

## CryoSat Quality Control: Updated Warning Tests



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## **QCC Warnings**

All CryoSat parameters and geophysical corrections that are checked are part of the QCC 'warning' tests are listed below. The thresholds provided below will be applied to the new Baseline-C Ice data and the current Baseline-B Ocean data. If the value of a field exceeds the threshold the QCC product is flagged with a warning. The QCC software was developed by S[&]T. In the column 'QCC Test Name' FD = field depth, OP = Ocean Products and SF = surface flag. These were added so the software can differentiate between different product field types.

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QCC Test Name	Test applied to	Fields Tested	Test thresholds	1 Hz or 20 Hz
BurstCounterStepTOD	L1 FDM, LRM, SAR, SIN, IOP and GOP	Burst Counter	n = (n-1)+1 or blank block = 1	20 Hz
FileNameCheckDBL	All L1, L2 and L2I MPH	PRODUCT and product filename	= product filename	n/a
FileNameCheckHDR MPHRefDocL1	All L1, L2 and L2I Fixed Header	FILE_NAME and product filename REF_DOC	= product filename	n/a
MPHRefDocL2	L1 LRM, SAR, SIN, FDM MPH L2 and L2I LRM, SAR, SIN, GDR, FDM MPH	REF_DOC	= CS-RS-ACS-GS-5106 06.00 = CS-RS-ACS-GS-5123 04.00	n/a n/a
MPHRefDocOPL1	L1 IOP and GOP MPH	REF_DOC	= C2-R5-ACS-ESL-5213 1.4	n/a
MPHRefDocOPL2	L2 IOP and GOP MPH	REF_DOC	= C2-RS-ACS-ESL-5213 1.00	n/a
MissingValueShortInt	L2 LRM, SAR, SIN, GDR	Dry Tropospheric Correction, Wet Tropospheric Correction, Ionospheric Correction, Sea State Bias	≠ 32767	1 Hz (apart from
		Correction, Elastic Ocean Tide, Long Period Ocean Tide, Ocean Loading Tide, Solid Earth Tide, Geocentric Polar Tide and Backscatter (Retracker 1)		Backscatter which is 20 Hz)
	L2 LRM, SIN, GDR	Dynamic Atmospheric Correction		l Hz)
	L2 LRM, GDR	Backscatter (Retracker 2) and Backscatter (Retracker 3)		20 Hz
	L2 SAR, GDR	Inverse Barometric Correction		1 Hz
MissingValueShortIntOcean	L2 FDM	Dry Tropospheric correction, Wet Tropospheric correction, Inverse Barometer correction, Ionospheric Correction, Sea State Bias correction, Corrected averaged OCOG backscatter coefficient, Total ocean tide	≠ 32767 for surface type = 0 only	1 Hz
i		(solution 2), Long period ocean tide, Ocean loading tide (solution 2), Solid earth tide height, Geocentric		
		pole tide height and Corrected averaged ocean backscatter coefficient		
	L2 IOP and GOP	Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction, Dynamic	≠ 32767 for surface type = 0 only	1 Hz
		Atmospheric Correction, GIM Ionospheric correction, Sea State Bias correction, Ocean backscatter coefficient (corrected), Ice backscatter coefficient (corrected), Total geocentric ocean tide height (Solution		
		1: GOT), Total geocentric ocean tide height (Solution 2: FES), Long Period Tide Height, Non eq. long period		
		ocean tide height, Ocean Loading Tide (Solution 1: GOT), Ocean Loading Tide (Solution 2: FES), Solid Earth		
MissingValueShortIntOceanFD2	L2 FDM	Tide and Geocentric Polar Tide OCOG backscatter coefficient and ocean backscatter coefficient		20 Hz
Wissingvalueshortintoceanroz	L2 IOP and GOP	Ocean Backscatter coefficient (corrected) and Ice backscatter coefficient (corrected)	≠ 32767 for surface type = 0 only	20 Hz
QualityFlag	All L1, L2 and L2I MPH	PRODUCT ERR	= 0	n/a
	All L1 SPH	LO_PROC_FLAG, LO_GAPS_FLAG and L1B_PROC_FLAG	= 0	n/a
	All L2 and L2I SPH	L1_PROC_FLAG and L2_PROC_FLAG	= 0	n/a
RangeAGCOcean	L1 and L2 IOP and GOP	AGC (corrected)	0 to 6200 dB/100 or = 32767 for surface type = 0 only	1 Hz
RangeAGCOceanFD3	L1 IOP and GOP	AGC (corrected)	0 to 6200 dB/100 or = 32767 for surface type = 0 only	20 Hz
RangeAGCOrFlagged RangeAGCOrFlaggedOceanFD3	L1 LRM, SAR, SIN L1 FDM	AGC Channel 1 (corrected) and AGC Channel 2 (corrected) AGC Channel 1 (corrected) and AGC Channel 2 (corrected)	0 to 6200 dB/100 or AGC Inconsistency flag = 1 0 to 6200 dB/100 or AGC Inconsistency flag = 1 for surface type = 0 only	20 Hz
