

Ping DSP, efficient surveys in the shallow waters of Constanta

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June 6th 2024, Meet & Weet

Ping
The famous machine



Constanta project
And towards the South



Constanta project
Shallow water survey vessel



Why the Ping

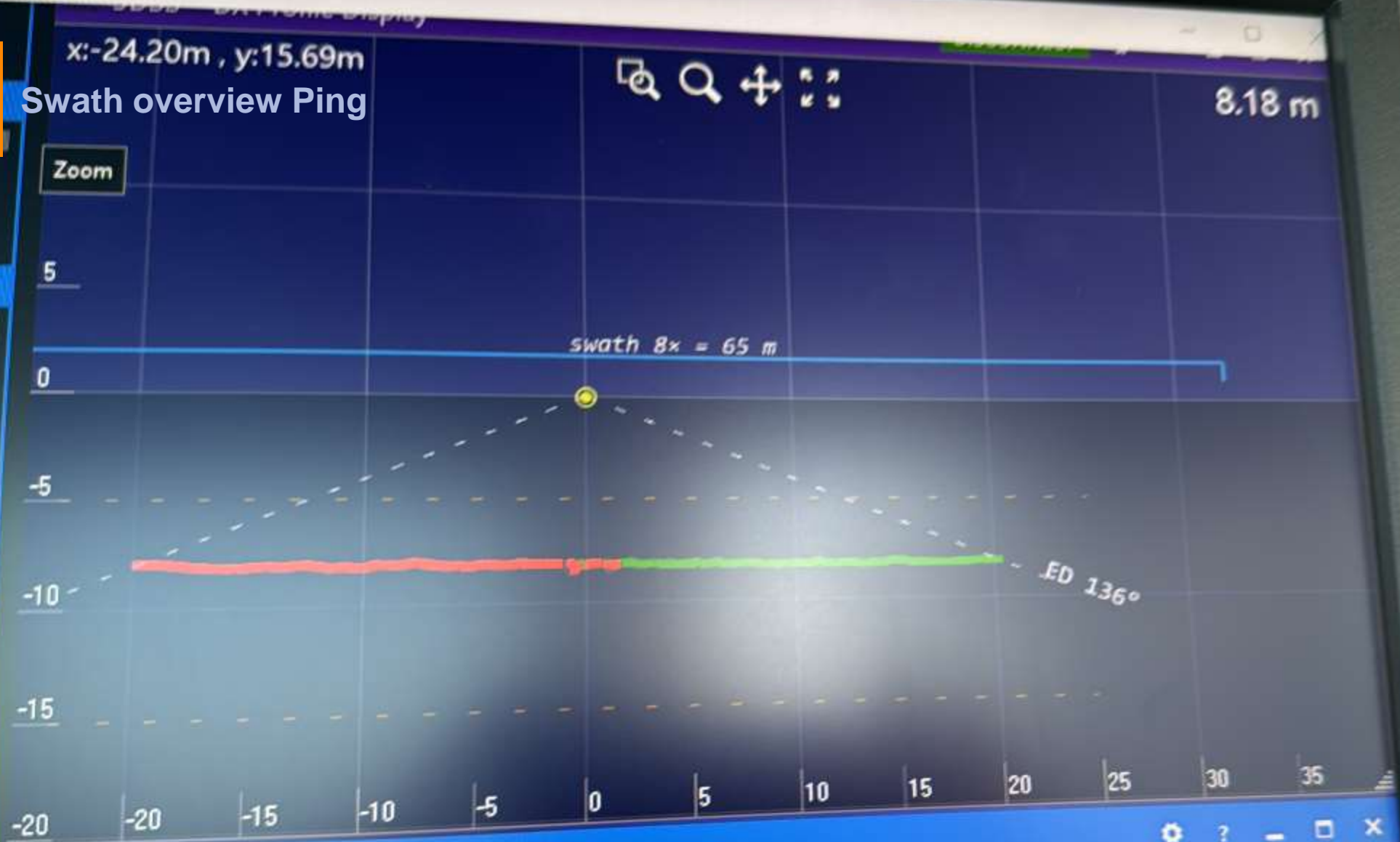
Multi beam swath of 110-160 degrees does not give a lot of coverage

1,1*water depth, ping 3-4* water depth

- In Constanta only the multibeam option is in use for its ultra-wide swath combined (reduces sailing time significantly) with our POSMV for position and motion for the **shallow water presurveys** (-1.5m till -4m) due to the surprisingly good results in these kind of circumstances.
- This data was combined with the R2Sonic2022 data on deeper waters.



