

AutoPatch (V2019.2 BETA 2) Calibration Report - 13 - 03 - 2019 15:18:05

TRANSDUCER ALIGNMENT CALIBRATION	
Current User	MacArtney Support
Project Folder	F:/3_SBG_Horizon_Project/Calibration_field
Number of Raw Files	8
Project	Ellipse_calibration
Surveyor	MacArtney
Job	Calibration_Elbtunnel_19022019
Vessel	SBG_NICOLA

RAW FILE LIST					
Date	Start	End	Heading	Speed	File Name
19 - 02 - 2019	13:20:06	13:21:50	279.8°	2.2	SBG_NICOLA[multibeam]_SBG_Horizon-20190219-142006.pds
19 - 02 - 2019	13:23:07	13:24:24	100.4°	3.2	SBG_NICOLA[multibeam]_SBG_Horizon-20190219-142307(2).pds
19 - 02 - 2019	13:25:00	13:26:58	285.5°	2.7	SBG_NICOLA[multibeam]_-20190219-142500.pds
19 - 02 - 2019	13:27:54	13:29:32	101.7°	3.6	SBG_NICOLA[multibeam]_-20190219-142754.pds
19 - 02 - 2019	13:29:57	13:32:31	282.1°	2.6	SBG_NICOLA[multibeam]_-20190219-142957.pds
19 - 02 - 2019	13:33:15	13:35:13	102.2°	3.7	SBG_NICOLA[multibeam]_-20190219-143315.pds
19 - 02 - 2019	13:35:52	13:38:19	279.9°	2.9	SBG_NICOLA[multibeam]_-20190219-143552.pds
19 - 02 - 2019	13:38:45	13:40:34	100.4°	3.9	SBG_NICOLA[multibeam]_-20190219-143845.pds

Post-Processing Trajectory	
File:	Ho_t.out

OFFSET LOCATIONS			
Description	Starboard[m]	Forward[m]	Up[m]
COG	0.000	0.000	0.000
HORIZON	0.115	0.128	2.047
APOGEE	-0.186	0.120	2.006
EKINOX	-0.057	0.170	2.005
ELLIPSE	-0.069	0.029	2.003
SEPTENTRIO_EKINOX	-0.942	-0.367	2.018
Mbe-1Tx	0.004	2.575	-0.827
Mbe-1Rx	0.004	2.756	-0.851

COMPUTATION SETTINGS	
Positioning System	Trajectory-Pos
Heading System	ELLIPSE
Pitch/Roll/Heave System	ELLIPSE
Height Mode	Use Position and Heave

SOUND VELOCITY PROFILE		
From Internal Records		
108 records		
Min Speed = 1425.39m/s	Min Cast Depth = 0.50m	Min Survey Depth = 14.40m
Max Speed = 1425.92m/s	Max Cast Depth = 11.70m	Max Survey Depth = 19.20m

MRU ALIGNMENT			
Name	Roll	Pitch	Heading
HORIZON	N/A	N/A	0.000 °
APOGEE	N/A	N/A	0.000 °
EKINOX	N/A	N/A	0.000 °
ELLIPSE	N/A	N/A	0.000 °
HYDRINS	N/A	N/A	0.000 °
HORIZON	0.000 °	0.000 °	N/A
APOGEE	0.000 °	0.000 °	N/A

EKINOX	0.000 °	0.000 °	N/A
ELLIPSE	0.000 °	0.000 °	N/A
HYDRINS	0.000 °	0.000 °	N/A
Trajectory-Mru	0.000 °	0.000 °	0.000 °

VALID DATA GATES		
	Minimum	Maximum
Depth	14.40	19.20
Sector	-58.50°	58.50°

ADJUSTMENTS	
Parameter	Value
SVP Offset	1.0 m/s
Position Latency	0.00 milliseconds
Motion Latency	-1 milliseconds
Motion Misalignment	0.0 deg
Multibeam Latency	0 milliseconds
Multibeam Offset Starboard	0.00 m
Multibeam Offset Forward	0.00 m

DATA PAIRING & ROLL AREA SETTINGS	
Parameter	Value
Min. Roll-Pitch Overlap	80
Max. Heading Overlap	60
Line Heading Margin	20
Line Speed Margin	1
Roll Calibration Area Placement	Automatically, based on seabed features

