

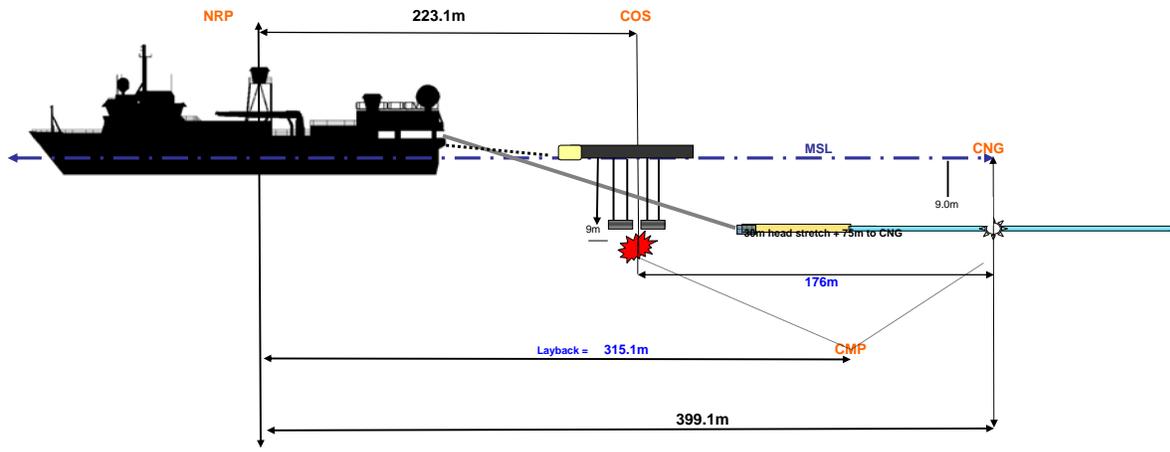
Company : LDEO  
Vessel : Marcus G.Langseth  
Client : NSF  
  
Project : MGL1109  
Area : USGS Gulf of Alaska  
Start Date : 06 June 2011



**Vessel Sensor Offsets**  
**Towing Offsets**  
**Acoustic Offsets**  
**Gun Array Offsets**  
**Gun Configuration**  
**Streamer Front End**  
**Tailbuoy Offsets**  
**Timing Langseth**  
**Timing Spectra**