RangeAltitudeCOG	L1, L2 and L2I LRM, SAR, SIN, GDR	Altitude of COG above reference ellipsoid	710000000 to 760000000 mm or = 0	1 Hz
RangeAltitudeCOGOcean	L1 and L2 FDM, IOP, GOP	Altitude of COG above reference ellipsoid	710000000 to 760000000 mm for surface type = 0 only	1 Hz
RangeAltitudeCOGOceanFD2	L2 FDM, IOP, GOP	Altitude of COG above reference ellipsoid		20 Hz
RangeAltitudeCOGOrBlank	L1 LRM, SAR, SIN	Altitude of COG above reference ellipsoid	710000000 to 760000000 mm or blank block = 1	20 Hz
RangeAltitudeCOGOrBlankOceanFD3	L1 FDM, IOP, GOP	Altitude of COG above reference ellipsoid	710000000 to 760000000 mm or blank block = 1 for surface type = 0 only	20 Hz
RangeBackscatterSigmaZeroOPOcean	L2 IOP and GOP	Ice backscatter coefficient and Ocean backscatter coefficient	700 to 7500 dB/100 or = 32767 for surface type = 0 only	1 Hz
RangeBackscatterSigmaZeroOPOceanFD2 RangeBackscatterSigmaZeroOcean	L2 IOP and GOP L2 FDM	Ice backscatter coefficient and Ocean backscatter coefficient	700 to 7500 dB/100 or = 32767 for surface type = 0 only	20 Hz
RangeBackscatterSigmaZeroOcean RangeBackscatterSigmaZeroOceanFD2	L2 FDM	Corrected averaged OCOG backscatter coefficient Ocean backscatter coefficient and OCOG backscatter coefficient	700 to 3000 dB/100 or = 32767 for surface type = 0 only 700 to 3000 dB/100 or = 32767 or = 0 for surface type = 0 only	20 Hz
RangeBackscatterSigmaZeroTrkr1	L2 LRM, SAR, SIN, GDR	Backscatter (sigma0) (retracker 1: LRM – Ocean CFI model fit retracker, SAR – Laxon/Ridout Sea-ice model		20 Hz
Transpersection Strategic Transpersection 1	Ez citti, srtt, sitt, obt	fit retracker and SIN – Wingham/Wallis model fit retracker)	outside the thresholds	20112
RangeBackscatterSigmaZeroTrkr2	L2 LRM, GDR	Backscatter (sigma0) (retracker 2: UCL Land-ice retracker)		20 Hz
RangeBackscatterSigmaZeroTrkr3	L2 LRM, GDR	Backscatter (sigma0) (retracker 3: OCOG retracker)	outside the thresholds -2500 to 6000 dB/100 or = 32767; Only flag products if more than 10% of items are	20 Hz
RangeBackScatterSigmaZeroTrkr3	LZ LRIVI, GDR	Backscatter (sigmau) (retracker 3: OCOG retracker)	outside the thresholds	20 HZ
RangeCoherence	L1 SIN	Coherence	0 to 1000 dB/1000	20 Hz
RangeDeltaTime	L2 LRM, SAR, SIN, GDR	Delta Time	0 to 1E6 microseconds; Only flag products if more than 10% of items are outside the	20 Hz
			thresholds	
RangeDryTroposphericCorrection RangeDryTroposphericCorrectionOcean	L2 and L2I LRM, SAR, SIN, GDR L2 FDM, IOP, GOP	Dry Tropospheric Correction Dry Tropospheric Correction	-2500 to -1000 mm or = 32767 -2500 to -1900 mm or = 32767 for surface type = 0 only	1 Hz 1 Hz
RangeDynamicAtmosphericCorrectionOcean	L2I LRM, SIN, L2 IOP, GOP	Dynamic Atmospheric Correction	-1050 to 1000 mm or = 32767 for surface type = 0 only	1 Hz
RangeDynamicAtmosphericCorrectionOceanSF20Hz	L2 LRM, SIN, GDR	Dynamic Atmospheric Correction	-1050 to 1000 mm or = 32767 for surface type = 0 only	1 Hz
RangeEchoesBeamsAveraged	L2 LRM, SAR, SIN, GDR	Number of Echoes or Beams averaged		20 Hz
RangeEchoesBeamsAveragedOceanFD3 RangeEquilibriumOceanTideOcean	L1 IOP and GOP L2I LRM, SAR, SIN, L2 FDM	Number of echoes averaged Long Period Ocean Tide	91 to 256 for surface type = 0 only -50 to 50 mm or = 32767 for surface type = 0 only	20 Hz 1 Hz
RangeEquilibriumOceanTideOceanSF20Hz	L2 LRM, SAR, SIN, GDR	Long Period Ocean Tide	-50 to 50 mm or = 32767 for surface type = 0 only	1 Hz
RangeFreeboardOceanFD3SF20Hz	L2 SAR, GDR	Freeboard	-500 to 5000 mm or = -9999 for surface type = 0 only	20 Hz
RangeGeocentricPolarTide	L2 and L2I LRM, SAR, SIN, GDR	Geocentric Polar Tide	-20 to 20 mm or = 32767	1 Hz
RangeGeocentricPolarTideOcean RangeIceRangeToOceanSurfaceOcean	L2 FDM, IOP, GOP	Geocentric Polar Tide Ice range to ocean surface (corrected)	-20 to 20 mm or = 32767 for surface type = 0 only 710000000 to 760000000 mm or = 4294967295 for surface type = 0 only	1 Hz
RangelceRangeToOceanSurfaceOceanFD2	L2 IOP and GOP	Ice range to ocean surface (corrected)	710000000 to 760000000 mm or = 4294967295 for surface type = 0 only	20 Hz
