

Company : LDEO  
Vessel : Marcus G.Langseth  
Client : NSF

Project : MGL1211  
Area : Juan de Fuca  
Start Date : 10 June 2012



**Vessel Sensor Offsets**

**Towing Offsets**

**Acoustic Offsets**

**Gun Array Offsets**

**Gun Configuration**

**Streamer Front End**

**Tailbuoy Offsets**

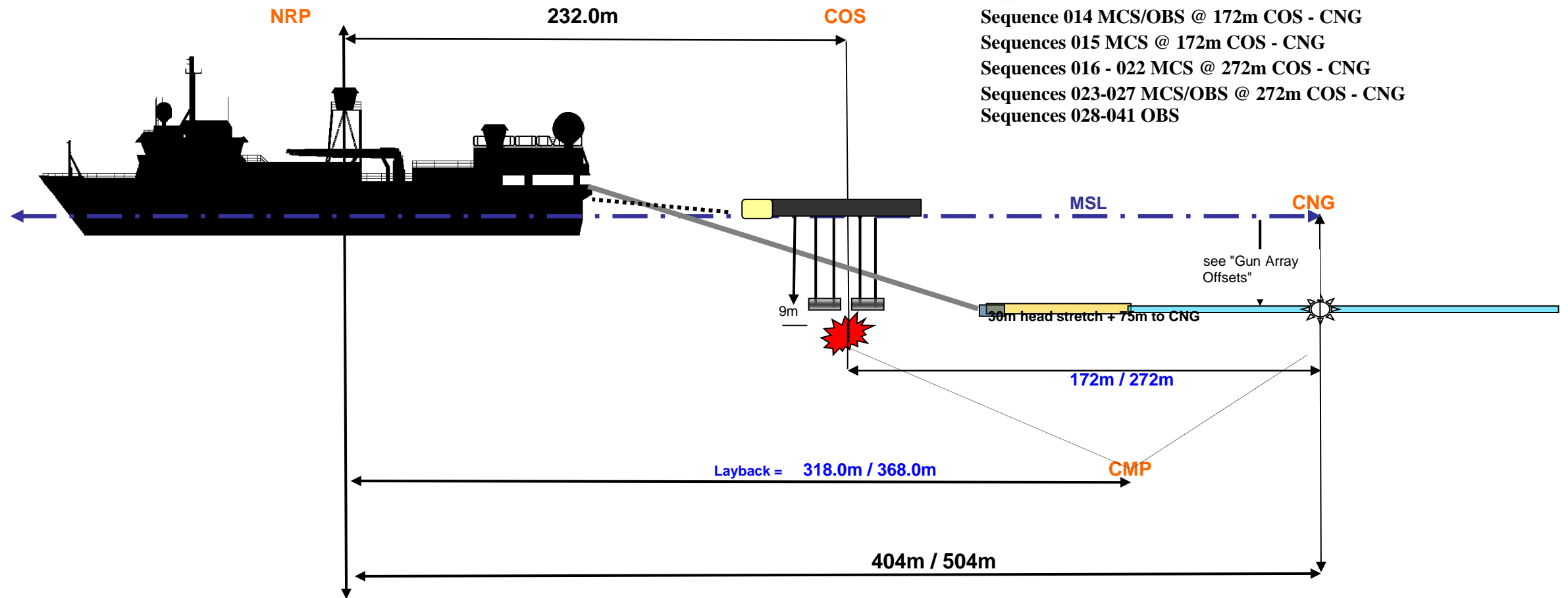
**Timing Langseth**

**Timing Spectra**



## R/V Marcus G. Langseth - Towing Offsets

Sequences 001 - 006 OBS @ 172m COS - CNG  
 Sequences 007 - 013 MCS @ 172m COS - CNG  
 Sequence 014 MCS/OBS @ 172m COS - CNG  
 Sequences 015 MCS @ 172m COS - CNG  
 Sequences 016 - 022 MCS @ 272m COS - CNG  
 Sequences 023-027 MCS/OBS @ 272m COS - CNG  
 Sequences 028-041 OBS