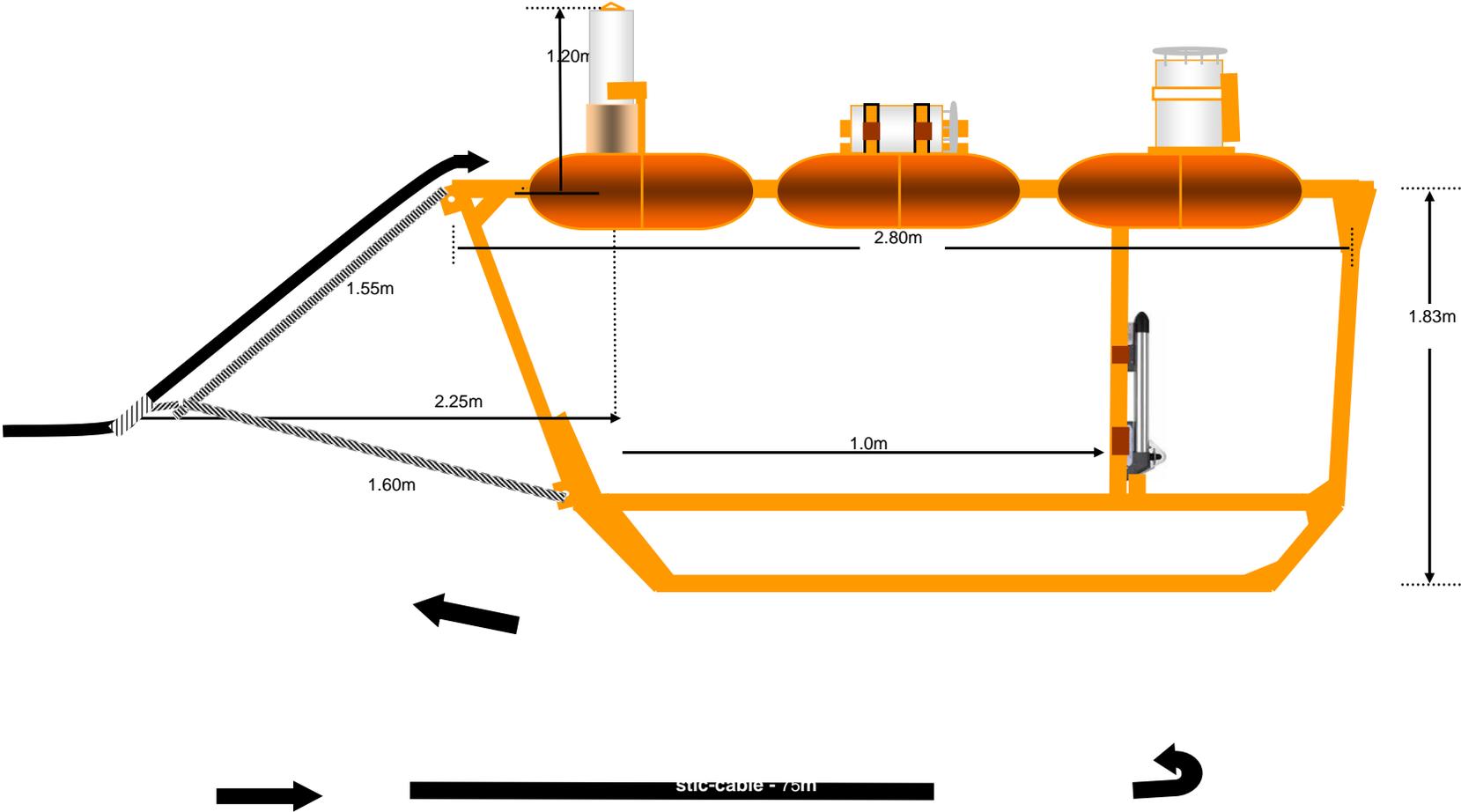
R/V Marcus G. Langseth - Towing Offsets



*** Offsets used for acquisition ***				
NRP-Stern	29.50	m	NRP	Nav Reference Point
NRP-COS	223.10	m	COS	Centre of Source
NRP-CNG	370.00	m	CNG	Centre of Near Group (Trace # 636)
COS-CNG	176.00	m	CMP	Common Mid-Point
NRP-CMP	315.10	m	MSL	Mean Sea Level

