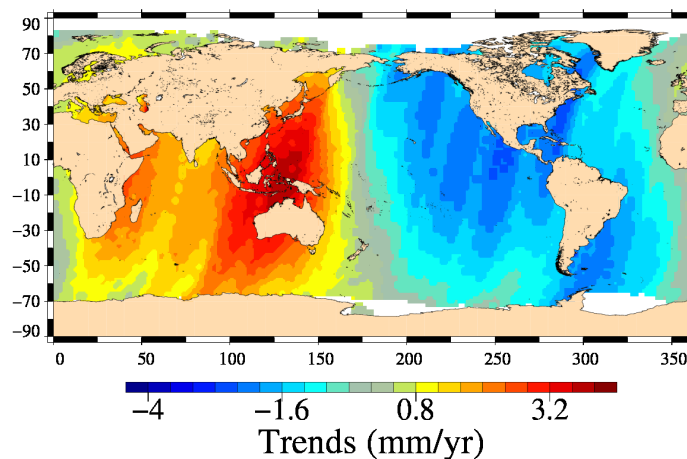
Name : Differences between maps of SLA

Input data : Along track SLA

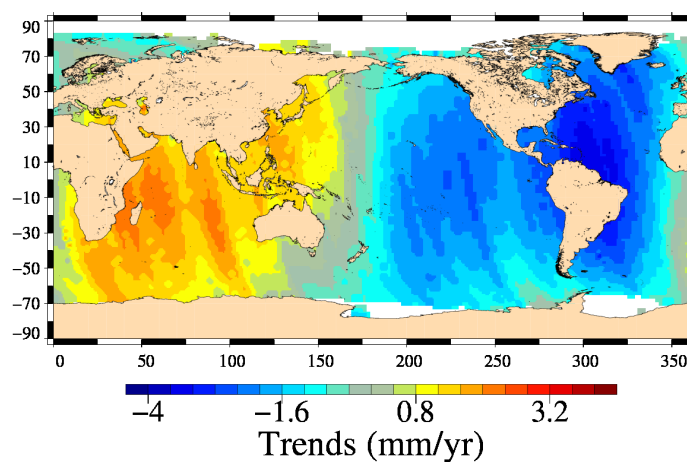
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

Diagnostic type : Global internal analyses

ES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends : even
Mission en, cycles 10 to 93



ES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends : odd
Mission en, cycles 10 to 93



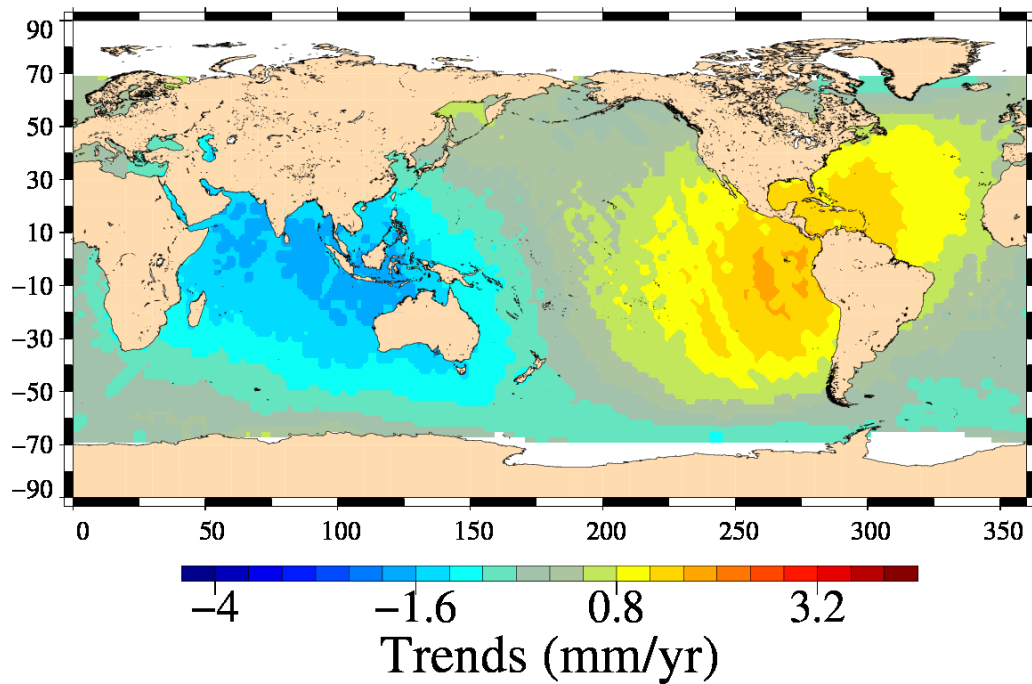
Diagnostic A204_a (mission j1)

Name : Differences between maps of SLA

Input data : Along track SLA

Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

with CNES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends
Mission j1, cycles 1 to 331



Diagnostic A204_b (mission j1)

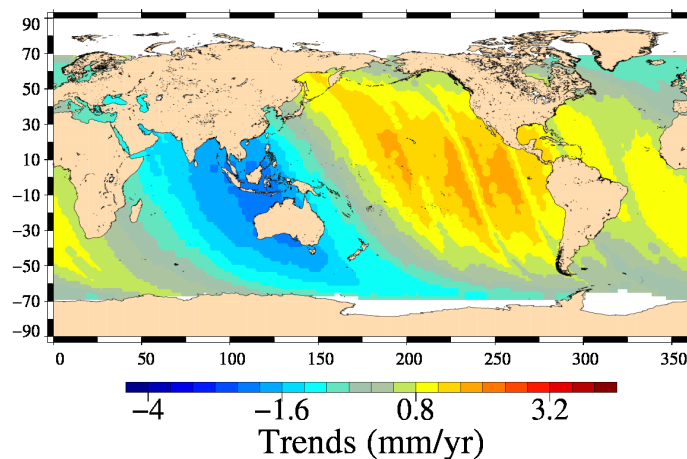
Name : Differences between maps of SLA

Input data : Along track SLA

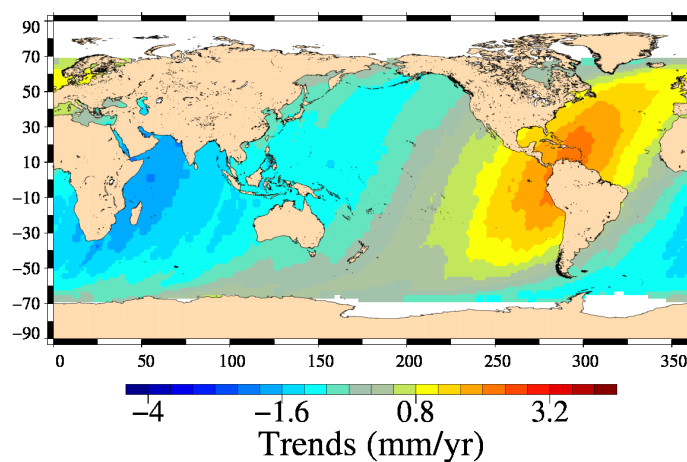
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

Diagnostic type : Global internal analyses

ES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends : even
Mission j1, cycles 1 to 331



ES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends : odd
Mission j1, cycles 1 to 331



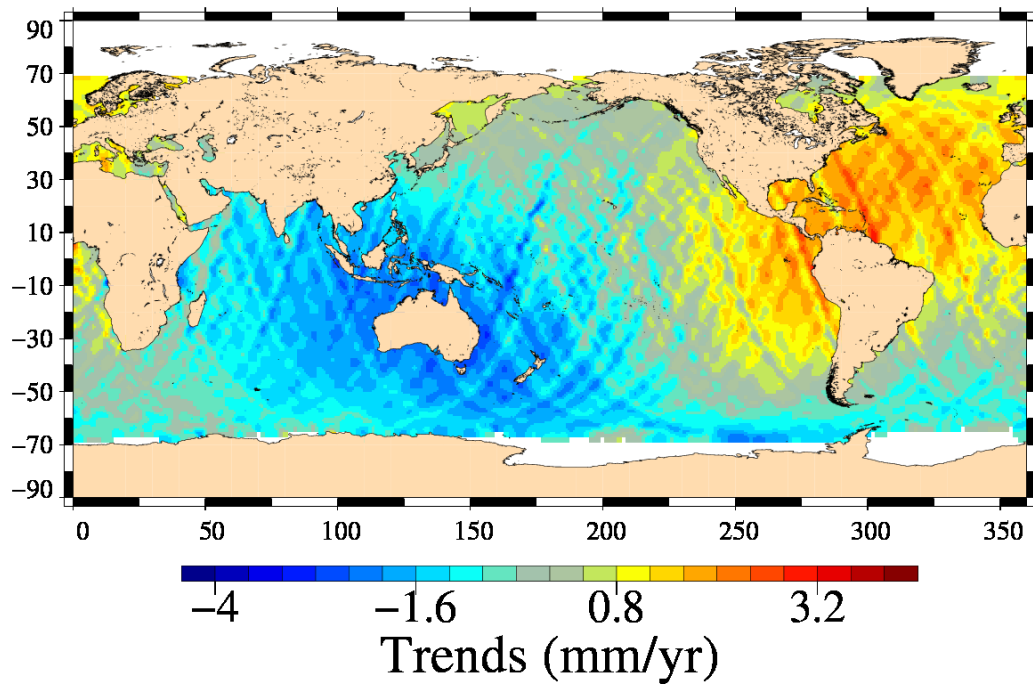
Diagnostic A204_a (mission j2)

Name : Differences between maps of SLA

Input data : Along track SLA

Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

with CNES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends
Mission j2, cycles 1 to 92



Diagnostic A204_b (mission j2)

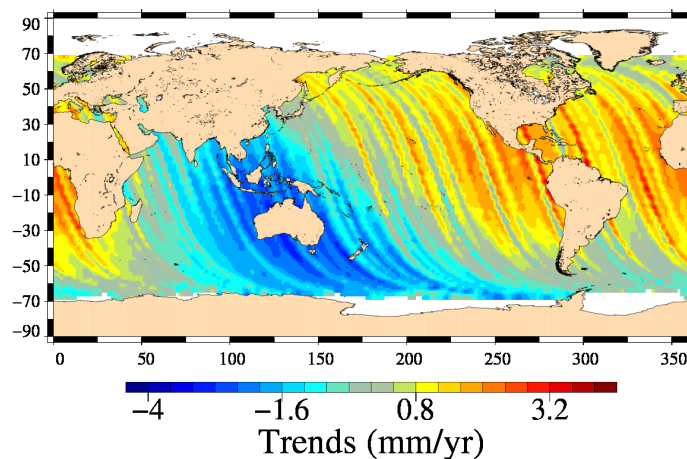
Name : Differences between maps of SLA

Input data : Along track SLA

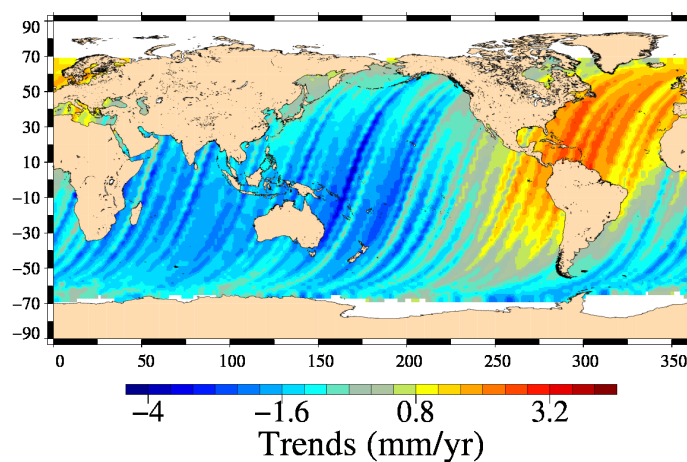
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

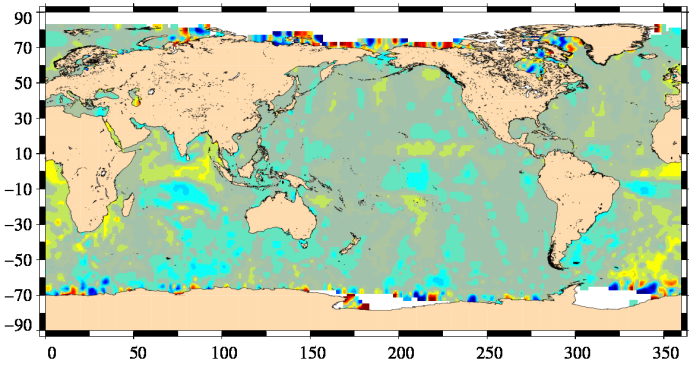
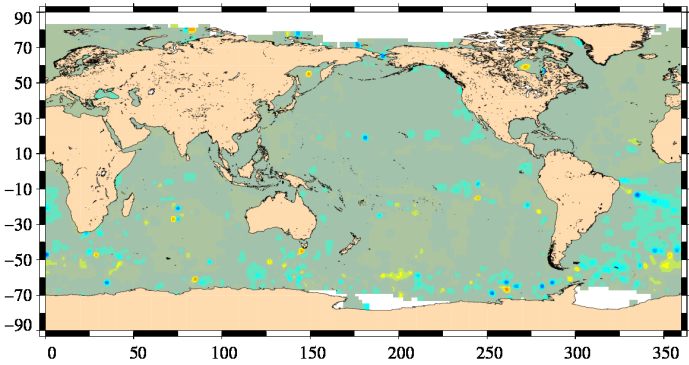
Diagnostic type : Global internal analyses

ES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends : even
Mission j2, cycles 1 to 92



ES Prelim GDR-D Orbit trends – SLA with CNES GDR-C Orbit trends : odd
Mission j2, cycles 1 to 92



Diagnostic type : Global internal analyses	Diagnostic A205_a (mission en)	
	Name : Differences between maps of SLA (2)	
	Input data : Along track SLA	
	Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).	
	<div><div>3 Prelim GDR-D Orbit amplitude – SLA with CNES GDR-C Orbit amplitude</div><div>Mission en, cycles 10 to 93</div><div></div><div>Amplitude (cm)</div><div>2 NES Prelim GDR-D Orbit phase – SLA with CNES GDR-C Orbit phase : ar</div><div>Mission en, cycles 10 to 93</div><div></div><div>Phase (degree)</div></div>	

Diagnostic A205_b (mission en)

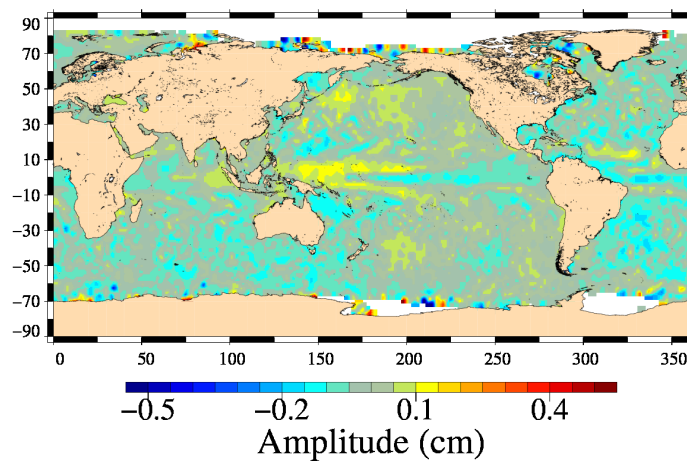
Name : Differences between maps of SLA (2)

Input data : Along track SLA

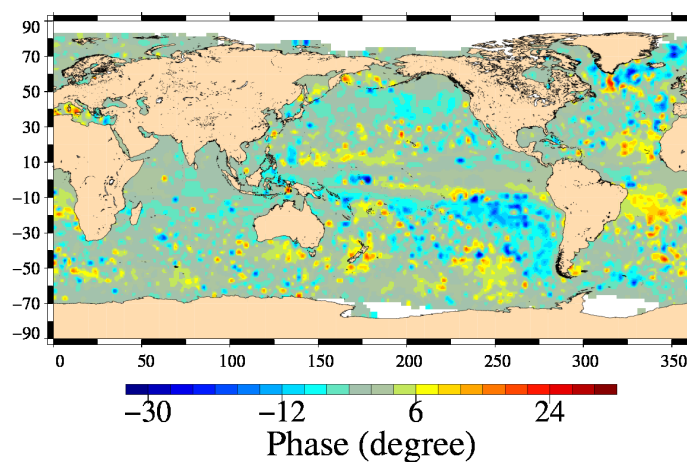
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

Diagnostic type : Global internal analyses

SLA Prelim GDR-D Orbit amplitude – SLA with CNES GDR-C Orbit amplitude : semi
Mission en, cycles 10 to 93



SLA Prelim GDR-D Orbit phase – SLA with CNES GDR-C Orbit phase : semi
Mission en, cycles 10 to 93



Diagnostic A205_a (mission j1)

