

NEW FRENCH SURFACES TO ELLIPSOID

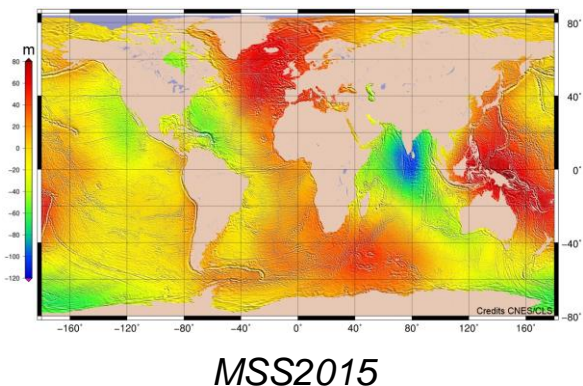
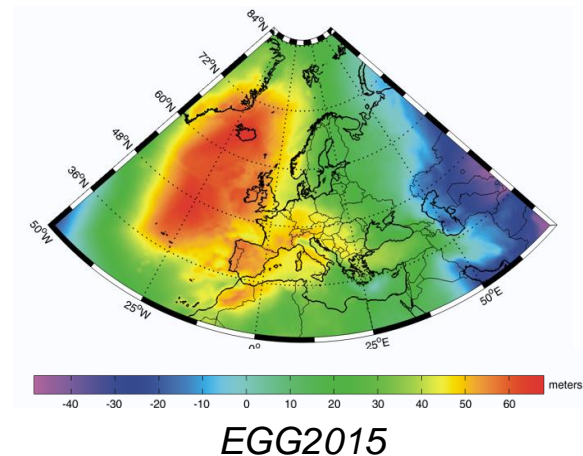
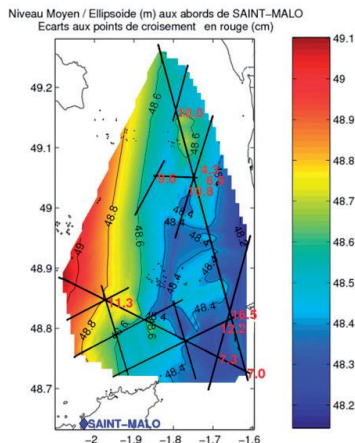
BATHYELLI V2.2

BathyElli version 2.2

New MSL and LAT Surfaces

Input data:

- A priori, geoid surface : EGG2015 (EGG2015-qg_g10m15m)
- Mean Sea Surface : MSS2015 (MSS_CNES_CLS_15)
- Tide model : FES2014b
- GNSS surveys
- Tide gauge sites (RAM2026)



BathyElli version 2.2

MSL Surface

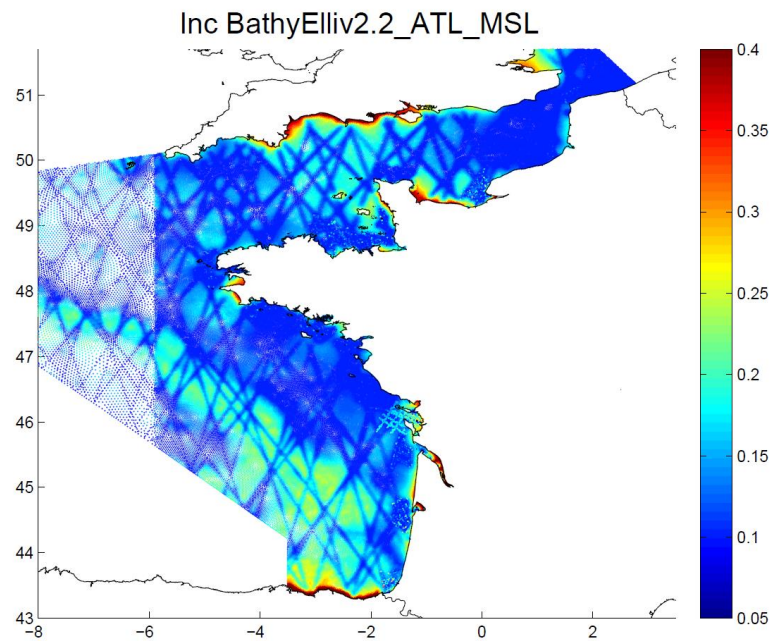
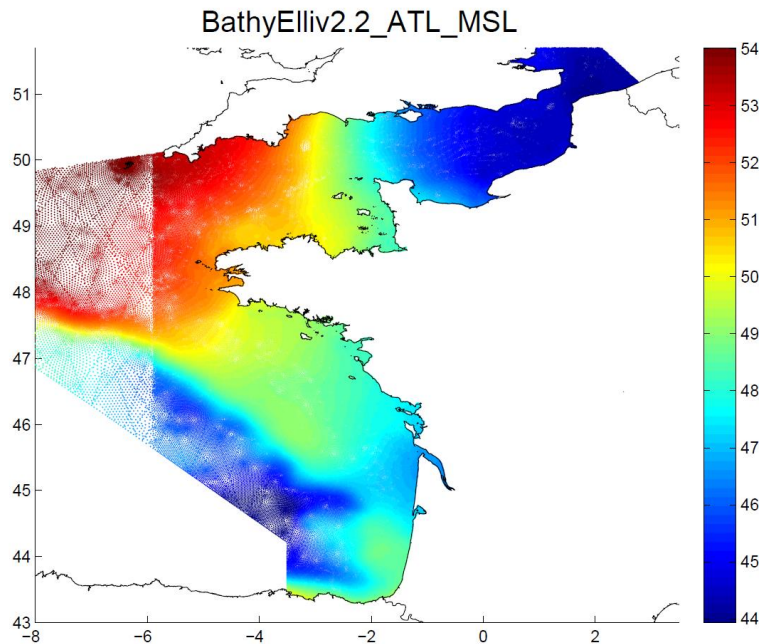
Reference date : 01/01/2020

