

Company: L-DEO - Lamont - Doherty Earth Observatory
Vessel: Marcus G. Langseth
Client: Harris/NSF

Project: MGL2208
Area: Cascadia, Oregon
Start Date: 4-Aug-22

Vessel Sensor Offsets

Towing Offsets

Towing Configuration

Acoustic Overhead

Gun Array Offsets

Streamer Front End

Streamer Tail End

Streamer Complete

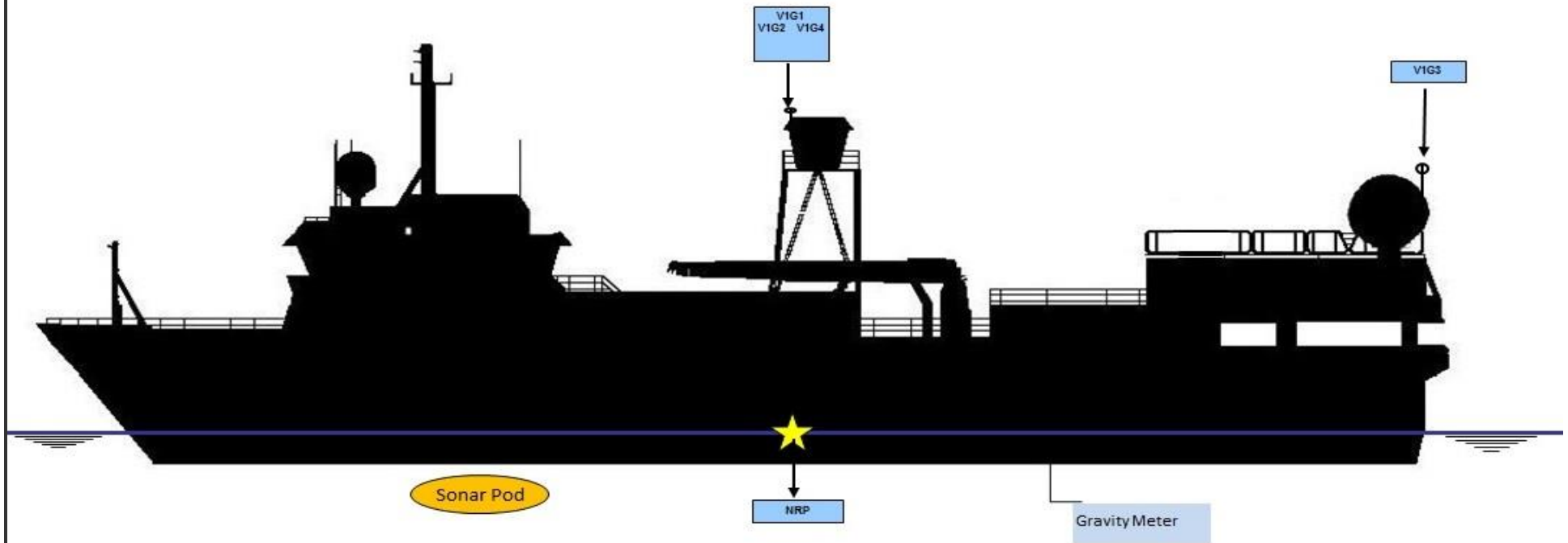
Hydrophone Offsets

Tailbuoy Offsets

Timing



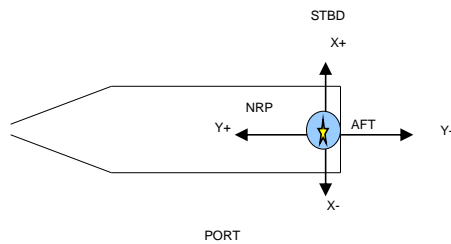
R/V Marcus G. Langseth - Vessel Sensor Offsets



