

Iono comparison : IONO_FILTR_ITER versus IONO_FILTR

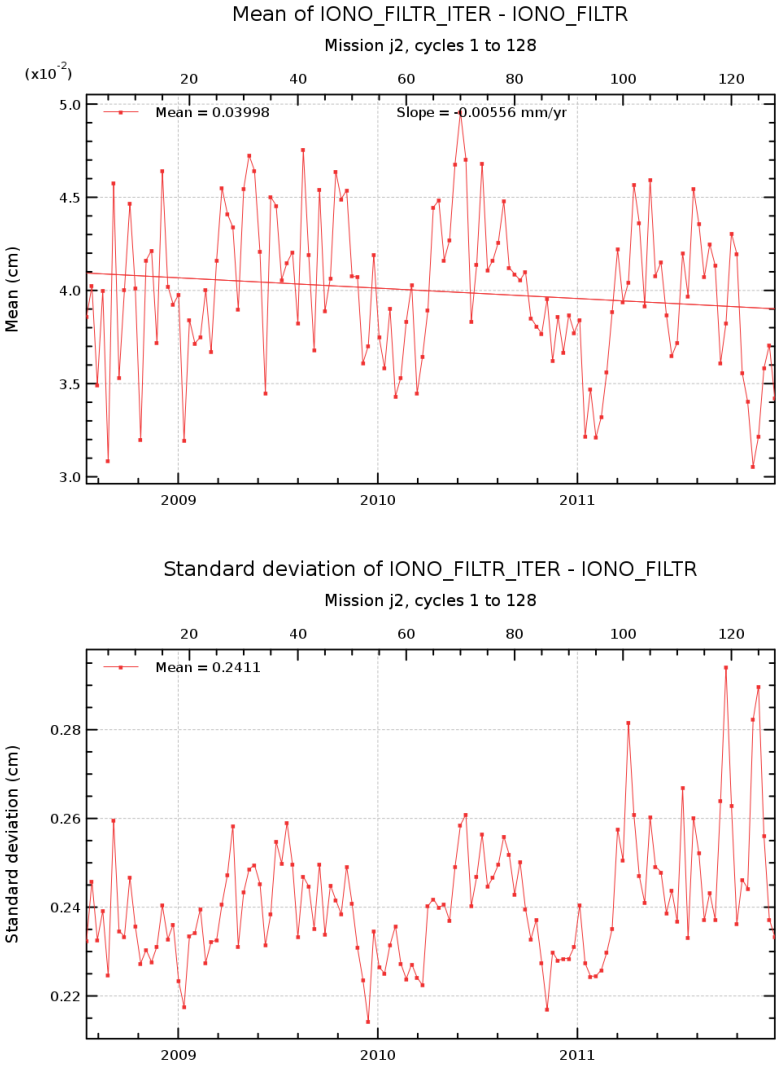
Study variable	IONO_FILTR_ITER
Reference variable	IONO_FILTR
Missions	Jason-2 (<i>j2</i>)
Period	[21377, 22646]

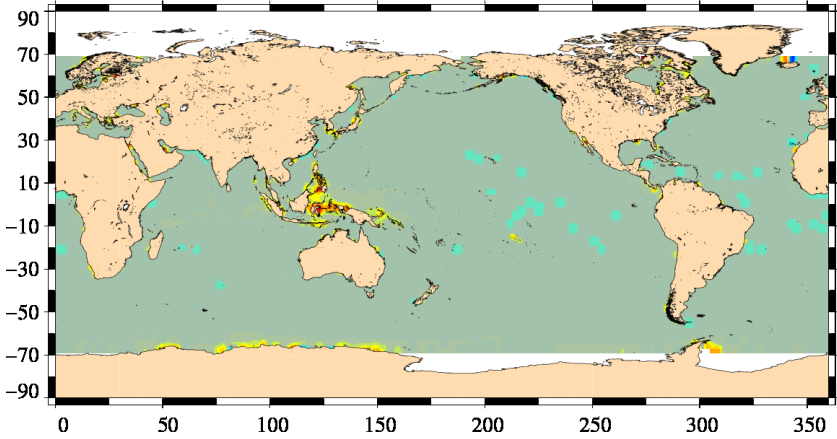
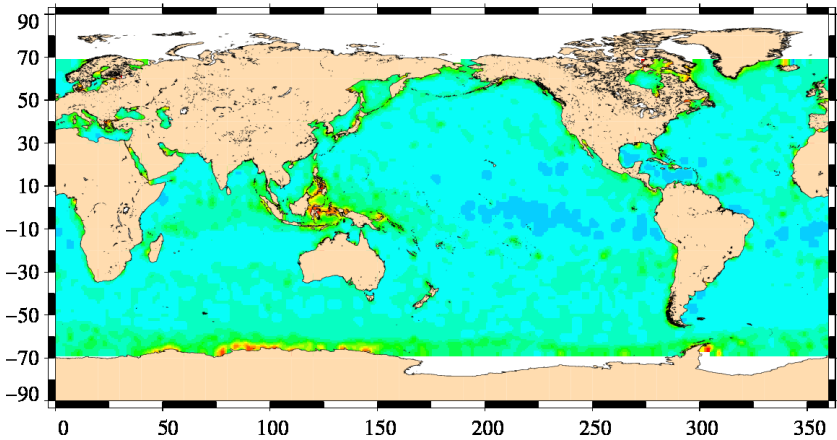
Creation date : 2012/02/13

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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 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.	
<div>Mean of IONO_FILTR_ITER – IONO_FILTR Mission j2, cycles 1 to 128</div> <div><p>-0.469329 0.265162 0.060995 0.143172 0.347339 0.551506</p><p>Moyenne</p><div>Standard deviation of IONO_FILTR_ITER – IONO_FILTR Mission j2, cycles 1 to 128</div><div><p>-0.273169 0.064953 0.143263 0.351479 0.559696 0.767912</p><p>Ecart-type</p></div></div>	

Diagnostic A003_a (mission j2)	
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><div><div>am of the mean of IONO_FILTER_ITER - IONO_FILTER (reference period</div><div>(x10⁻³)</div><div>Mission j2, cycles 1 to 128</div><div><div>Amplitude (cm)</div><div></div></div></div></div> <div><div><div>the standard deviation of IONO_FILTER_ITER - IONO_FILTER (reference </div><div>(x10⁻²)</div><div>Mission j2, cycles 1 to 128</div><div><div>Amplitude (cm)</div><div></div></div></div></div>	

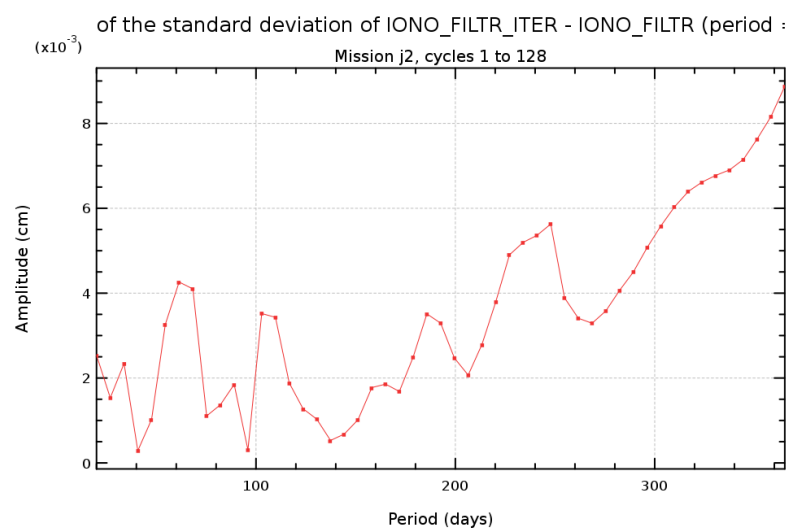
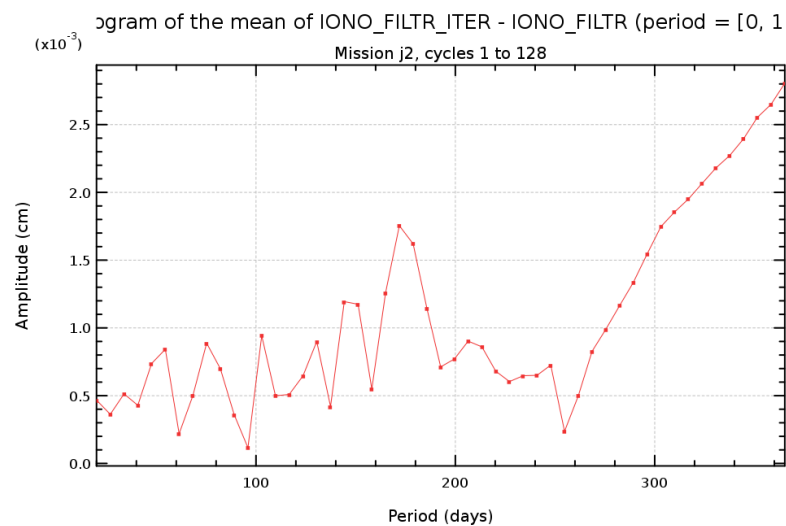
Diagnostic A003_b (mission j2)

Name : Periodogram derived from temporal evolution of altimetric component differences

