

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

Project : MGL1004
Area : Shatsky Rise
Start Date : 19 July 2010



Vessel Sensor Offsets

Towing Offsets

Acoustic Offsets

Gun Array Offsets

Gun Configuration

Streamer Front End

Tailbuoy Offsets

Timing Langseth

Timing Spectra



Diagram illustrating the towing offsets for the R/V Marcus G. Langseth, showing the ship, the towing vessel (CNG), and the offsets between key points: NRP (Nav Reference Point), COS (Centre of Source), CNG (Centre of Near Group), and CMP (Common Mid-Point).

Key offsets and dimensions shown:

- NRP to COS: 198.0m
- COS to CNG: 172.0m
- NRP to CNG: 370.0m
- NRP to CMP: 284.0m (Layback)
- Cable head stretch: 150m
- Distance from head stretch to CNG: 75m
- Depth of cable: 9m
- Depth of CNG: 9.0m

*** Offsets used for acquisition ***

NRP-Stern	4.20m	
NRP-COS	198.00m	
NRP-CNG	370.00m	
COS-CNG	172.00m	
NRP-CMP	284.00m	

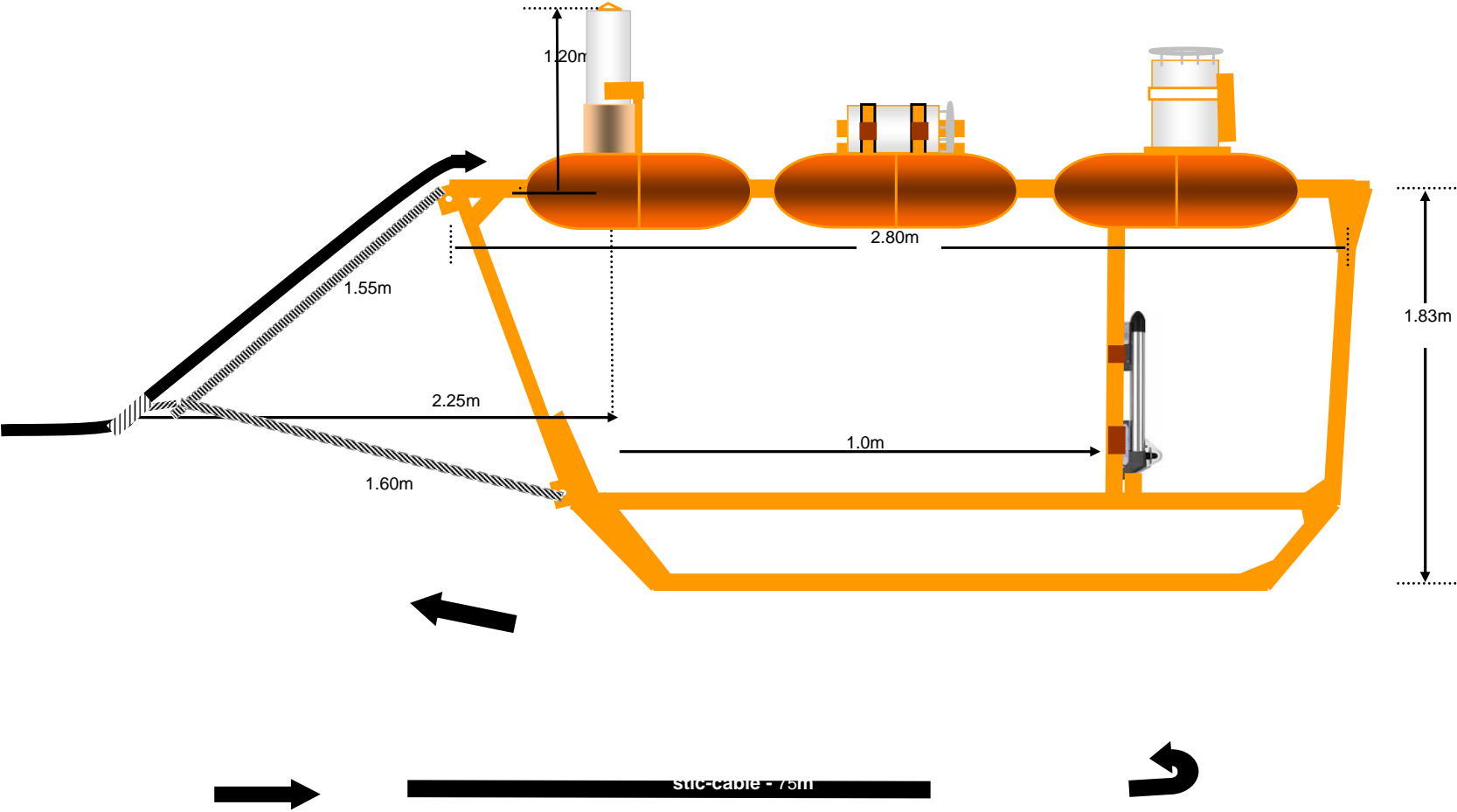
NRP	Nav Reference Point
COS	Centre of Source
CNG	Centre of Near Group (Trace # 468)
CMP	Common Mid-Point
MSL	Mean Sea Level