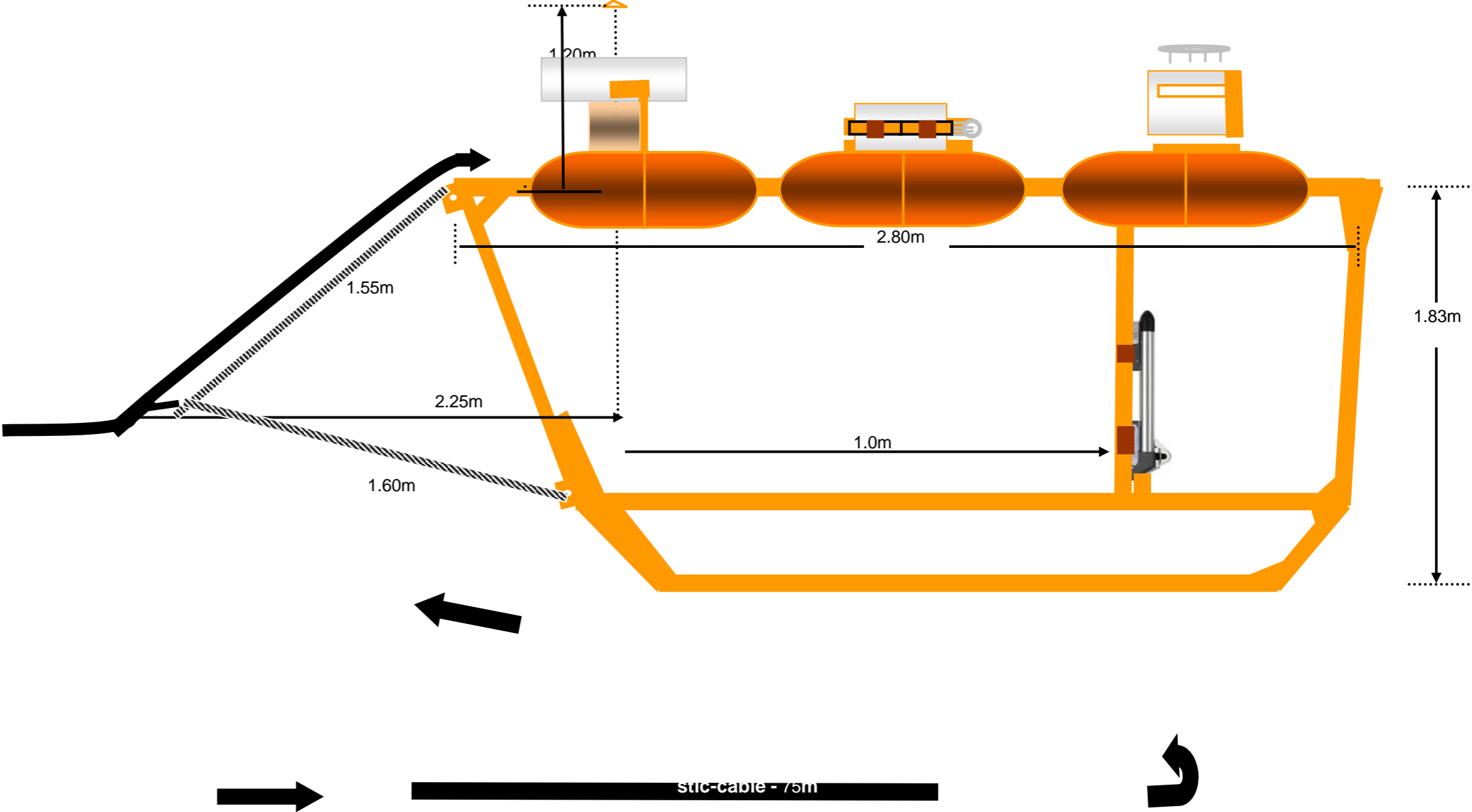
\*\*\* Offsets used for acquisition seq 01 - 15 \*\*\*

NRP-Stern	29.5m	none	<u>changes seq 16-27</u>
NRP-COS	232m	none	
NRP-CNG	404.0m	504.0m	
COS-CNG	172.0m	272.0m	
NRP-CMP	318.0m	368.0m	

NRP	Nav Reference Point
COS	Centre of Source
CNG	Centre of Near Group (Trace # 468)
CMP	Common Mid-Point
MSL	Mean Sea Level