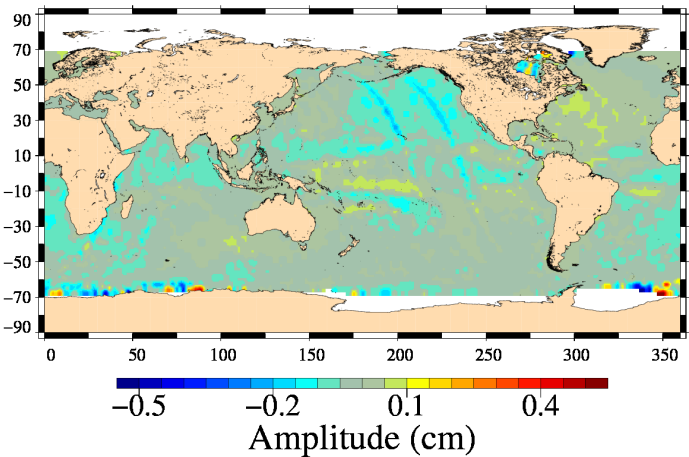
Name : Differences between maps of SLA (2)

Input data : Along track SLA

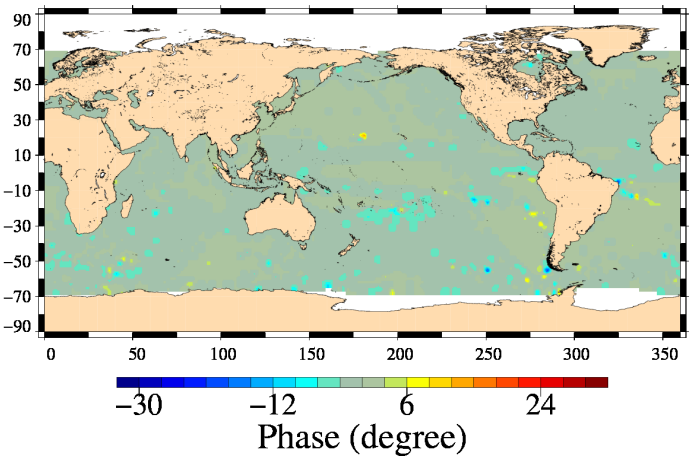
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

Diagnostic type : Global internal analyses

3 Prelim GDR-D Orbit amplitude – SLA with CNES GDR-C Orbit amplitude
Mission j1, cycles 1 to 331



4 NES Prelim GDR-D Orbit phase – SLA with CNES GDR-C Orbit phase : ar
Mission j1, cycles 1 to 331



Diagnostic A205_b (mission j1)

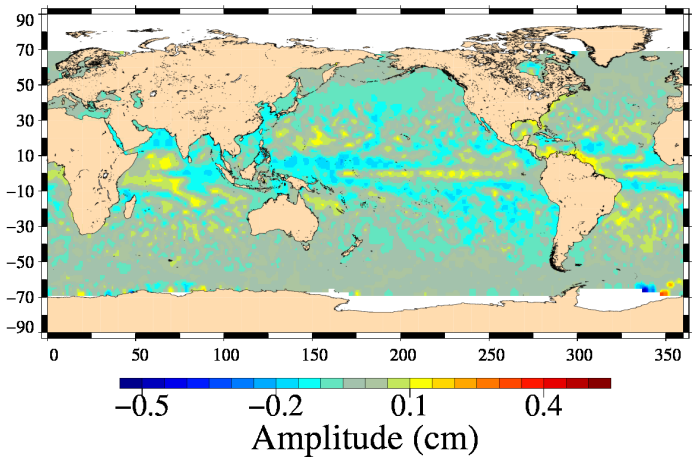
Name : Differences between maps of SLA (2)

Input data : Along track SLA

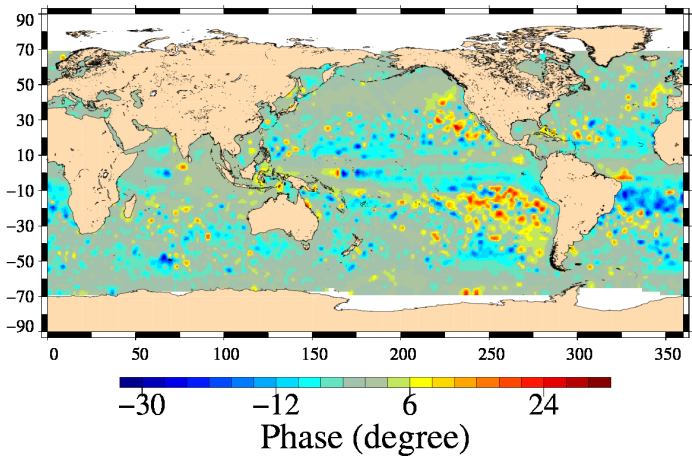
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

Diagnostic type : Global internal analyses

Global Prelim GDR-D Orbit amplitude – SLA with CNES GDR-C Orbit amplitude : semi
Mission j1, cycles 1 to 331



Global Prelim GDR-D Orbit phase – SLA with CNES GDR-C Orbit phase : semi
Mission j1, cycles 1 to 331



Diagnostic A205_a (mission j2)

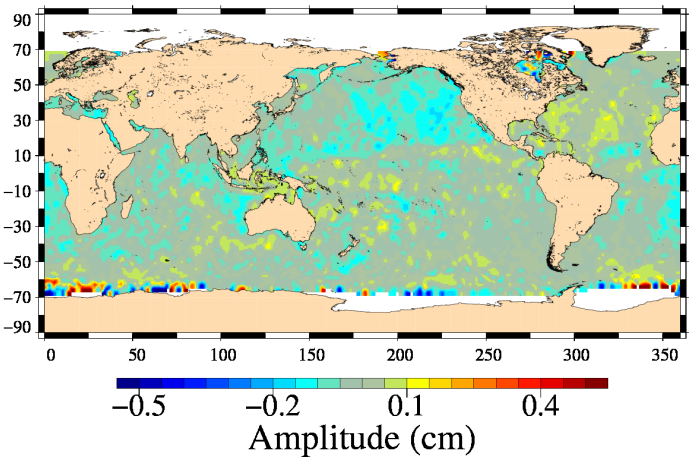
Name : Differences between maps of SLA (2)

Input data : Along track SLA

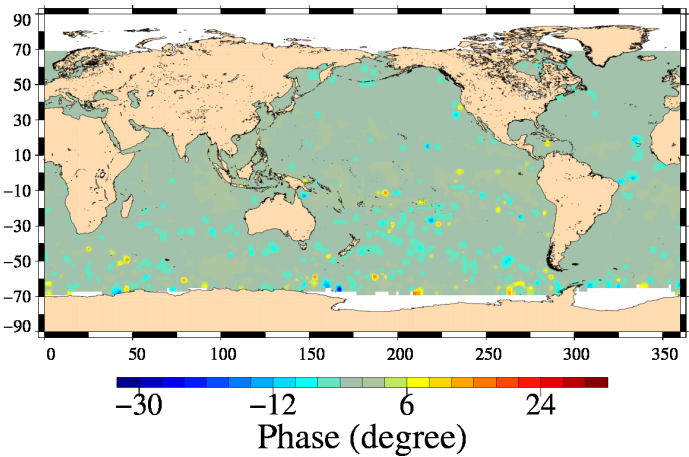
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

Diagnostic type : Global internal analyses

3 Prelim GDR-D Orbit amplitude – SLA with CNES GDR-C Orbit amplitude
Mission j2, cycles 1 to 92



4 NES Prelim GDR-D Orbit phase – SLA with CNES GDR-C Orbit phase : ar
Mission j2, cycles 1 to 92



Diagnostic A205_b (mission j2)

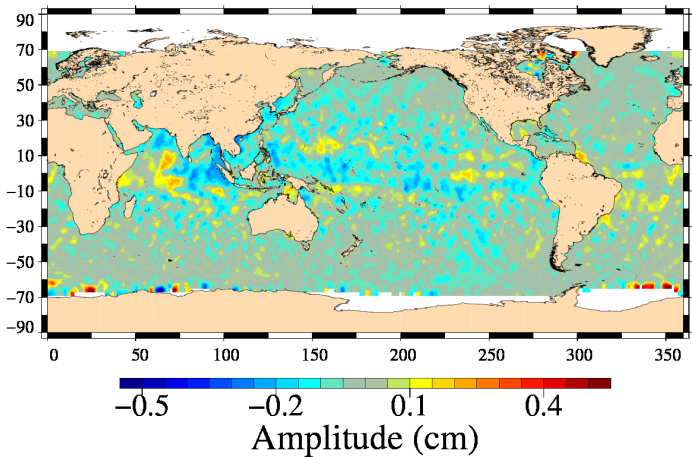
Name : Differences between maps of SLA (2)

Input data : Along track SLA

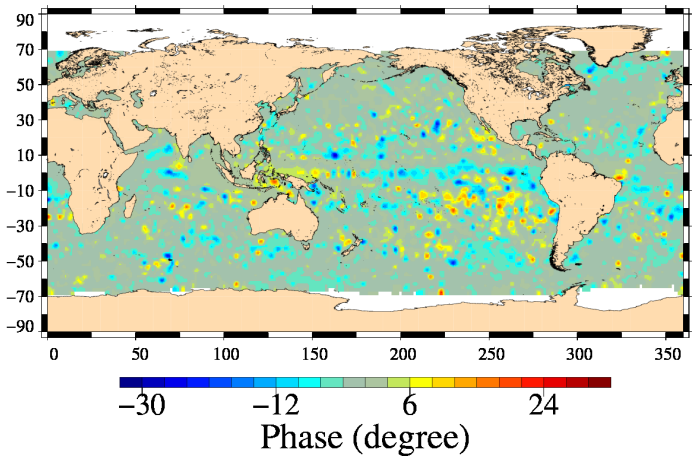
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except for SLA Grids).

Diagnostic type : Global internal analyses

3S Prelim GDR-D Orbit amplitude – SLA with CNES GDR-C Orbit amplitude : semi
Mission j2, cycles 1 to 92



3S Prelim GDR-D Orbit phase – SLA with CNES GDR-C Orbit phase : semi
Mission j2, cycles 1 to 92

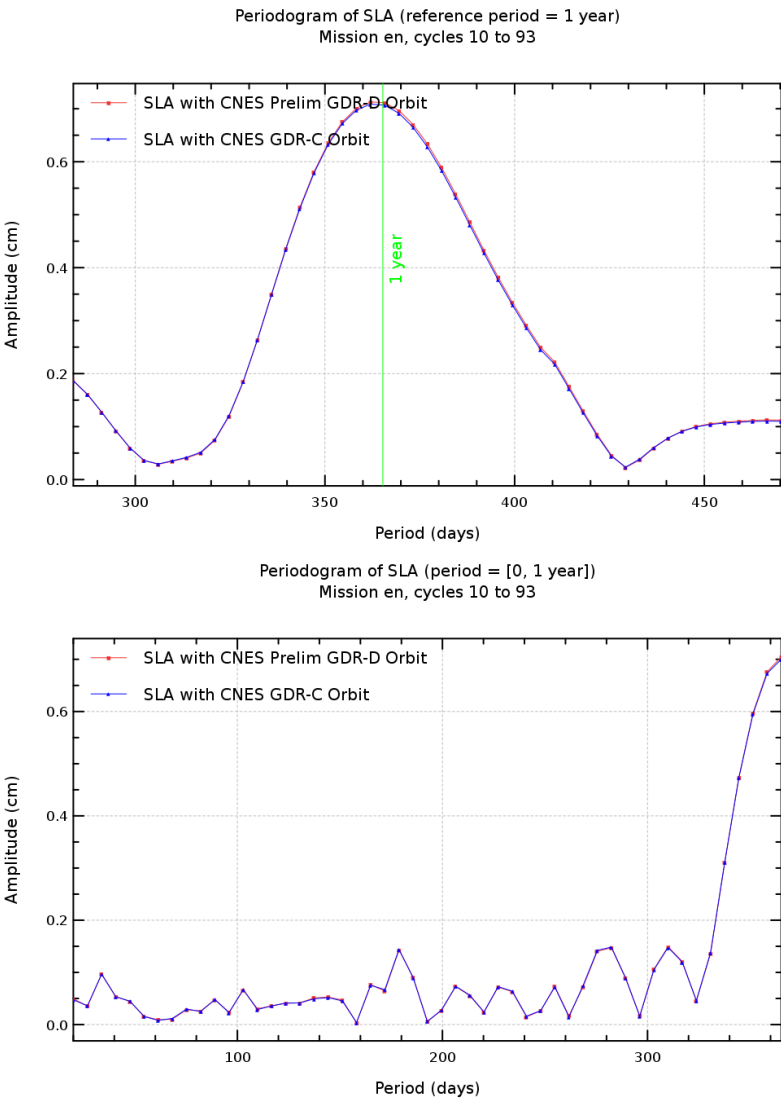


Diagnostic A206_a (mission en)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.



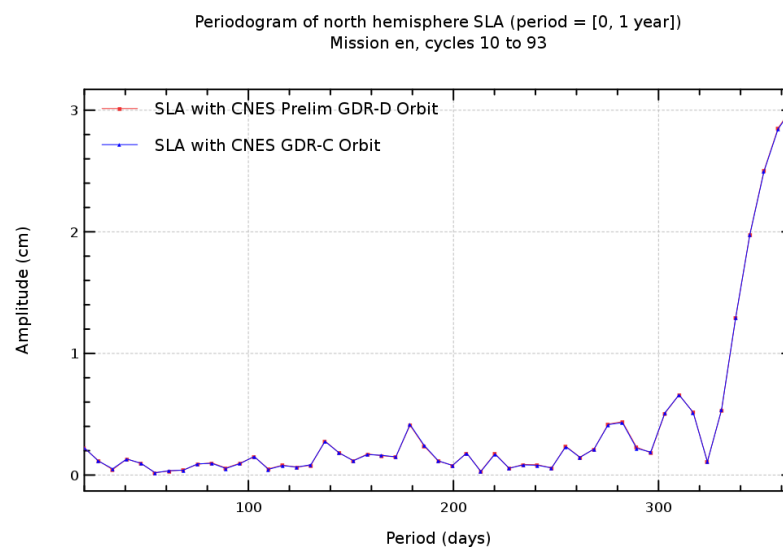
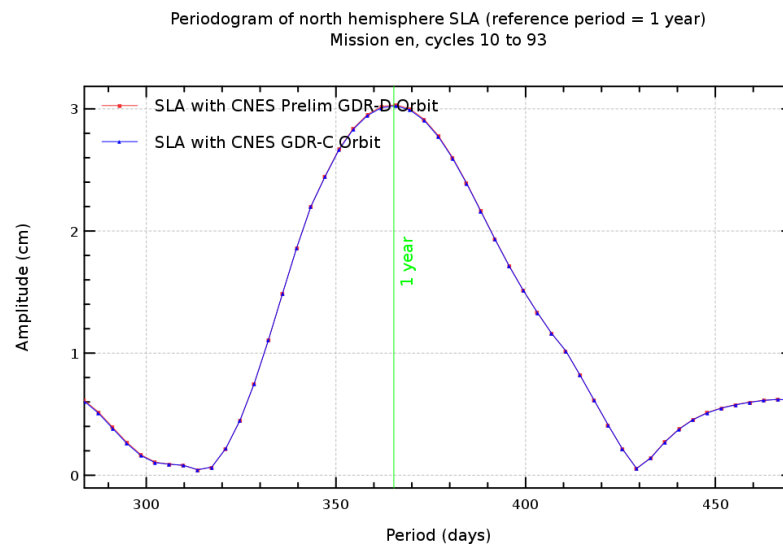
Diagnostic A206_b (mission en)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses



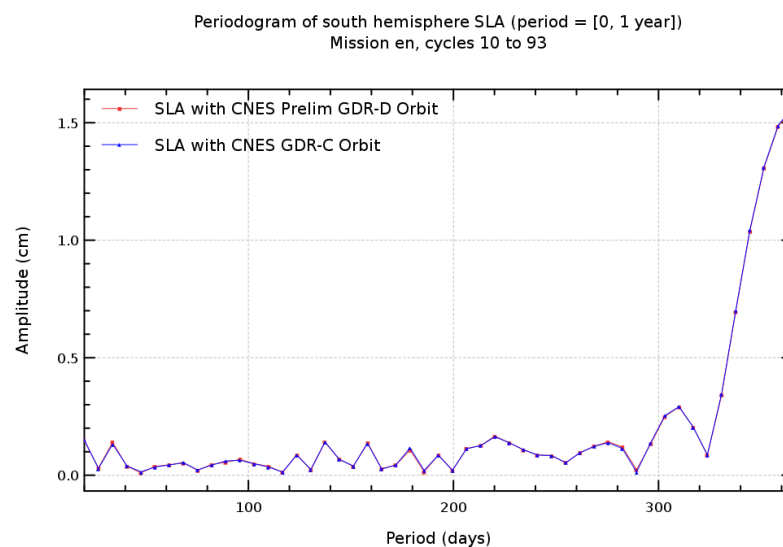
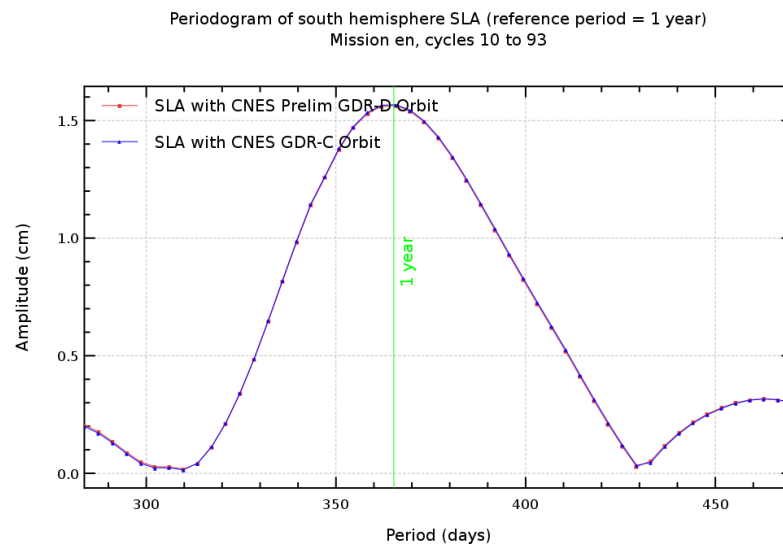
Diagnostic A206_c (mission en)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses