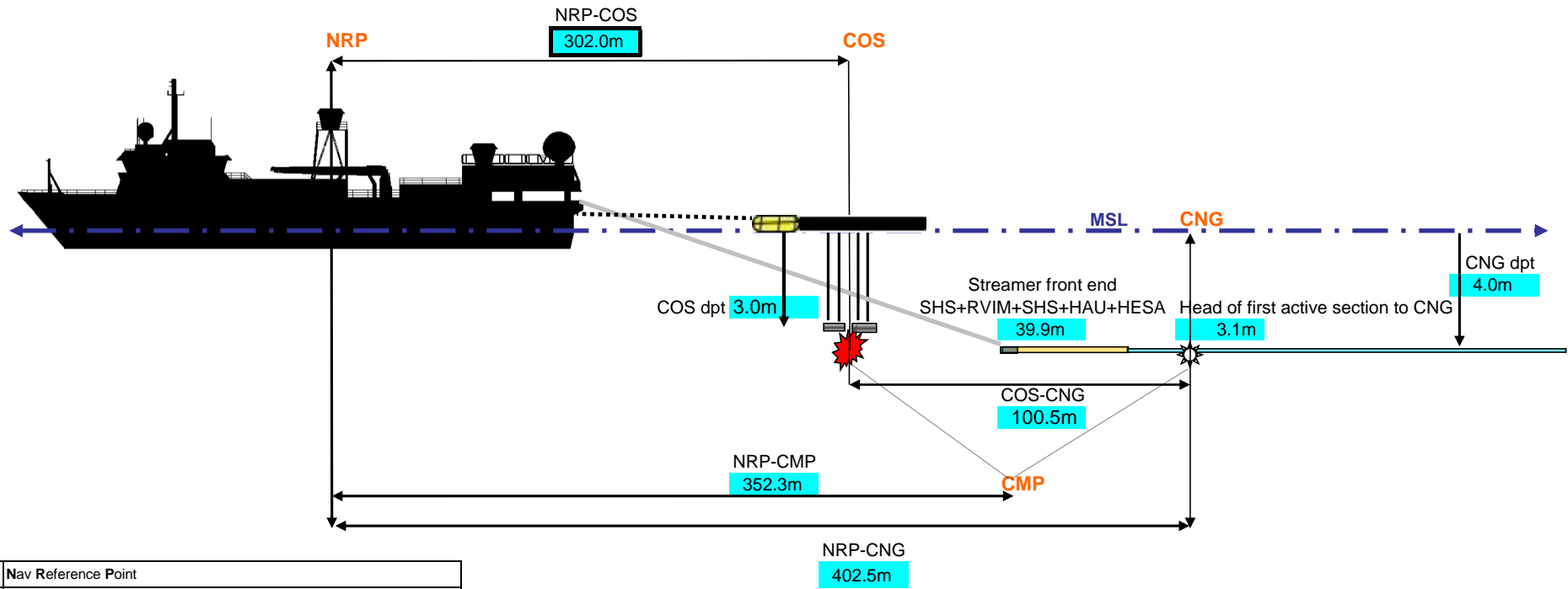
Negative values are above water line

All measurements in meters

		STBD/PORT (X)	FORE/AFT (Y)	UP/DOWN (Z)	
NRP	NAVIGATION REFERENCE POINT	0.00	0.00	0.00	
V1G1	C-Nav 3050	0.00	0.00	-16.90	
V1G2	SeaPath 200	0.00	1.50	-16.90	
V1G3	C-Nav 2000	-2.10	-29.20	-14.50	
V1G4	Pos MV	-1.30	1.20	-16.90	
V1R1	PosNet	-1.30	0.00	-16.90	
Sonar Pod	EM122 Knudsen ADCP	0.00	20.20	7.49	
	EM122 Center Beam offset (in Spectra)	0.00	13.4	7.49	
MRU	Seapath MRU	2.30	14.16	-4.30	
BGM	Bell Gravity Meter	0.00	-13.10	1.10	