- Mean Sea Surface : MSS2015, add trend = 0.002 m/year from 1993
- For reference ports (duration > 10 years), the trend is calculated for each

Optimal interpolation with EGG2015, MSS2015, GNSS surveys, reference ports, RAM2026

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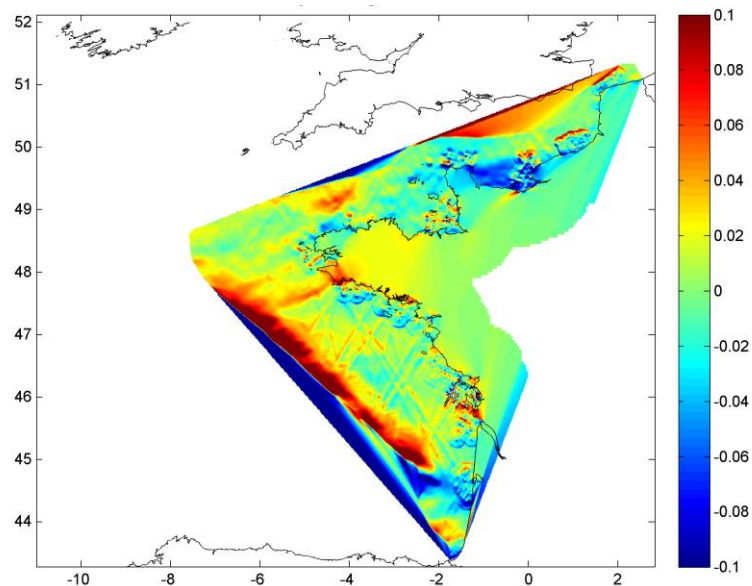
MSL Surface