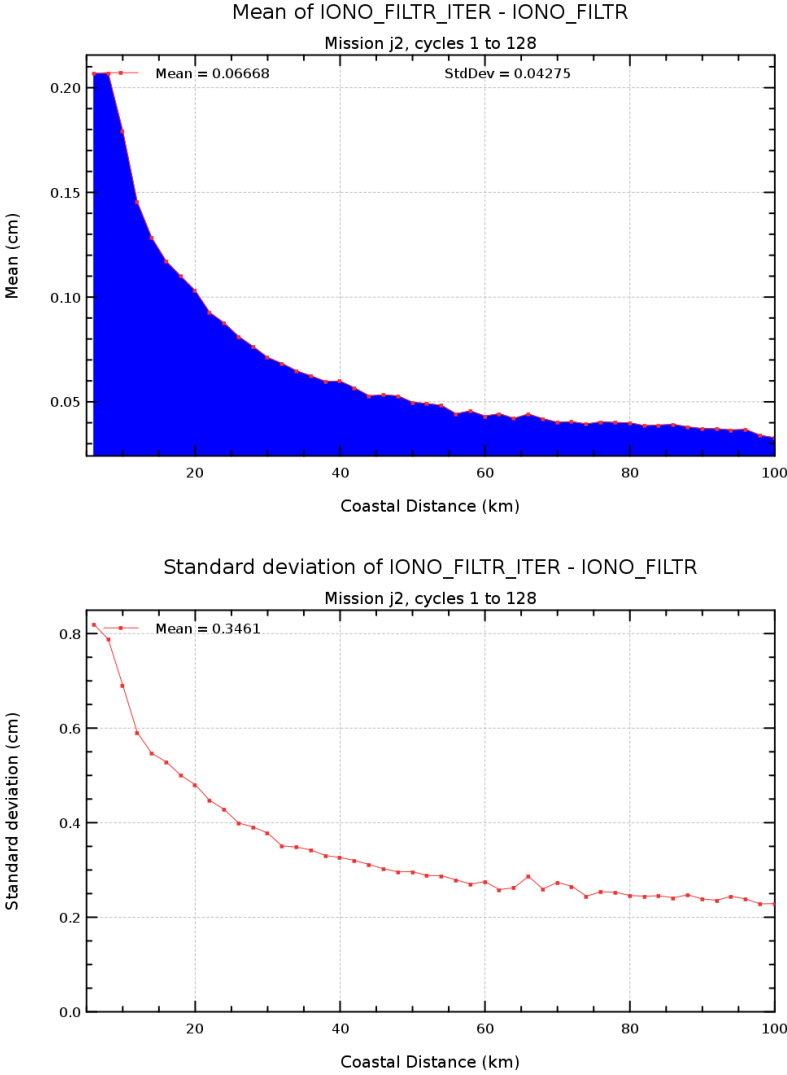
Input data : Along-track altimetric components

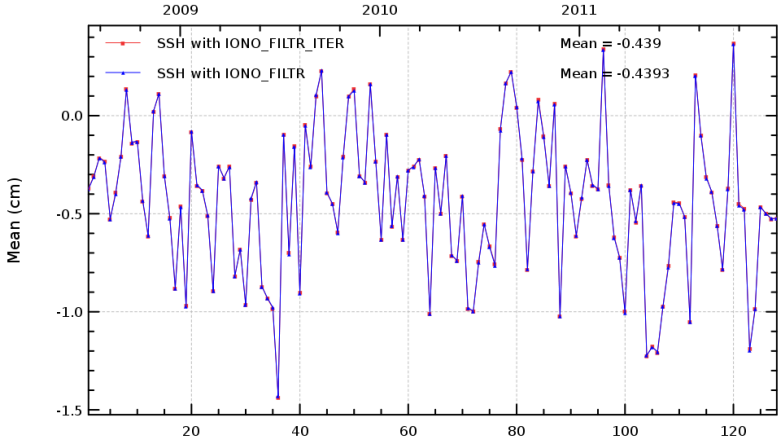
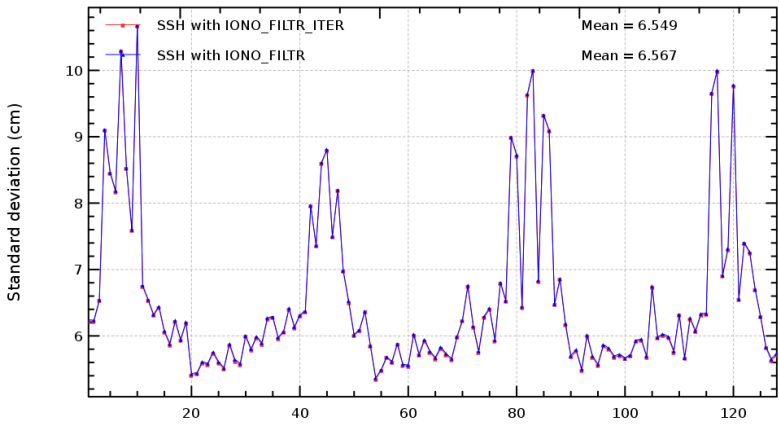
Description : The periodogram derived from temporal and global altimetric component differences is calculated from cycle by cycle monitoring of altimetric component differences (derived from diagnostic A001). It is calculated from the mean or the variance differences. The Periodogram can be calculated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

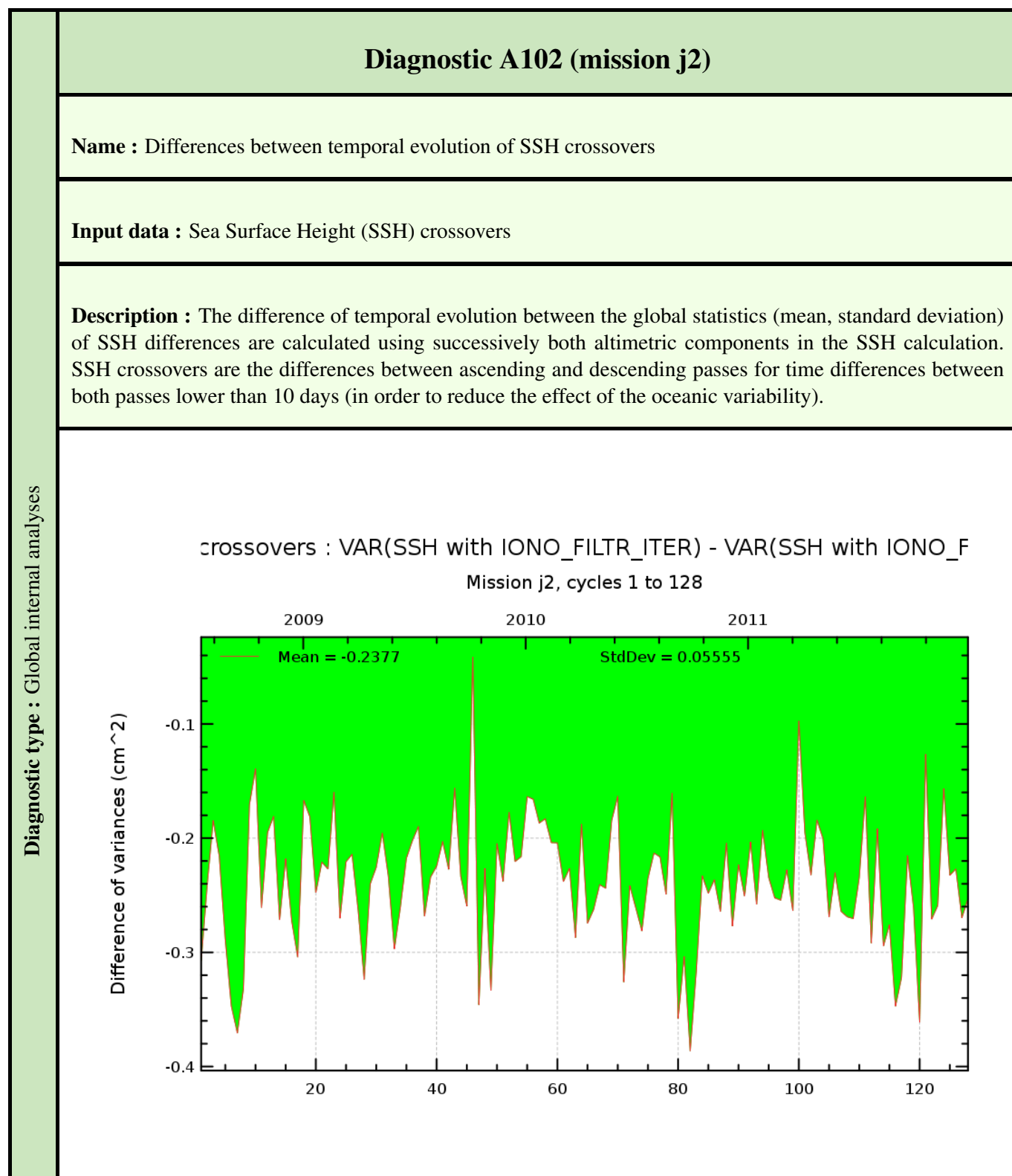
Diagnostic type : Global internal analyses