All measurements in meters

R/V Marcus G. Langseth - Tailbouy

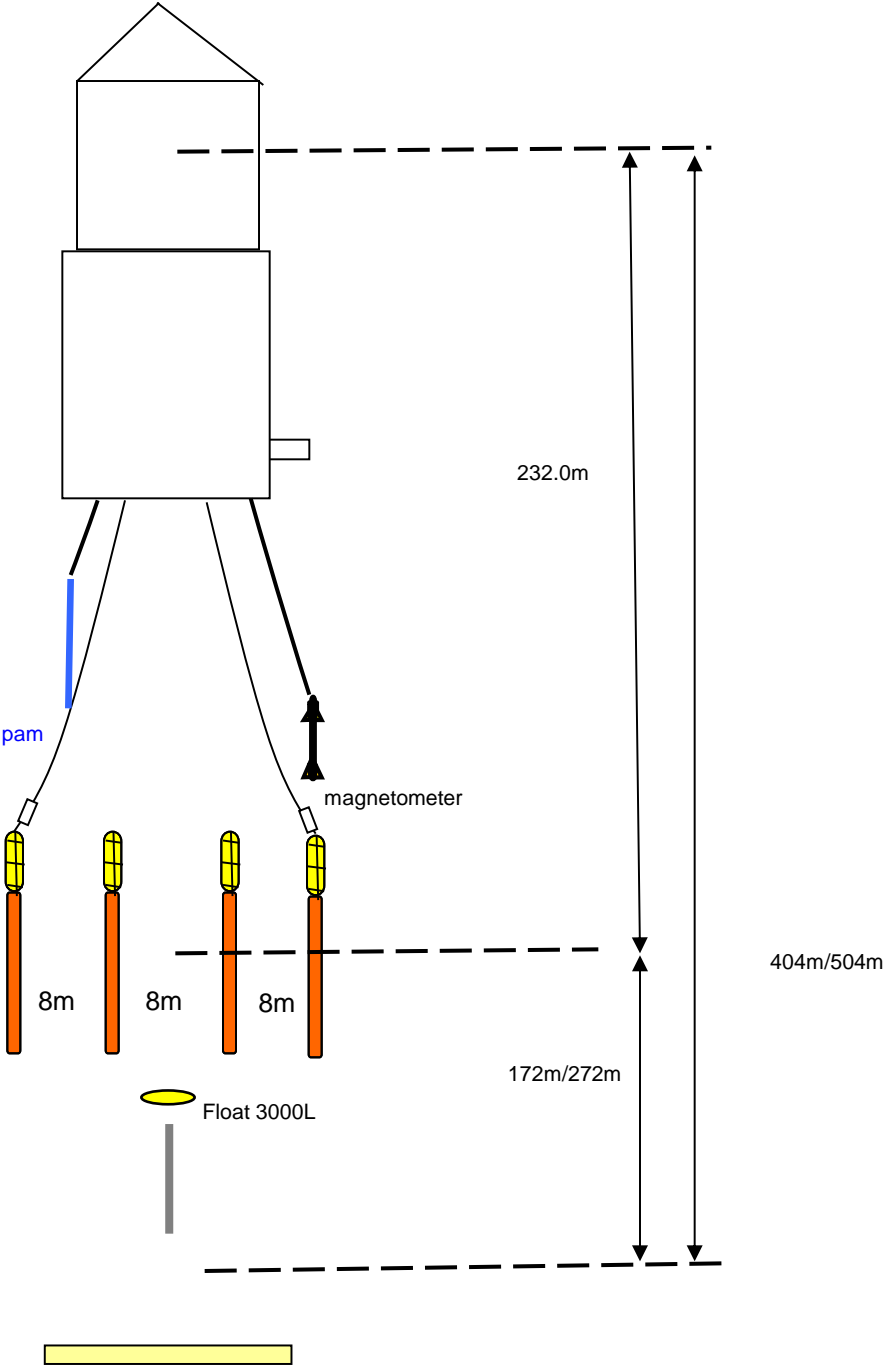


All measurements in meters