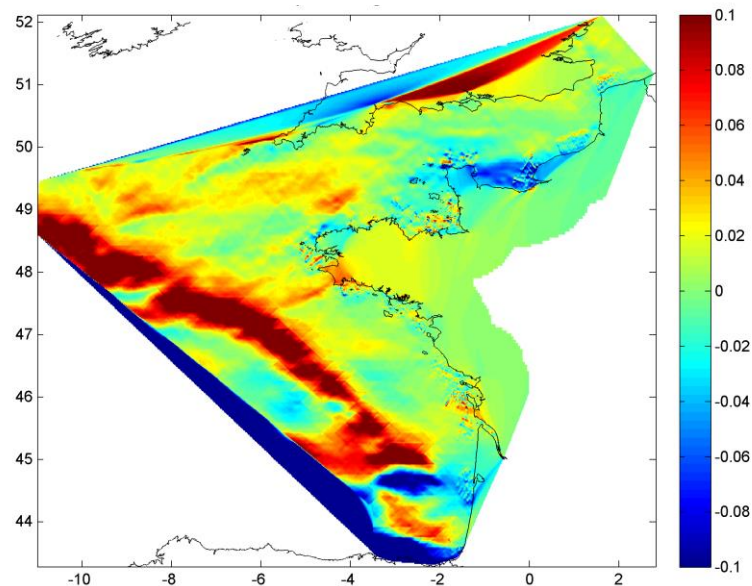
BathyElli version 2.2

MSL Surface

Gradients : BathyElli v2.1



BathyElli v2.2

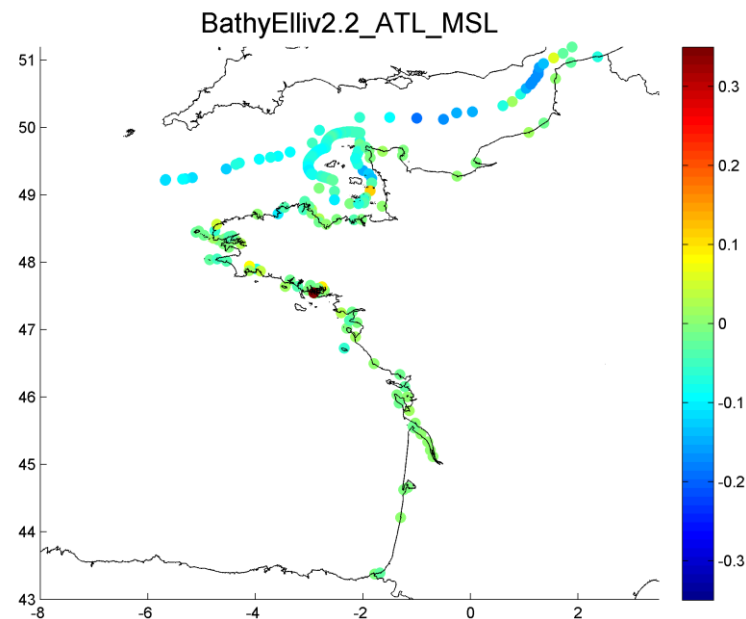
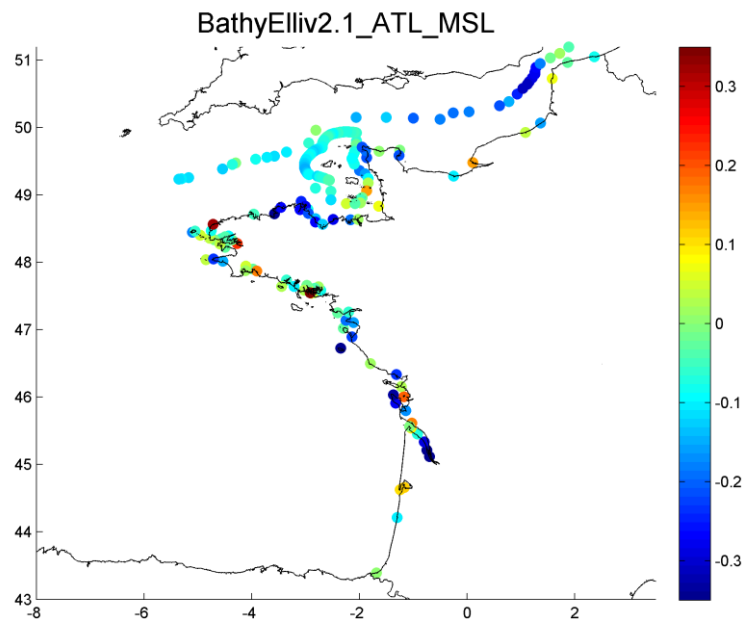


RAM/VORF – BathyElli MSL

Version - Data	Biais (m)	RMSE (m)	NRMSE (m)	Min (m)	Max (m)
v2.1 - RAM	-0.077	0.210	0.430	-1.092	0.463
v2.1 - VORF	-0.090	0.101	0.206	-0.317	0.151
v2.1 - ALL	-0.088	0.129	0.262	-1.092	0.463
v2.2 - RAM	-0.004	0.048	0.099	-0.103	0.359
v2.2 - VORF	-0.072	0.078	0.158	-0.191	0.118
v2.2 - ALL	-0.059	0.073	0.149	-0.191	0.359