RangeInverseBarometricCorrectionOcean	L2 FDM, IOP, GOP, L2I SAR	Inverse Barometric Correction	-2000 to 2000 mm or = 32767 for surface type = 0 only	1 Hz
RangeInverseBarometricCorrectionOceanSF20Hz	L2 SAR, GDR	Inverse Barometric Correction	-2000 to 2000 mm or = 32767 for surface type = 0 only	1 Hz
RangelonosphericCorrection	L2 LRM, SAR, SIN, GDR L2I LRM, SAR, SIN	Ionospheric Correction GIM Ionospheric Correction and Model Ionospheric Correction	-400 to 40 mm or = 32767 -400 to 40 mm or = 32767	1 Hz 1 Hz
RangelonosphericCorrectionOcean	L2 FDM, IOP, GOP	Ionospheric Correction	-400 to 40 mm or = 32767 -400 to 40 mm or = 32767 for surface type = 0 only	1 Hz
RangeLongPeriodTideOcean	L2 IOP and GOP	Long Period Tide Height	-50 to 50 mm or = 32767 for surface type = 0 only	1 Hz
RangeMSSGeoidHeight	L2 LRM, SAR, SIN, GDR	MSS/Geoid from Model	-150000 to 150000 mm or = -2147483648 or = 2147483647	1 Hz
	L2I LRM, SAR, SIN	MSS from model and Geoid from model	-150000 to 150000 mm or = -2147483648 or = 2147483647	1 Hz
RangeMSSGeoidHeightOPOcean	L2 IOP and GOP	Mean Sea Surface height (Solution 1), Mean Sea Surface height (Solution 2) and Geoid height		1 Hz
RangeMSSGeoidHeightOcean	L2 FDM	Mean Sea Surface height (MSS) and Geoid from standard model	-150000 to 150000 mm or = -2147483648 or = 2147483647 for surface type = 0 only	
RangeNELPOceanTideOcean	L2 IOP and GOP L2 and L2I LRM, SAR, SIN, GDR	Non-equilibrium long period ocean tide height	-40 to 40 mm or = 32767 for surface type = 0 only	1 Hz
RangeOceanLoadingTide		Ocean Loading Tide	-100 to 100 mm or = 32767	
RangeOceanLoadingTideOcean			-100 to 100 mm or = 22767 for surface turn = 0 cml-	1 Hz
	L2 FDM L2 IOP and GOP	Ocean Loading Tide (solution 2) Ocean Loading Tide: GOT and Ocean Loading Tide: FES	-100 to 100 mm or = 32767 for surface type = 0 only -100 to 100 mm or = 32767 for surface type = 0 only	
RangeOceanRangeToOceanSurfaceOcean	L2 FDM L2 IOP and GOP L2 IOP and GOP	Ocean Loading Tide (solution 2) Ocean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected)	-100 to 100 mm or = 32767 for surface type = 0 only 710000000 to 760000000 mm or = 4294967295 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanRangeToOceanSurfaceOceanFD2	L2 FDM L2 IOP and GOP L2 IOP and GOP L2 IOP and GOP	Ocean Loading Tide (solution 2) Ocean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected)	-100 to 100 mm or = 32767 for surface type = 0 only   710000000 to 760000000 mm or = 4294967295 for surface type = 0 only   710000000 to 760000000 mm or = 4294967295 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 20 Hz
RangeOceanRangeToOceanSurfaceOcean	L2 FDM L2 IOP and GOP L2 IOP and GOP L2 IOP and GOP L2 FDM	Ocean Loading Tide (solution 2) Cean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2)	-100 to 100 mm or = 32767 for surface type = 0 only   710000000 to 760000000 mm or = 4294967295 for surface type = 0 only   710000000 to 760000000 mm or = 4294967295 for surface type = 0 only   -100001 to 10000 mm or = 32767 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 20 Hz 1 Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanRangeToOceanSurfaceOceanFD2	L2 FDM L2 IOP and GOP L2 IOP and GOP L2 IOP and GOP L2 FDM L2 LTM, SAR, SIN	Ocean Loading Tide (solution 2) Ocean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide	1.00 to 1.00 mm or = 32767 for surface type = 0 only   710000000 to 760000000 mm or = 4294967295 for surface type = 0 only   710000000 to 760000000 mm or = 4294967295 for surface type = 0 only   1.0000 to 1.0000 mm or = 32767 for surface type = 0 only   1.0000 to 1.0000 mm or = 32767 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 20 Hz 1 Hz 1 Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanRangeToOceanSurfaceOceanFD2 RangeOceanTideOcean	L2 FDM L2 IOP and GOP L2 IOP and GOP L2 IOP and GOP L2 FDM L2 IRM, SAR, SIN L2 IOP and GOP	Ocean Loading