R/V Marcus G. Langseth - Towing Offsets



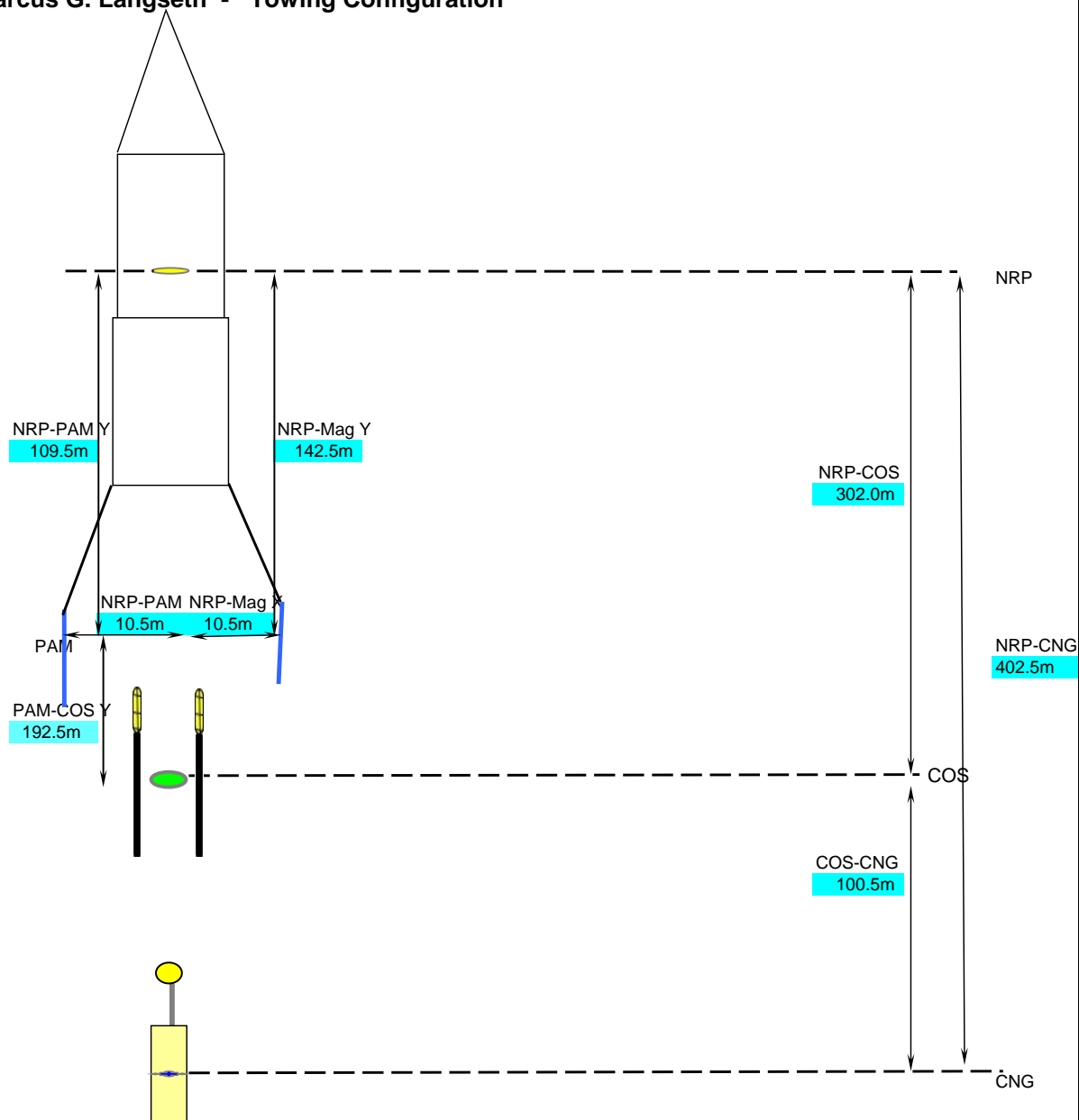
NRP	Nav Reference Point
COS	Centre of Source
CNG	Centre of Near Group
CMP	Common Mid-Point
MSL	Mean Sea Level
NRP-Stern	29.5m
NRP-COS	302.0m