MSL Surface

Differences with RAM2026 and VORF

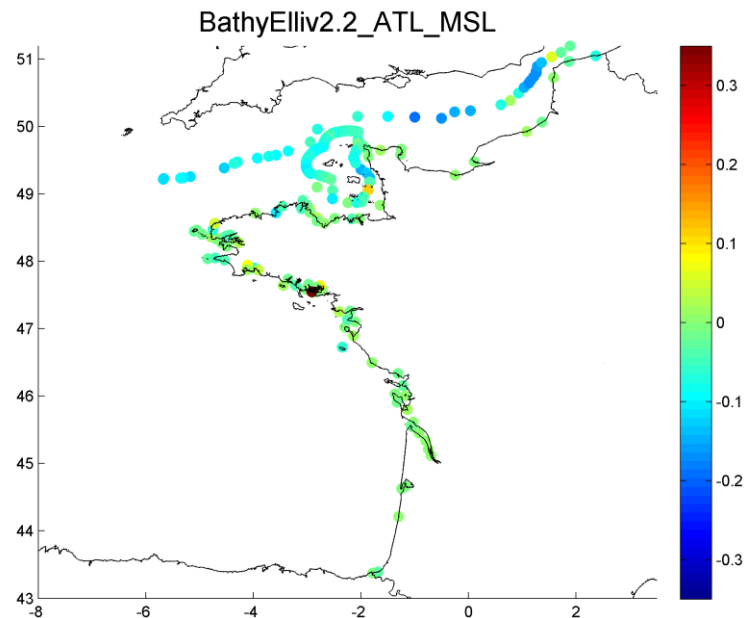
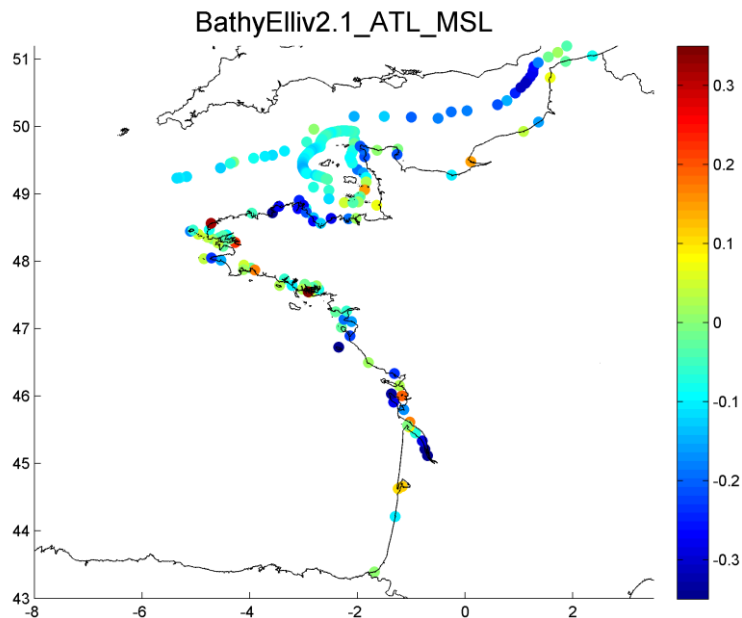