Tide (solution 2) Cean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2)	1.000 to 100 mm or = 3276 <sup>7</sup> for surface type = 0 only 7.10000000 to 7600000000 mm or = 4294967295 for surface type = 0 only 7.10000000 to 760000000 mm or = 4294967295 for surface type = 0 only 1.000010 1.0000 mm or = 32767 for surface type = 0 only 1.000010 1.0000 mm or = 32767 for surface type = 0 only 1.000010 1.0000 mm or = 32767 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 20 Hz 1 Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanRangeToOceanSurfaceOceanFD2 RangeOceanTideOcean RangeOceanTideOceanSt20Hz RangeOceanTideOceanSF20Hz RangePeakinessFDM	L2 FDM L2 IOP and GOP L2 IOP and GOP L2 IOP and GOP L2 FDM L2 LTM, SAR, SIN	Ocean Loading Tude (solution 2) Cean Loading Tude: GOT and Ocean Loading Tude: FES Ocean range to ocean surface (corrected) Cean range to ocean surface (corrected) Total ocean tude (solution 2) Elastic Ocean Tude Total Geometric Ocean Tude: GOT and Total Geocentric Ocean Tide: FES	1.000 to 100 mm or = 3276° for surface type = 0 only 7.00000000 to 7600000000 mm or = 4294967295 for surface type = 0 only 7.0000000 to 760000000 mm or = 4254967295 for surface type = 0 only 7.00000 to 10000 mm or = 32767 for surface type = 0 only 7.00000 to 10000 mm or = 32767 for surface type = 0 only 7.0000 to 10000 mm or = 32767 for surface type = 0 only 7.0000 to 10000 mm or = 32767 for surface type = 0 only 7.0000 to 10000 mm or = 32767 for surface type = 0 only 8.0000 to 10000 mm or = 32767 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 20 Hz 1 Hz 1 Hz 1 Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanTangeToOceanSurfaceOceanFD2 RangeOceanTideOcean RangeOceanTideOceanSF2OHz RangeOceanTideOceanSF2OHz RangePeakinessFDM RangePeakinessFDM	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.21 IEM, SAR, SIN 1.2 IOP and GOP 1.2 IEM, SAR, SIN, GDR 1.2 FDM 1.2 IEM	Ocean Loading Tide (solution 2) Ocean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Ku-band peakiness Peakiness	1.000 to 1000 mm or = 32767 for surface type = 0 only 7.0000000 to 7600000000 mm or = 4294967259 for surface type = 0 only 7.0000000 to 760000000 mm or = 4229467259 for surface type = 0 only 1.00001 to 1.0000 mm or = 32767 for surface type = 0 only 1.00001 to 1.0000 mm or = 32767 for surface type = 0 only 1.00001 to 1.0000 mm or = 32767 for surface type = 0 only 1.00001 to 1.0000 mm or = 32767 for surface type = 0 only 1.00001 to 1.0000 mm or = 32767 for surface type = 0 only 1.0001 to 1.0000 mm or = 55535 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 20 Hz 1 Hz 1 Hz 1 Hz 1 Hz 2 O Hz 2 O Hz 2 O Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanRangeToOceanSurfaceOceanFD2 RangeOceanTideOcean RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangePeakinessFDM RangePeakinessLRM RangePeakinessDP	L2 FDM L2 IOP and GOP L2 IOP and GOP L2 IOP and GOP L2 FDM L2 FDM L2 IOP and GOP L2 IRM, SAR, SIN, GDR L2 IRM L2 IZF M	Ocean Loading Tide (solution 2) Cean Loading Tide: GOT and Cean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Via-band peakiness Peakiness Peakiness	1.000 to 1000 mm or = 32767 for surface type = 0 only 7.00000000 to 7600000000 mm or = 4234967.295 for surface type = 0 only 7.0000000 to 760000000 mm or = 4234967.295 for surface type = 0 only 7.000010 to 10000 mm or = 32767 for surface type = 0 only 7.000010 to 10000 mm or = 32767 for surface type = 0 only 7.000010 to 10000 mm or = 32767 for surface type = 0 only 7.000010 to 10000 mm or = 32767 for surface type = 0 only 7.000010 to 10000 mm or = 32767 for surface type = 0 only 7.000010 to 10000 mm or = 32767 for surface type = 0 only 7.000010 to 10000 mm or = 32767 for surface type = 0 only	1 Hz 1 Hz 1 Hz 20 Hz 1 Hz 1 Hz 1 Hz 1 Hz 20 Hz 20 Hz 20 Hz 20 Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOcean RangeOceanTideOcean RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangePeakinesSDM RangePeakinesSLRM