All measurements in meters

Cell contents referenced from Config_offsets tab

R/V Marcus G. Langseth - Towing Configuration

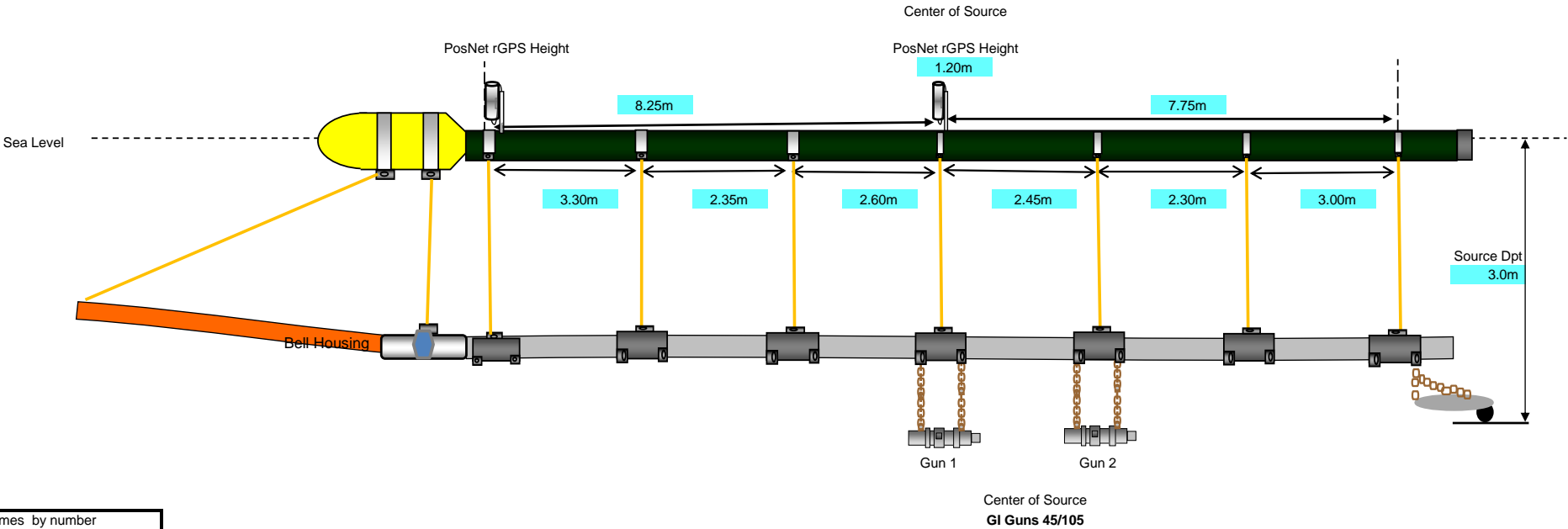
	# Streamers	Length	Channels	Spacing
SEAL	1	900	144	6.25
# Gun Strings Used	1	Vol (in^3)	90	



NOT to Scale

Cell contents referenced from Config_offsets tab

R/V Marcus G. Langseth - Gun Array Offsets



Gun volumes by number		
Gun	Volume	Status
Gun 1	45/105	Primary
Gun 2	45/105	Primary
Gun 3	0 cu. in.	Primary
Gun 4	0 cu. in.	Primary
Gun 5	0 cu. in.	Primary
Gun 6	0 cu. in.	Primary
Gun 7	0 cu. in.	Primary
Gun 8	0 cu. in.	Primary
Gun 9	0 cu. in.	Primary

Array total volume (without spares) is 90 cu. in. Total volume/string (without spare) 90 cu. in.

Guns (1 & 2) & (8 & 9) in a horizontal cluster.

Gun clusters have 0.75m between guns and hang 0.95m from center of hanger

Horizontal Clusters are 1m from gun port to gun port

Single guns hang from hanger 1.15m

All gun volumes, numbering, locations, and offsets were inspected and verified by Chief Source Mechanic.