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MSL Surface

Differences with RAM2026 and VORF



BathyElli version 2.2

LAT Surface

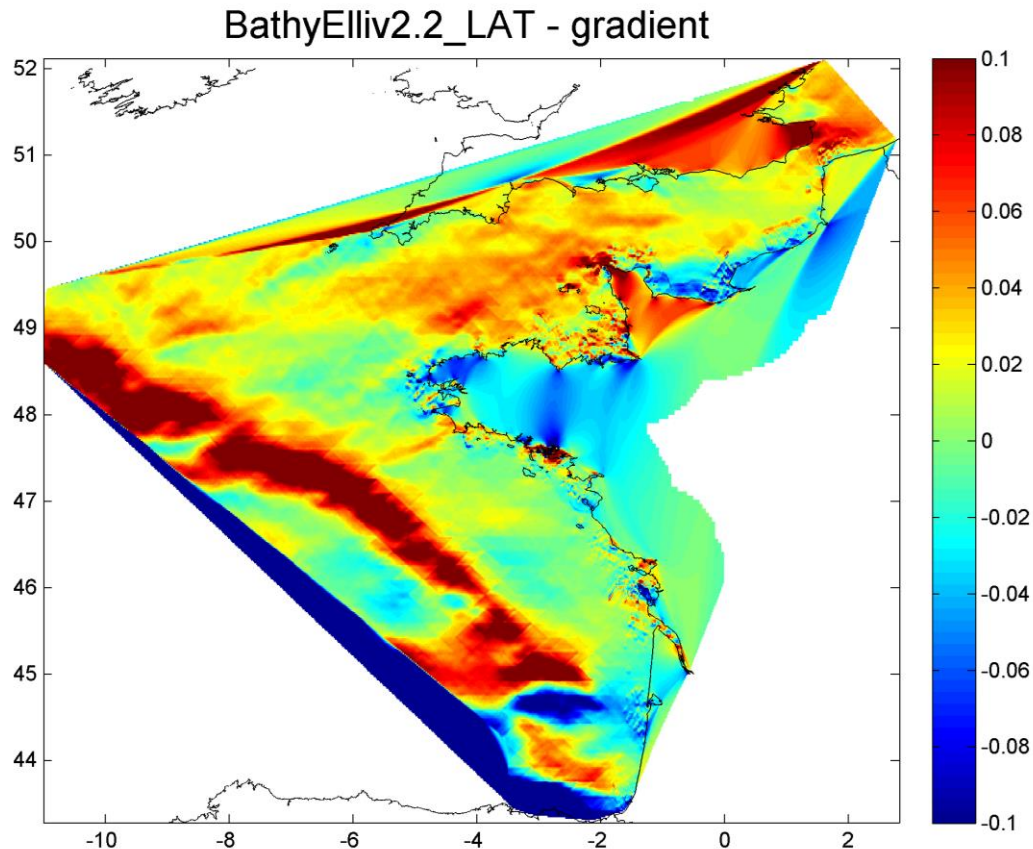
MSL/LAT

- FES2014b
- Tide gauge sites (RAM2026)

BathyElli version 2.2

LAT Surface

Gradients : BathyElli v2.2

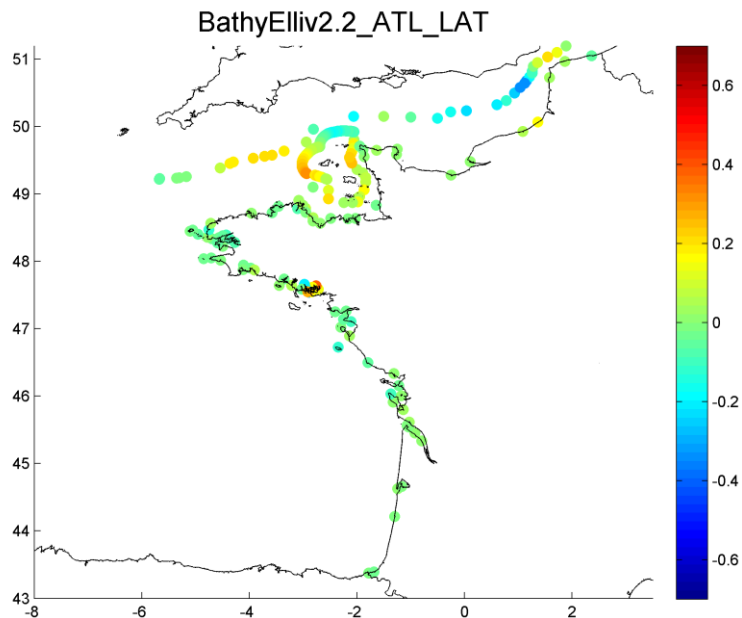
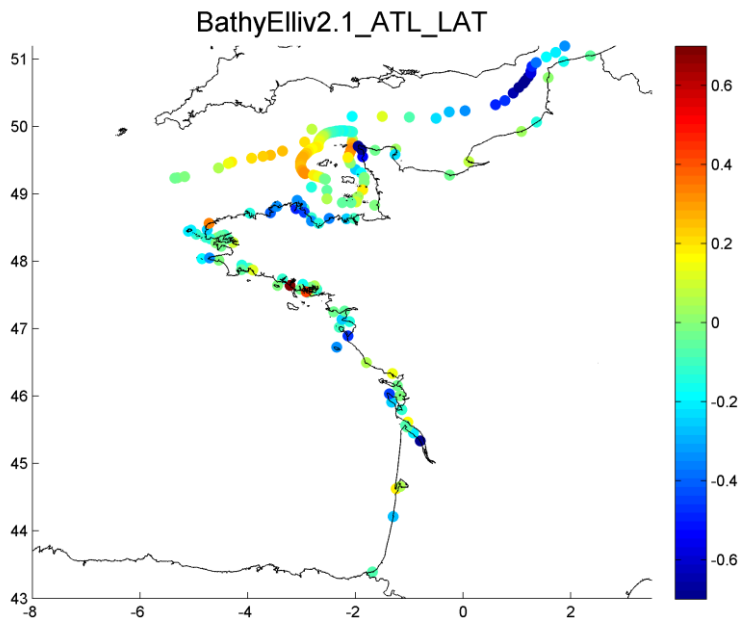