All measurements in meters

R/V Marcus G. Langseth - Tailbouy

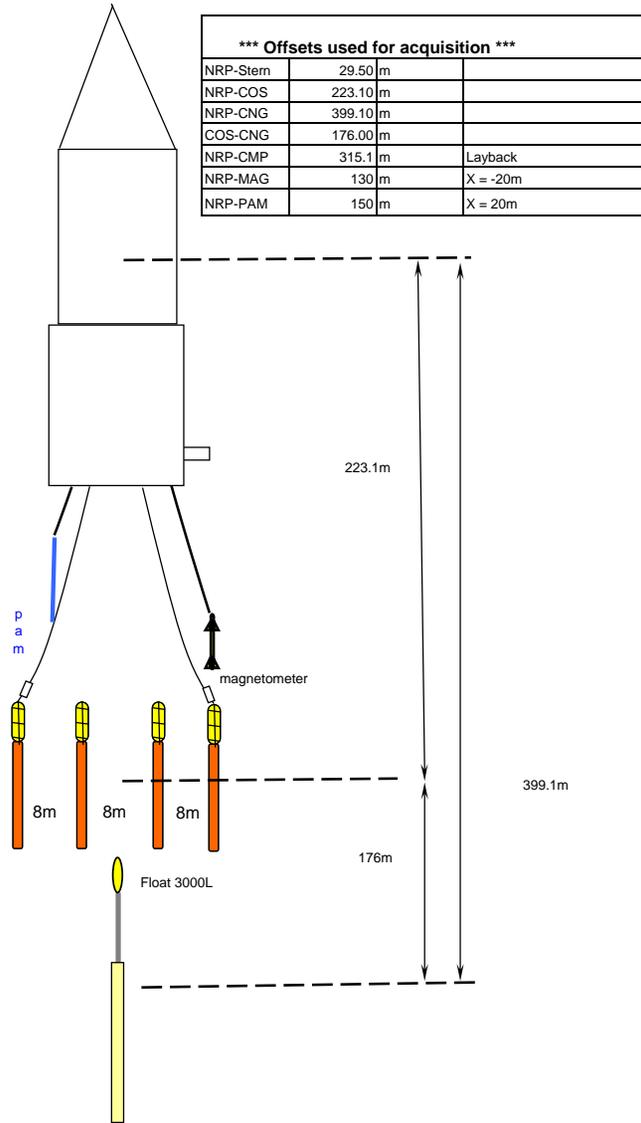


All measurements in meters

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

R/V Marcus Langseth  
1 x 8000  
4 Gunstrings

NOT to Scale

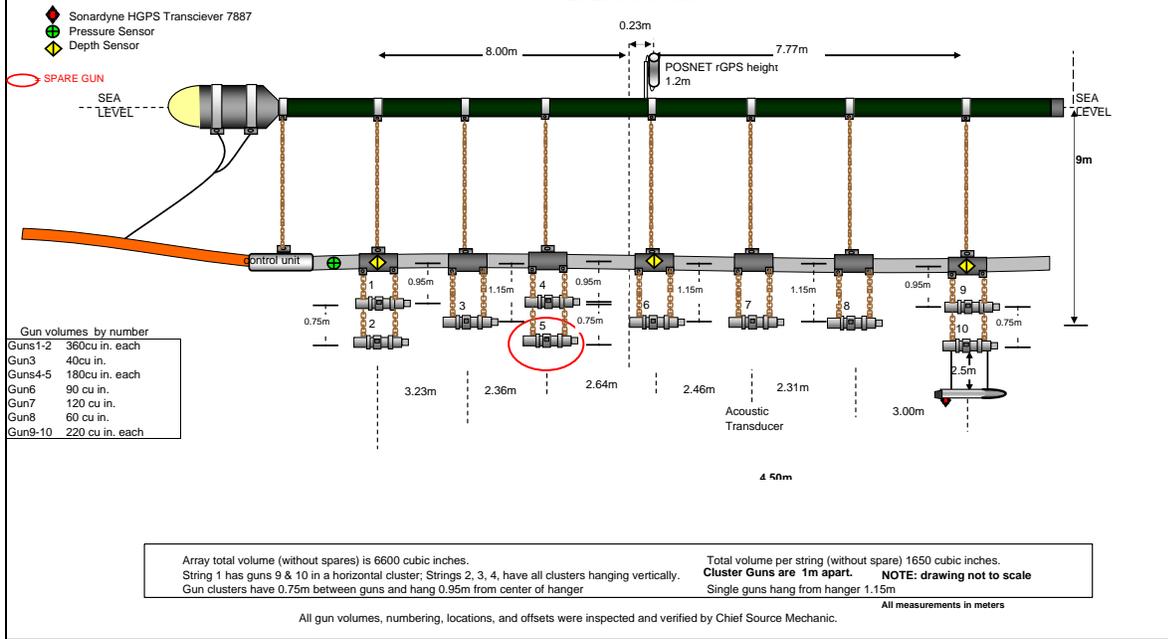


*** Offsets used for acquisition ***		
NRP-Stem	29.50 m	
NRP-COS	223.10 m	
NRP-CNG	399.10 m	
COS-CNG	176.00 m	
NRP-CMP	315.1 m	Layback
NRP-MAG	130 m	X = -20m
NRP-PAM	150 m	X = 20m