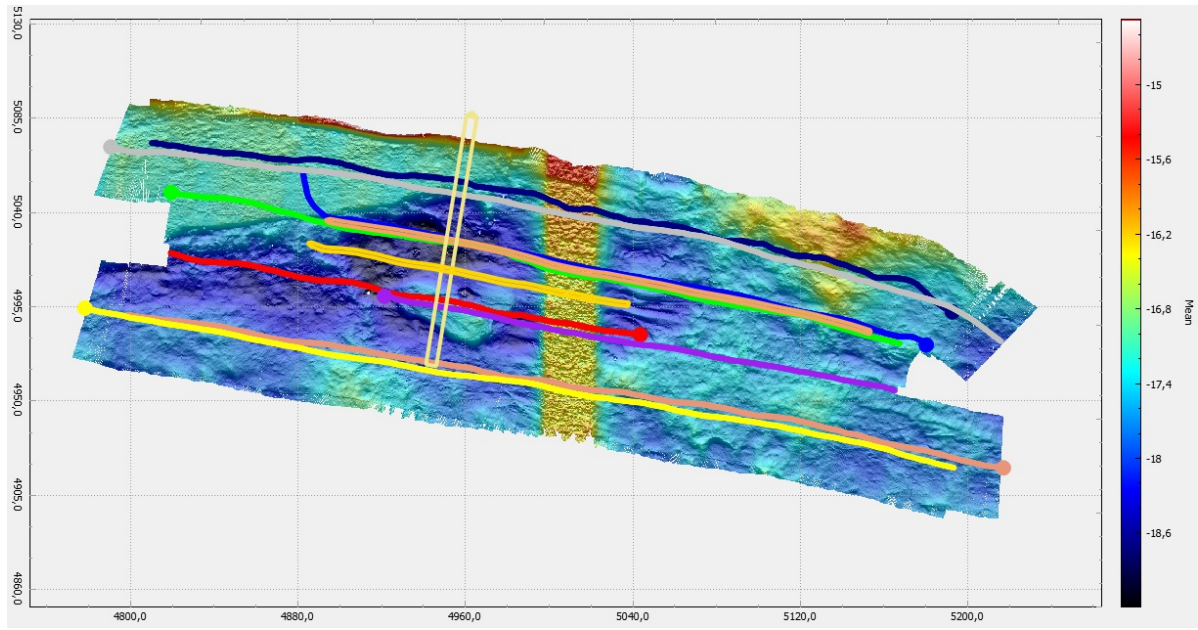
CALIBRATION OFFSET RESULTS					
Roll-Pitch	Hdg	Roll	Pitch	Heading	
Head 1 - 3 - 4	Head 1 - 1 - 3	-0.017°	3.040°	-1.365°	
Head 1 - 3 - 4	Head 1 - 1 - 7	-0.029°	3.015°	-1.025°	
Head 1 - 3 - 4	Head 1 - 2 - 4	-0.013°	3.050°	-1.395°	
Head 1 - 3 - 4	Head 1 - 2 - 8	-0.027°	3.015°	-1.135°	
Head 1 - 3 - 4	Head 1 - 3 - 5	-0.024°	3.015°	-1.185°	
Head 1 - 3 - 4	Head 1 - 4 - 6	-0.018°	3.035°	-1.265°	
Head 1 - 5 - 6	Head 1 - 1 - 3	0.011°	3.055°	-1.400°	
Head 1 - 5 - 6	Head 1 - 1 - 7	0.007°	3.000°	-1.180°	
Head 1 - 5 - 6	Head 1 - 2 - 4	0.008°	3.065°	-1.445°	
Head 1 - 5 - 6	Head 1 - 2 - 8	0.008°	2.955°	-1.185°	
Head 1 - 5 - 6	Head 1 - 3 - 5	0.011°	3.040°	-1.335°	
Head 1 - 5 - 6	Head 1 - 4 - 6	0.015°	3.050°	-1.410°	
Head 1 - 7 - 8	Head 1 - 1 - 3	0.001°	2.950°	-1.355°	
Head 1 - 7 - 8	Head 1 - 1 - 7	-0.013°	2.890°	-1.175°	
Head 1 - 7 - 8	Head 1 - 2 - 4	-0.003°	2.945°	-1.345°	
Head 1 - 7 - 8	Head 1 - 2 - 8	-0.020°	2.915°	-0.990°	
Head 1 - 7 - 8	Head 1 - 3 - 5	-0.002°	2.955°	-1.260°	
Head 1 - 7 - 8	Head 1 - 4 - 6	0.003°	2.960°	-1.445°	
	PRESET	-0.04°	3.09°	-1.78°	
	AVERAGE	-0.01°	3.00°	-1.27°	ADVISED MOUNTING ANGLES
	SDEV	0.01°	0.05°	0.14°	