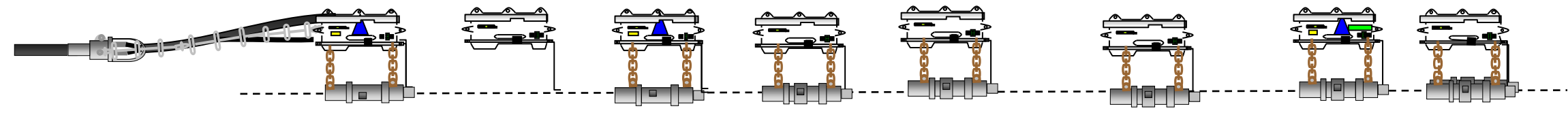
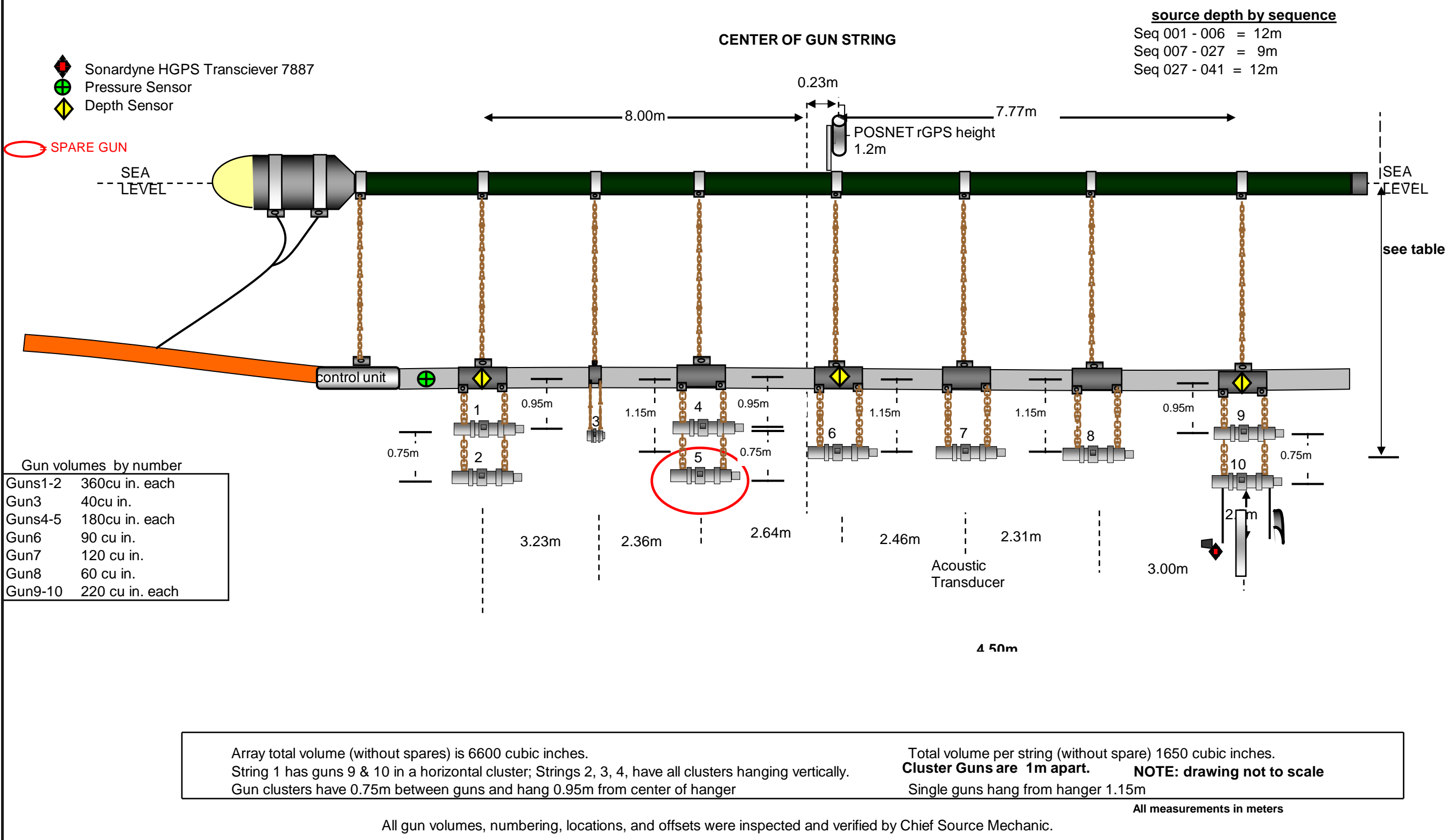
# R/V Marcus G. Langseth "tow" configuration