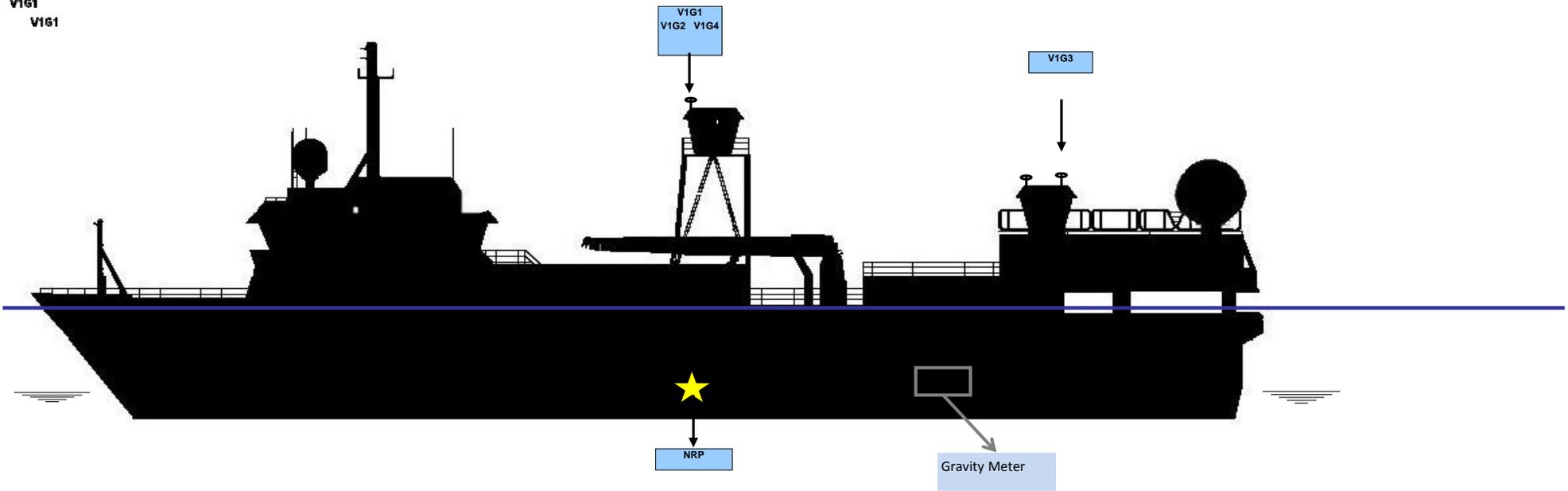
  

<b>NRP</b>	<b>Nav Reference Point</b>
<b>COS</b>	<b>Centre of Source</b>
<b>CNG</b>	<b>Centre of Near Group (Trace # 468)</b>
<b>CMP</b>	<b>Common Mid-Point</b>
<b>MSL</b>	<b>Mean Sea Level</b>

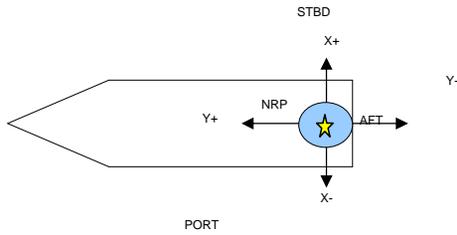
### R/V Marcus G. Langseth - Gun Array Offsets



V1G1  
V1G1



All measurements in meters



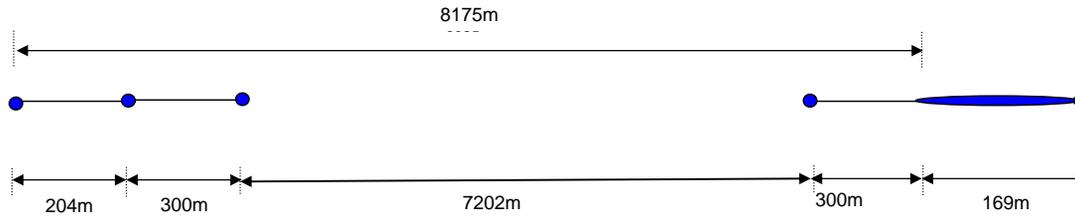
		STBD/PORT (X)	FORE/AFT (Y)	UP/DOWN (Z)
	<b>NRP</b>	NAVIGATION REFERENCE POINT	0.00	0.00
	<b>V1G1</b>	C-Nav 3050	0.00	0.00
	<b>V1G2</b>	SeaPath 200	0.00	1.50
	<b>V1G3</b>	C-Nav 2000	4.87	-15.27
	<b>V1G4</b>	Pos MV	-1.30	1.20
	<b>V1R1</b>	PosNet	-1.30	0.00
	<b>EM122</b>	Multibeam Transducer Array	0.00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