Swath overview Ping



3DSS™-DX Sidescan^{3D} Display 1 0 1108

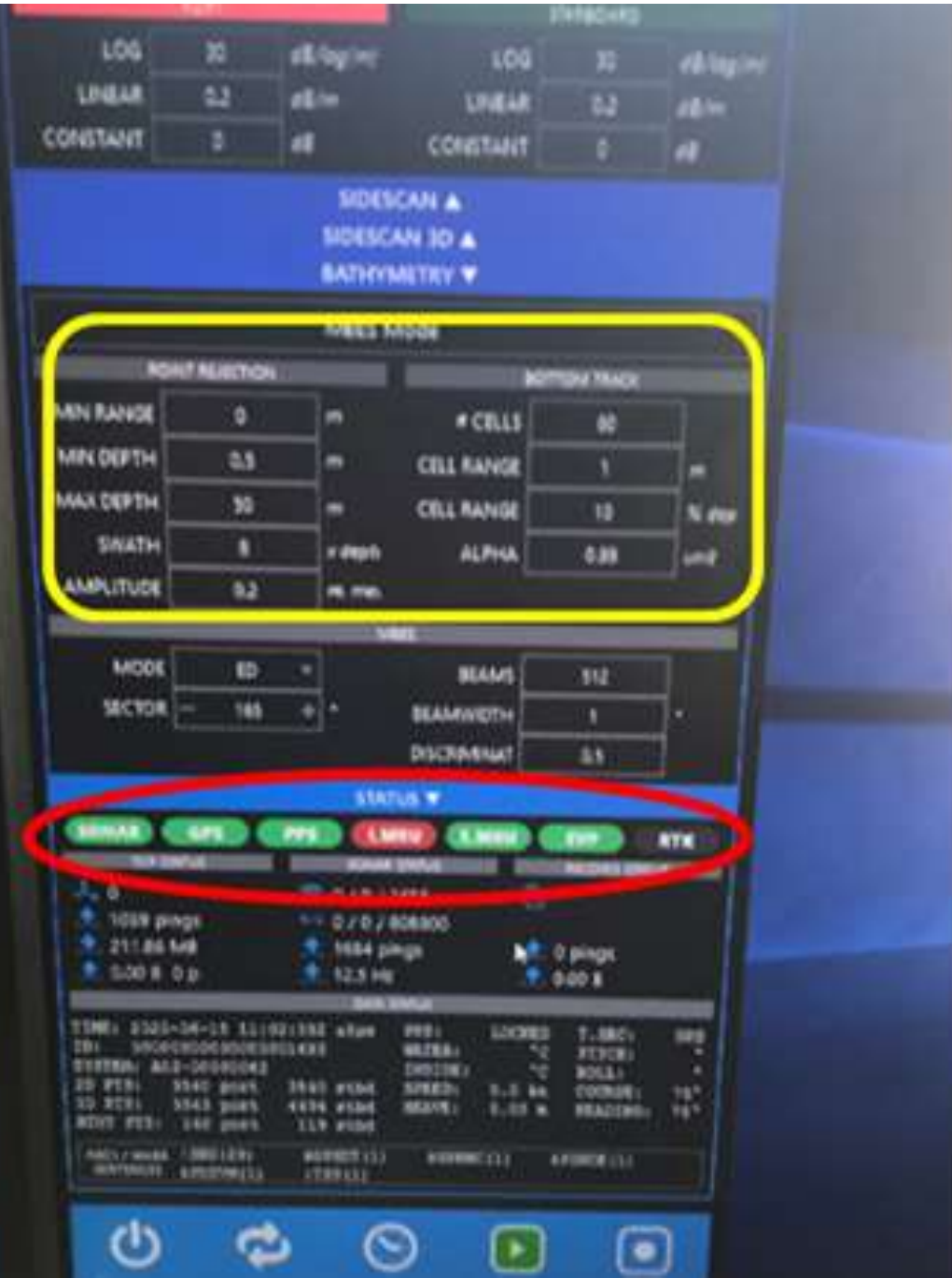
EXTERNAL MRU		
Heave	Pitch	Roll
0.15 m	-2.5°	-1.1°