All measurements in meters

*** Offsets used for acquisition ***		
NRP-Stern	4.20	m
NRP-COS	198.00	m
NRP-CNG	370.00	m
COS-CNG	172.00	m
NRP-CMP	284.00	m

NRP	Nav Reference Point
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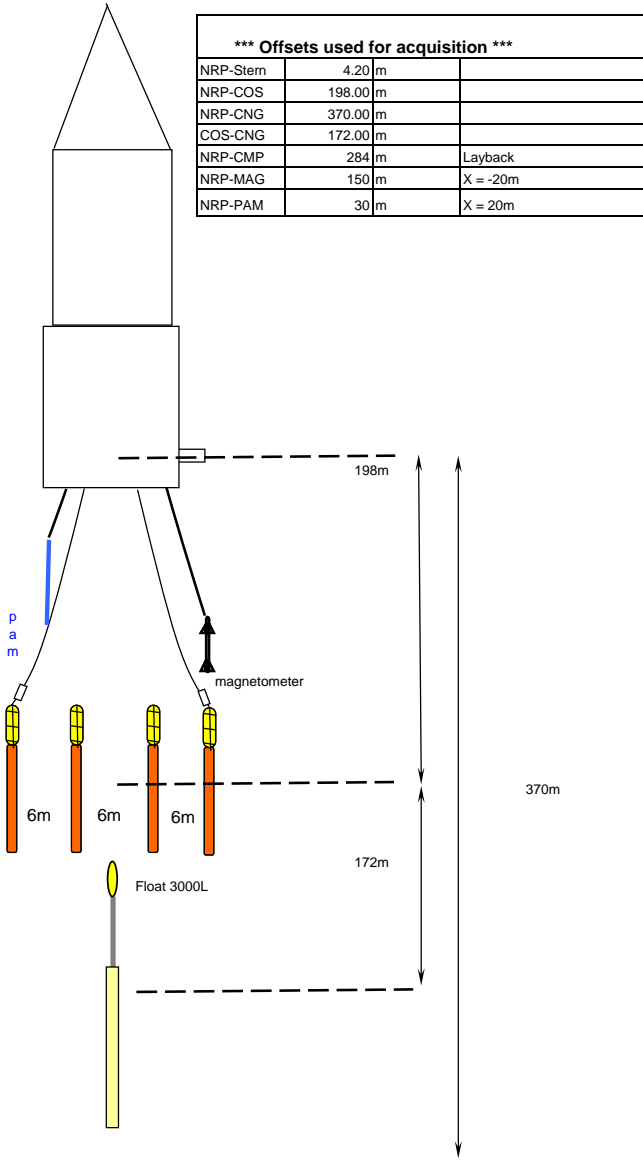
R/V Marcus G. Langseth - Tailbouy