RangePeakinesSDPR RangePeakinesSOPPSD	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IEM, SAR, SIN 1.2 IEM, SAR, SIN 1.2 IOP and GOP 1.2 IEM, SAR, SIN, GDR 1.2 IEM 1.2 IOP and GOP 1.2 ICM and GOP	Ocean Loading Tide (solution 2) Cean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide: Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Ku-band peakiness Peakiness Peakiness	-100 to 100 mm or = 3276 for surface type = 0 only      -10000000 to 760000000 mm or = 4294967258 for surface type = 0 only    -10000000 to 760000000 mm or = 4229467258 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 55533 for surface type = 0 only    -100001 to 10000 mm or = 55533 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 2 Hz 2 Hz 2 Hz 1 Hz 1 Hz 1 Hz 2 Hz 2 Hz 1 Hz 1 Hz 1 Hz 1 Hz 2 U Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanRangeToOceanSurfaceOceanFD2 RangeOceanTideOcean RangeOceanTideOceanSF20Hz RangePeakinesSFDM RangePeakinesSFDM RangePeakinesSOPFD2 RangePeakinesSOPFD2 RangePeakinesSAR	L2 FDM L2 IOP and GOP L2 IOP and GOP L2 IOP and GOP L2 FDM L2 ICPM L2 ICPM L2 ICPM L2 ICPM, SAR, SIN L2 IOP and GOP L2 ICPM L2 ICPM, SAR, SIN, GDR L2 ICPM L2	Ocean Loading Tide (solution 2) Cean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Peakiness Peakiness Peakiness Peakiness	1.000 to 1000 mm or = 32767 for surface type = 0 only 7.10000000 to 7600000000 mm or = 42789667.298 for surface type = 0 only 7.10000000 to 760000000 mm or = 4224967.298 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.00000 to 5000/1000 or surface type = 0 only 1.00000 to 5000/1000 or surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 1 Hz 2 O Hz 1 Hz 1 Hz 2 Hz 1 Hz 2 Hz 2 O Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOcean RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangePeakinesSDM RangePeakinesSLRM RangePeakinesSDP RangePeakinesSOPFD2 RangePeakinesSSAR RangePeakinesSSRN	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IEM, SAR, SIN 1.2 IEM, SAR, SIN 1.2 IOP and GOP 1.2 IEM, SAR, SIN, GDR 1.2 IEM 1.2 IOP and GOP 1.2 ICM and GOP	Ocean Loading Tide (solution 2) Cean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide: Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Ku-band peakiness Peakiness Peakiness	1.000 to 1000 mm or = 32767 for surface type = 0 only 7.10000000 to 7600000000 mm or = 42789667.298 for surface type = 0 only 7.10000000 to 760000000 mm or = 4224967.298 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 1.0000 mm or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or = 32767 for surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.0000 to 5000/1000 or surface type = 0 only 1.00000 to 5000/1000 or surface type = 0 only 1.00000 to 5000/1000 or surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 2 Hz 2 Hz 2 Hz 1 Hz 1 Hz 1 Hz 2 Hz 2 Hz 1 Hz 1 Hz 1 Hz 1 Hz 2 U Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanRangeToOceanSurfaceOceanFD2 RangeOceanTideOcean RangeOceanTideOceanSF20Hz RangePeakinesSFDM RangePeakinesSFDM RangePeakinesSOPFD2 RangePeakinesSOPFD2 RangePeakinesSAR	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IEM, SAR, SIN 1.2 IOP and GOP 1.2 IEM, SAR, SIN, GDR 1.2 IEM, SAR, SIN, GDR 1.2 IEM 1.2 IOP and GOP 1.2 SIN 1.1 SIN 1.1 SIN 1.1 SIN	Ocean Loading Tude (Solution 2) Cean Loading Tude (SOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (Solution 2) Elastic Ocean Tide: Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Ku-band peakiness Peakiness Peakiness Peakiness Peakiness Peakiness	-100 to 100 mm or = 32767 for surface type = 0 only      -100000001 b 600000000 mm or = 42949672258 for surface type = 0 only    -10000001 to 760000000 mm or = 4229457258 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000 mm or = 32767 for surface type = 0 only    -100001 to 10000/1000 mm or = 32767 for surface type = 0 only    -100001 to 10000/1000 mm or = 32767 for surface type = 0 only    -100001 to 10000/1000 mm or = 32767 for