MOUNTING ANGLE SIGN CONVENTION	
Roll	Positive when Transducer center beam points towards port
Pitch	Positive when Transducer center beam points towards bow
Heading	Positive when Transducer is rotated clockwise around vertical axis of vessel
Note: All angles are absolute w.r.t. the vessel reference frame	

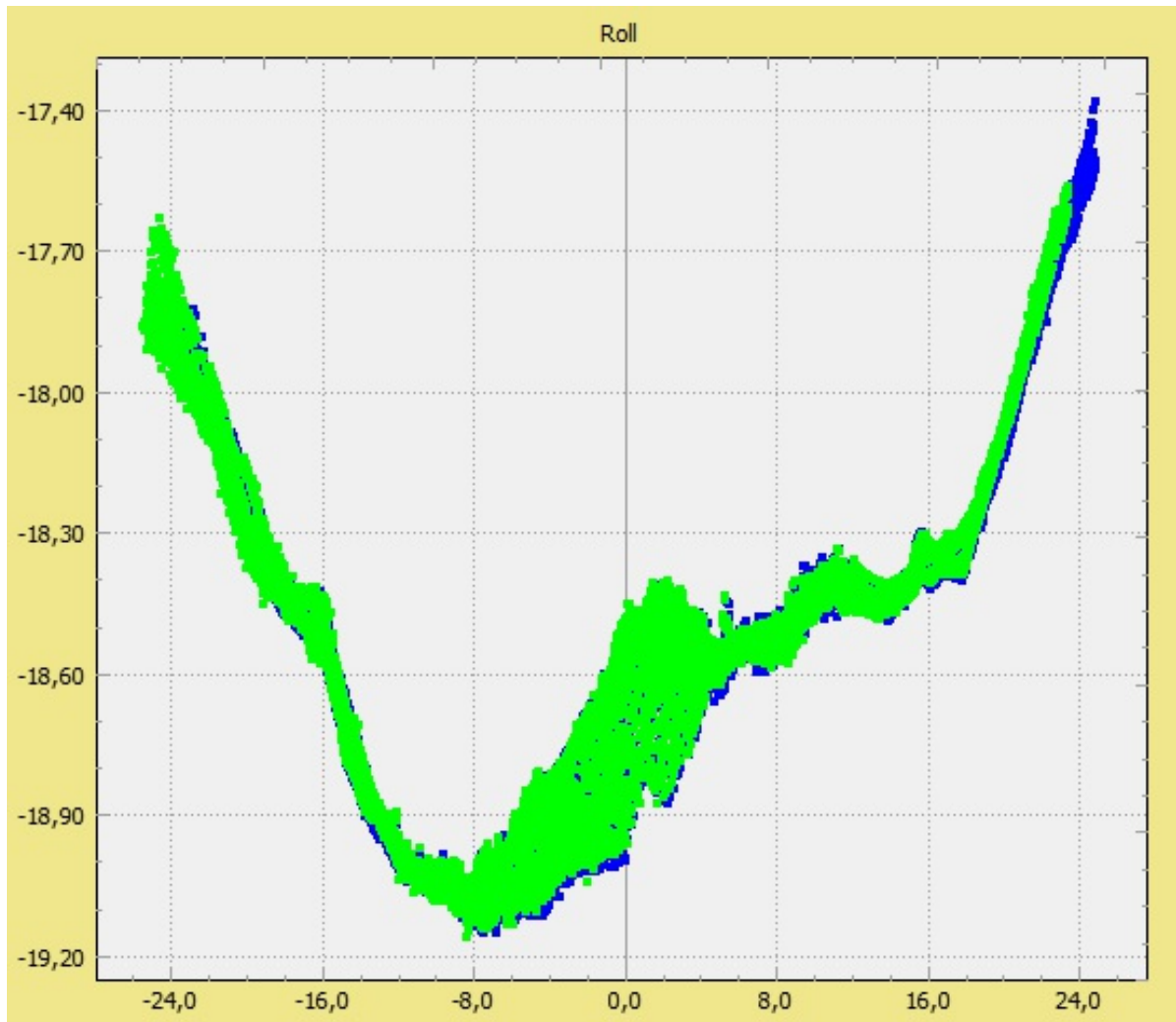
ACCURACY	
Average Error	1.788 cm/m2

WARNINGS	