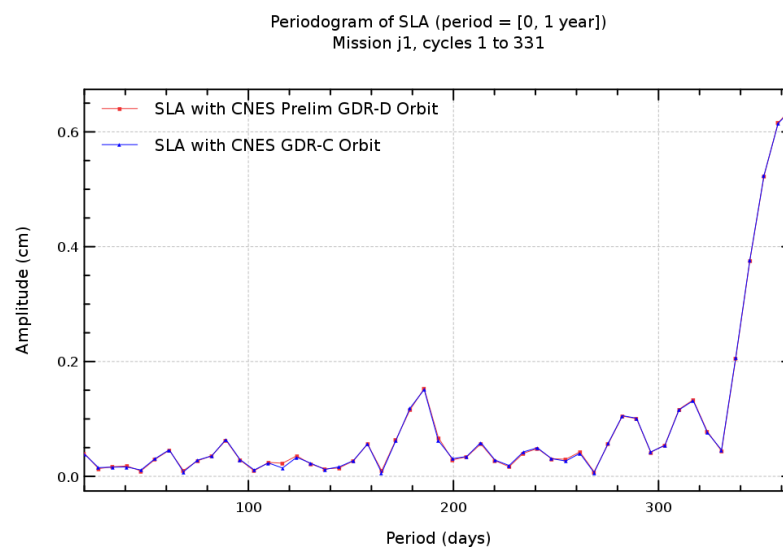
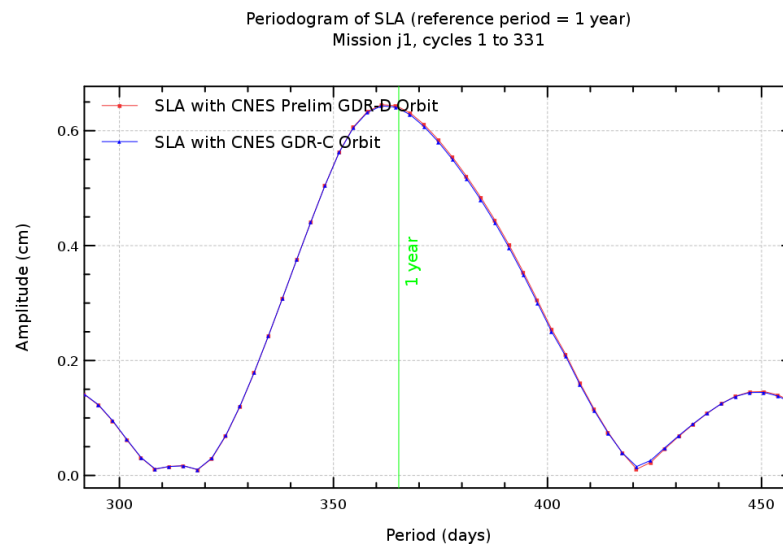
Diagnostic A206_a (mission j1)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses



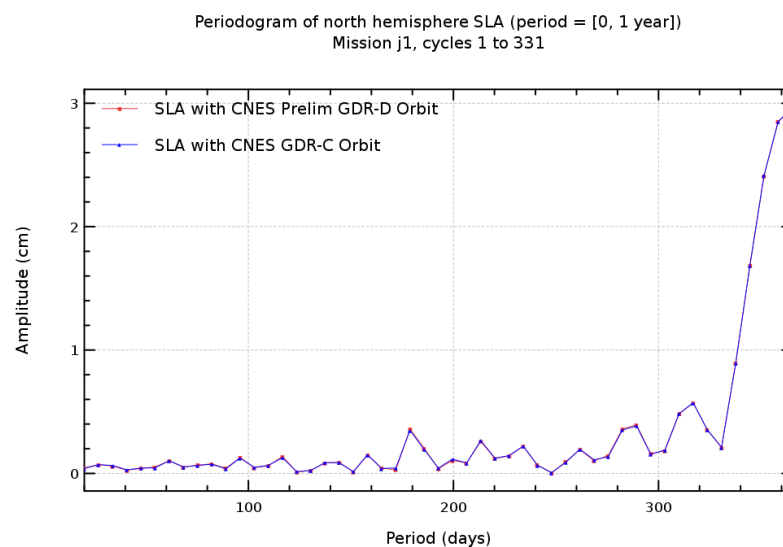
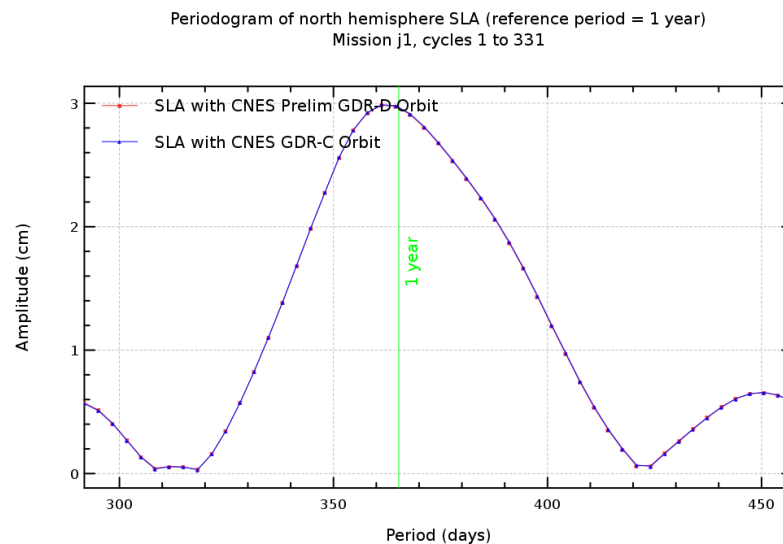
Diagnostic A206_b (mission j1)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses



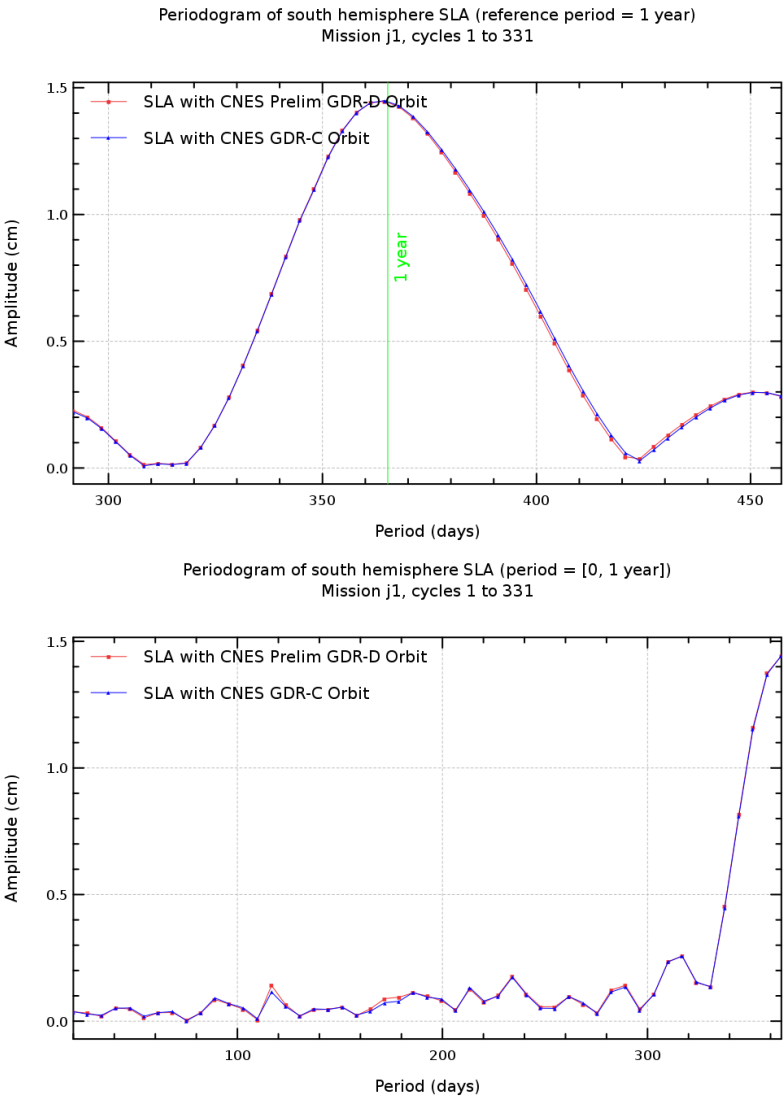
Diagnostic A206_c (mission j1)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses



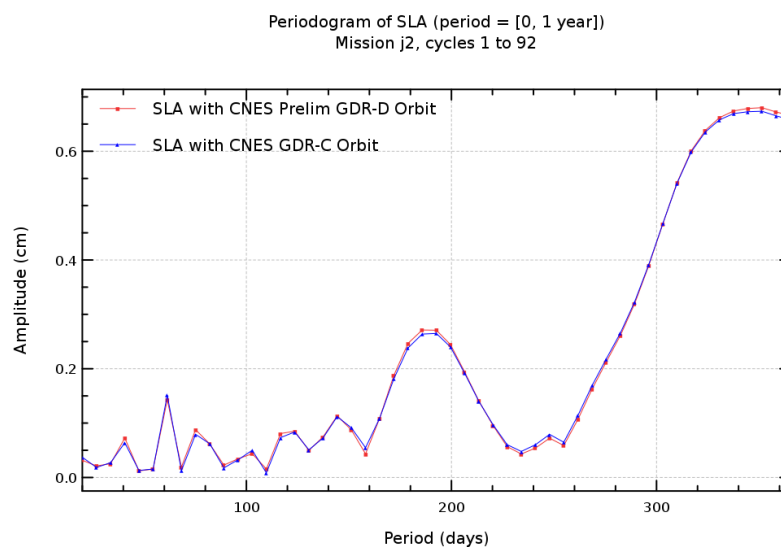
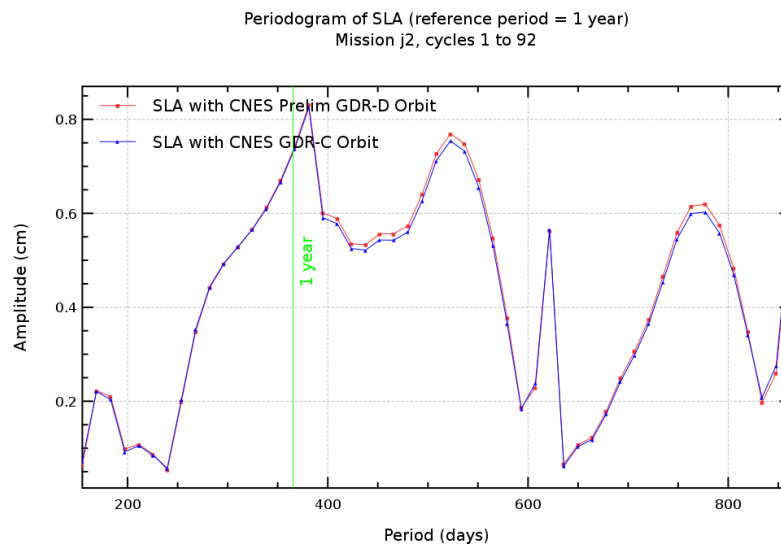
Diagnostic A206_a (mission j2)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses



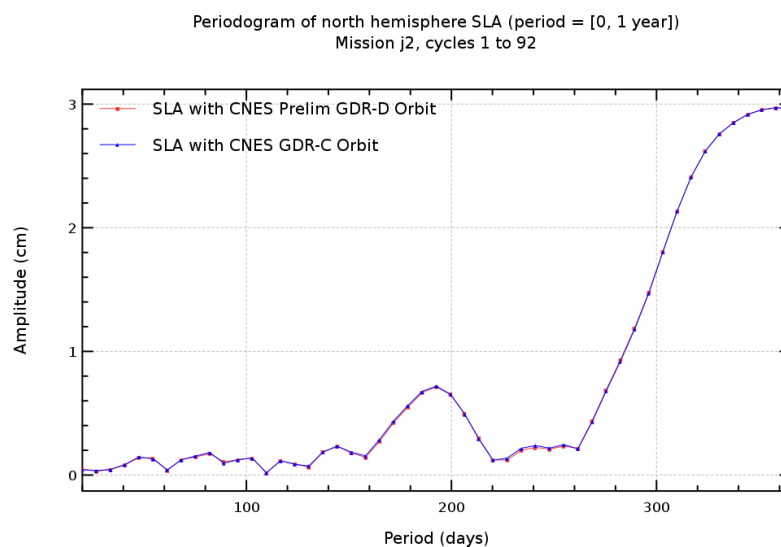
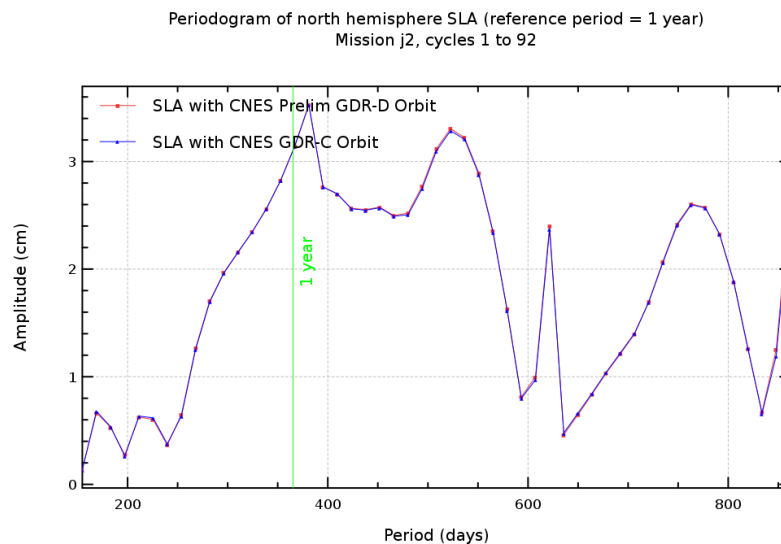
Diagnostic A206_b (mission j2)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses



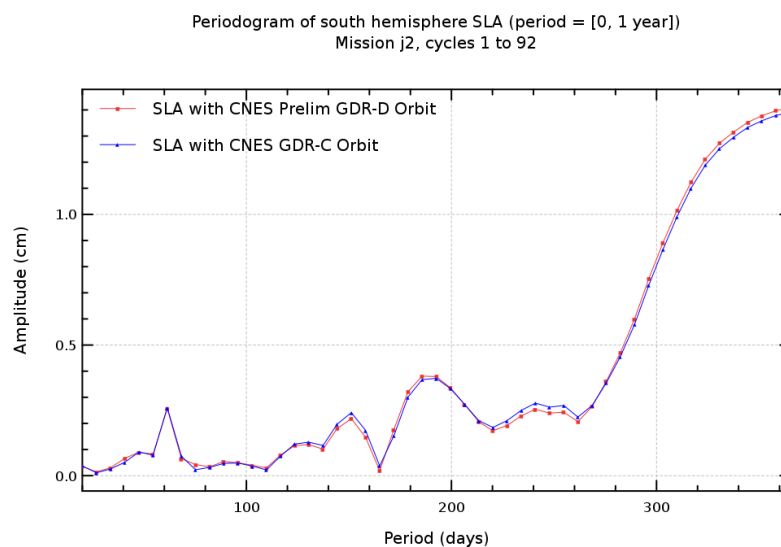
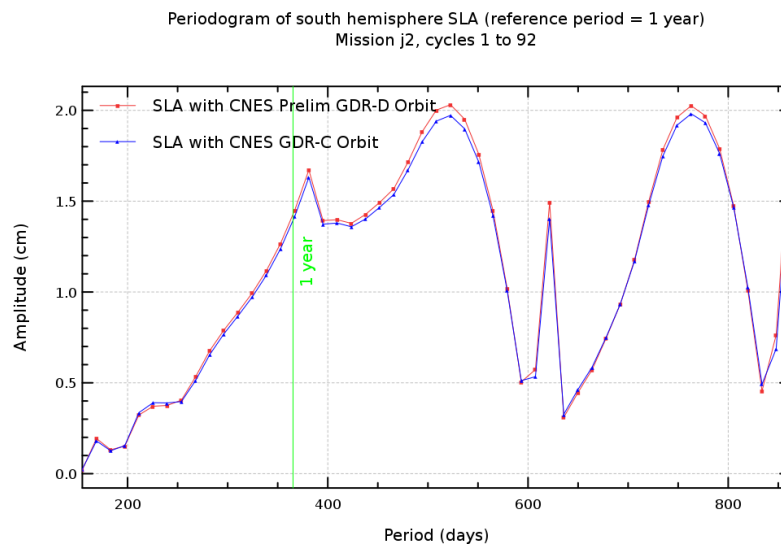
Diagnostic A206_c (mission j2)

Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data series are plotted as a periodogram.