surface type = 0 only    -100001 to 10000/1000 mm or = 32767 for surface type = 0 only    -100001 to 100000/1000 mm or = 32767 for surface type = 0 or 2    -100001 to 1000001 to 100001 mm or = 55335 for surface type = 0 or 2	1 Hz 1 Hz 1 Hz 2 O Hz 2 O Hz 1 Hz 2 O Hz 1 Hz 2 O Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOcean RangeOceanTideOcean RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangePeakinesSDM RangePeakinesSLRM RangePeakinesSDP RangePeakinesSDP RangePeakinesSDR RangePeakinesSSAR RangePeakinesSSNR RangePeakinesSSNR RangePeakinesSOR RangePhasEOcrrectionExternal RangePhasEOcrrectionExternal RangePhasEOcrrectionExternal RangePhasEOcrrectionExternal RangePhasEOcrrectionInternal	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 IRM, SAR, SIN, GDR 1.2 FDM 1.2 IRM 1.2 IRM 1.2 IRM 1.2 IRM 1.2 IRM 1.2 IRM 1.3 IRM 1.3 IRM 1.3 IRM 1.4 IRM 1.5 IRM	Ocean Loading Tide (solution 2) Cean Loading Tide: GOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Cean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Reakiness Peakiness	-100 to 100 mm or = 32767 for surface type = 0 only      -10000000 to 760000000 mm or = 4294967259 for surface type = 0 only      -10000000 to 760000000 mm or = 42294967259 for surface type = 0 only      -10000 to 10000 mm or = 32767 for surface type = 0 only      -10000 to 10000 mm or = 32767 for surface type = 0 only      -10000 to 10000 mm or = 32767 for surface type = 0 only      -10000 to 10000 mm or = 32767 for surface type = 0 only      -10000 to 10000 mm or = 32767 for surface type = 0 only      -10000 to 10000 mm or = 55335 for surface type = 0 only      -10000 to 10000 mm or = 55335 for surface type = 0 only      -10000 to 10000 mm or = 55335 for surface type = 0 only      -10000 to 10000 mm or = 32767 for surface type = 0 only      -10000 to 10000 mm or = 32767 for surface type = 0 only      -10000 to 100000 mm or = 32767 for surface type = 0 only      -10000 to 100000 mm or = 32767 for surface type = 0 only      -100000 to 10000000 mm or = 32767 for surface type = 0 only      -100000000000000000000000000000000000	1 Hz 1 Hz 1 Hz 1 Hz 20 Hz 1 Hz 1 Hz 1 Hz 2 Hz 2 Hz 2 Hz 2 Hz 2 Hz 2 O Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSt20HZ RangePeakinesSIPM RangePeakinesSIPM RangePeakinesSOPFD2 RangePeakinesSOPFD2 RangePeakinesSOPFD2 RangePeakinesSOR	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 FDM 1.2 IRM, SAR, SIN 1.2 IOP and GOP 1.2 IRM, SAR, SIN, GDR 1.2 IRM 1.2 IRM 1.2 IOP and GOP 1.2 ION AND GOP	Ocean Loading Tide (solution 2) Cean Loading Tide (SOT and Cean Loading Tide: FES Ocean Sange to Ocean Surface (corrected) Ocean range to Ocean Surface (corrected) Total Ocean Tide: Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Rubers Peakiness Peakiness Peakiness Peakiness Peakiness Peakines Ses Gate files Correction Internal Phase Correction Phase difference	1-00 to 100 mm or - 32767 for surface type - 0 only 10000000 to 760000000 mm or - 42349672258 for surface type = 0 only 11000000 to 760000000 mm or - 42349672258 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 100 to 6400/1000 m - 65533 for surface type = 0 only 101 to 6400/1000 m - 32767 for surface type = 0 only 101 to 6400/1000 m - 55333 for surface type = 0 only 101 to 6400/1000 m - 55333 for surface type = 0 only 101 to 6400/1000 m - 55333 for surface type = 0 only 102 to 1000/1000 m - 55333 for surface type = 0 or 2 103 to 1000/1000 m - 55333 for surface type = 0 or 2 103 to 1000/1000 m - 55333 for surface type = 0 or 2 104 microardians 14380001 to 1473000 microardians or = 0 134141593 microardians 15001 to 14740 m - 32767 for surface type = 0 only	1 Hz 1 Hz 1 Hz 20 Hz 20 Hz 1 Hz 20 Hz 1 Hz 20 Hz 1