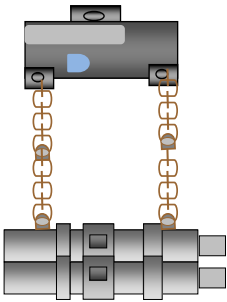
All measurements in meters

NOTE: drawing not to scale

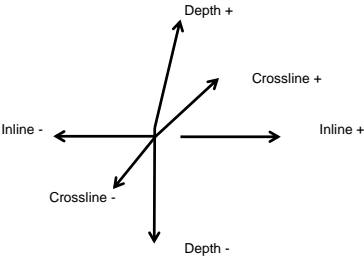
Cell contents referenced from Config_offsets tab

Distances in Meters

Gun Plate



Center of ports between guns 1 and 2 is the reference point



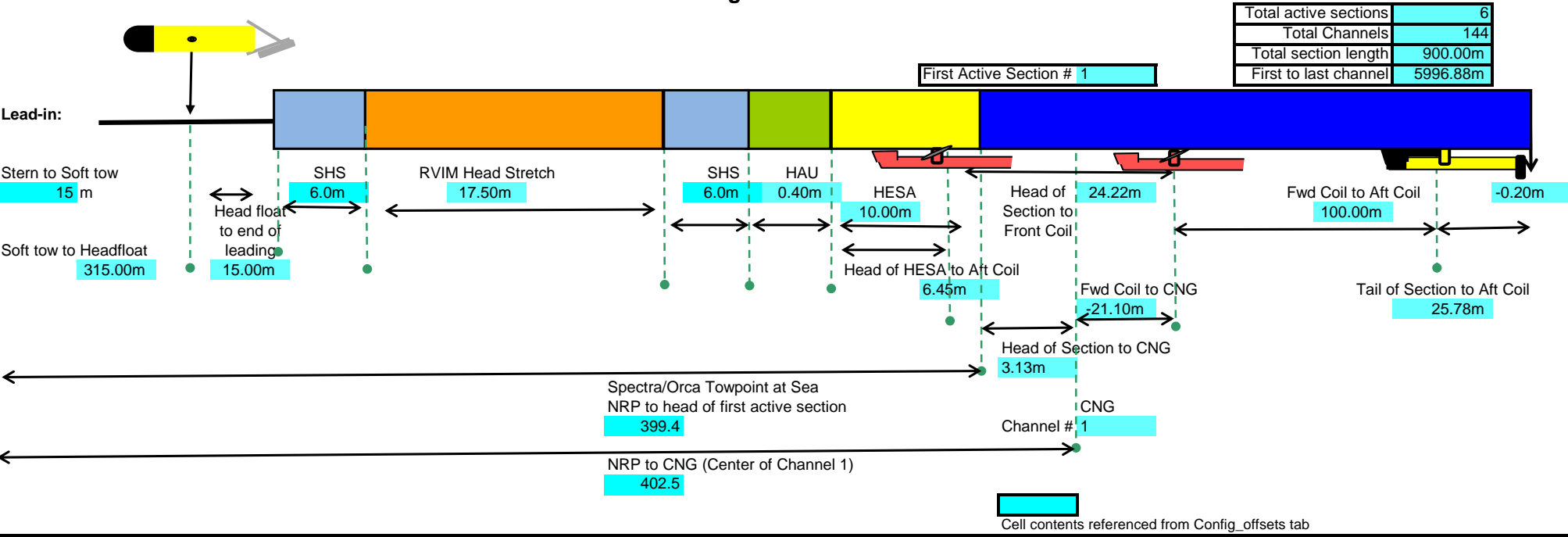
Hydrophone Offsets

Gun String 1				
Plate	Phone	Inline	Crossline	Depth
1		N/A	N/A	N/A
2		N/A	N/A	N/A
3		N/A	N/A	N/A
4		N/A	N/A	N/A
5		N/A	N/A	N/A
6	1	-1.23	0.00	1.10
7		N/A	N/A	N/A

Depth Transducer Offsets

Gun String 1				
Plate	DT	Inline	Crossline	Depth
1		N/A	N/A	N/A
2		N/A	N/A	N/A
3		N/A	N/A	N/A
4		N/A	N/A	N/A
5	1	1.23	N/A	1.10
6	1	-1.23	N/A	1.10
7		N/A	N/A	