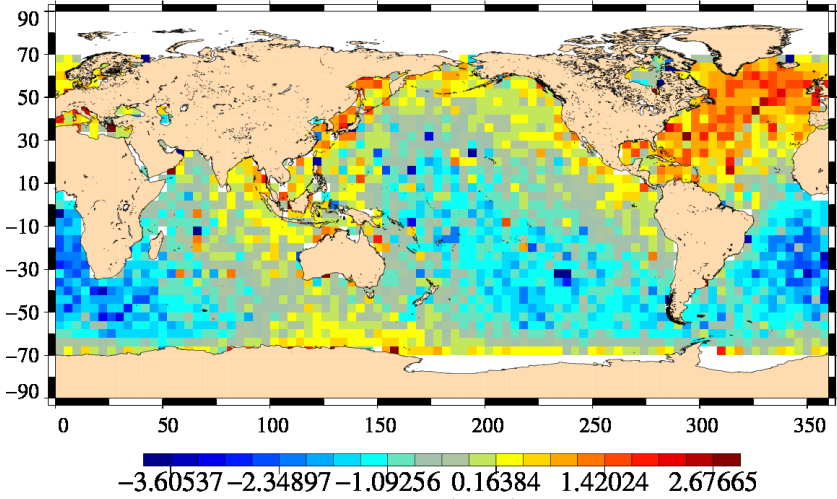
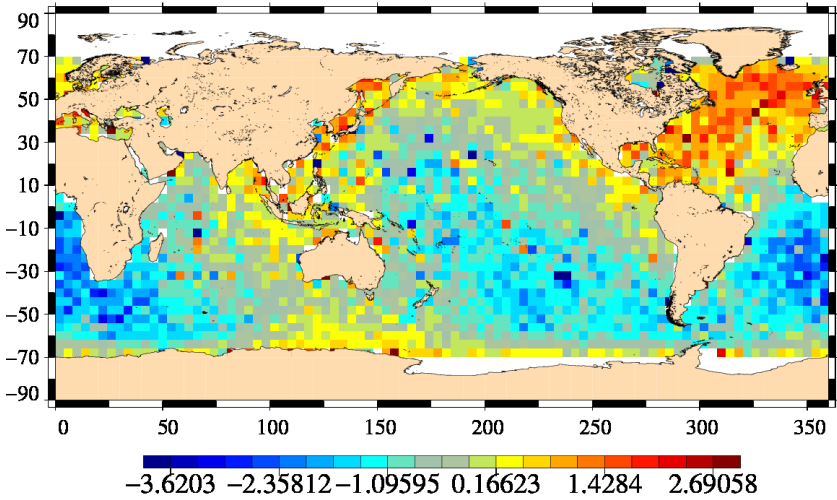


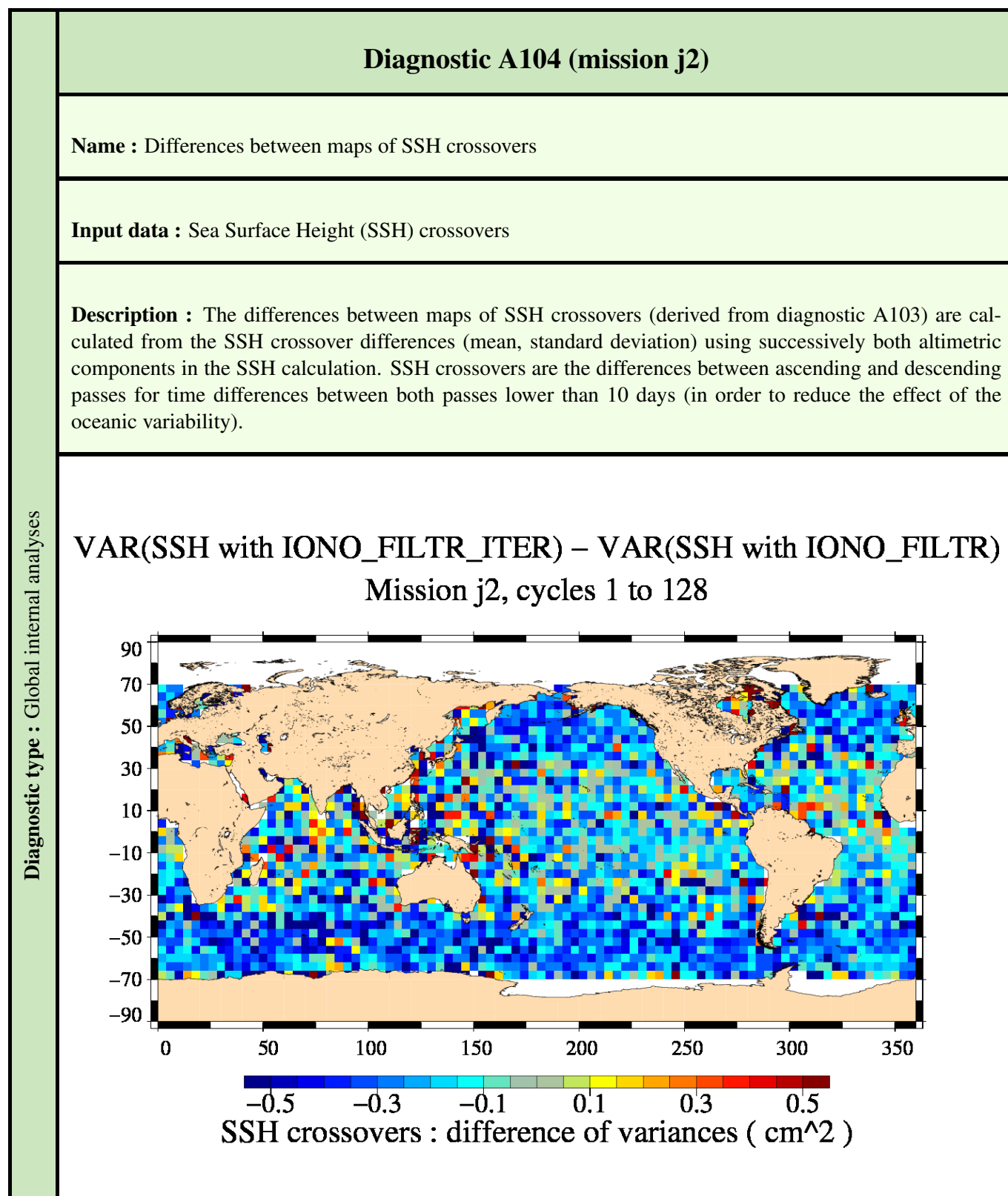
Diagnostic A004 (mission j2)	
Name : Altimetric component differences versus coastal distances	
Input data : Along-track altimetric components	
Description : Mean and standard deviation of the differences between 2 different standards of a same altimetric component (sea surface height correction, altimeter parameter, orbit) are computed and plotted in function of coastal distances between 0 and 100 km.	



Diagnostic A101 (mission j2)	
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>Mean of SSH crossovers</div><div>Mission j2, cycles 1 to 128</div><div></div></div> <div><div>Standard deviations of SSH crossovers</div><div>Mission j2, cycles 1 to 128</div><div></div></div>	



Diagnostic A103 (mission j2)	
Name : Map of SSH crossovers	
Input data : Sea Surface Height (SSH) crossovers	
<p>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).</p>	
<div>Mean of SSH with IONO_FILTR_ITER Mission j2, cycles 1 to 128</div>  <div>Mean (cm)</div> <div>Mean of SSH with IONO_FILTR Mission j2, cycles 1 to 128</div>  <div>Mean (cm)</div>	



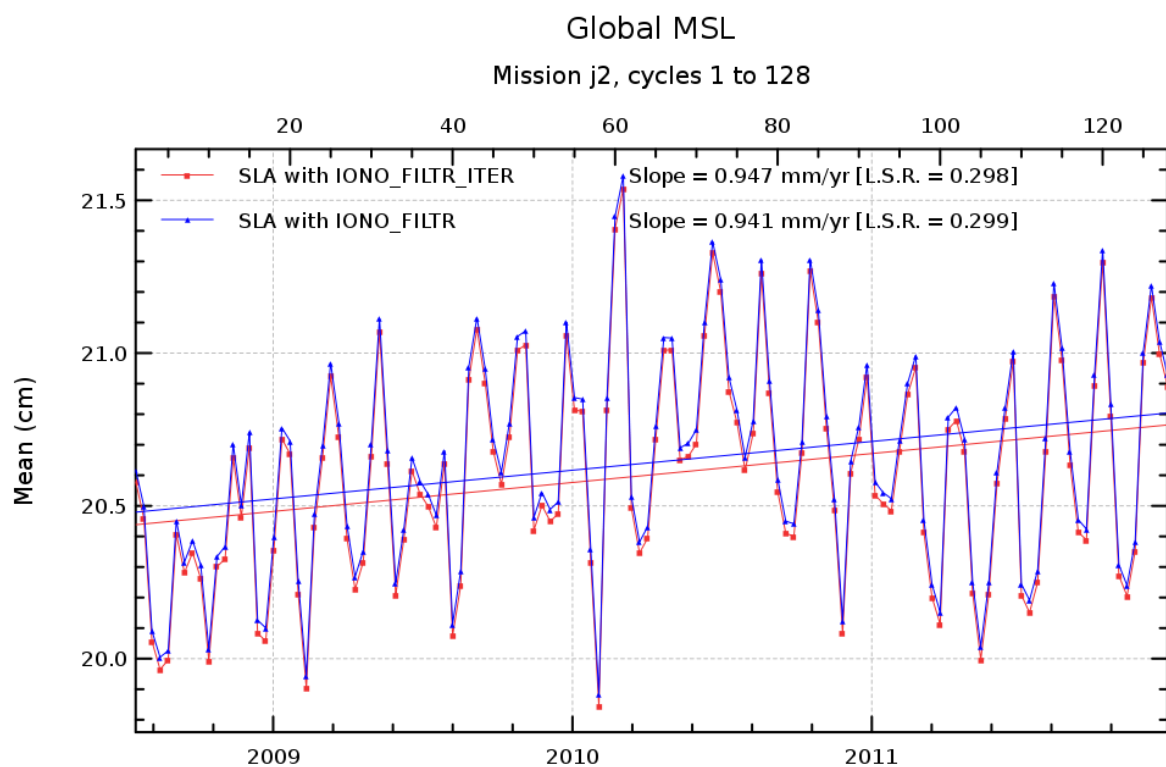
Diagnostic A201_a (mission j2)