Diagnostic type : Global internal analyses

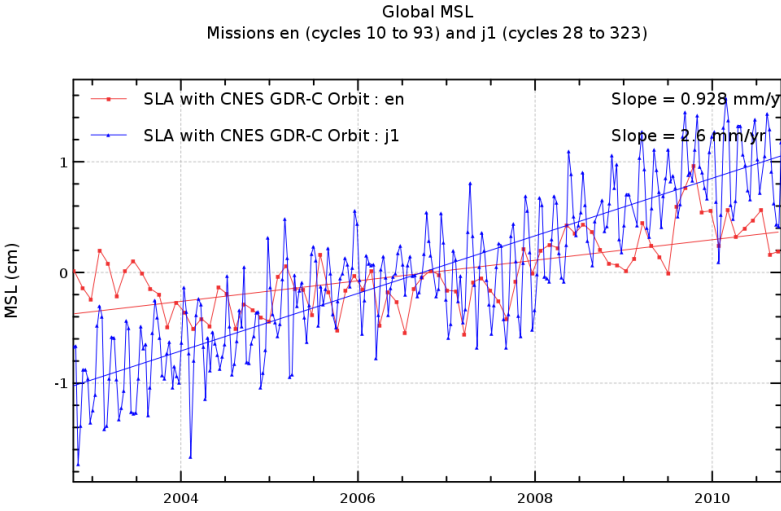
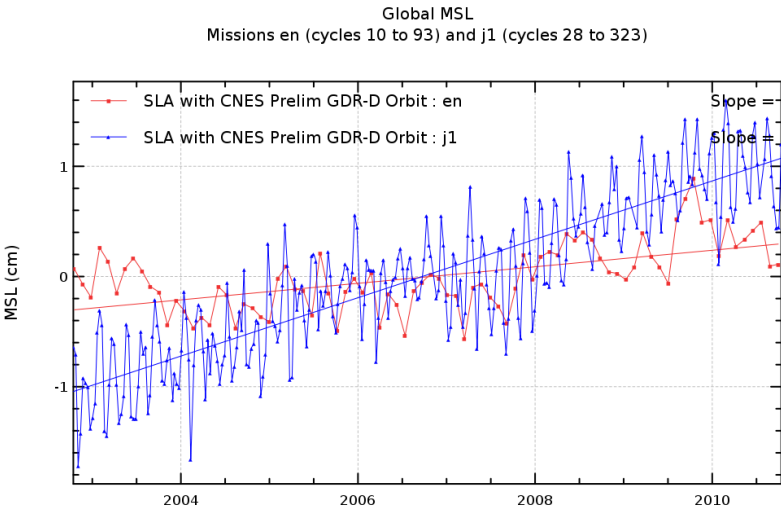


Diagnostic B201_a

Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.



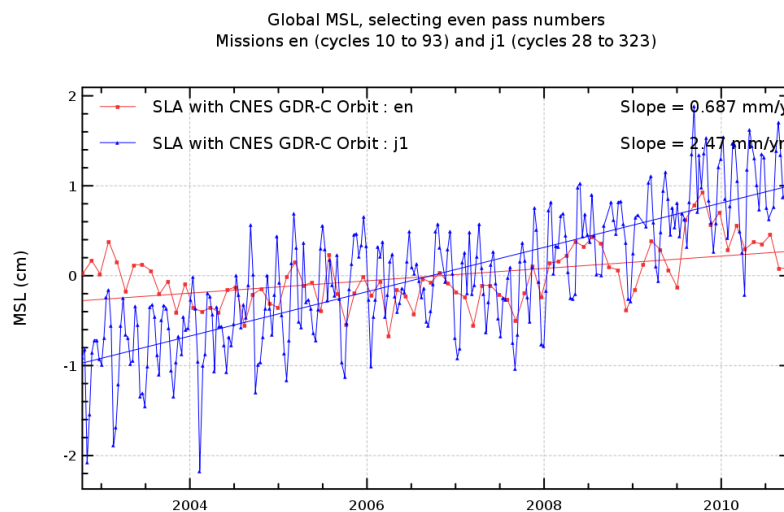
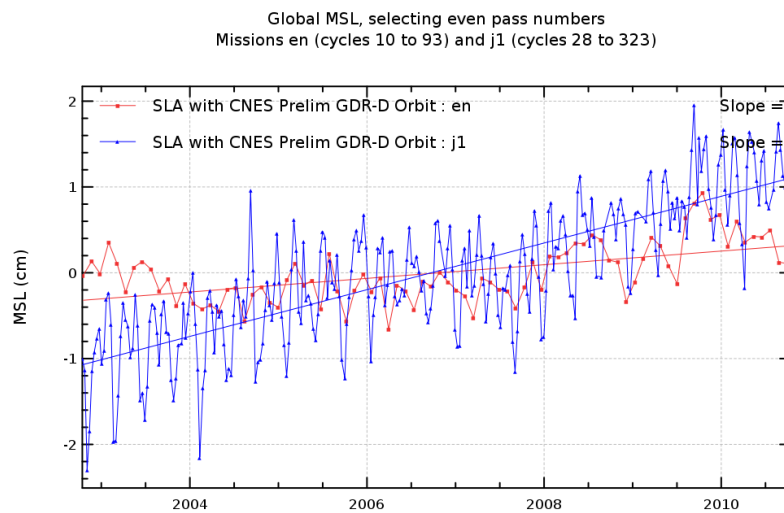
Diagnostic B201_b

Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons



Diagnostic B201_c

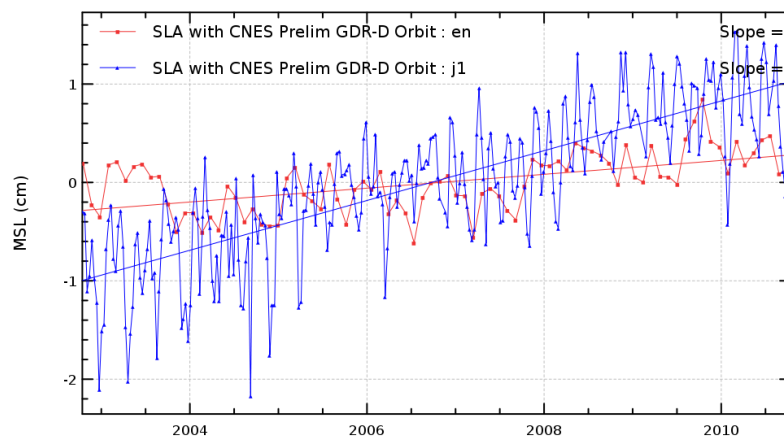
Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

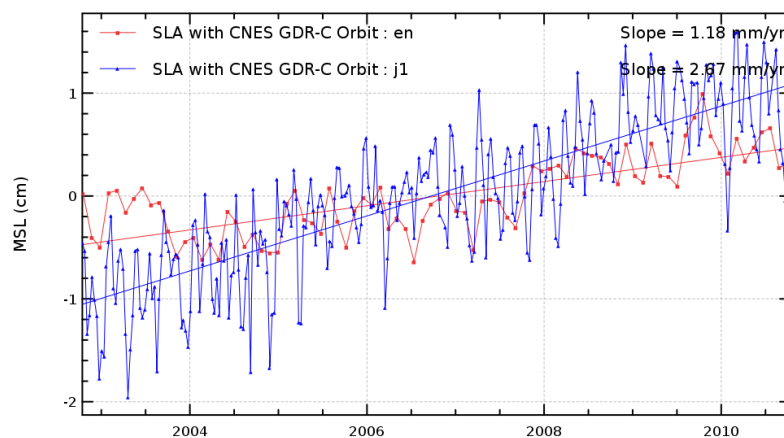
Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons

Global MSL, selecting odd pass numbers
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



Global MSL, selecting odd pass numbers
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



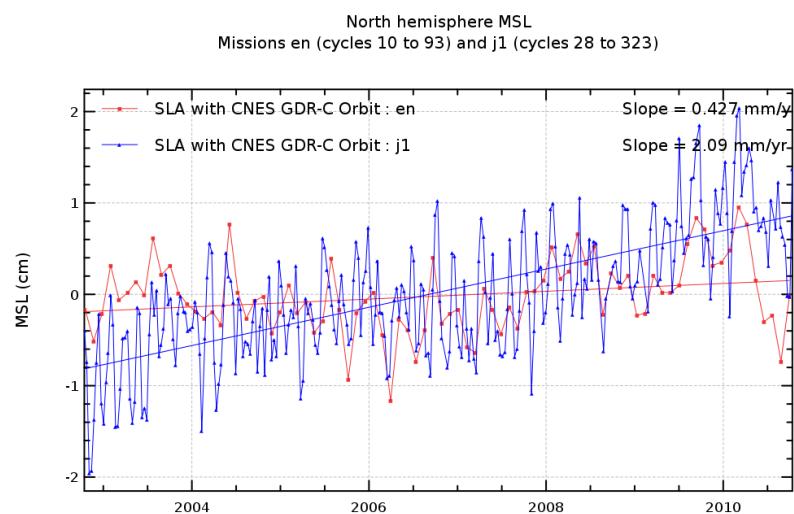
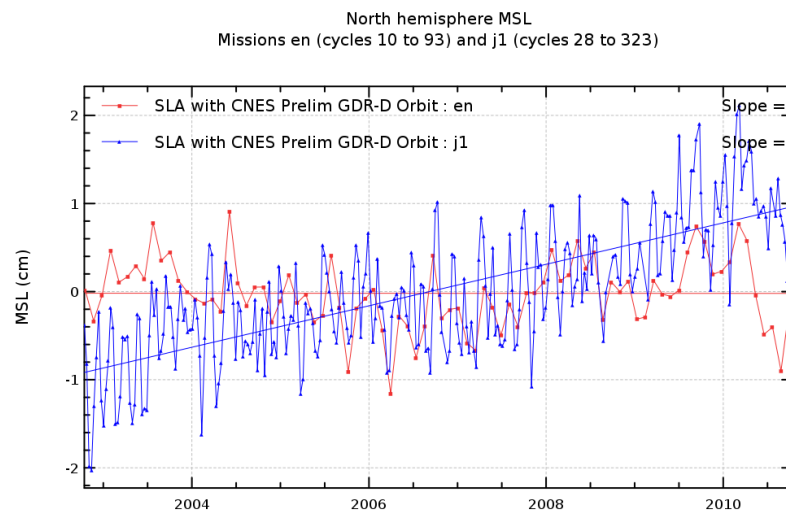
Diagnostic B201_d

Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons



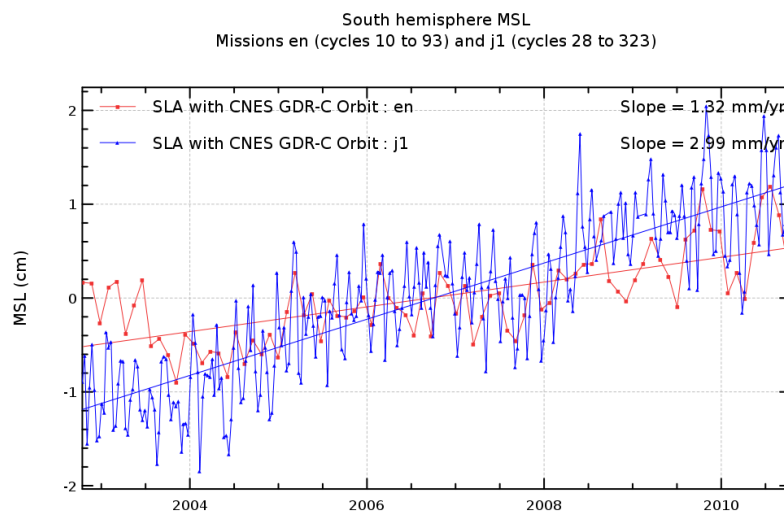
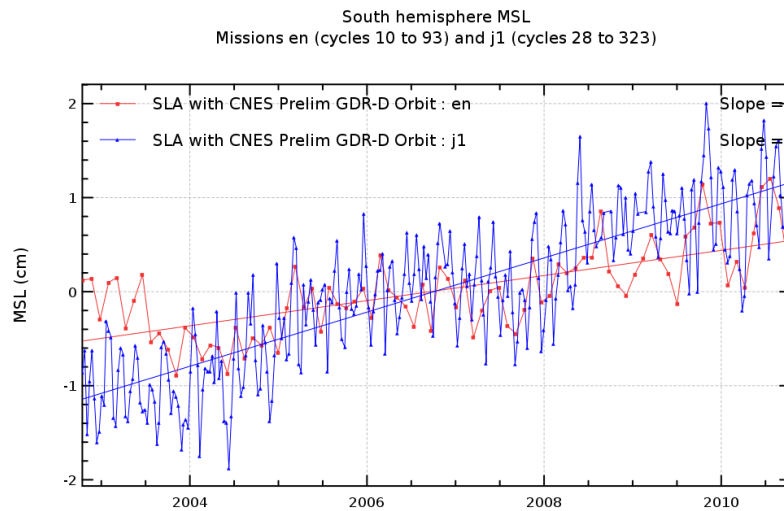
Diagnostic B201_e

Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons



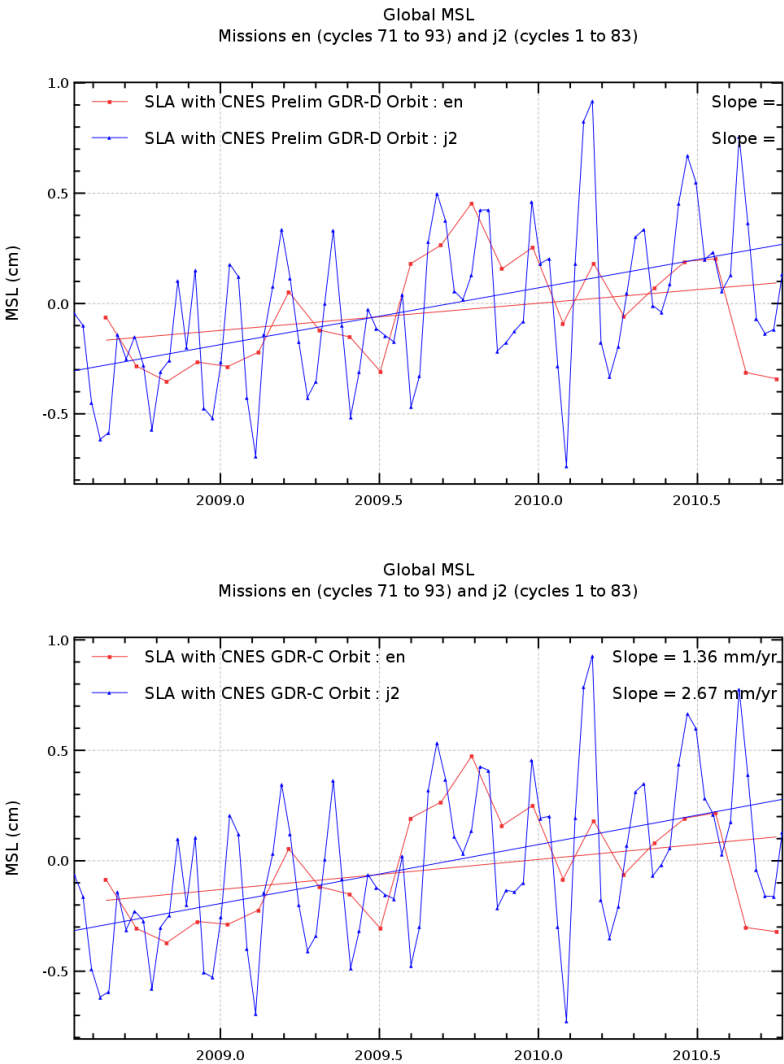
Diagnostic B201_a

Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons



Diagnostic B201_b

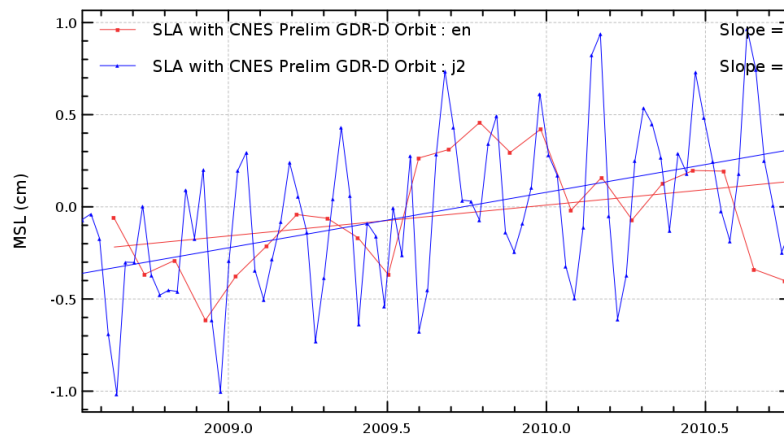
Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