R/V Marcus Langseth  
1 x 8000  
4 Gunstrings

NOT to Scale

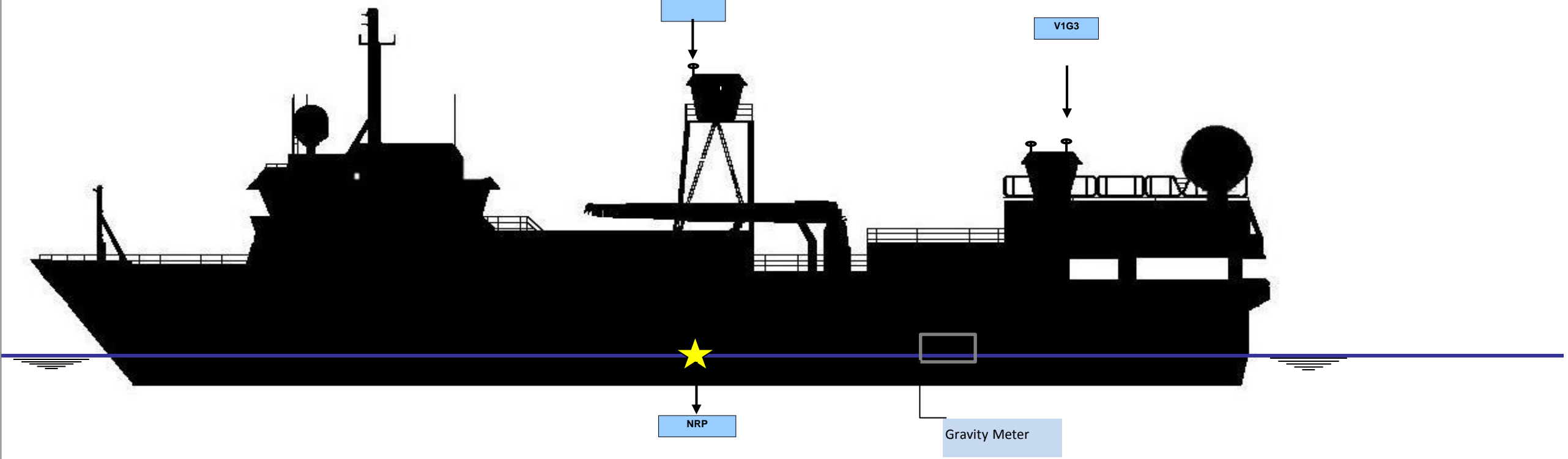


### R/V Marcus G. Langseth - Gun Array Offsets



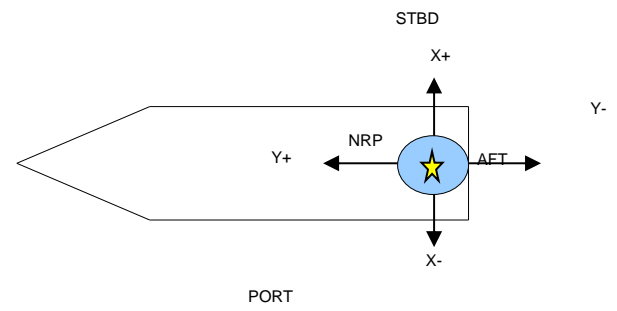
V1G1

V1G1



All measurements in meters

		STBD/PORT (X)	FORE/AFT (Y)	UP/DOWN (Z)
★	<b>NRP</b> NAVIGATION REFERENCE POINT	0.00	0.00	0.00
	<b>V1G1</b> C-Nav 3050	0.00	0.00	-16.90
	<b>V1G2</b> SeaPath 200	0.00	1.50	-16.90
	<b>V1G3</b> C-Nav 2000	4.87	-15.27	-14.50
	<b>V1G4</b> Pos MV	-1.30	1.20	-16.90
	<b>V1R1</b> PosNet	-1.30	0.00	-16.90
	<b>EM122</b> Multibeam Transducer Array	0.00	20.20	7.49
	<b>MRU</b> Seapath MRU	2.30	-14.16	-4.30
	<b>BGM</b> Bell Gravity Meter	4.40	-13.10	-3.49