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 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



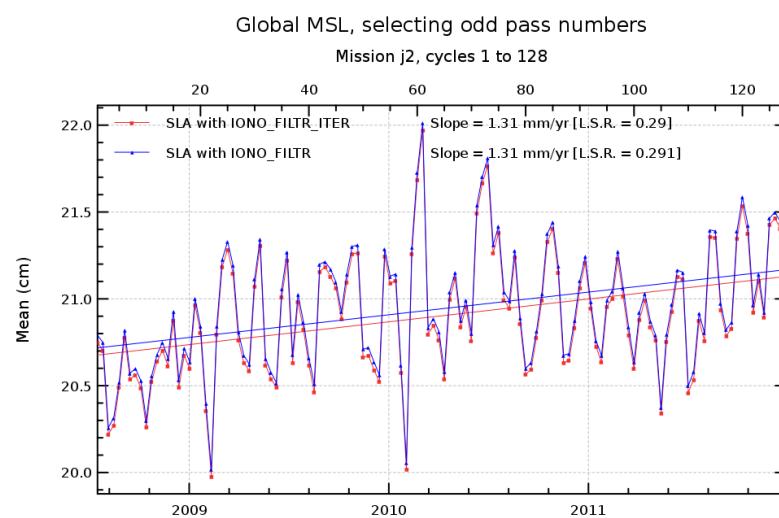
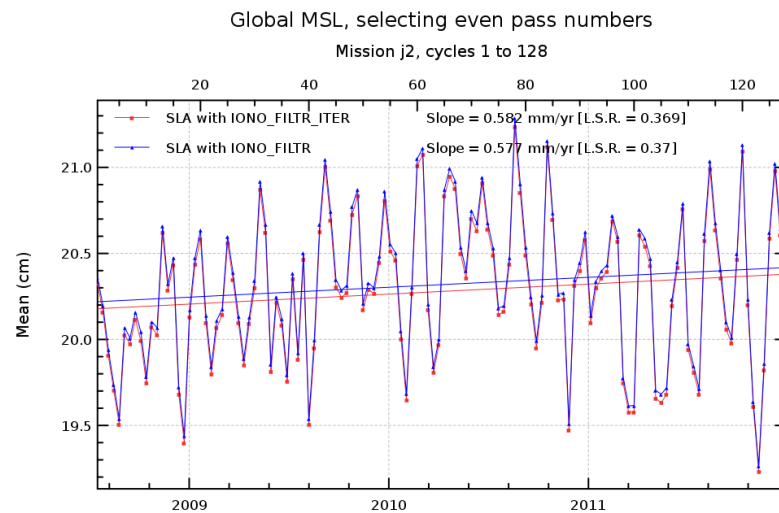
Diagnostic A201_b (mission j2)

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



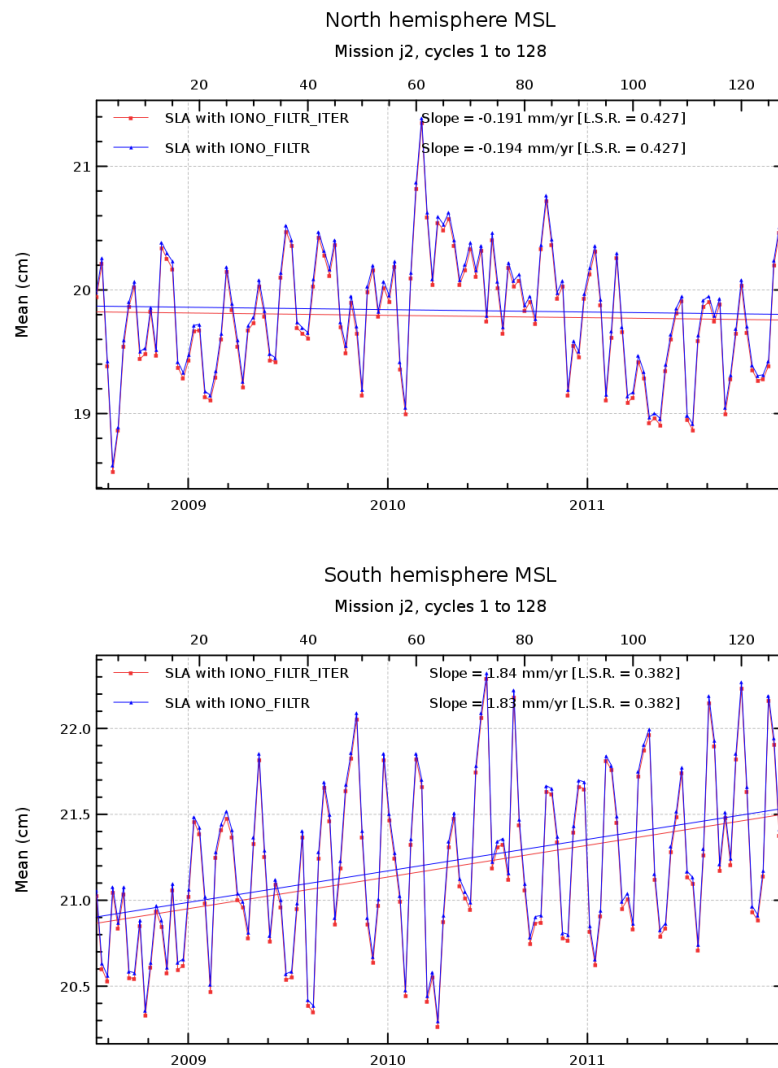
Diagnostic A201_c (mission j2)

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 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



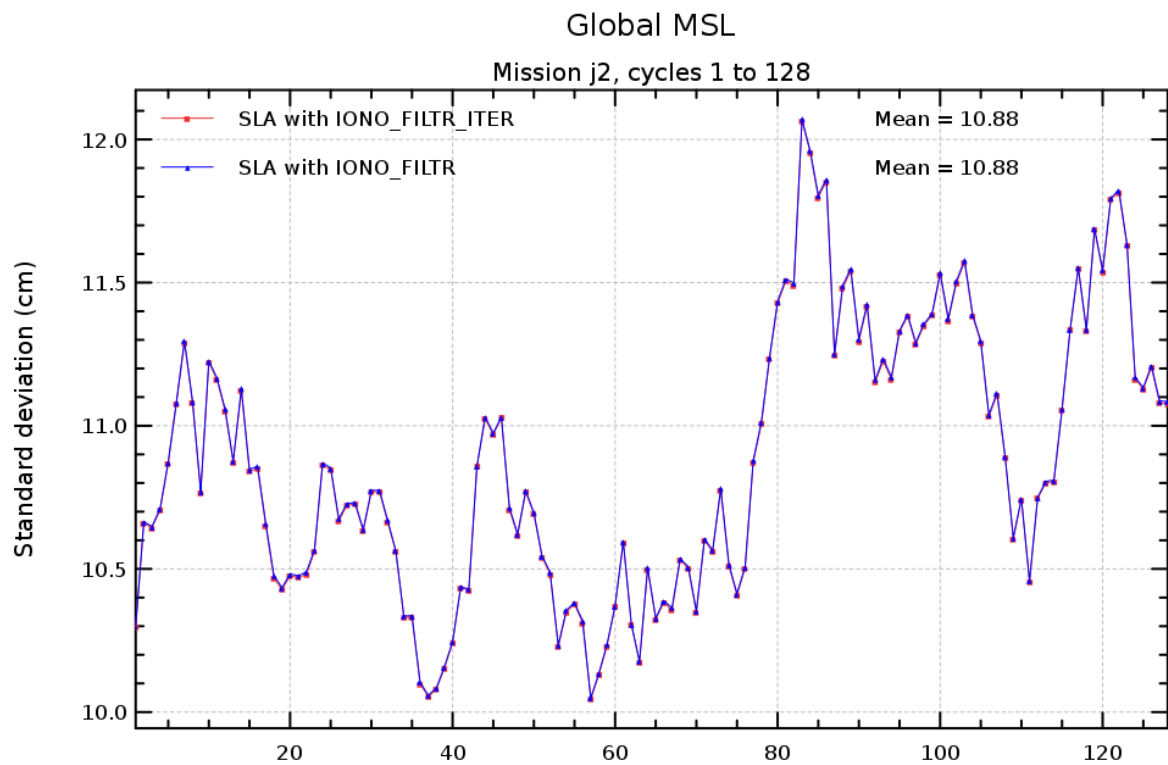
Diagnostic A201_d (mission j2)