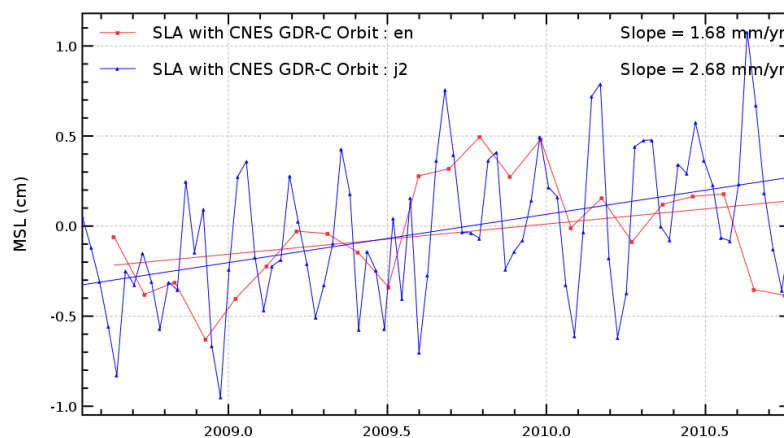
Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons

Global MSL, selecting even pass numbers
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



Global MSL, selecting even pass numbers
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



Diagnostic B201_c

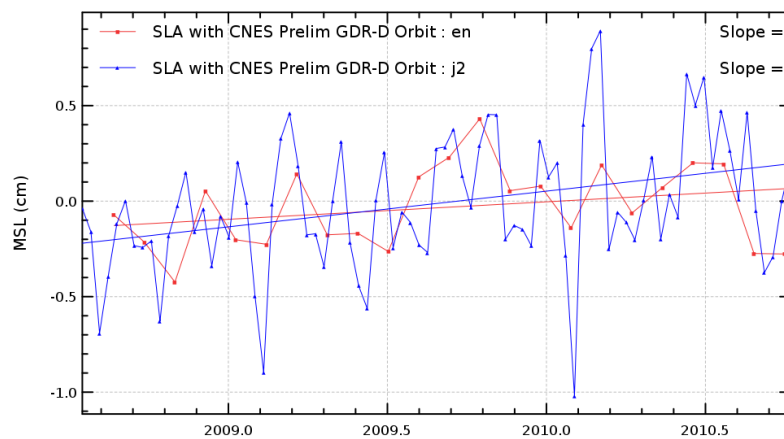
Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

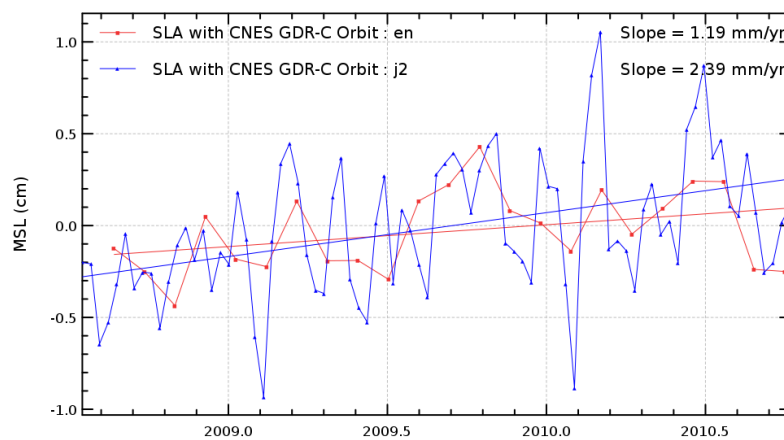
Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons

Global MSL, selecting odd pass numbers
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



Global MSL, selecting odd pass numbers
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



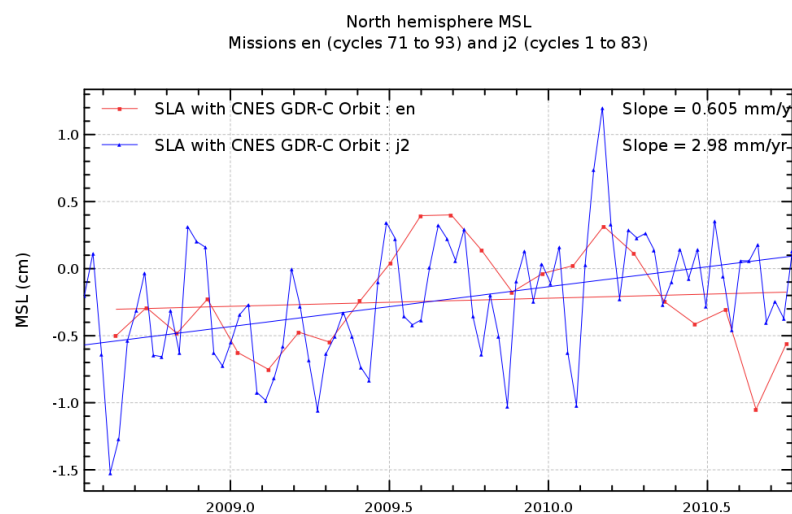
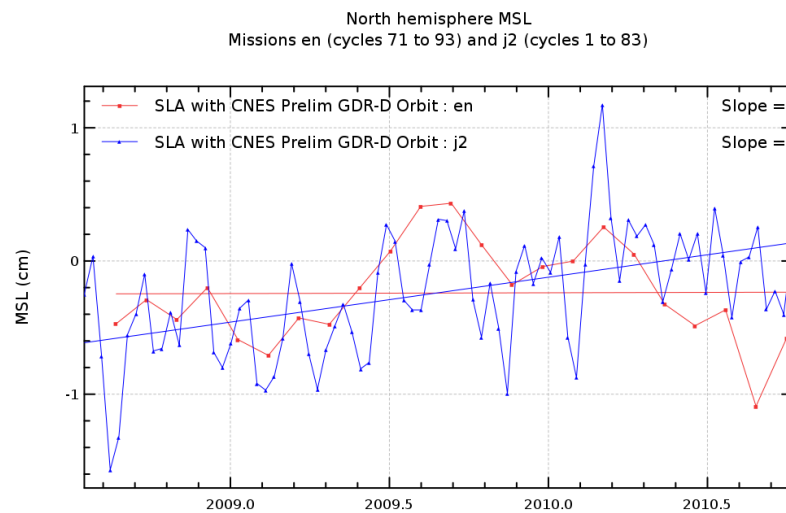
Diagnostic B201_d

Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons



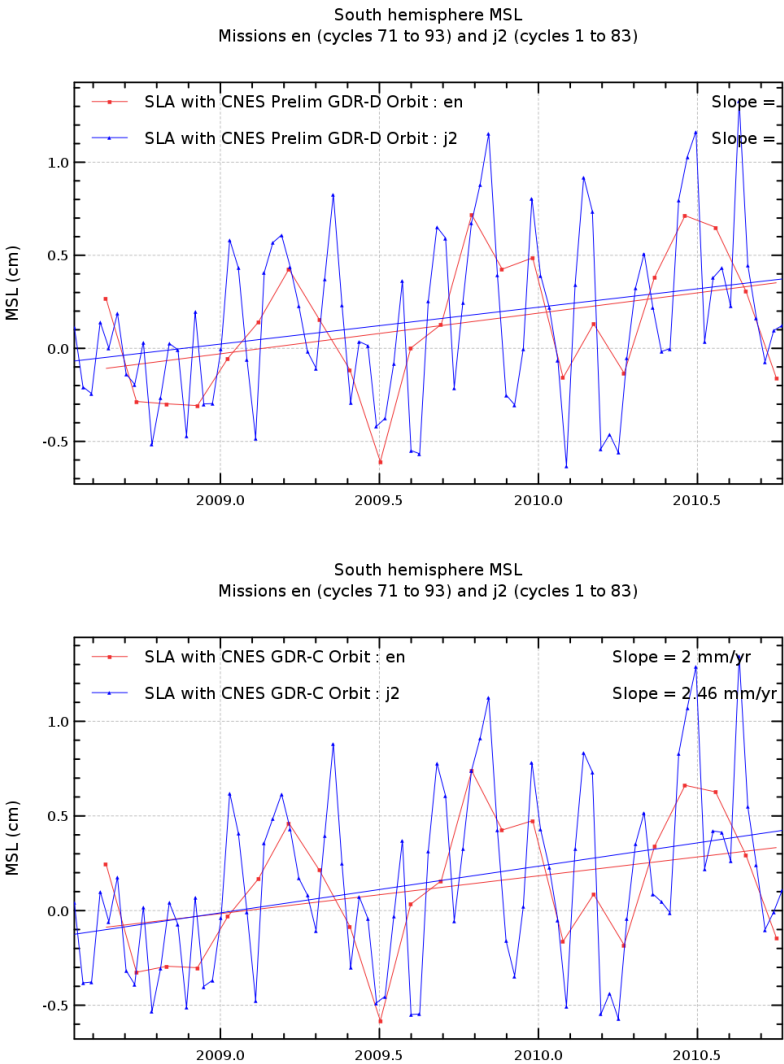
Diagnostic B201_e

Name : Temporal evolution of Sea level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

Description : Temporal evolution of SLA statistics (mean, standard deviation) of 2 or more missions are computed over the same period as longest as possible using successively both components in the SLA calculation. This can be done globally, or separating in ascending and descending or in northern and southern hemisphere. In order to assure comparability, statistics are computed using sea level standard calculation (mean per box of 2x2 and weighted by cosine of latitude for the global mean) limited to 66 latitude.

Diagnostic type : Global multi-mission comparisons



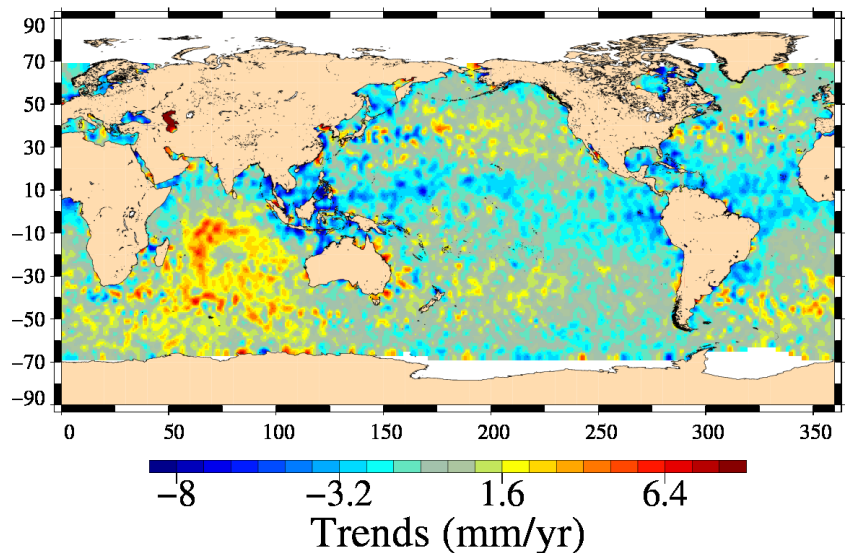
Diagnostic B202_a

Name : Differences between maps of Sea Level Anomaly (SLA) for 2 missions over the same period

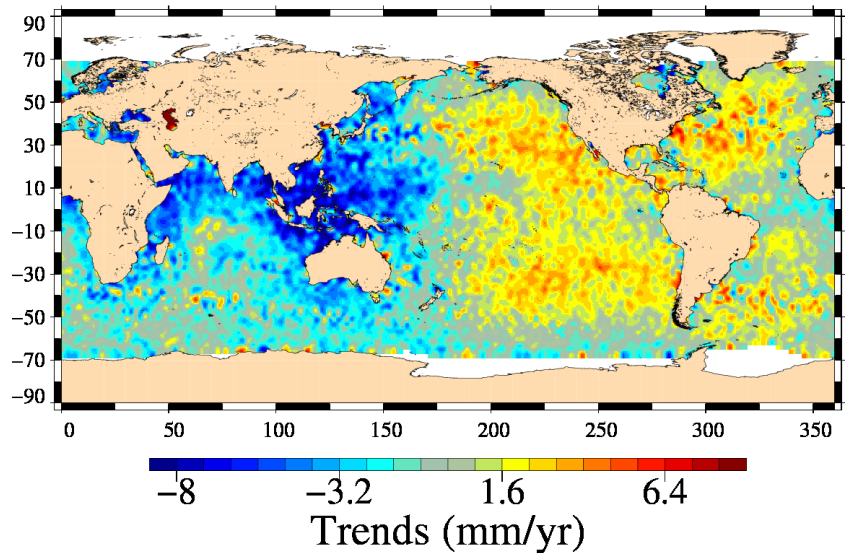
Input data : Along track SLA

Description : The differences between maps of SLA (mean, variance or slope) derived from 2 altimetric missions are computed over the same period (as long as possible) using successively both altimetric components in the SLA calculation. Maps are calculated globally, they can be also calculated separating ascending and descending passes.

SLA with CNES Prelim GDR-D Orbit differences : en – j1
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



SLA with CNES GDR-C Orbit differences : en – j1
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



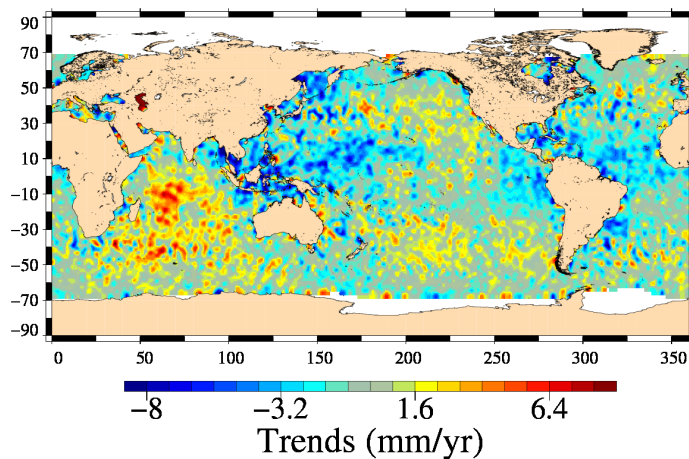
Diagnostic B202_b

Name : Differences between maps of Sea Level Anomaly (SLA) for 2 missions over the same period

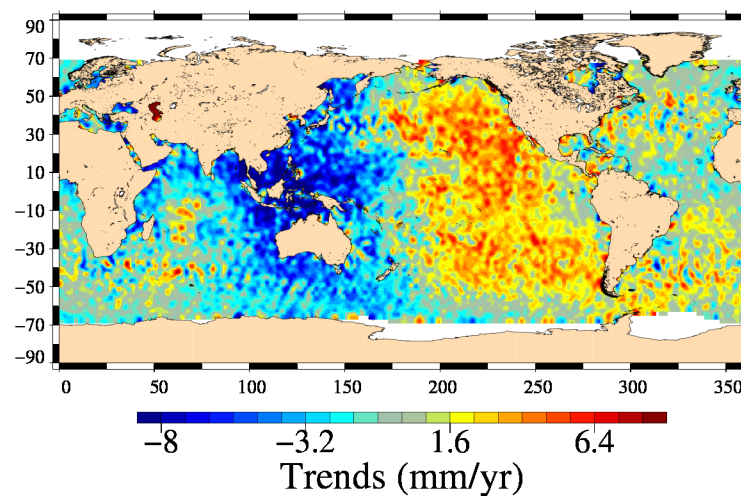
Input data : Along track SLA

Description : The differences between maps of SLA (mean, variance or slope) derived from 2 altimetric missions are computed over the same period (as long as possible) using successively both altimetric components in the SLA calculation. Maps are calculated globally, they can be also calculated separating ascending and descending passes.

LA with CNES Prelim GDR-D Orbit differences : en - j1, even pass number
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



SLA with CNES GDR-C Orbit differences : en - j1, even pass numbers
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



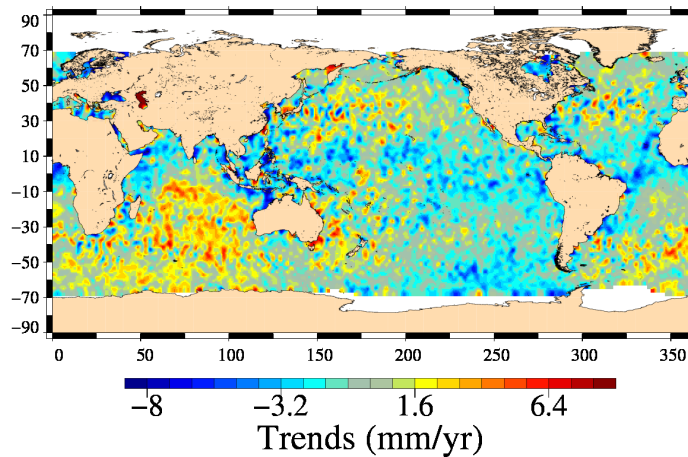
Diagnostic B202_c

Name : Differences between maps of Sea Level Anomaly (SLA) for 2 missions over the same period

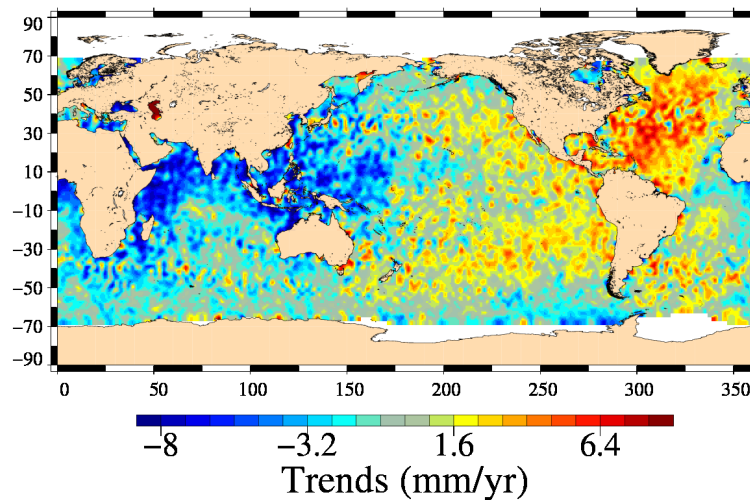
Input data : Along track SLA

Description : The differences between maps of SLA (mean, variance or slope) derived from 2 altimetric missions are computed over the same period (as long as possible) using successively both altimetric components in the SLA calculation. Maps are calculated globally, they can be also calculated separating ascending and descending passes.