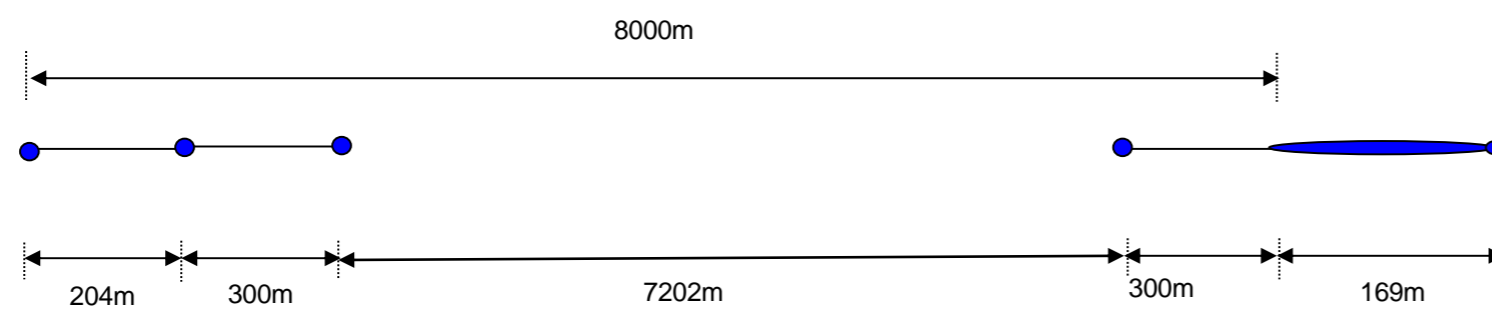


Note: All Echosounders are used in Spectra with 6.6m ship's draft correction applied.

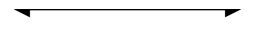
R/V Marcus G. Langseth - Acoustic Offsets

Sonardyne SIPS 1

- HGPS Transciever 7887 & Shock Mounted Transducer 7660
- XSRS 8005 Acoustic Transceiver (Longlife Battery)