network file

DISCONNECT

SAVE SETTINGS

- SONAR
- GPS
- MRU
- SV
- SBGS
- XMT
- GAIN
- SS
- SS 3D
- XMT
- GAIN
- SS
- SS 3D
- BATHY

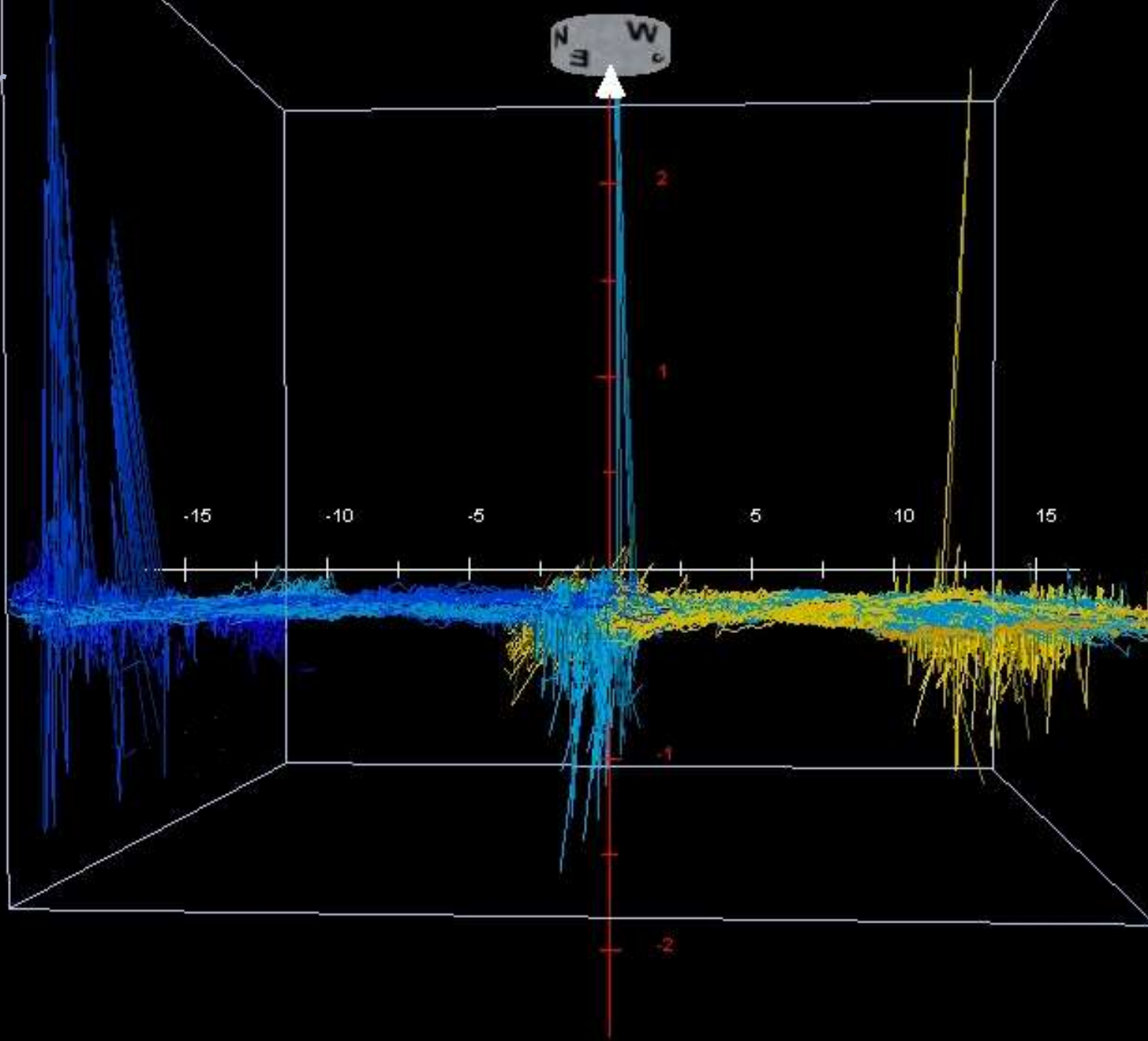


Device	Port
<input checked="" type="checkbox"/> Pos_MV_MBE_phase_center	PosMV
Antenna Position from Geogs	
Reference Point Computation	
<input checked="" type="checkbox"/> Position_check	COM2
Antenna Position from Geogs	
Reference Point Computation	
<input checked="" type="checkbox"/> PosMV Gyro 3+102+104[hdg]	PosMV
Heading computation	
<input checked="" type="checkbox"/> PosMV motion 3+102+104[vru]	PosMV
Attitude computation	
<input checked="" type="checkbox"/> TrueHeave 3+111[heave]	PosMV
Attitude computation	
<input checked="" type="checkbox"/> PingDSP-PortSide	PingDS
Multibeam xyz computation	
Multibeam area computation	
<input checked="" type="checkbox"/> PingDSP-Starboard	PingDS
Multibeam xyz computation	
Multibeam area computation	

PDS logs the two systems, both systems to be calibrated/patch tested.

- Status lights in Ping GUI should all be green, if not Ping acquisition will fail