SLA with CNES Prelim GDR-D Orbit differences : en - j1, odd pass numbers
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



SLA with CNES GDR-C Orbit differences : en - j1, odd pass numbers
Missions en (cycles 10 to 93) and j1 (cycles 28 to 323)



Diagnostic B202_a

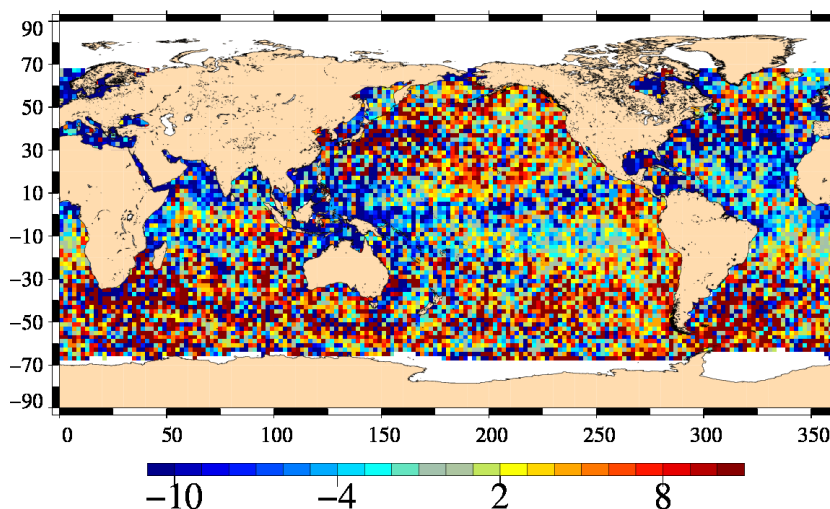
Name : Differences between maps of Sea Level Anomaly (SLA) for 2 missions over the same period

Input data : Along track SLA

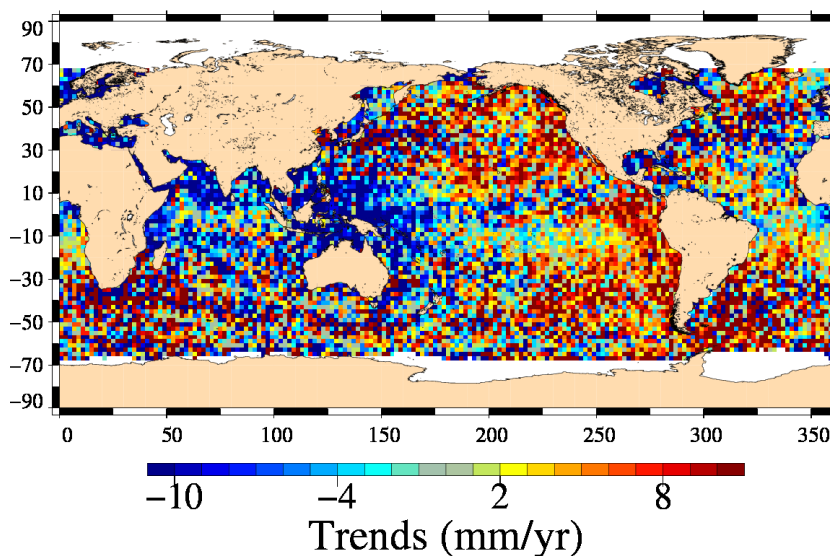
Description : The differences between maps of SLA (mean, variance or slope) derived from 2 altimetric missions are computed over the same period (as long as possible) using successively both altimetric components in the SLA calculation. Maps are calculated globally, they can be also calculated separating ascending and descending passes.

Diagnostic type : Global multi-mission comparisons

SLA with CNES Prelim GDR-D Orbit differences : en – j2
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



Trends (mm/yr)
SLA with CNES GDR-C Orbit differences : en – j2
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



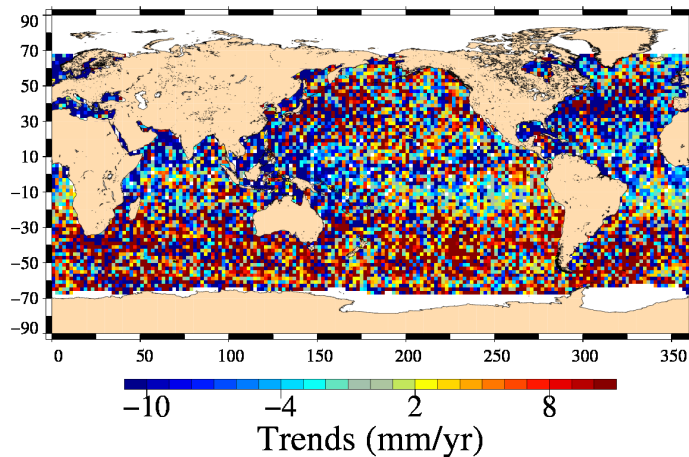
Diagnostic B202_b

Name : Differences between maps of Sea Level Anomaly (SLA) for 2 missions over the same period

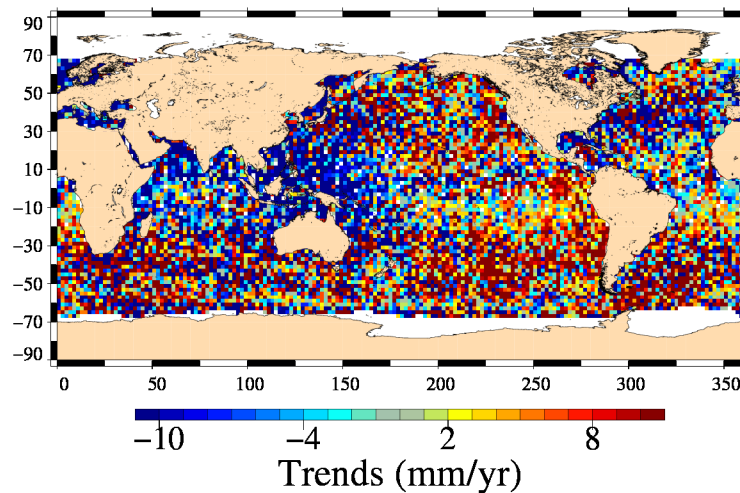
Input data : Along track SLA

Description : The differences between maps of SLA (mean, variance or slope) derived from 2 altimetric missions are computed over the same period (as long as possible) using successively both altimetric components in the SLA calculation. Maps are calculated globally, they can be also calculated separating ascending and descending passes.

LA with CNES Prelim GDR-D Orbit differences : en – j2, even pass number
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



SLA with CNES GDR-C Orbit differences : en – j2, even pass numbers
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



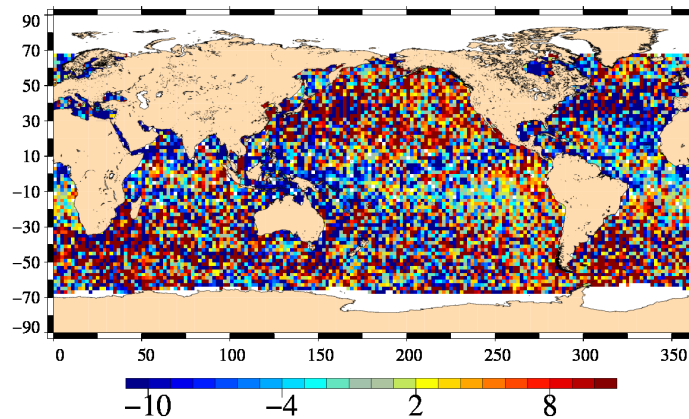
Diagnostic B202_c

Name : Differences between maps of Sea Level Anomaly (SLA) for 2 missions over the same period

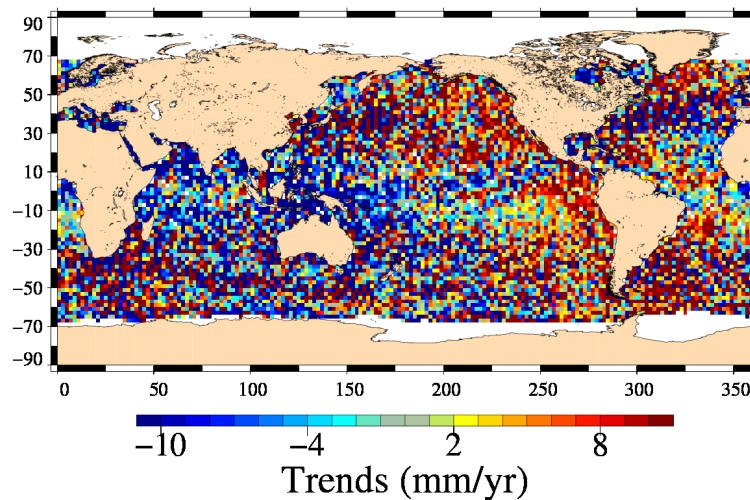
Input data : Along track SLA

Description : The differences between maps of SLA (mean, variance or slope) derived from 2 altimetric missions are computed over the same period (as long as possible) using successively both altimetric components in the SLA calculation. Maps are calculated globally, they can be also calculated separating ascending and descending passes.

SLA with CNES Prelim GDR-D Orbit differences : en - j2, odd pass numbers
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



Trends (mm/yr)
SLA with CNES GDR-C Orbit differences : en - j2, odd pass numbers
Missions en (cycles 71 to 93) and j2 (cycles 1 to 83)



Diagnostic C001 (mission en)

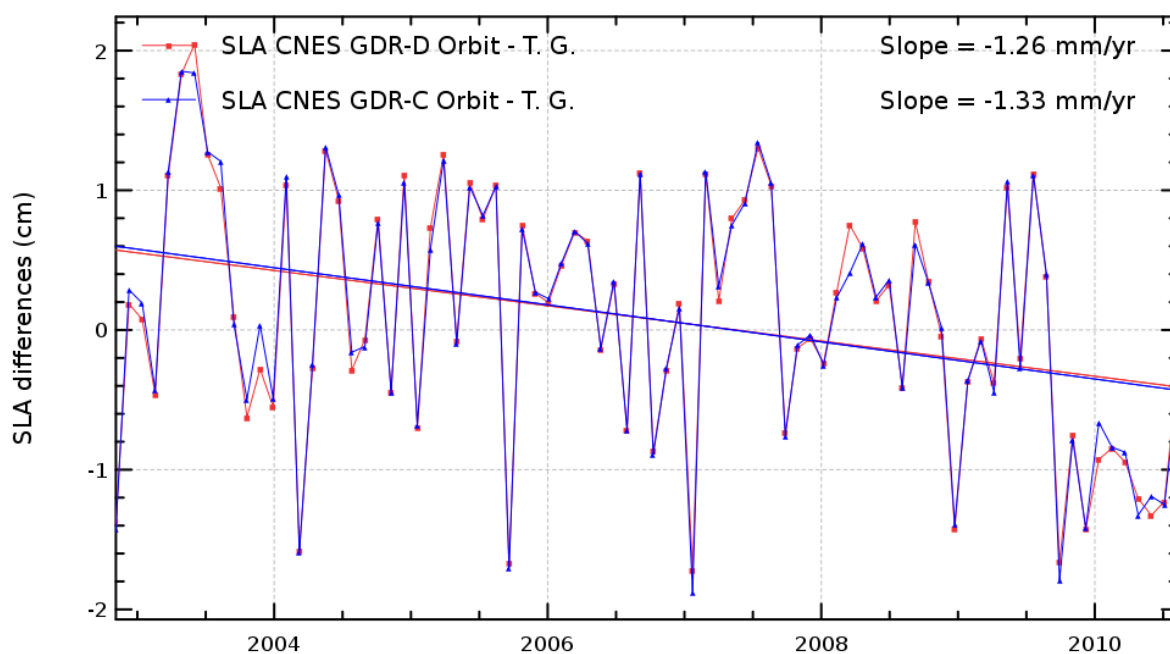
Name : Temporal evolution of SSH differences between tide gauges and altimetry measurements

Input data : Tide gauges SSH measurements

Description : The temporal evolution of global statistics (mean, variance, slope) of SSH differences between tide gauges and altimeter measurements are calculated from a cyclic way (altimeter repetitivity) using successively both altimetric components in SSH calculation. The altimetric and tide gauges data are colocated with criteria of maximum of correlation, and tide gauges used are derived from global networks (GLOSS/CLIVAR, REFMAR).

Diagnostic type : Altimetry and in-situ data comparison

SLA differences : altimetry measurements - tide gauges
Mission en, cycles 10 to 93



Diagnostic C001 (mission j1)

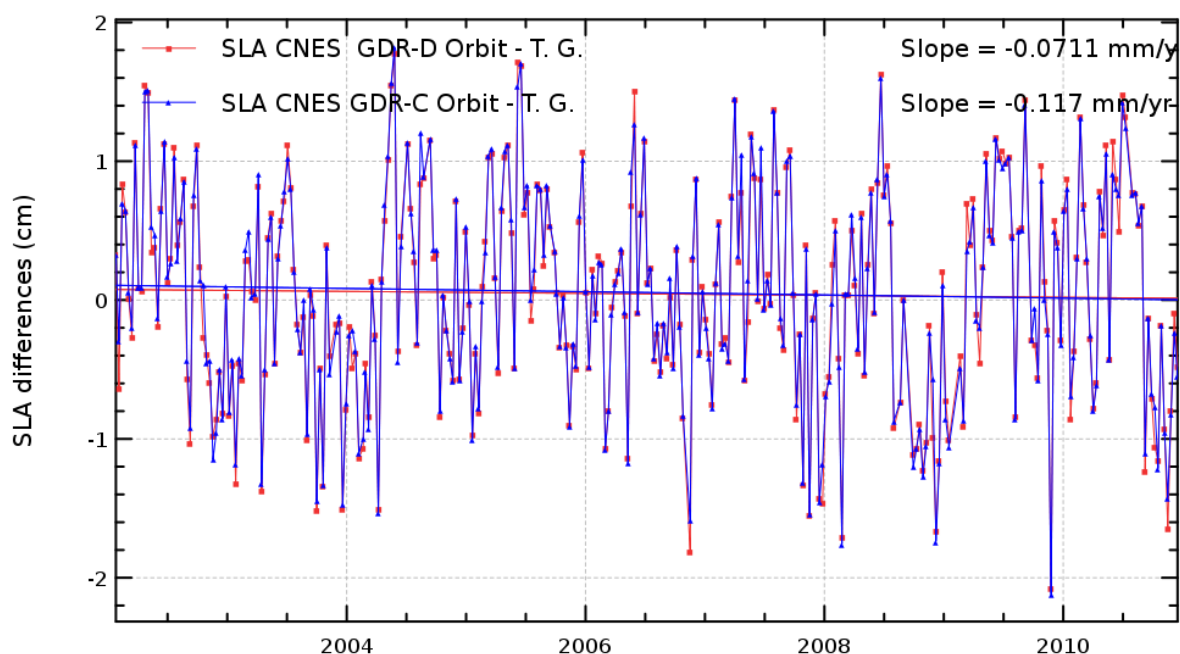
Name : Temporal evolution of SSH differences between tide gauges and altimetry measurements

Input data : Tide gauges SSH measurements

Description : The temporal evolution of global statistics (mean, variance, slope) of SSH differences between tide gauges and altimeter measurements are calculated from a cyclic way (altimeter repetitivity) using successively both altimetric components in SSH calculation. The altimetric and tide gauges data are colocated with criteria of maximum of correlation, and tide gauges used are derived from global networks (GLOSS/CLIVAR, REFMAR).