R/V Marcus G. Langseth "tow" configuration

R/V Marcus Langseth
1 x 6000
4 Gunstrings

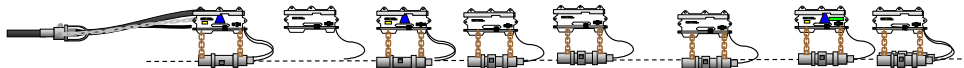
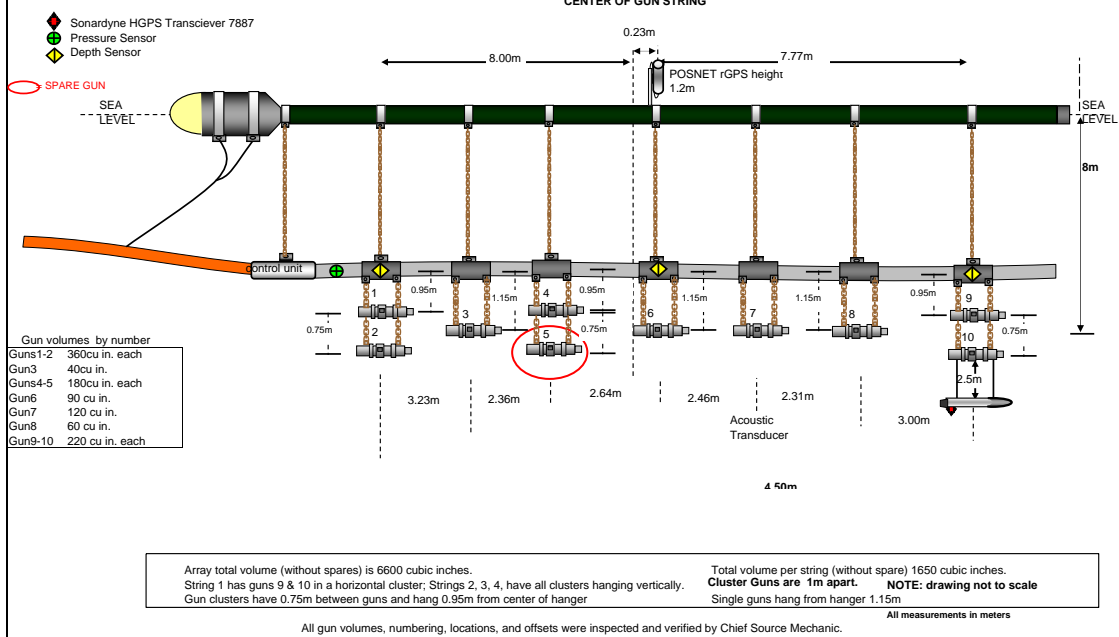
NOT to Scale