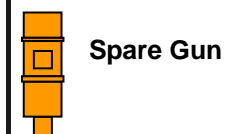
All measurements in meters



### r/v Marcus G. Langseth - Gun Configuration

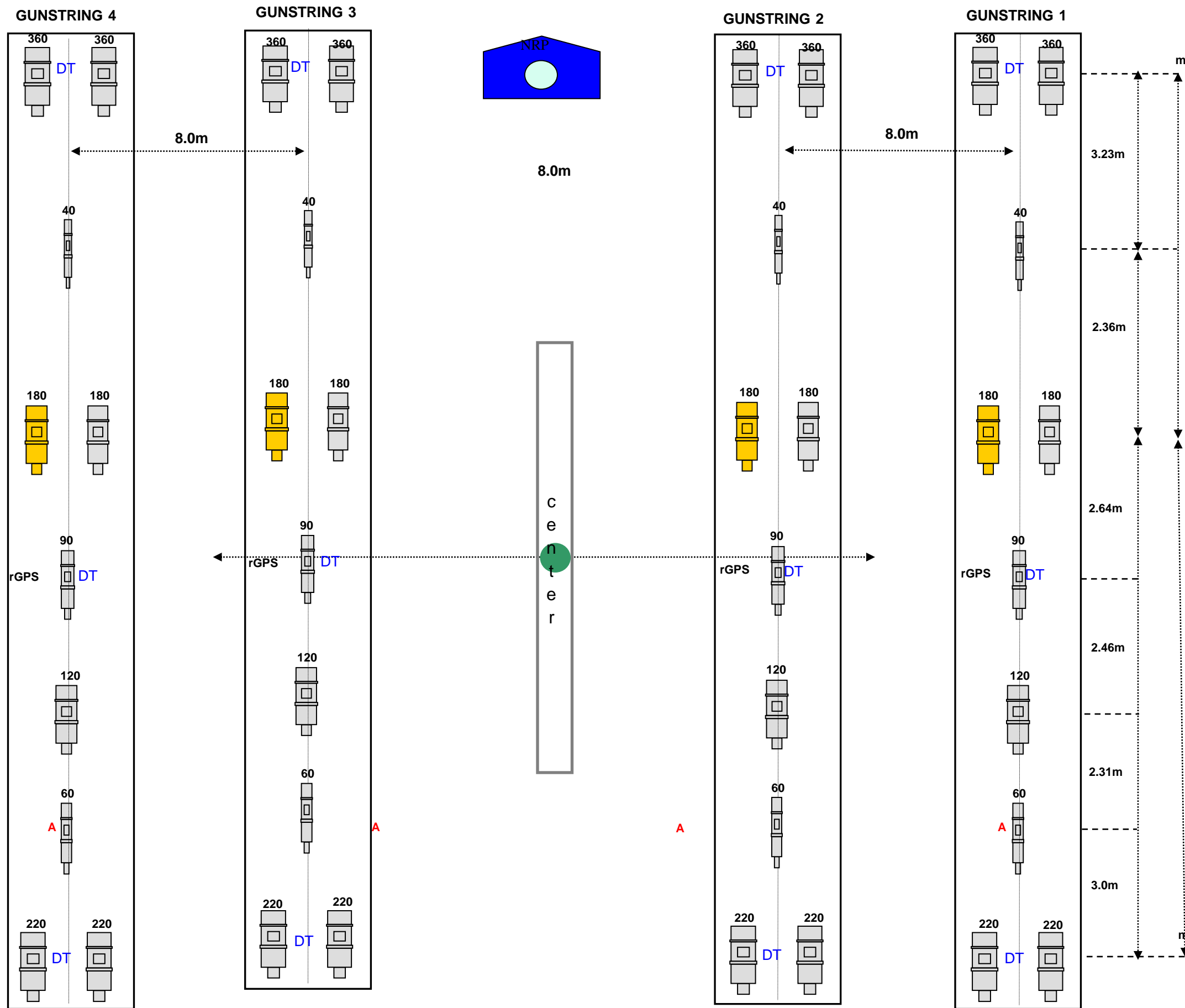
DT = Depth Transducer  
 A = Acoustic  
 P = Pressure Sensor - located  
 in front of gun's 1 & 2

● Center of Source 1 & 2



Cluster Guns are mounted 1m apart  
 String 1 cluster 9 & 10 mounted  
 horizontally  
 String 2, 3, & 4 all clusters mounted  
 vertically.