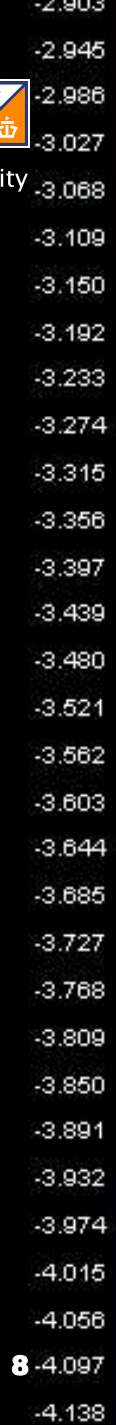
Nadir behaviour



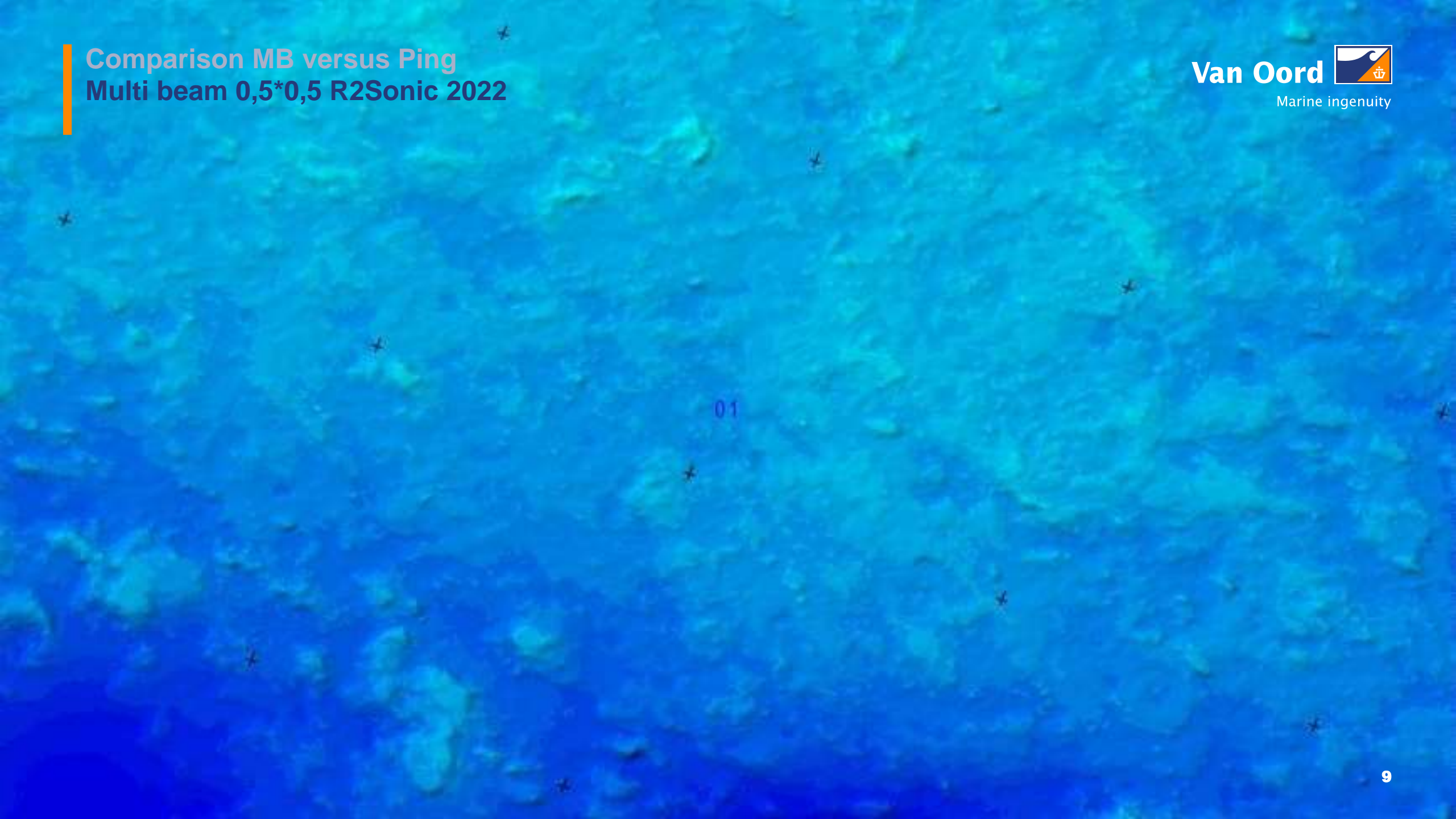
Van Oord



Marine ingenuity