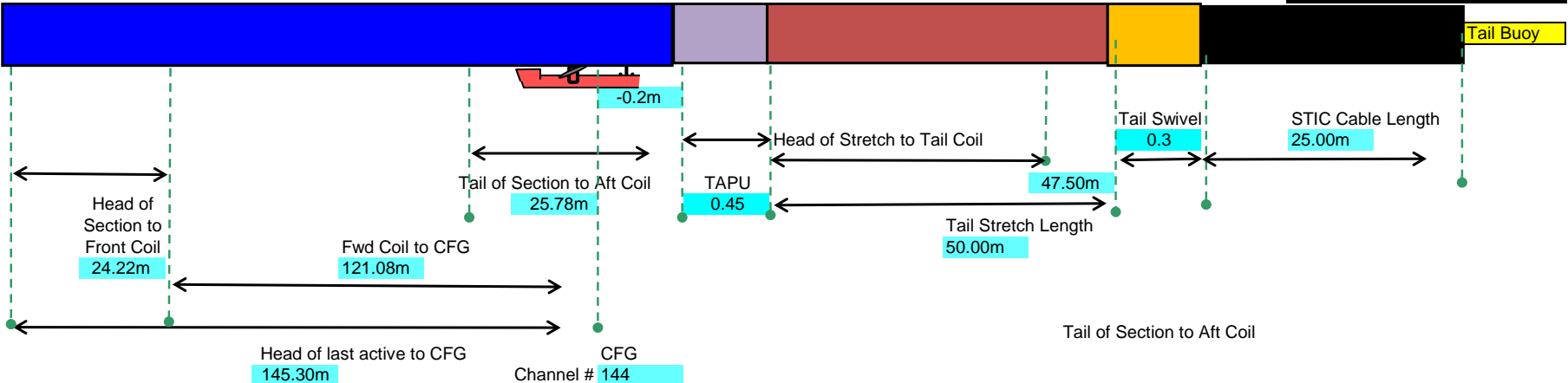
R/V Marcus G. Langseth - Streamer Front End



R/V Marcus G. Langseth - Streamer Tail End

Total active sections	6
Total Channels	144
Total section length	900.00m
First to last channel	5996.88m
CFG to TB RGPS	81.95m

Last Active Section # 6



Cell contents referenced from Config_offsets tab

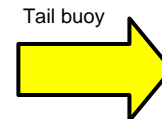
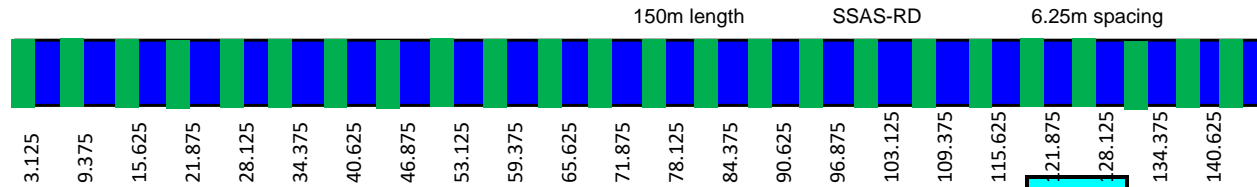
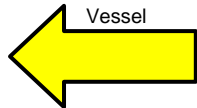
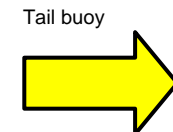
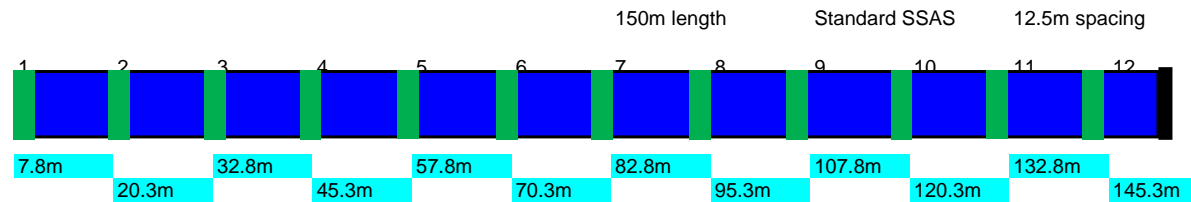
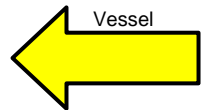
R/V Marcus G. Langseth - Hydrophone Offsets
Sercel 150meter SSAS