Diagnostic type : Altimetry and in-situ data comparison

SLA differences : altimetry measurements - tide gauges
Mission j1, cycles 1 to 331



Diagnostic C001 (mission j2)

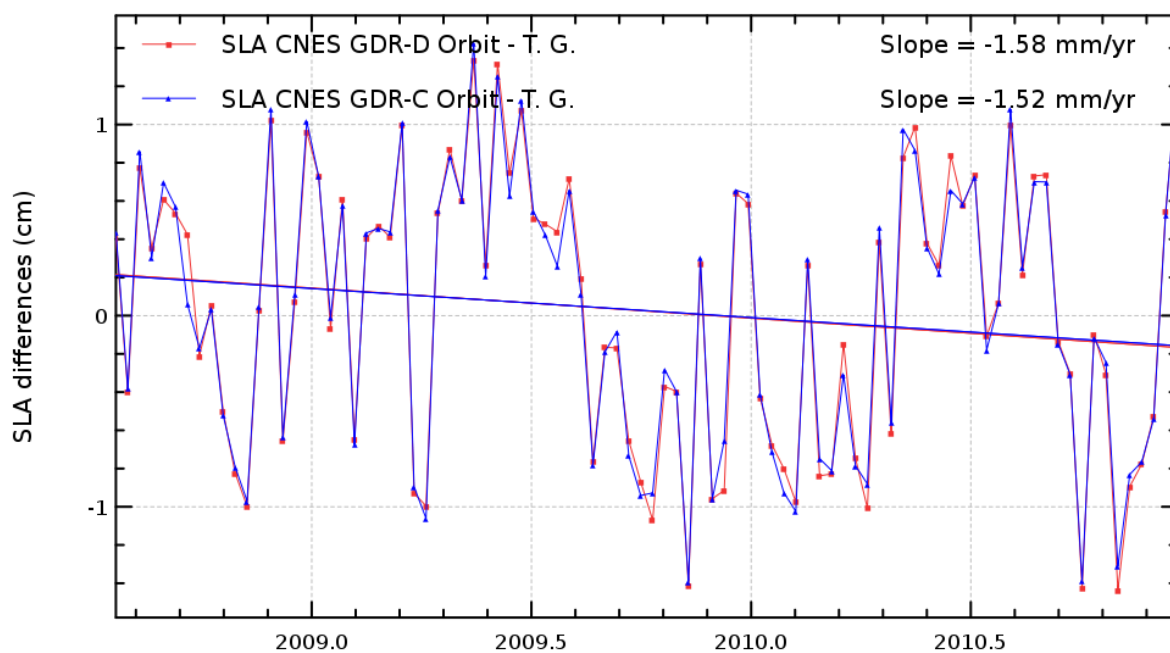
Name : Temporal evolution of SSH differences between tide gauges and altimetry measurements

Input data : Tide gauges SSH measurements

Description : The temporal evolution of global statistics (mean, variance, slope) of SSH differences between tide gauges and altimeter measurements are calculated from a cyclic way (altimeter repetitivity) using successively both altimetric components in SSH calculation. The altimetric and tide gauges data are colocated with criteria of maximum of correlation, and tide gauges used are derived from global networks (GLOSS/CLIVAR, REFMAR).

Diagnostic type : Altimetry and in-situ data comparison

SLA differences : altimetry measurements - tide gauges
Mission j2, cycles 1 to 92



Diagnostic C002 (mission en)

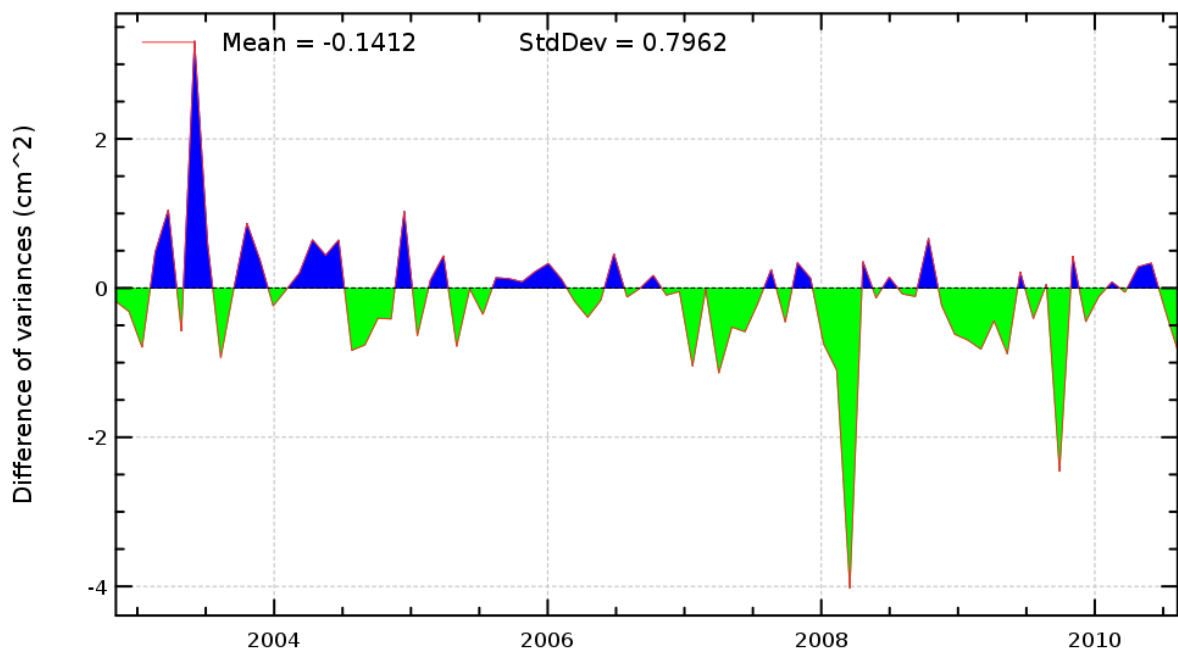
Name : Differences of temporal evolution of SSH differences between tide gauges and altimetry measurements

Input data : Tide gauges SSH measurements

Description : The difference between temporal evolution of global statistics of differences between tide gauge and altimeter data differences are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in altimetric SSH calculation. The altimetric and tide gauges data are collocated with criteria of maximum of correlation, and tide gauges used are derived from global networks as GLOSS/CLIVAR.

Diagnostic type : Altimetry and in-situ data comparison

ference of variances : $\text{VAR}(\text{SLA with CNES Prelim GDR-D Orbit} - \text{T. G.}) - \text{VAR}(\text{SLA with CNES GDR-C Orbi})$
Mission en, cycles 10 to 93



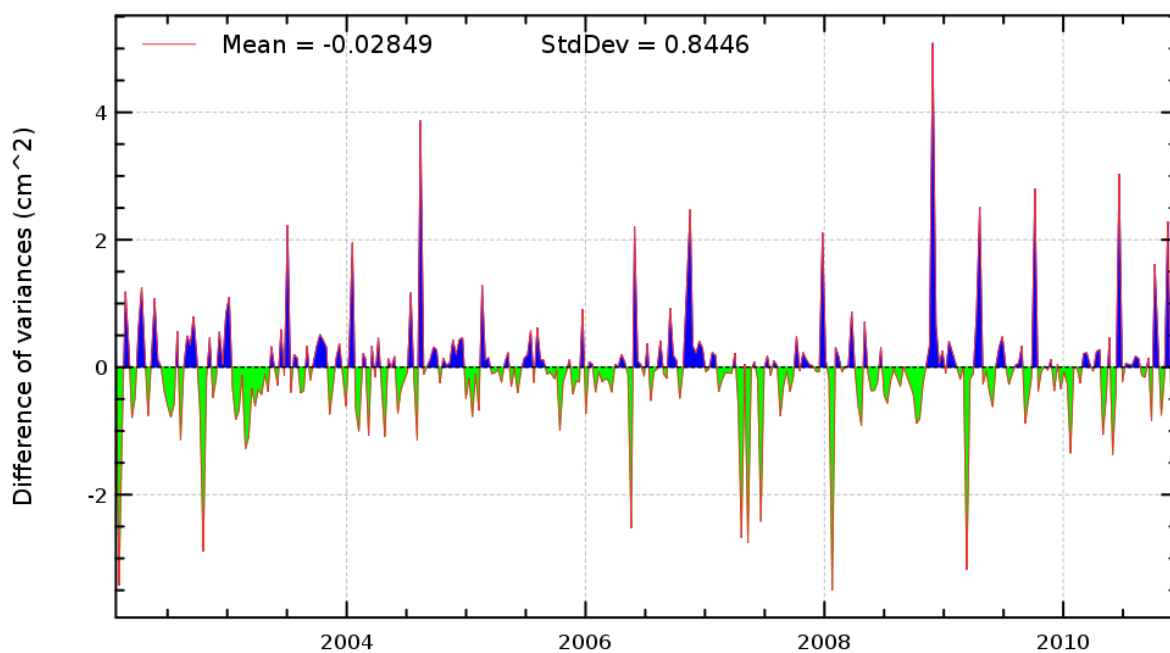
Diagnostic C002 (mission j1)

Name : Differences of temporal evolution of SSH differences between tide gauges and altimetry measurements

Input data : Tide gauges SSH measurements

Description : The difference between temporal evolution of global statistics of differences between tide gauge and altimeter data differences are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in altimetric SSH calculation. The altimetric and tide gauges data are collocated with criteria of maximum of correlation, and tide gauges used are derived from global networks as GLOSS/CLIVAR.

ference of variances : $\text{VAR}(\text{SLA with CNES Prelim GDR-D Orbit} - \text{T. G.}) - \text{VAR}(\text{SLA with CNES GDR-C Orbi})$
Mission j1, cycles 1 to 331



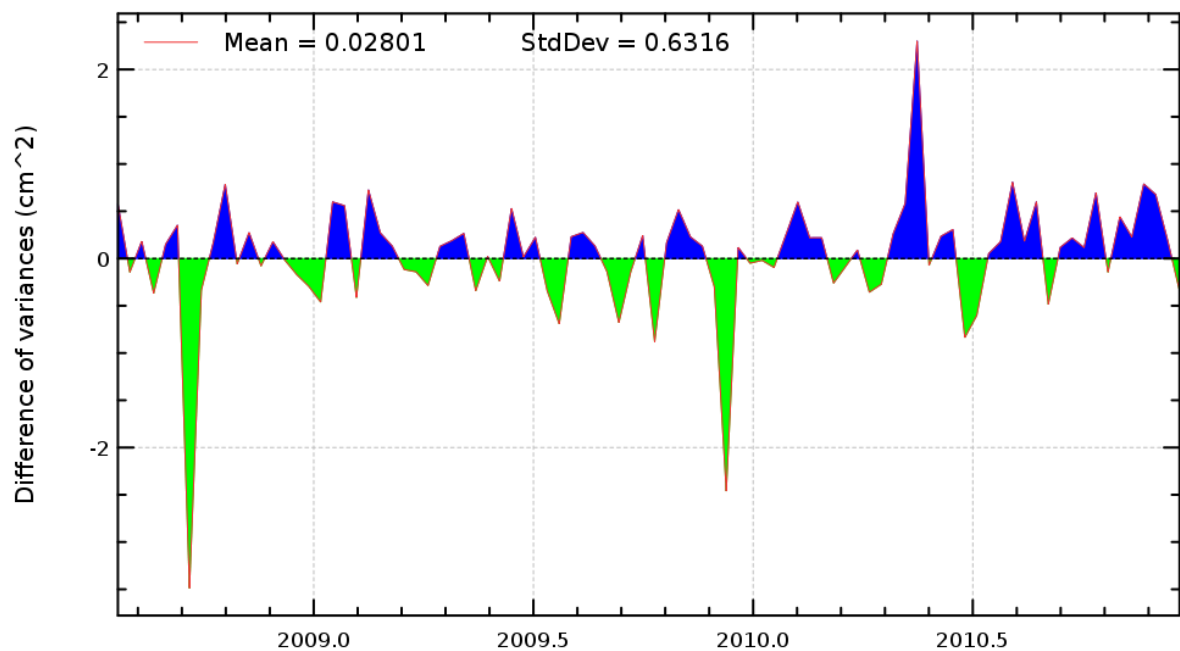
Diagnostic C002 (mission j2)

Name : Differences of temporal evolution of SSH differences between tide gauges and altimetry measurements

Input data : Tide gauges SSH measurements

Description : The difference between temporal evolution of global statistics of differences between tide gauge and altimeter data differences are calculated from a cyclic way (altimeter repetivity, daily, weekly, monthly) using successively both altimetric components in altimetric SSH calculation. The altimetric and tide gauges data are collocated with criteria of maximum of correlation, and tide gauges used are derived from global networks as GLOSS/CLIVAR.

ference of variances : $\text{VAR}(\text{SLA with CNES Prelim GDR-D Orbit} - \text{T. G.}) - \text{VAR}(\text{SLA with CNES GDR-C Orbi})$
Mission j2, cycles 1 to 92



Diagnostic C003 (mission en)	
Name : Periodogram derived from temporal evolution of SSH differences between tide gauges and altimetry	
Input data : Tide gauges SSH measurements	
Description : The periodogram derived from temporal evolution of altimetric and tide gauges SSH differences is calculated using successively both altimetric components in the altimetric SSH. The periodogram is calculated from the mean or variance statistics and it can be displayed for all the whole time period or a dedicated one	
<div>Periodogram of SLA differences : altimetry measurements - tide gauges (ref. period = 1 year) Mission en, cycles 10 to 93</div> <div></div> <div>Periodogram of SLA differences : altimetry measurements - tide gauges (period = [0, 1 year]) Mission en, cycles 10 to 93</div> <div></div>	

Diagnostic C003 (mission j1)

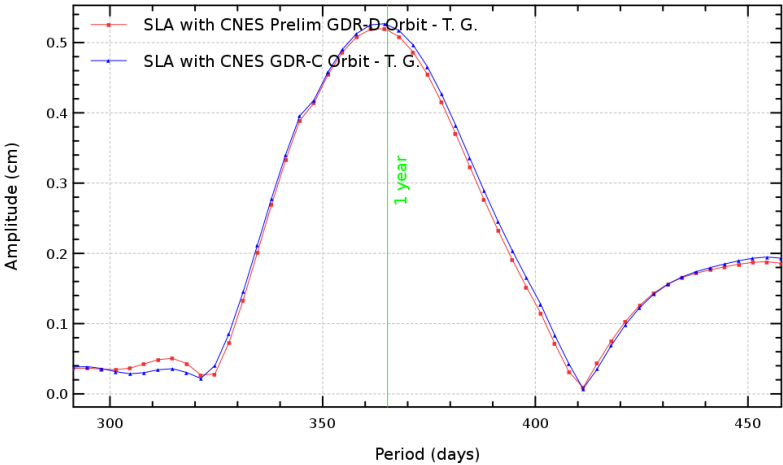
Name : Periodogram derived from temporal evolution of SSH differences between tide gauges and altimetry

Input data : Tide gauges SSH measurements

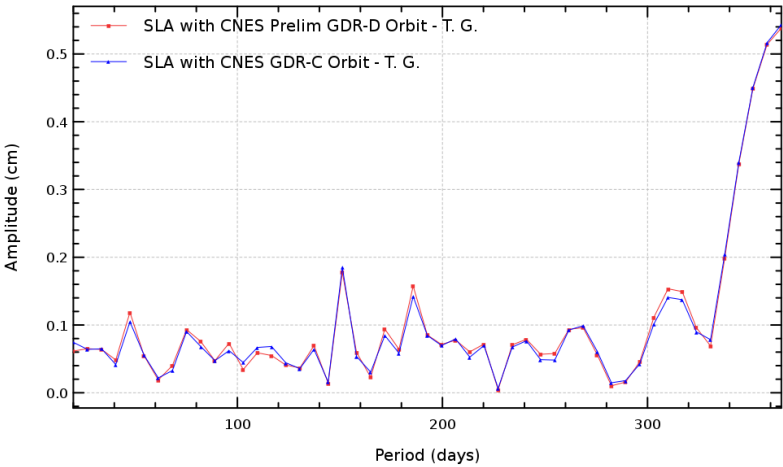
Description : The periodogram derived from temporal evolution of altimetric and tide gauges SSH differences is calculated using successively both altimetric components in the altimetric SSH. The periodogram is calculated from the mean or variance statistics and it can be displayed for all the whole time period or a dedicated one

Diagnostic type : Altimetry and in-situ data comparison

Periodogram of SLA differences : altimetry measurements - tide gauges (ref. period = 1 year)
Mission j1, cycles 1 to 331



Periodogram of SLA differences : altimetry measurements - tide gauges (period = [0, 1 year])
Mission j1, cycles 1 to 331



Diagnostic C003 (mission j2)

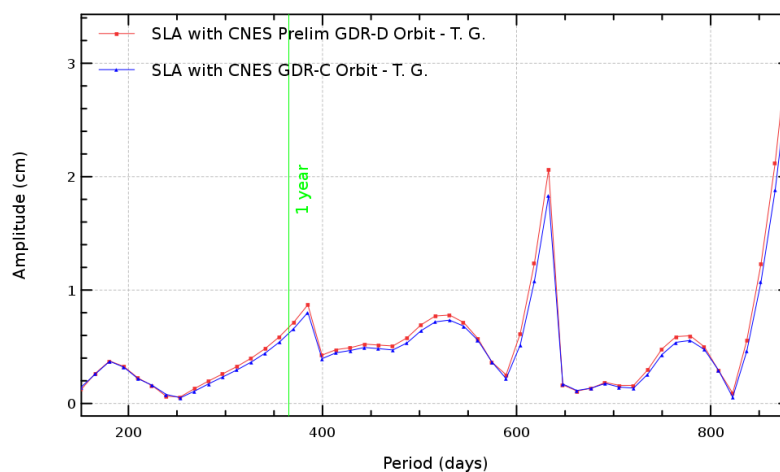
Name : Periodogram derived from temporal evolution of SSH differences between tide gauges and altimetry