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



All measurements in meters

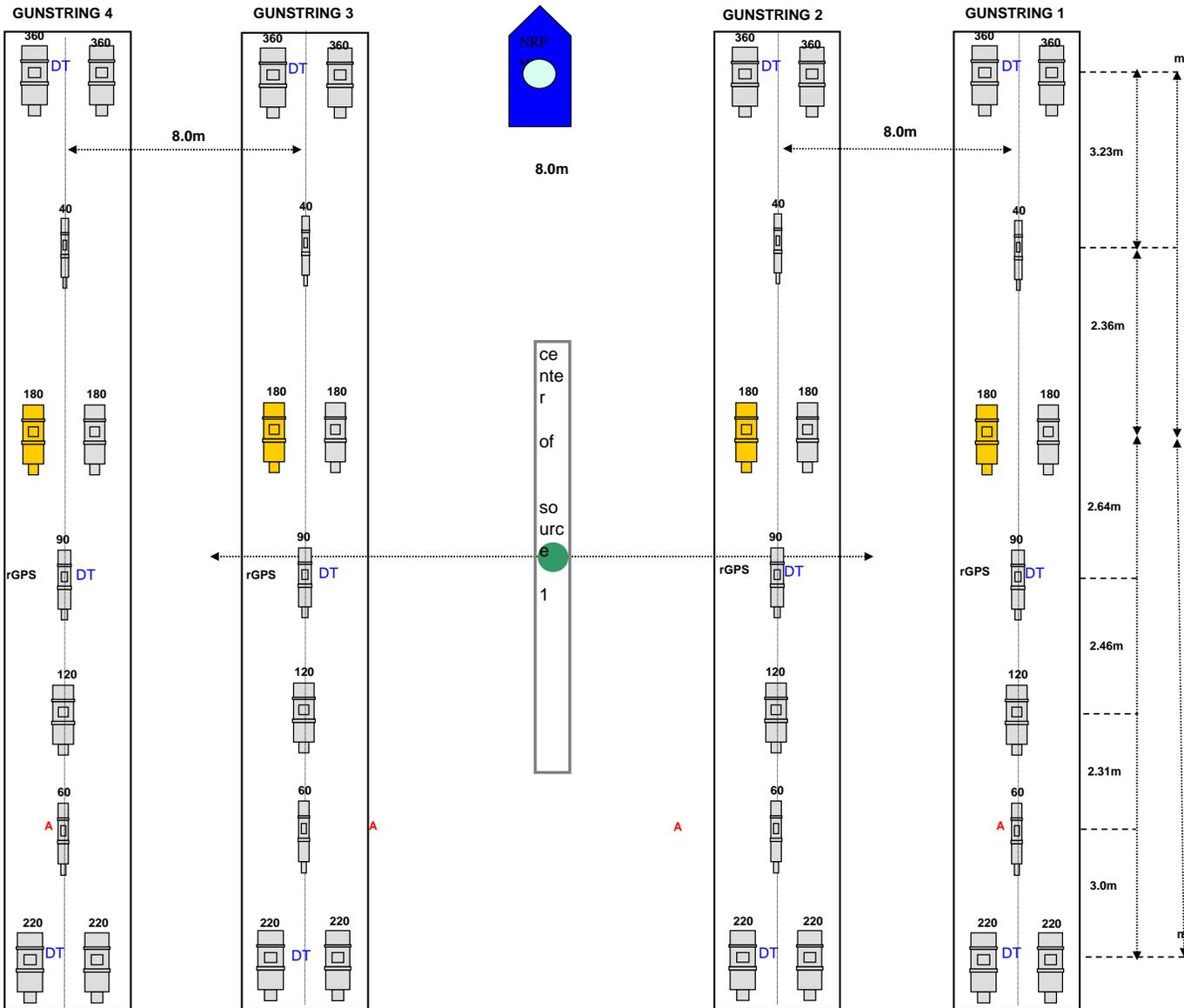
### r/v Marcus G. Langseth - Gun Configuration