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanStraceOceanFD2 RangeOceanTideOceanStraceOceanFD2 RangeOceanTideOceanStraceOceanStraceOceanFD2 RangePeakinesSDM RangePeakinesSDM RangePeakinesSDPD2 RangePeakinesSDR RangePeakinesSDN RangePeakinesSDN RangePeakinesSDN RangePeakinesSDN RangePeakinesSDN RangePeakinesSDN RangePeakinesSDN RangePeakinesSDN RangePhaseCorrectionExternal RangePhaseOcroseContionIternal RangePhaseOfference RangeSeaStateBiasCorrectionOcean RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSourceSDN RangeSeaStateBiasCorrectionOceanStangeSDN Ra	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 SAR, SIN, GDR 1.2 IOP and GOP 1.2 SAR, GDR 1.2 IOP and GOP 1.2 SAR, GDR 1.2 SIN 1.1 SIN 1.1 SIN 1.1 SIN 1.1 SIN 1.1 SIN, IOP, GOP 1.2 FDM, IOP, GOP 1.2 FDM, IOP, GOP 1.2 IOP, GOP	Ocean Loading Tide (Solution 2) Cean Loading Tide (SOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Satio Cean Tide Sub-Dard peakiness Sub-Dard Sub-Dar	-100 to 100 mm or = 3276 for surface type = 0 only      -10000000 for 60000000 mm or = 4294967259 for surface type = 0 only      -10000000 for 500000000 mm or = 4294967259 for surface type = 0 only      -100001 to 10000 mm or = 32767 for surface type = 0 only      -100001 to 10000 mm or = 32767 for surface type = 0 only      -100001 to 10000 mm or = 32767 for surface type = 0 only      -100001 to 10000 mm or = 32767 for surface type = 0 only      -100001 to 10000 mm or = 32767 for surface type = 0 only      -100001 to 10000 mm or = 32767 for surface type = 0 only      -100001 to 10000 mm or = 56533 for surface type = 0 only      -100001 to 10000 for = 56533 for surface type = 0 only      -100001 to 10000 for = 32767 for surface type = 0 only      -100001 to 100001 for surface type = 0 or 2      -100001 for surface type = 0 only      -100001 for surface type = 0	1 Hz 1 Hz 1 Hz 1 Hz 1 Hz 2
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSt20HZ RangePeakinesSIPM RangePeakinesSIPM RangePeakinesSOPFD2 RangePeakinesSOPFD2 RangePeakinesSOPFD2 RangePeakinesSOR	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 FDM 1.2 FDM 1.2 IOP and GOP 1.2 FDM 1.2 IRM, SAR, SIN 1.2 IOP and GOP 1.2 IRM, SAR, SIN, GDR 1.2 IRM 1.2 IDP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 SAR, GOR 1.2 SIN 1.1 SIN 1.1 SIN 1.2 FDM, IOP, GOP 1.2 FDM, IOP, GOP 1.2 IOP, GOP 1.2 IOP, GOP 1.2 SAR, SIN, GDR 1.2 SAR, SIN, GDR 1.2 SAR, SOR	Ocean Loading Tide (solution 2) Cean Loading Tide (SOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide: Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Rubband peakiness Peakiness Peakiness Peakiness Peakiness Peakiness Peakiness Peakiness Internal Phase Correction Internal Phase Correction Sea State Bias correction Sea State Bias correction Sea State Bias correction Interpolated Sea Surface Height Anomaly	1-00 to 100 mm or - 32767 for surface type = 0 only 10000000 to 760000000 mm or - 42349587258 for surface type = 0 only 11000000 to 760000000 mm or - 42349587258 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 1-00001 to 10000 mm or - 32767 for surface type = 0 only 100 to 6400/1000 or = 65533 for surface type = 0 only 101 to 6400/1000 or = 32767 for surface type = 0 only 101 to 6400/1000 or = 32767 for surface type = 0 only 101 to 6400/1000 or = 32767 for surface type = 0 only 101 to 6400/1000 or = 32767 for surface type = 0 only 102 to 6400/1000 or = 32767 for surface type = 0 only 103 to 64000/1000 or = 32767 for surface type = 0 or 2 104 to 1000/1000 or = 32767 for surface type = 0 or 2 105 to 1000 mm or = 32767 for surface type = 0 only 105 to 0 mm or = 32767 for surface type = 0 only 105 to 0 mm or = 32767 for surface type = 0 only 1000 to 3000 mm om mm	1 Hz 1 Hz 1 Hz 1 Hz 1 Hz 2 Hz 1 Hz 2 Hz 1 Hz 2 Hz 1 Hz 2 O