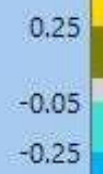
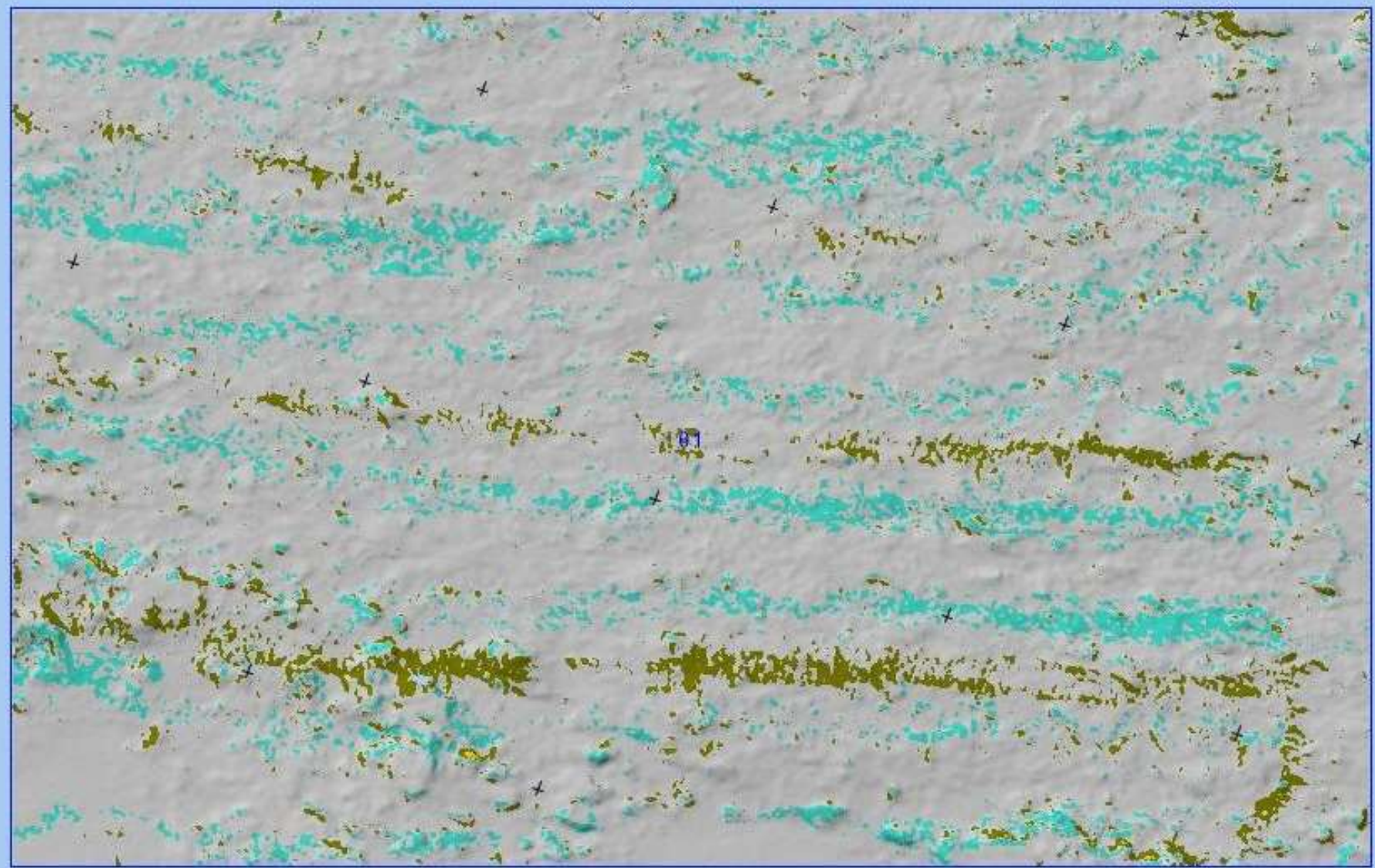
Comparison MB versus Ping
Multi beam 0,5*0,5 R2Sonic 2022