Number of SSAS Sections **6**

Standard SSAS
SSAS-RD 6.25m

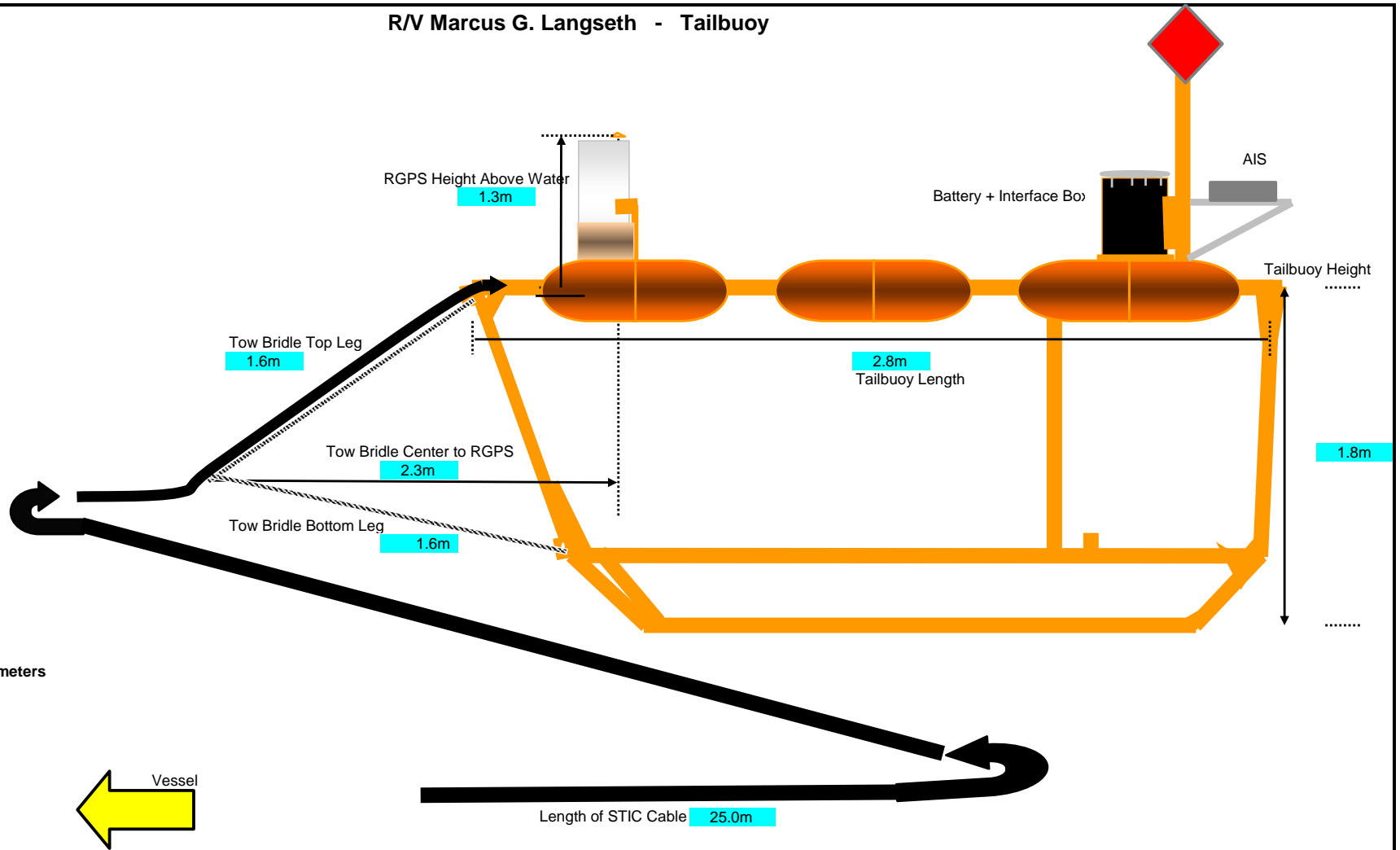
12 Channels Per Section
24 Channels Per Section

Total channels **144**



Cell contents referenced from Config_offsets tab

R/V Marcus G. Langseth - Tailbuoy



All measurements in meters

Cell contents referenced from Config_offsets tab