Input data : Tide gauges SSH measurements

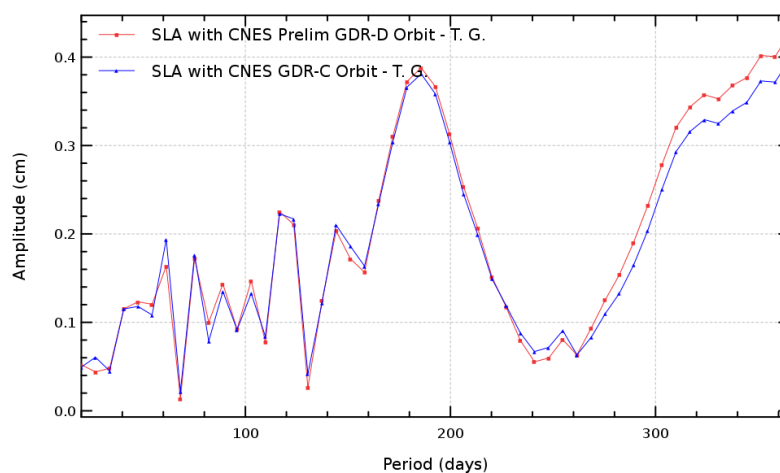
Description : The periodogram derived from temporal evolution of altimetric and tide gauges SSH differences is calculated using successively both altimetric components in the altimetric SSH. The periodogram is calculated from the mean or variance statistics and it can be displayed for all the whole time period or a dedicated one

Diagnostic type : Altimetry and in-situ data comparison

Periodogram of SLA differences : altimetry measurements - tide gauges (ref. period = 1 year)
Mission j2, cycles 1 to 92

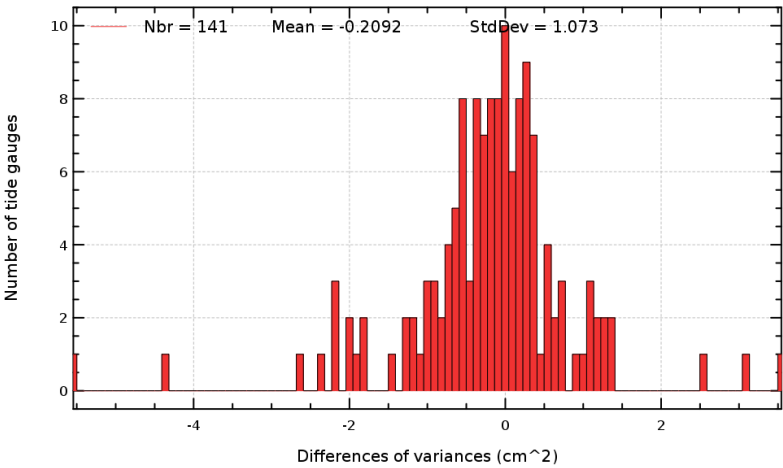


Periodogram of SLA differences : altimetry measurements - tide gauges (period = [0, 1 year])
Mission j2, cycles 1 to 92

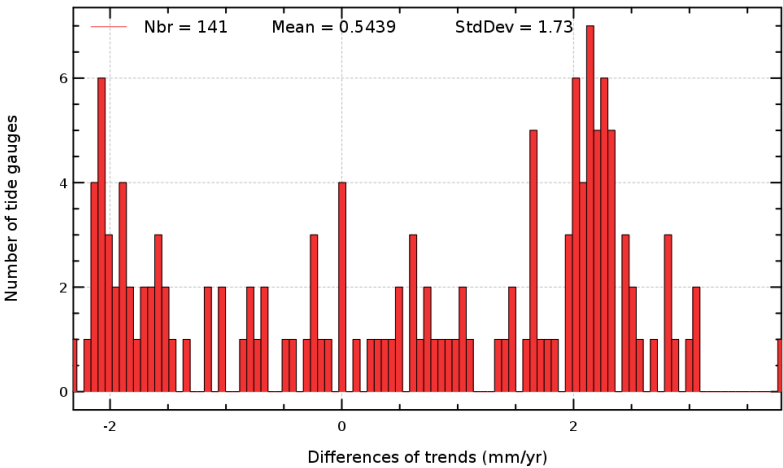


Diagnostic C004 (mission en)	
Name : Histograms of differences between tide gauges and altimeter SSH differences	
Input data : Tide gauges SSH measurements	
Description : The difference of histograms between altimeter and tide gauge SSH differences is computed from the elementary statistics at each tide gauge using successively both altimetric components in the altimetry SSH.	

of the difference of variances : VAR(SLA with CNES Prelim GDR-D Orbit - T. G.) - VAR(SLA with CNES GC
Mission en, cycles 10 to 93



of the difference of trends : TREND(SLA with CNES Prelim GDR-D Orbit - T. G.) - TREND(SLA with CNES G
Mission en, cycles 10 to 93



Diagnostic C004 (mission j1)

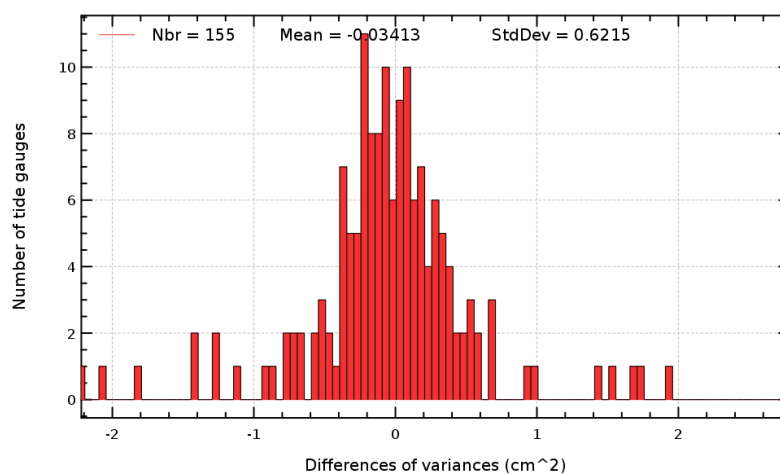
Name : Histograms of differences between tide gauges and altimeter SSH differences

Input data : Tide gauges SSH measurements

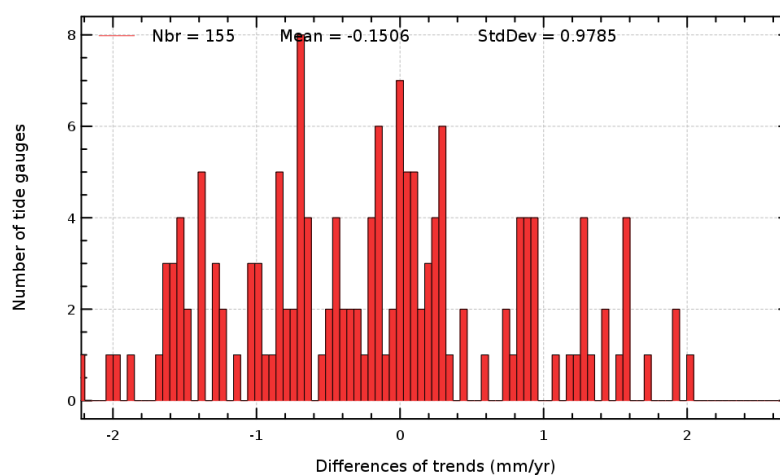
Description : The difference of histograms between altimeter and tide gauge SSH differences is computed from the elementary statistics at each tide gauge using successively both altimetric components in the altimetry SSH.

Diagnostic type : Altimetry and in-situ data comparison

of the difference of variances : $\text{VAR}(\text{SLA with CNES Prelim GDR-D Orbit} - \text{T. G.}) - \text{VAR}(\text{SLA with CNES GC})$
Mission j1, cycles 1 to 331



of the difference of trends : $\text{TREND}(\text{SLA with CNES Prelim GDR-D Orbit} - \text{T. G.}) - \text{TREND}(\text{SLA with CNES G})$
Mission j1, cycles 1 to 331



Diagnostic C004 (mission j2)

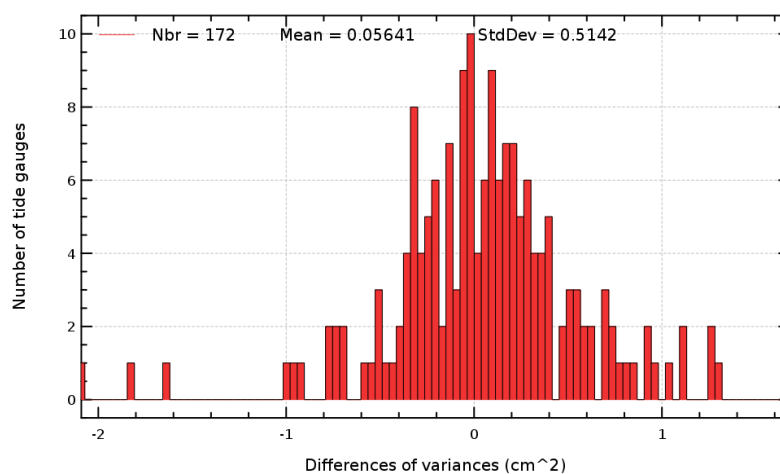
Name : Histograms of differences between tide gauges and altimeter SSH differences

Input data : Tide gauges SSH measurements

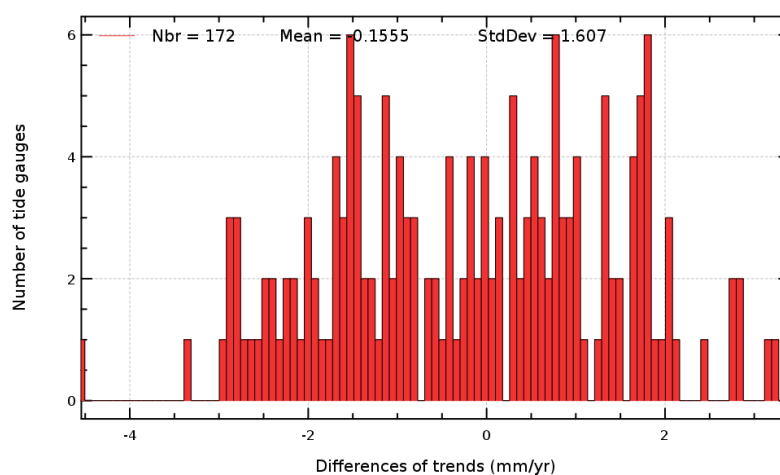
Description : The difference of histograms between altimeter and tide gauge SSH differences is computed from the elementary statistics at each tide gauge using successively both altimetric components in the altimetry SSH.

Diagnostic type : Altimetry and in-situ data comparison

of the difference of variances : $\text{VAR}(\text{SLA with CNES Prelim GDR-D Orbit} - \text{T. G.}) - \text{VAR}(\text{SLA with CNES GC})$
Mission j2, cycles 1 to 92



of the difference of trends : $\text{TREND}(\text{SLA with CNES Prelim GDR-D Orbit} - \text{T. G.}) - \text{TREND}(\text{SLA with CNES G})$
Mission j2, cycles 1 to 92

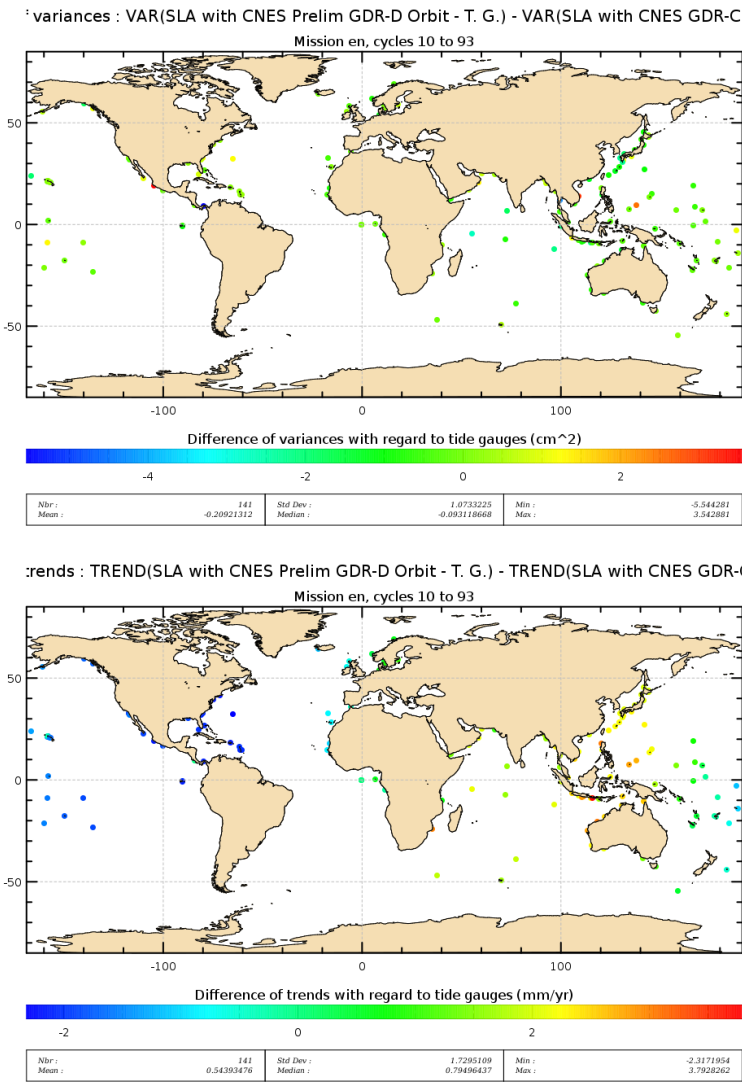


Diagnostic C005 (mission en)

Name : Map of differences between tide gauges and altimeter SSH differences

Input data : Tide gauges SSH measurements

Description : The map of global statistics of differences between altimeter and tide gauge SSH differences is computed from the statistics at each tide gauge location using successively both altimetric components in the altimetry SSH

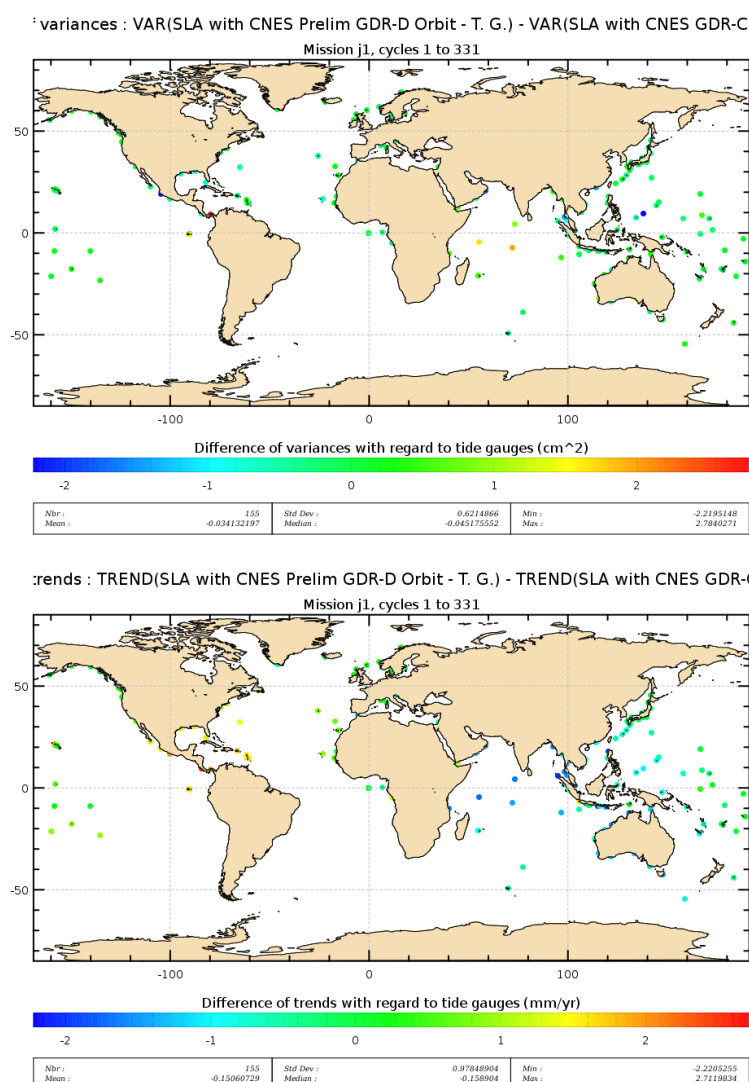


Diagnostic C005 (mission j1)

Name : Map of differences between tide gauges and altimeter SSH differences

Input data : Tide gauges SSH measurements

Description : The map of global statistics of differences between altimeter and tide gauge SSH differences is computed from the statistics at each tide gauge location using successively both altimetric components in the altimetry SSH



Diagnostic C005 (mission j2)

Name : Map of differences between tide gauges and altimeter SSH differences

Input data : Tide gauges SSH measurements

Description : The map of global statistics of differences between altimeter and tide gauge SSH differences is computed from the statistics at each tide gauge location using successively both altimetric components in the altimetry SSH