Comparison MB versus Ping
Ping 0,5*0,5

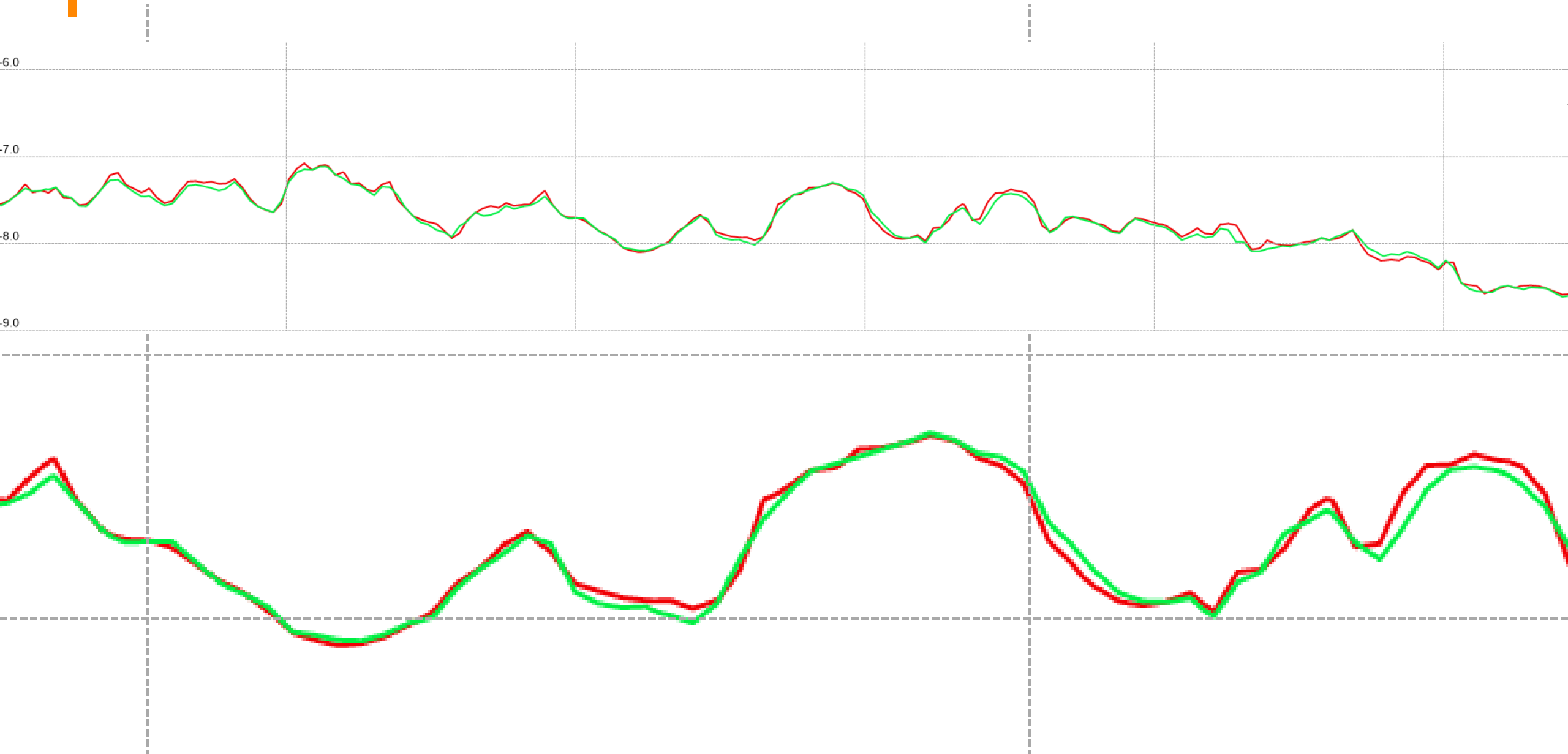
01

Comparison MB versus Ping Differences