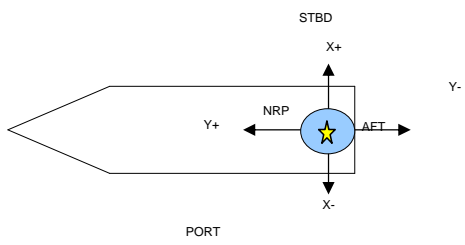
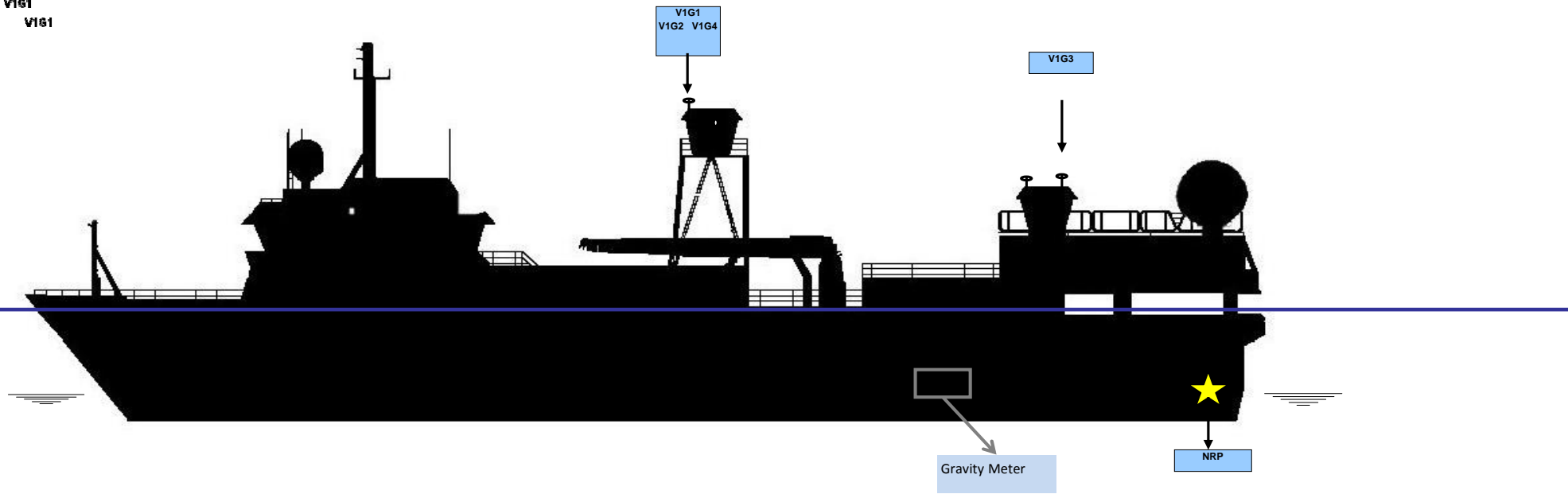
*** Offsets used for acquisition ***				
NRP-Stem	4.20	m		
NRP-COS	198.00	m		
NRP-CNG	370.00	m		
COS-CNG	172.00	m		
NRP-CMP	284	m	Layback	
NRP-MAG	150	m	X = -20m	
NRP-PAM	30	m	X = 20m	

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

R/V Marcus G. Langseth - Gun Array Offsets



V1G1
V1G1



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

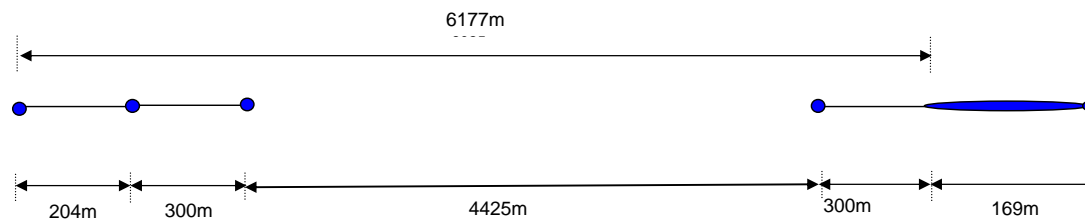


		All measurements in meters		
		STBD/PORT (X)	FORE/AFT (Y)	UP/DOWN (Z)
NRP	NAVIGATION REFERENCE POINT	0.00	4.20	0.00
V1G1	C-Nav 3050	0.00	23.40	16.90
V1G2	SeaPath 200	0.00	22.30	16.90
V1G3	C-Nav 2000	4.87	8.06	14.50
V1G4	Pos MV	-1.50	25.30	16.90
V1R1	PosNet	-2.00	23.40	16.90
EM122	Multibeam	8.50	49.70	-6.60
BGM	Bell Gravity Meter	4.40	12.20	-3.49

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

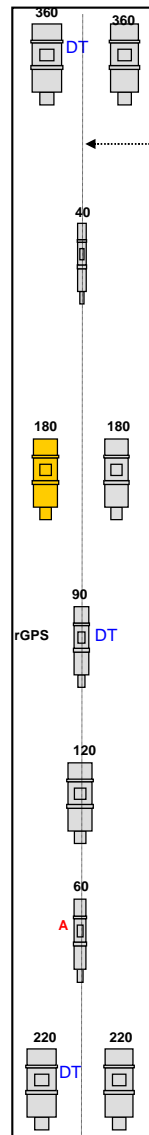
DT = Depth Transducer
A = Acoustic
Pressure Sensor - located
in front of gun's 1 & 2