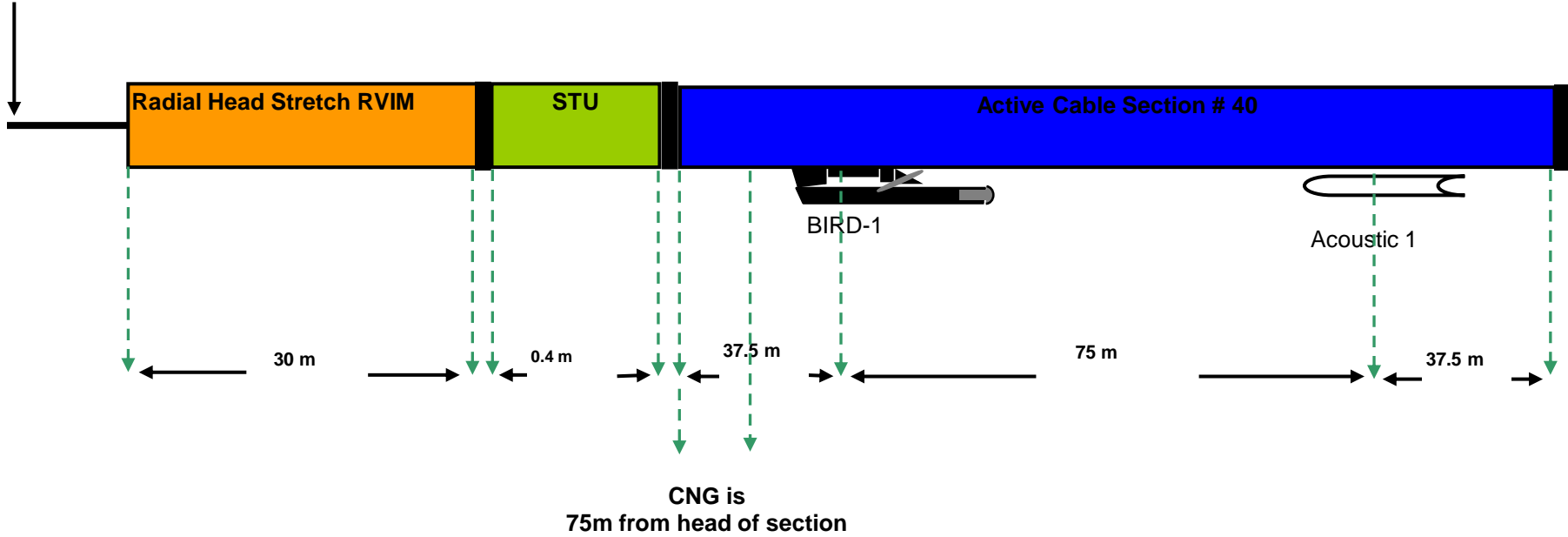
All measurements in meters



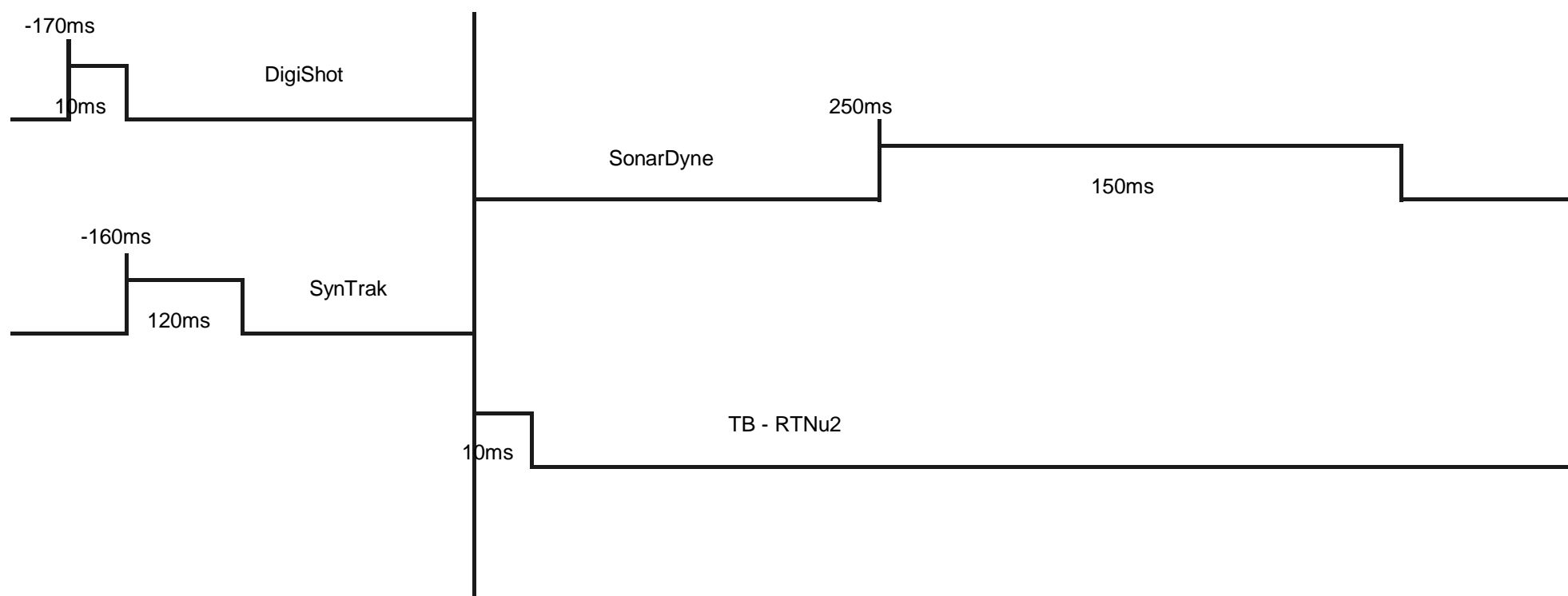


R/V Marcus G. Langseth - Streamer Front End

Lead-in:  
Outer = 505m  
Inner = 465m



TO Shot Predict



## Spectra timing for r/v Marcus G. Langseth