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



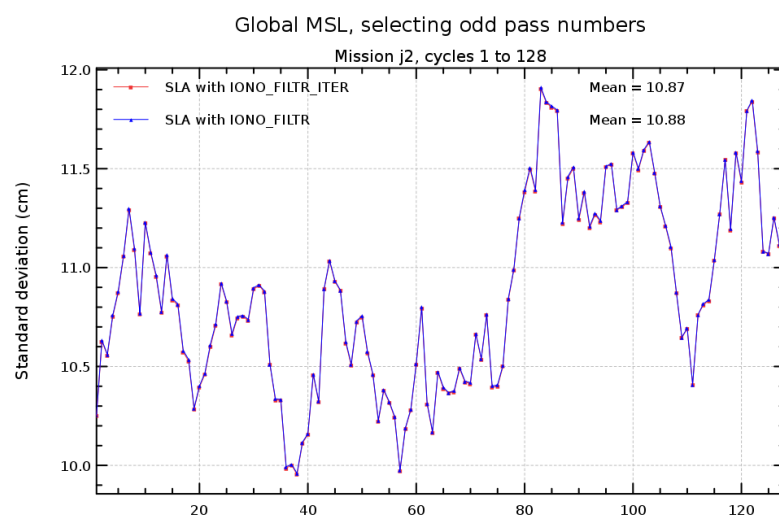
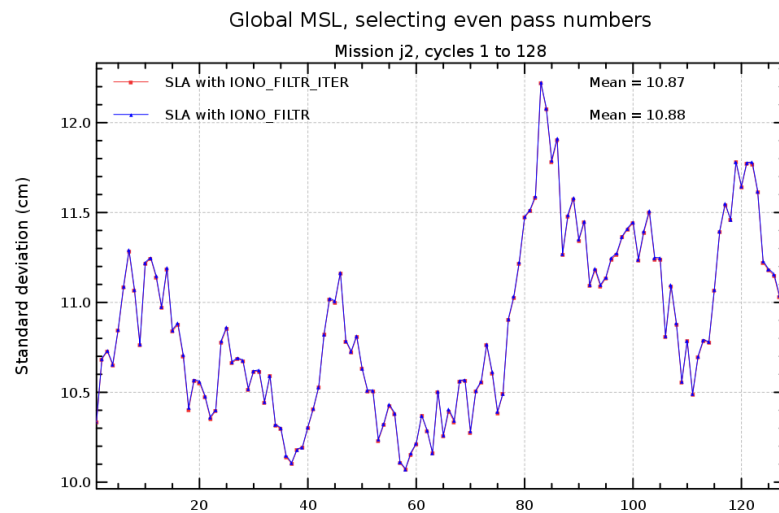
Diagnostic A201_e (mission j2)

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



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	
	<p>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.</p>	
	<p>VAR(SLA with IONO_FILTR_ITER) - VAR(SLA with IONO_FILTR)</p> <p>Mission j2, cycles 1 to 128</p> <p>2009 2010 2011</p> <p>Mean = -0.1239</p> <p>Difference of variances (cm²)</p> <p>Cycles</p>	

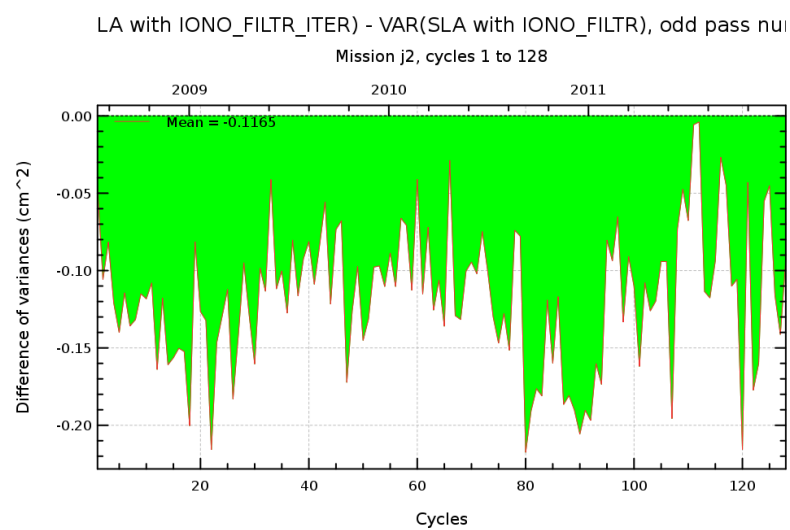
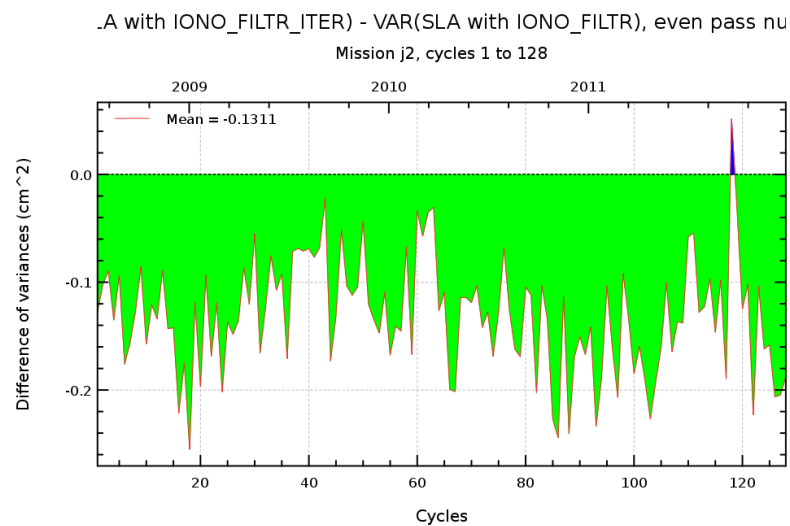
Diagnostic A202_b (mission j2)

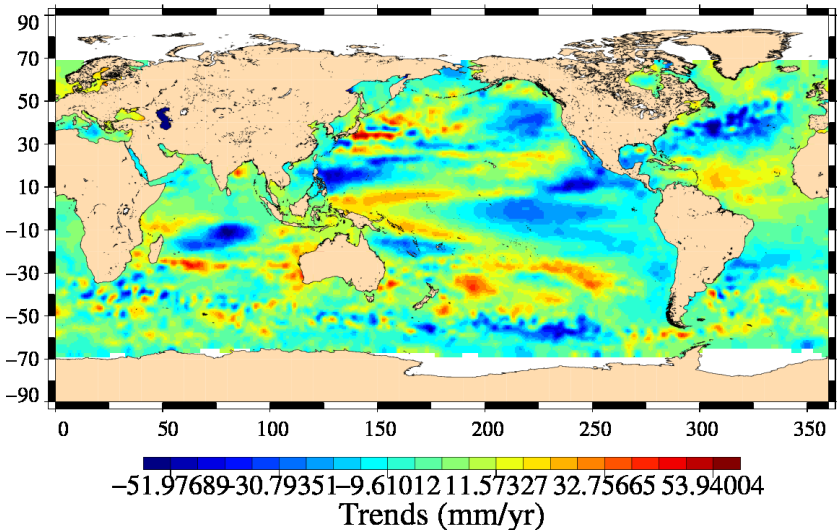
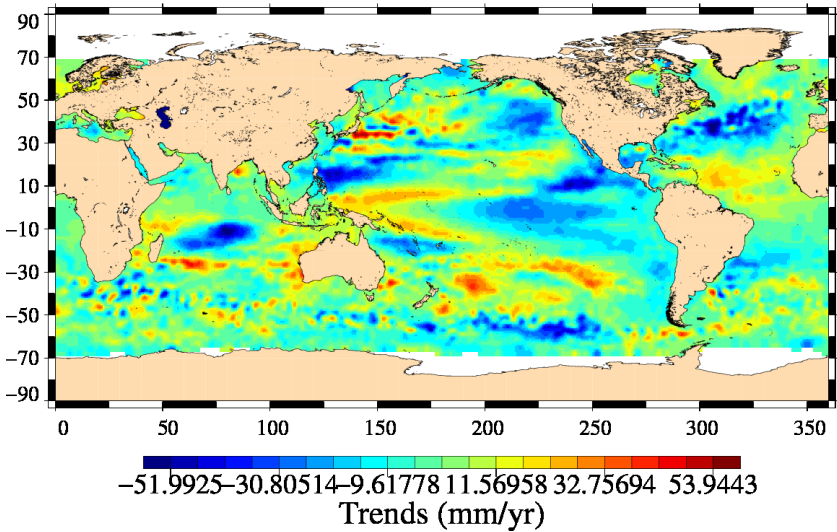
Name : Differences between temporal evolution of Sea Level Anomaly (SLA)

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 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.	
	<div>SLA with IONO_FILTR_ITER trends Mission j2, cycles 1 to 128</div>  <div>SLA with IONO_FILTR trends Mission j2, cycles 1 to 128</div> 	

Diagnostic A203_b (mission j2)