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangePeakinessFDM RangePeakinessFDM RangePeakinesSPDP RangePeakinesSDP RangePeakinesSDP RangePeakinesSDR RangeSeaSIdeBiasCorrectionOcean RangeSeaSideBiasCorrectionOcean RangeSeaSideBiasCorrectionOcean RangeSeaSideBiasCorrectionOcean RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 SAR, SIN, GDR 1.2 IOP and GOP 1.2 SAR, GOR 1.2 SIN 1.1 SIN 1.1 SIN 1.1 SIN 1.1 SIN 1.1 SIN 1.2 FDM, IOP, GOP 1.2 SAR, GOR	Ocean Loading Tide (Solution 2) Cean Loading Tide (SOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Selection Committee GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide: FES	-1.00 to 100 mm or = 3276 for surface type = 0 only      -1.0000000 for 50000000 mm or = 4234967225 for surface type = 0 only      -1.0000001 to 760000000 mm or = 4224967225 for surface type = 0 only      -1.00001 to 10.000 mm or = 32767 for surface type = 0 only      -1.00001 to 10.000 mm or = 32767 for surface type = 0 only      -1.00001 to 10.000 mm or = 32767 for surface type = 0 only      -1.0001 to 10.000 mm or = 32767 for surface type = 0 only      -1.0001 to 10.000 mm or = 32767 for surface type = 0 only      -1.0001 to 10.000 mm or = 32767 for surface type = 0 only      -1.0001 to 10.000 for = 55533 for surface type = 0 only      -1.0001 to 10.000 for = 32767 for surface type = 0 only      -1.0001 to 10.000 for = 32767 for surface type = 0 only      -1.0001 to 10.000 for = 56335 for surface type = 0 or 2      -1.0001 to 10.000 for = 56335 for surface type = 0 or 2      -1.0001 to 10.000 for = 53767 for surface type = 0 only      -1.0001 to 10.000 mm or = 32767 for surface type = 0 only      -1.0001 to 10.000 mm or = 32767 for surface type = 0 only      -1.0001 to 3000 mm or = 32767 for surface type = 0 only      -1.0001 to 3000 mm or = 32700 for surface type = 0 only      -1.0001 to 3000 mm or = 32700 for surface type = 0 only      -1.0001 to 3000 mm or = 32700 for surface type = 0 only      -1.0001 to 3000 mm or = 32700 for surface type = 0 only      -1.0001 to 3000 to 3000 mm or = 3200 for 3000 to 3000 mm      -1.0001 to 3000	1 Hz 1 Hz 1 Hz 1 Hz 2 O Hz 3 D Hz 4 D Hz 4 D Hz 5 D Hz 6 D Hz 7 D Hz 7 D Hz 7 D Hz 7 D Hz 8 D
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSurfaceOceanFD2 RangePeakinessEDM RangePeakinessDP RangePeakinessDP RangePeakinessDP RangePeakinessDP RangePeakinessDP RangePeakinessDP RangePeakinesSDN RangeSDN RangeSSDN RangeS	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 FDM 1.2 IRM, SAR, SIN 1.2 IOP and GOP 1.2 IRM, SAR, SIN, GDR 1.2 IRM, SAR, SIN, GDR 1.2 IRM 1.2 SAR, GOR 1.2 SIN 1.1 SIN 1.1 SIN 1.2 FDM, IOP, GOP 1.2 IRM, SAR, SIN, GDR 1.2 SAR, GOR	Ocean Loading Tide (solution 2) Cean Loading Tide (SOT and Ocean Loading Tide: FES Cean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Rushand peakiness Peakiness Peakiness Peakiness Peakiness Peakiness Peakiness Peakiness Seakiness Seaki	1.00 to 100 mm or = 3276 for surface type = 0 only	1 Hz
RangeOceanRangeToOceanSurfaceOcean RangeOceanTideOceanSurfaceOceanFD2 RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangeOceanTideOceanSF20Hz RangePeakinessFDM RangePeakinessFDM RangePeakinesSPDP RangePeakinesSDP RangePeakinesSDP RangePeakinesSDR RangeSeaSIdeBiasCorrectionOcean RangeSeaSideBiasCorrectionOcean RangeSeaSideBiasCorrectionOcean RangeSeaSideBiasCorrectionOcean RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz RangeSeaSideBiasCorrectionOceanSPADHz	1.2 FDM 1.2 IOP and GOP 1.2 IOP and GOP 1.2 IOP and GOP 1.2 FDM 1.2 IOP and GOP 1.2 FDM 1.2 IRM, SAR, SIN 1.2 IOP and GOP 1.2 IRM, SAR, SIN, GDR 1.2 IRM 1.2 IRM 1.2 IOP and GOP 1.2 SAR, GOR 1.2 SIN 1.1 SIN 1.1 SIN 1.1 SIN 1.2 FDM, IOP, GOP 1.2 IRM, SAR, SIN, GDR 1.2 SAR, GOR 1.2 SAR, GOR 1.2 SAR, GOR 1.2 SAR, GOR 1.2 IOP and GOP	Ocean Loading Tide (Solution 2) Cean Loading Tide (SOT and Ocean Loading Tide: FES Ocean range to ocean surface (corrected) Ocean range to ocean surface (corrected) Total ocean tide (solution 2) Elastic Ocean Tide Total Geocentric Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide Selection Committee GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide: GOT and Total Geocentric Ocean Tide: FES Elastic Ocean Tide: FES	1.000 to 100 mm or = 3276 for surface type = 0 only	1 Hz 1 Hz 1 Hz 1 Hz 2 O Hz 3 D Hz 4 D Hz 4 D Hz 5 D Hz 6 D Hz 7 D Hz 7 D Hz 7 D Hz 7 D Hz 8 D
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