RAM/VORF – BathyElli LAT

Version - Data	Biais (m)	RMSE (m)	NRMSE (m)	Min (m)	Max (m)
v2.1 - RAM	-0.136	0.298	0.659	-1.420	0.693
v2.1 - VORF	0.066	0.214	0.473	-0.827	0.334
v2.1 - ALL	0.029	0.232	0.512	-1.420	0.693
v2.2 - RAM	-0.005	0.085	0.188	-0.319	0.393
v2.2 - VORF	0.027	0.149	0.328	-0.340	0.312
v2.2 - ALL	0.022	0.139	0.307	-0.340	0.393

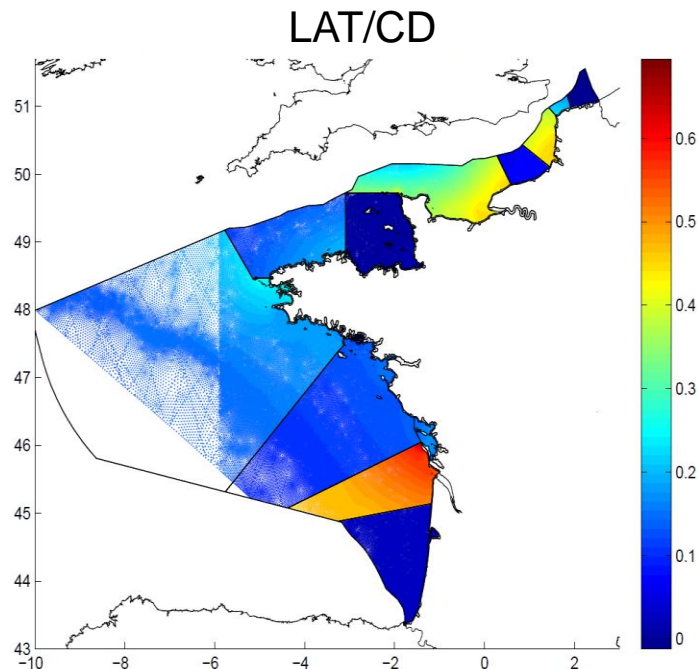
LAT Surface

Differences with RAM2026 and VORF



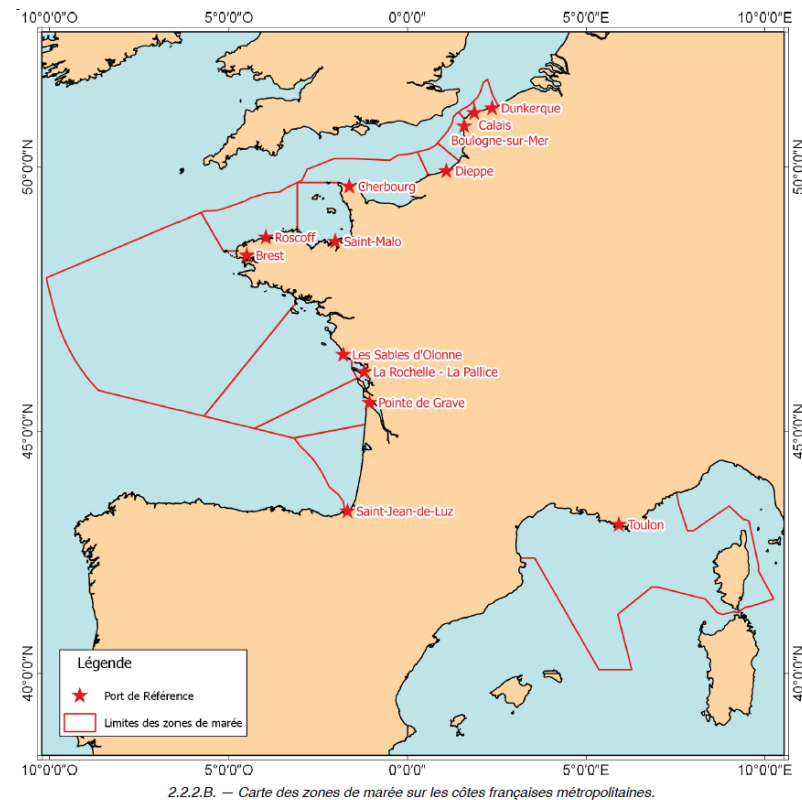
BathyElli version 2.2

CD Surface



CD is « approximate LAT »

12 tidal zones: different references of LAT/CD



MERCI !