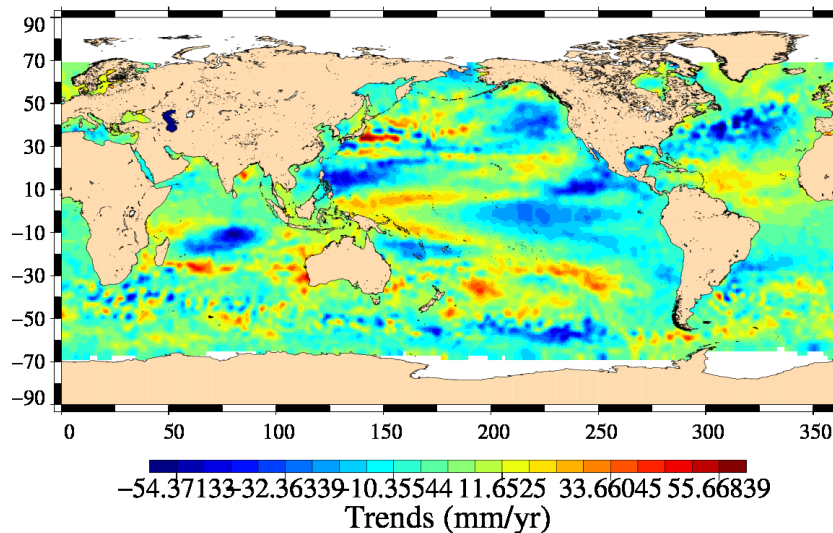
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

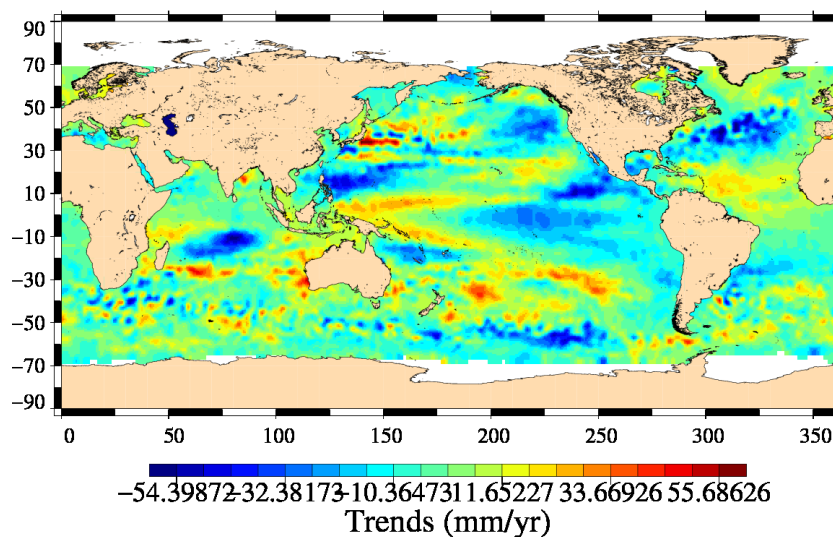
Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

Diagnostic type : Global internal analyses

SLA with IONO_FILTR_ITER trends : even pass numbers
Mission j2, cycles 1 to 128



SLA with IONO_FILTR trends : even pass numbers
Mission j2, cycles 1 to 128



Diagnostic A203_c (mission j2)

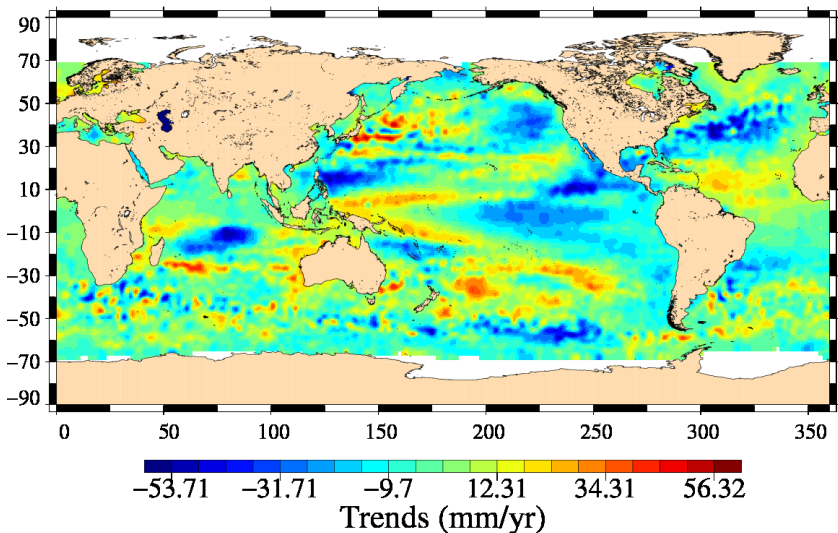
Name : Map of Sea Level Anomaly (SLA) over all the period

Input data : Along track SLA

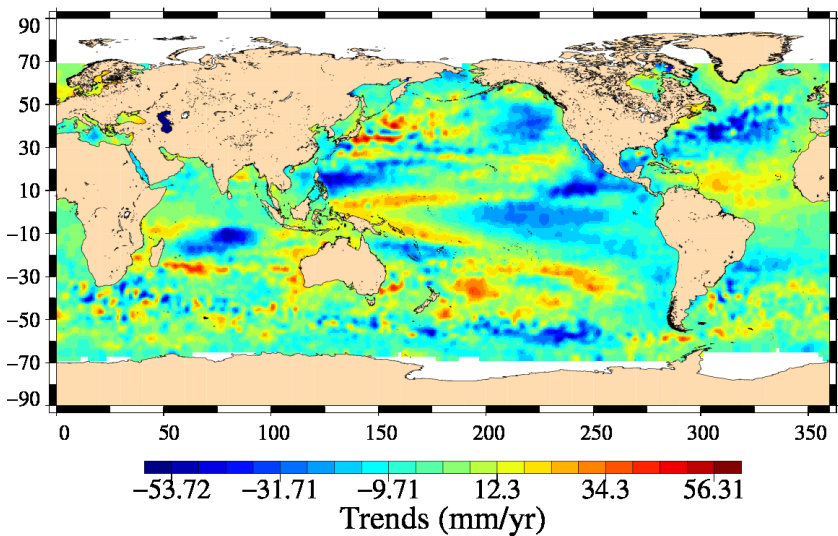
Description : The map of global statistics (mean, standard deviation) of SLA are calculated using successively both altimetric components in the SLA calculation over a large period. These statistics are calculated from 1 Hz altimetric measurements after removing spurious sea level measurements.

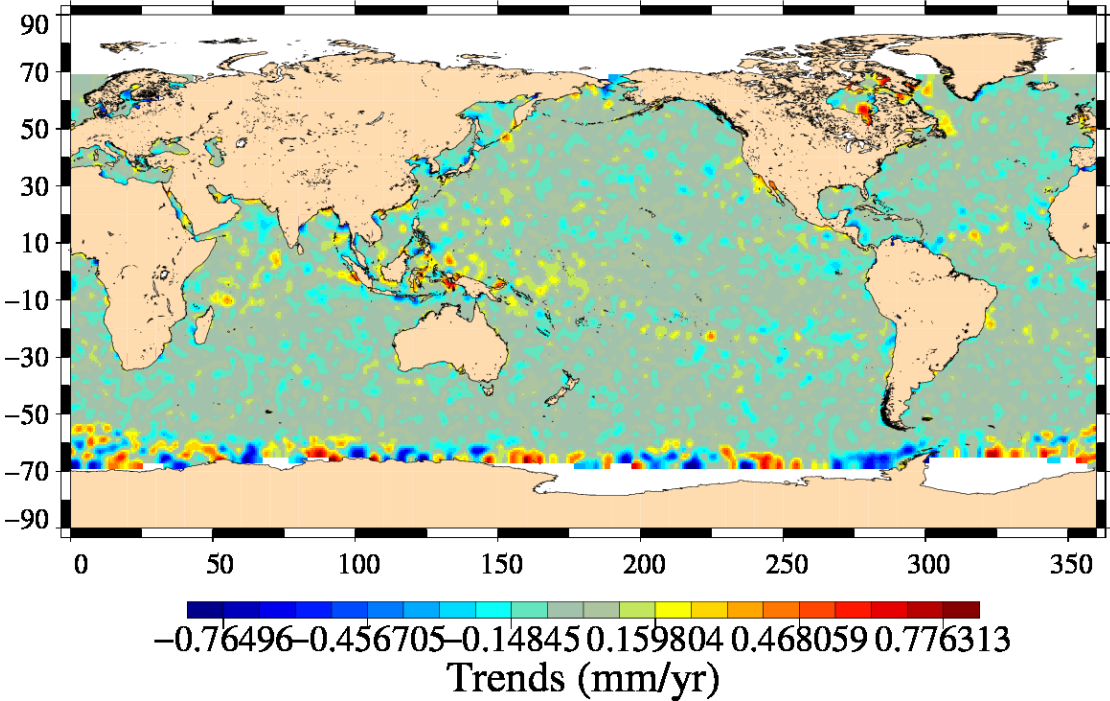
Diagnostic type : Global internal analyses

SLA with IONO_FILTER_ITER trends : odd pass numbers
Mission j2, cycles 1 to 128



SLA with IONO_FILTER trends : odd pass numbers
Mission j2, cycles 1 to 128



Diagnostic type : Global internal analyses	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).	
	<div>SLA with IONO_FILTR_ITER trends – SLA with IONO_FILTR trends</div> <div>Mission j2, cycles 1 to 128</div> 	