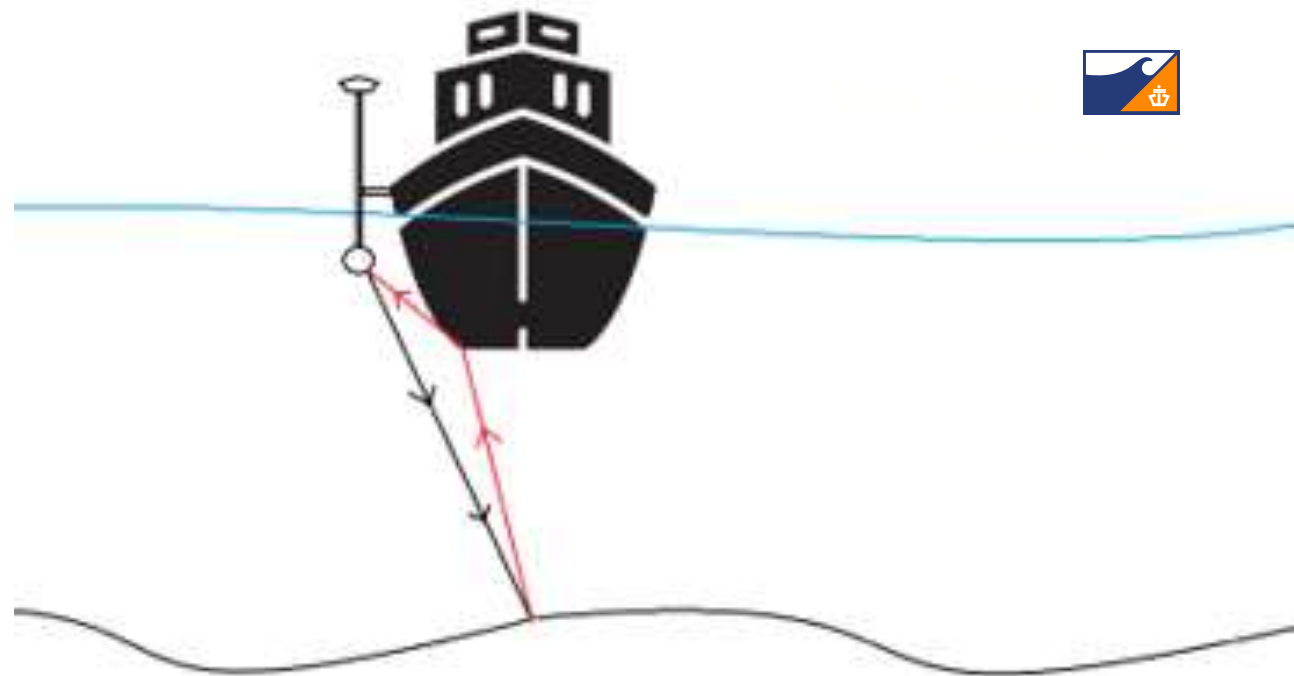
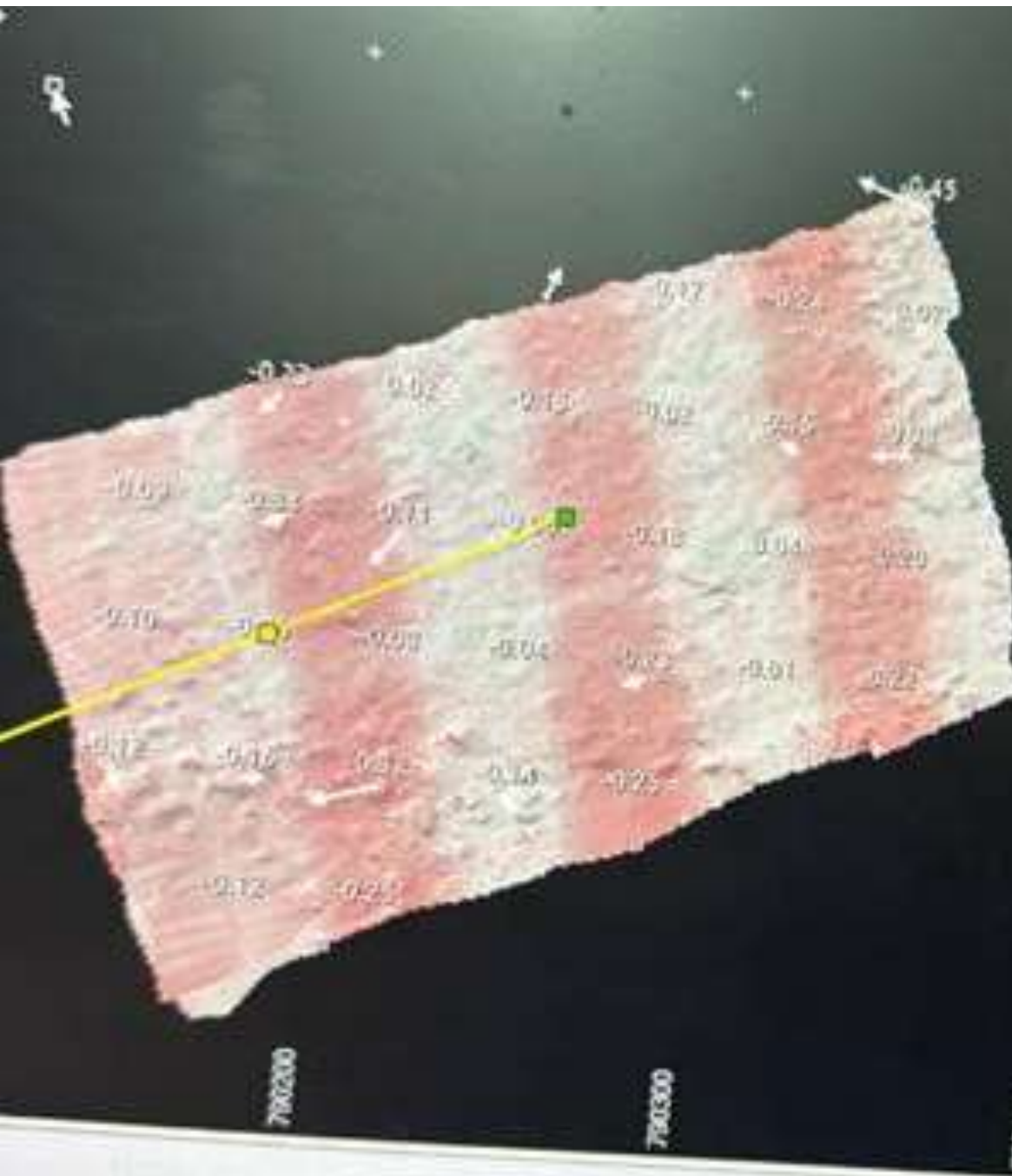
64850
64900
64850
150
200
250
300
350
400