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

Center of Source 1 & 2  
 Spare Gun

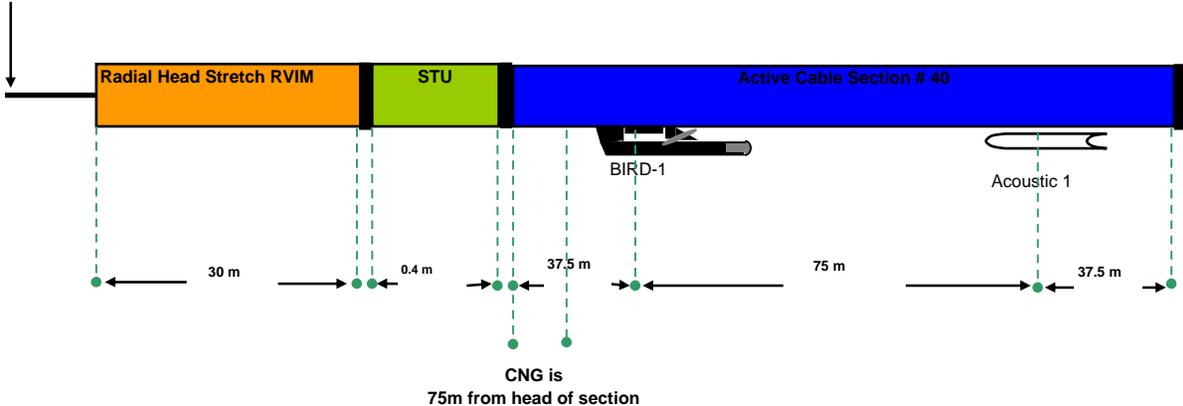
Cluster Guns are mounted 1m apart  
 String 1 cluster 9 & 10 mounted  
 horizontally  
 String 2, 3, & 4 all clusters mounted  
 vertically.

All measurements in meters

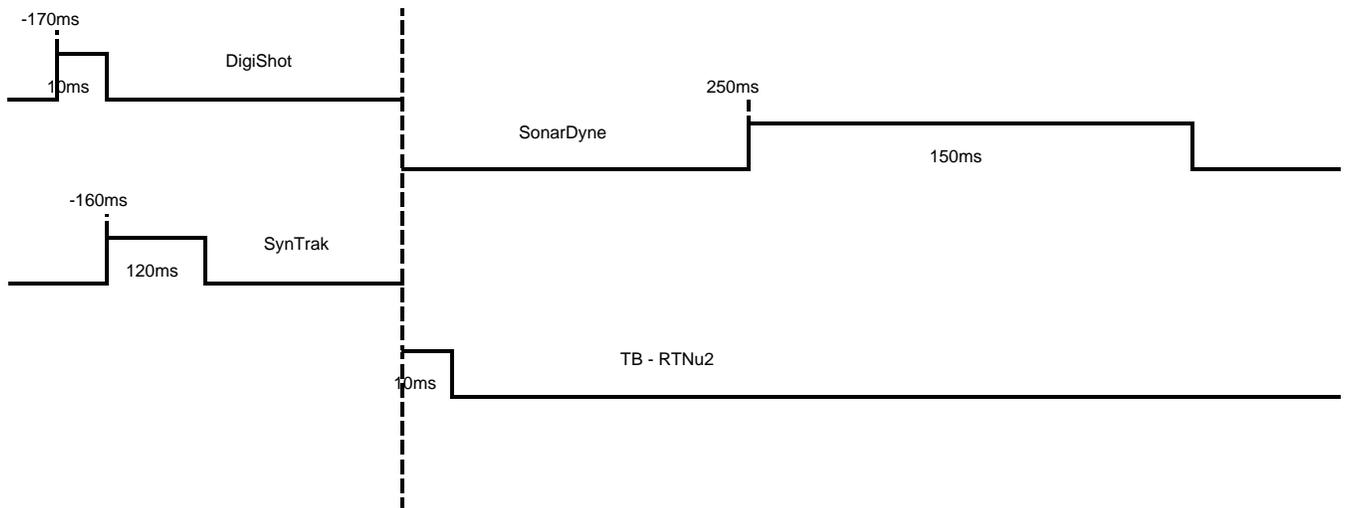


R/V Marcus G. Langseth - Streamer Front End

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



TO Shot Predict



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