Diagnostic A204_b (mission j2)

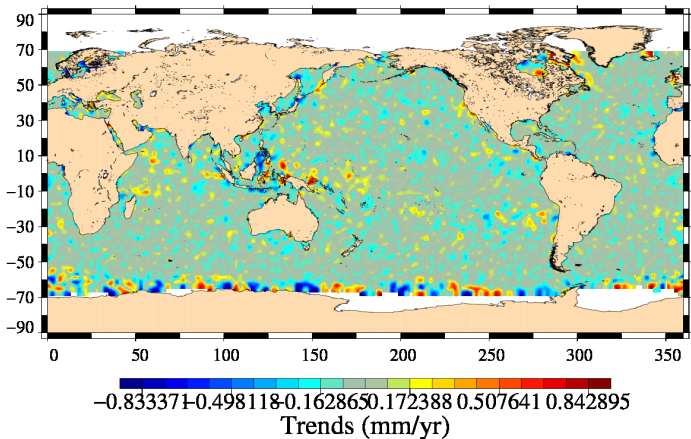
Name : Differences between maps of SLA

Input data : Along track SLA

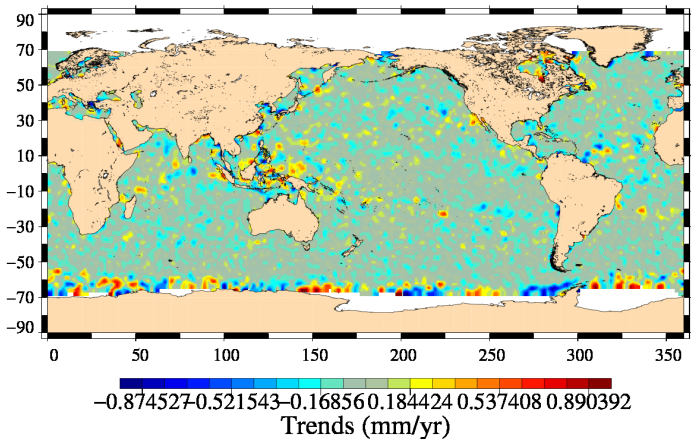
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except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

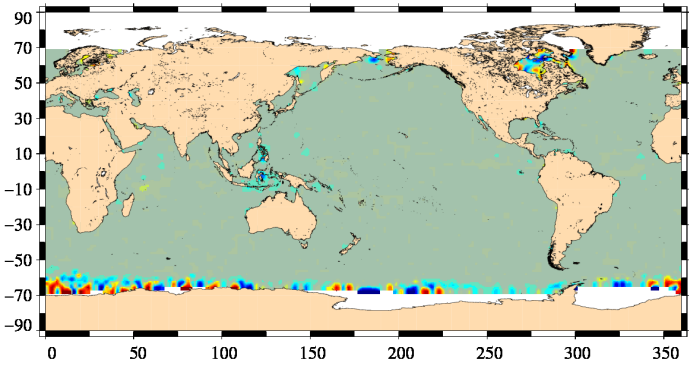
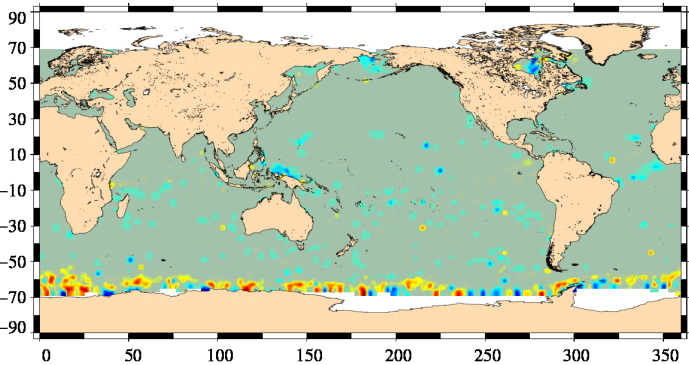
Diagnostic type : Global internal analyses

th IONO_FILTER_ITER trends – SLA with IONO_FILTER trends : even pass r
Mission j2, cycles 1 to 128



th IONO_FILTER_ITER trends – SLA with IONO_FILTER trends : odd pass n
Mission j2, cycles 1 to 128



Diagnostic type : Global internal analyses	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).	
	<div><div>1 IONO_FILTR_ITER amplitude – SLA with IONO_FILTR amplitude : annu</div><div>Mission j2, cycles 1 to 128</div><div></div><div>Amplitude (cm)</div><div>with IONO_FILTR_ITER phase – SLA with IONO_FILTR phase : annual si</div><div>Mission j2, cycles 1 to 128</div><div></div><div>Phase (degree)</div></div>	

Diagnostic A205_b (mission j2)

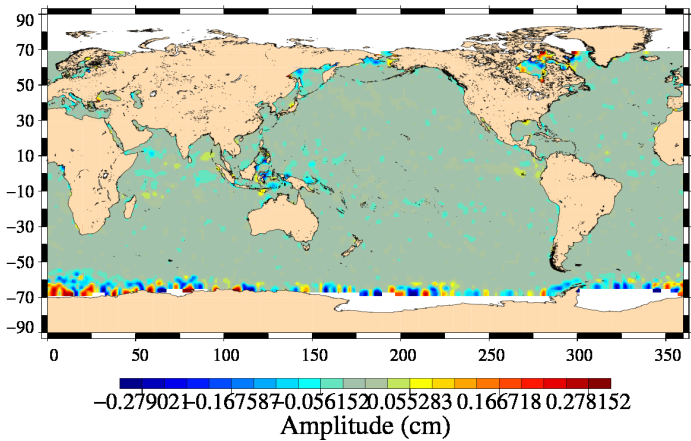
Name : Differences between maps of SLA (2)

Input data : Along track SLA

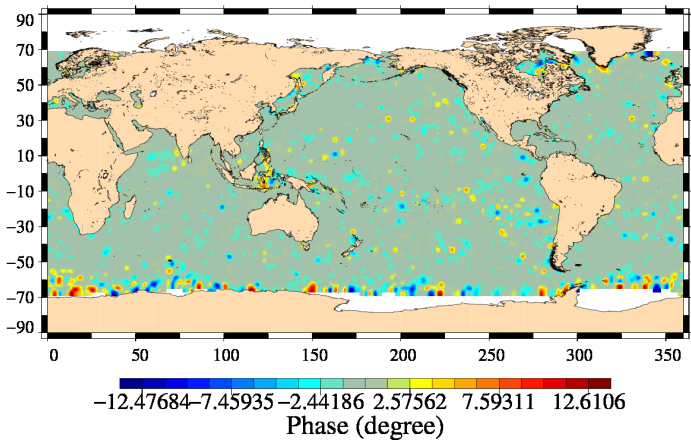
Description : The difference of SLA maps (mean, standard deviation, slope) is calculated from maps derived from diagnostic A203 using successively both altimetric components in the SLA calculation over a given period. This can be done globally, or separating in ascending and descending passes (except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

Diagnostic type : Global internal analyses

IONO_FILTR_ITER amplitude – SLA with IONO_FILTR amplitude : semi-annual
Mission j2, cycles 1 to 128



IONO_FILTR_ITER phase – SLA with IONO_FILTR phase : semi-annual
Mission j2, cycles 1 to 128



Diagnostic A206_a (mission j2)	
Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)	
Input data : Along track SLA	
<p>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.</p>	
<div><p>Periodogram of SLA (reference period = 1 year)</p><p>Mission j2, cycles 1 to 128</p><p>Amplitude (cm)</p><p>Period (days)</p><p>SLA with IONO_FILTER_ITER</p><p>SLA with IONO_FILTER</p><p>1 year</p><p>Periodogram of SLA (period = [0, 1 year])</p><p>Mission j2, cycles 1 to 128</p><p>Amplitude (cm)</p><p>Period (days)</p><p>SLA with IONO_FILTER_ITER</p><p>SLA with IONO_FILTER</p></div>	

Diagnostic A206_b (mission j2)

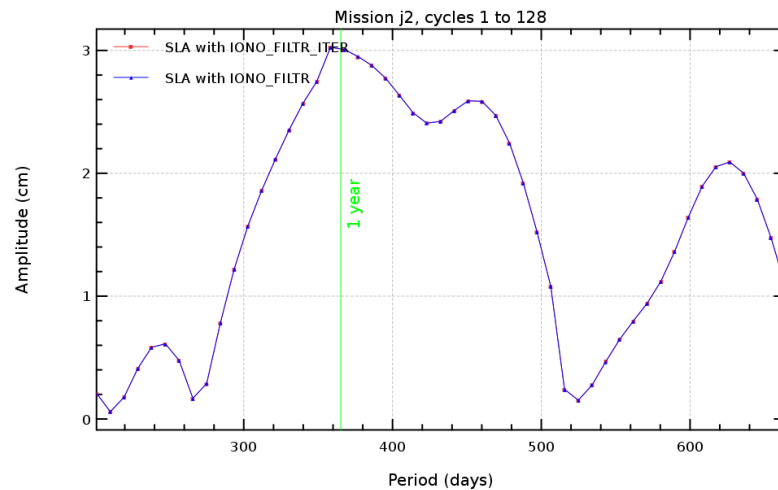
Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