Comparison MB versus Ping Differences

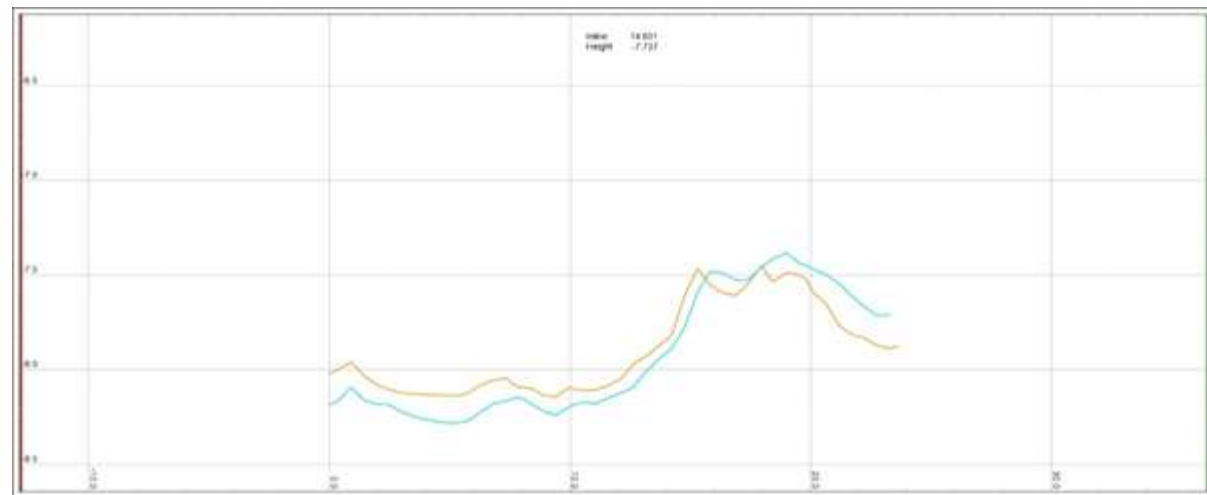




- Shallow area with wreck



Multiple looks like a roll calibration error



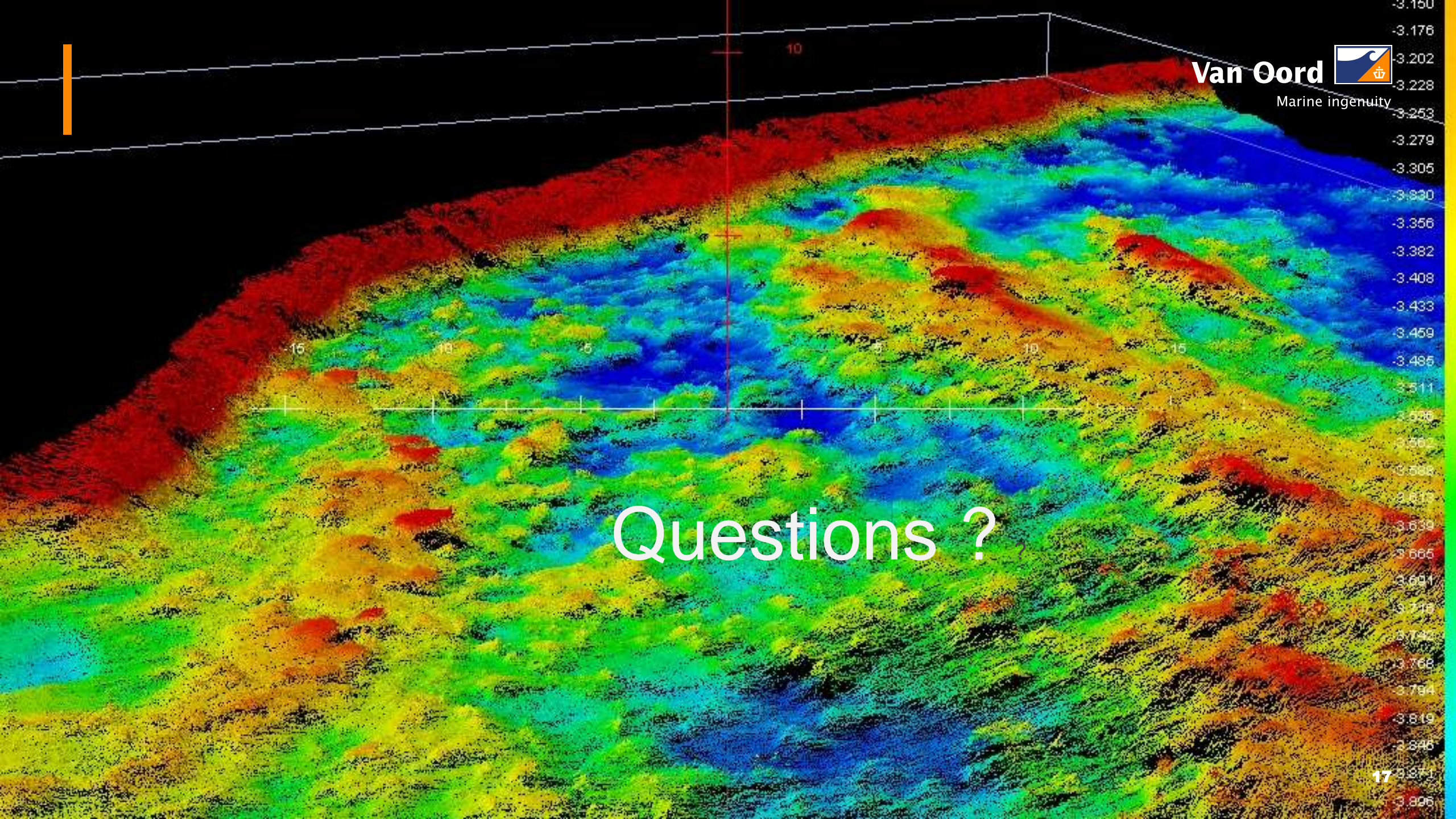
Room for improvement
Old unit from project



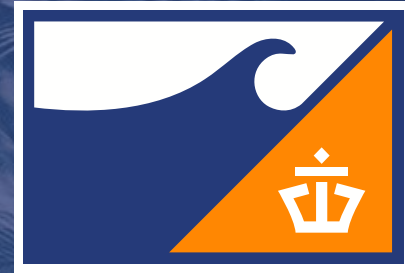
Room for improvement
New system



Questions ?



Van Oord



Marine ingenuity