There are no warnings to report	

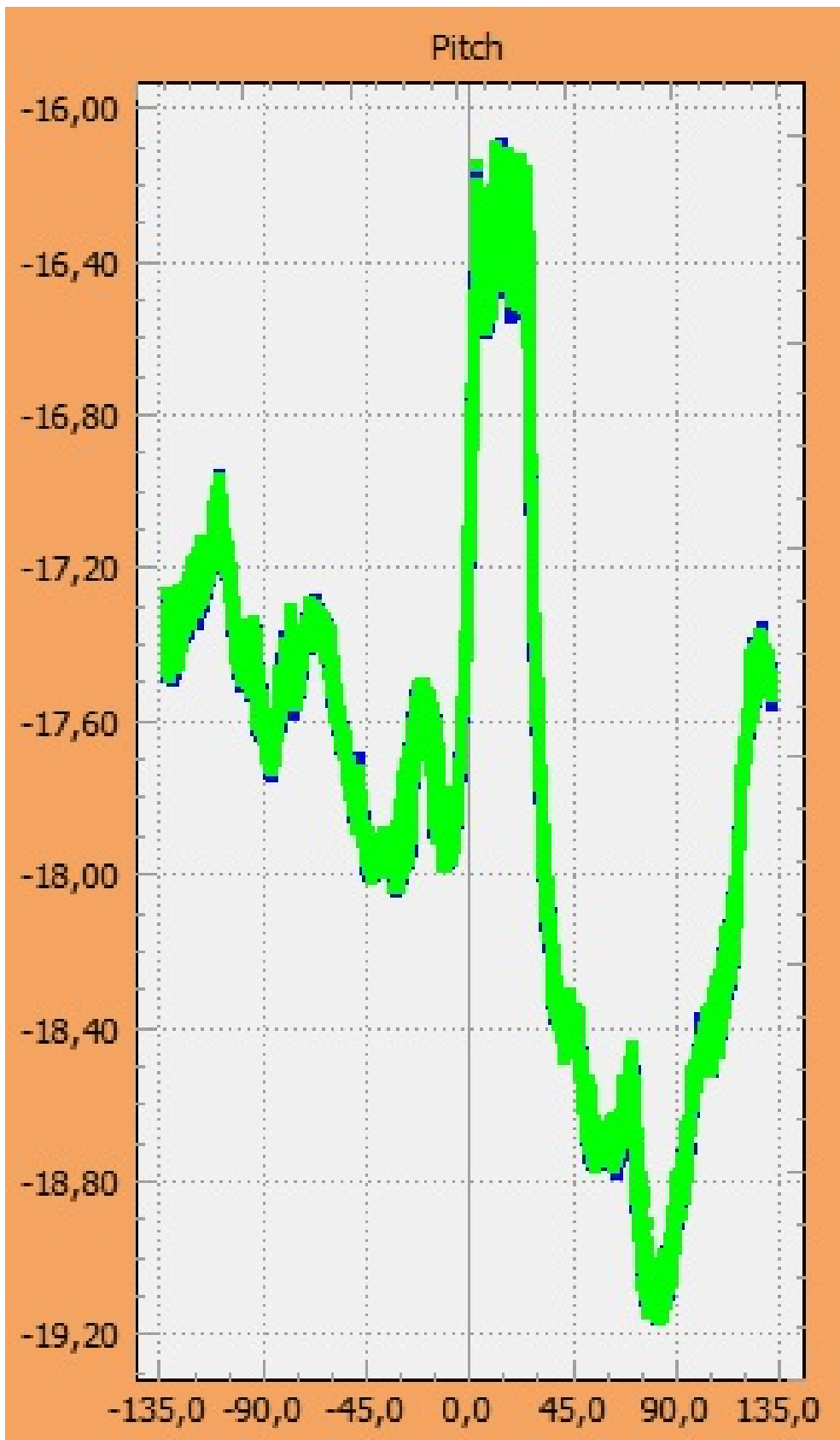
Chart View



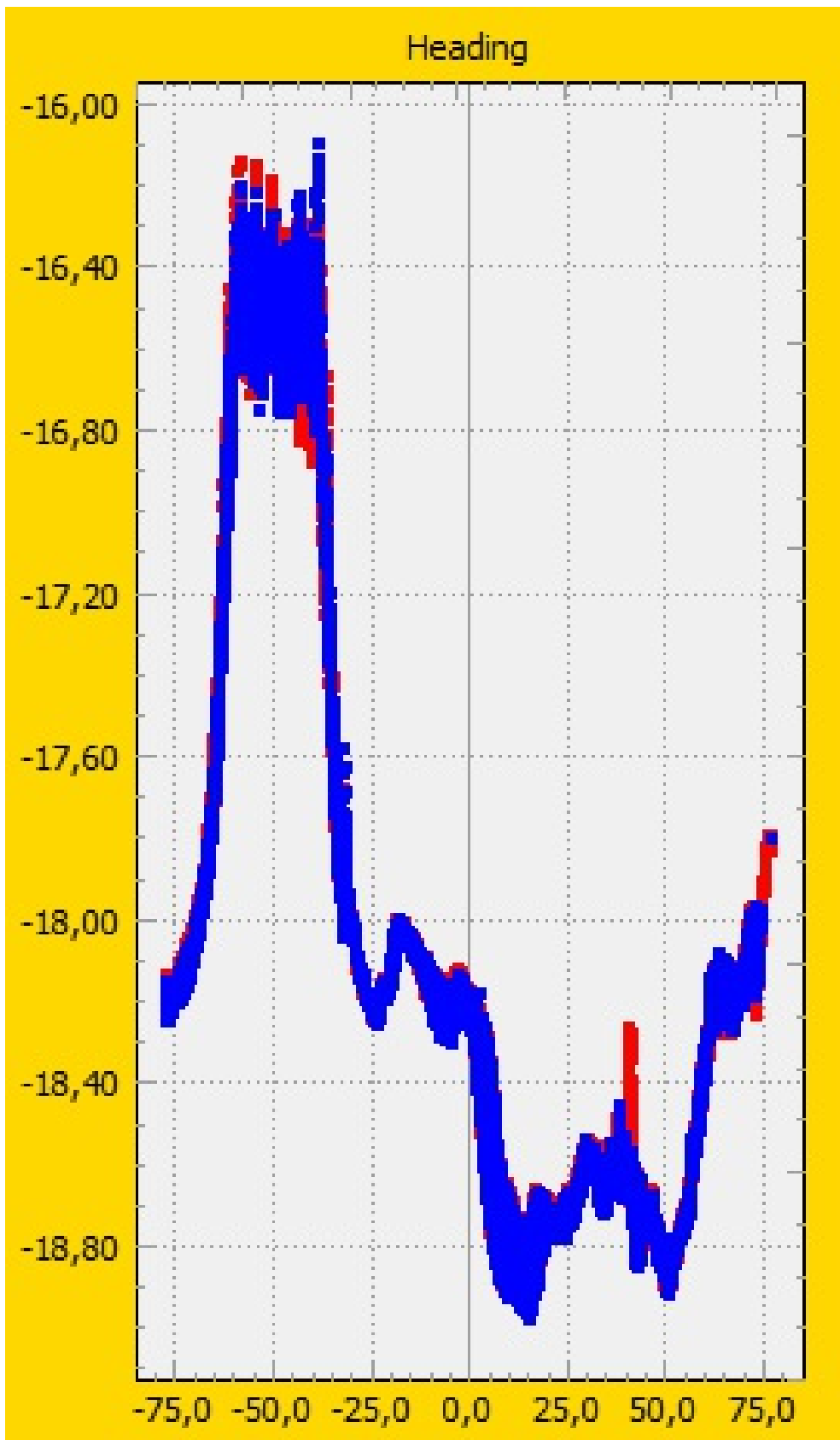
Roll Slice View



Pitch Slice View



Heading Slice View



-- End of Calibration Report --