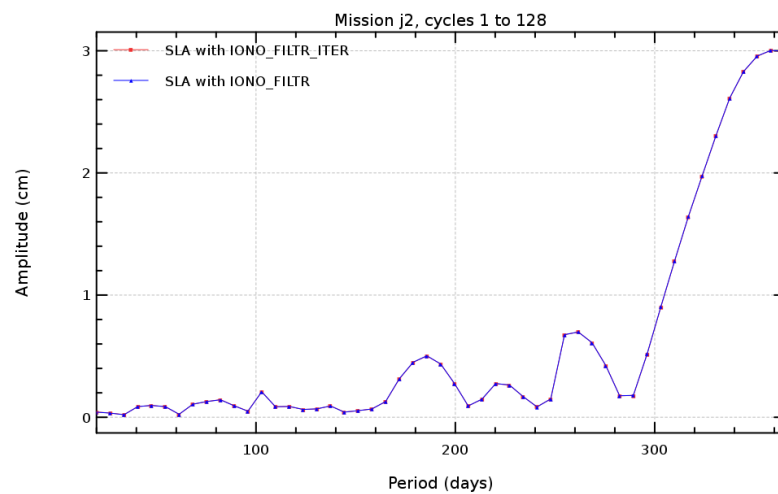
Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data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

Diagnostic type : Global internal analyses

Periodogram of north hemisphere SLA (reference period = 1 year)



Periodogram of north hemisphere SLA (period = [0, 1 year])



Diagnostic A206_c (mission j2)

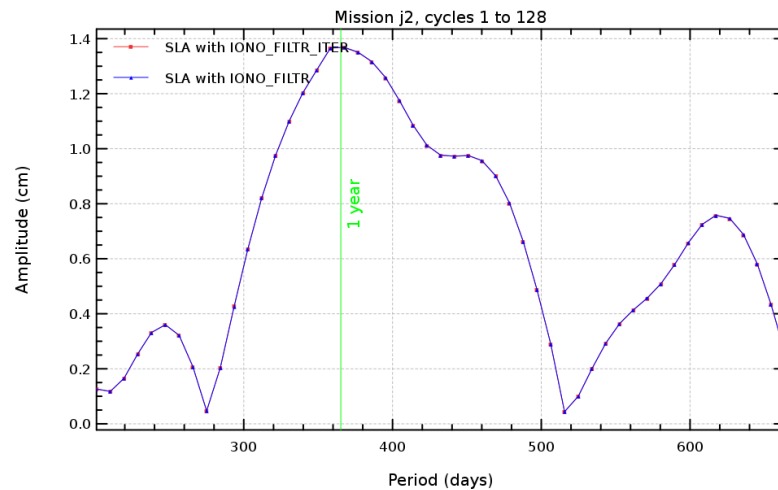
Name : Periodogram derived from temporal evolution of Sea Level Anomaly (SLA)

Input data : Along track SLA

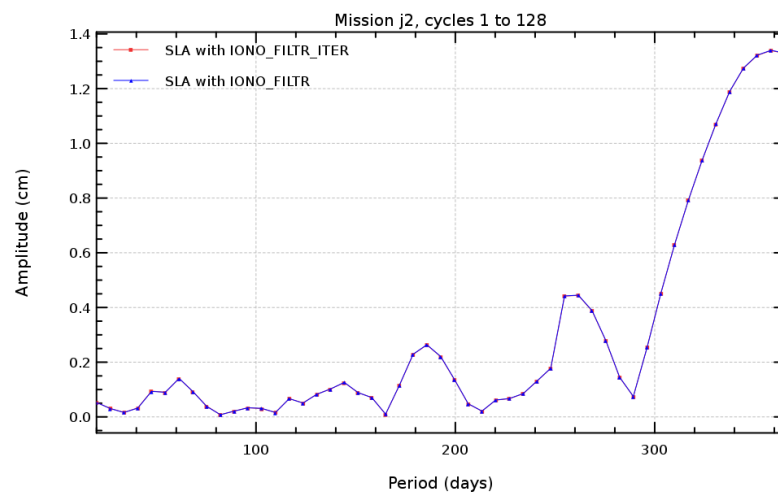
Description : The periodogram derived from temporal evolution of SLA (global, northern or southern hemisphere) can be done over all periods or focusing on particular periods, such as annual, semi annual or 60 day signal. Therefore mean of SLA differences are computed (every day or cycle), and time data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

Diagnostic type : Global internal analyses

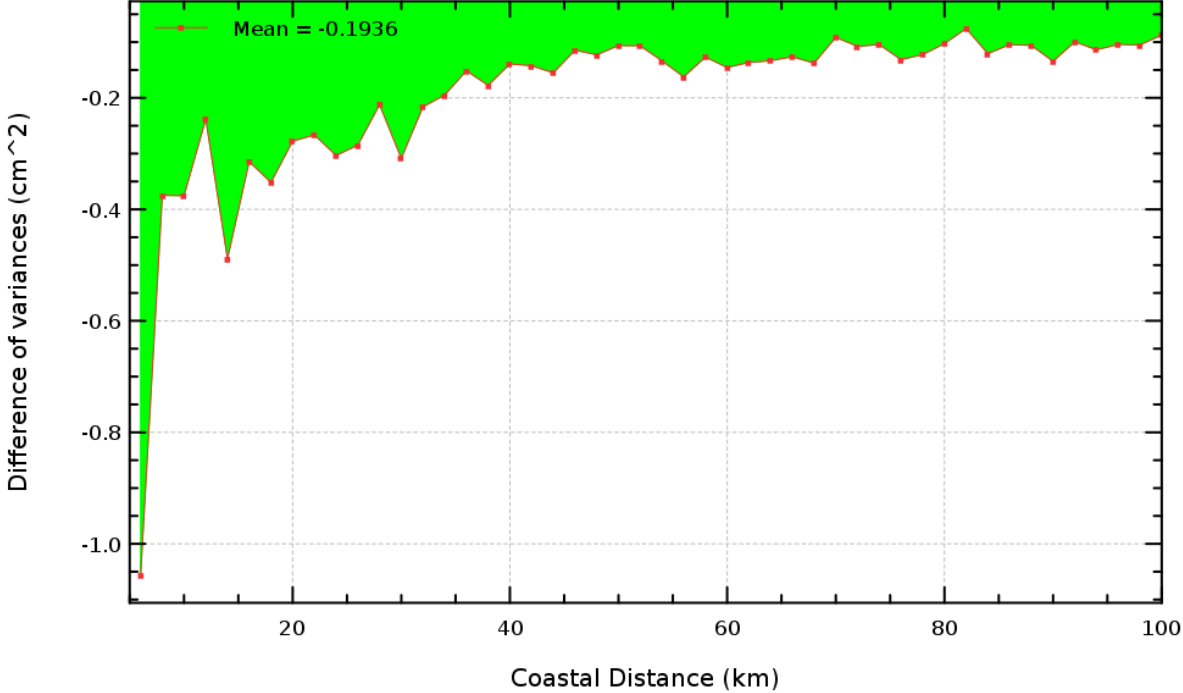
Periodogram of south hemisphere SLA (reference period = 1 year)



Periodogram of south hemisphere SLA (period = [0, 1 year])



Diagnostic type : Global internal analyses	Diagnostic A207 (mission j2)	
	Name : Sea Level Anomaly (SLA) versus coastal distance	
	Input data : Along track SLA	
	Description : Mean and standard deviation of SLA - computed by using successively both altimetric components - are plotted in function of coastal distances between 0 and 100 km.	
	<div><div>Global MSL</div><div>Mission j2, cycles 1 to 128</div><div><div>SLA with IONO_FILTER_ITER</div><div>SLA with IONO_FILTER</div></div><div>Mean = 20.78 StdDev = 0.2413</div><div>Mean = 20.84 StdDev = 0.2396</div><div>Mean (cm)</div><div>Coastal Distance (km)</div></div> <div><div>Global MSL</div><div>Mission j2, cycles 1 to 128</div><div><div>SLA with IONO_FILTER_ITER</div><div>SLA with IONO_FILTER</div></div><div>Mean = 12.78</div><div>Mean = 12.79</div><div>Standard deviation (cm)</div><div>Coastal Distance (km)</div></div>	

Diagnostic type : Global internal analyses	Diagnostic A208 (mission j2)	
	Name : Sea Level Anomaly (SLA) differences versus coastal distance	
	Input data : Along track SLA	
	Description : The differences of SLA variances - computed by using successively both altimetric components - are plotted in function of coastal distances between 0 and 100 km.	
	<div>VAR(SLA with IONO_FILTER_ITER) - VAR(SLA with IONO_FILTER)</div> <div>Mission j2, cycles 1 to 128</div>  <p>Difference of variances (cm²)</p> <p>Coastal Distance (km)</p> <p>Mean = -0.1936</p>	

Diagnostic A209 (mission j2)

Name : Differences between maps of SLA (3)

Input data : Along track SLA

Description : The differences between maps of SLA are calculated from the SLA differences (mean, standard deviation) using successively both altimetric components in the SLA calculation.

Diagnostic type : Global internal analyses

$\text{VAR}(\text{SLA with IONO_FILTR_ITER}) - \text{VAR}(\text{SLA with IONO_FILTR})$
Mission j2, cycles 1 to 128