Center of Source 1 & 2
Spare Gun

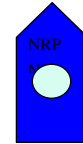
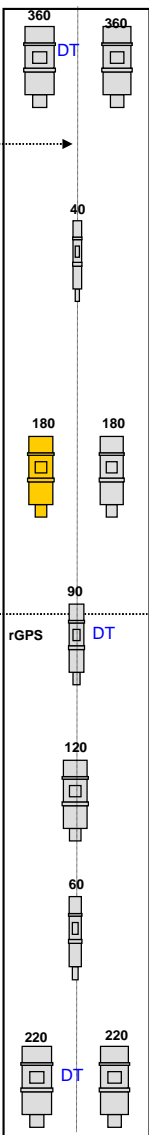
Cluster Guns are mounted 1m apart
String 1 cluster 9 & 10 mounted
horizontally
String 2, 3, & 4 all clusters mounted
vertically.

All measurements in meters

GUNSTRING 4



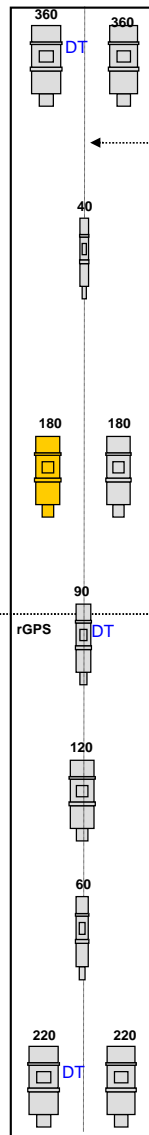
GUNSTRING 3



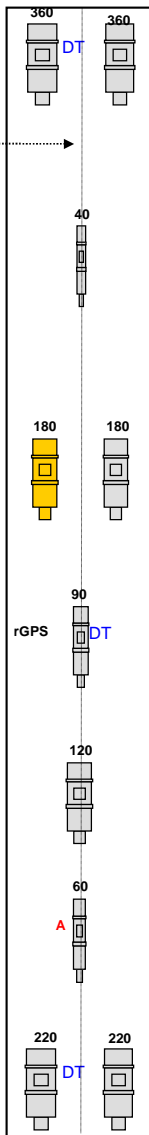
6.0m

center
of
source
1

GUNSTRING 2



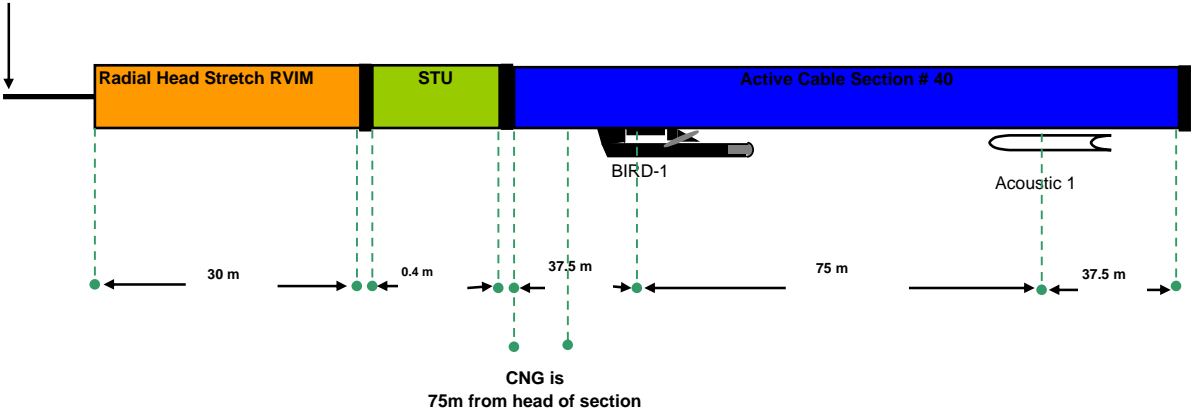
GUNSTRING 1

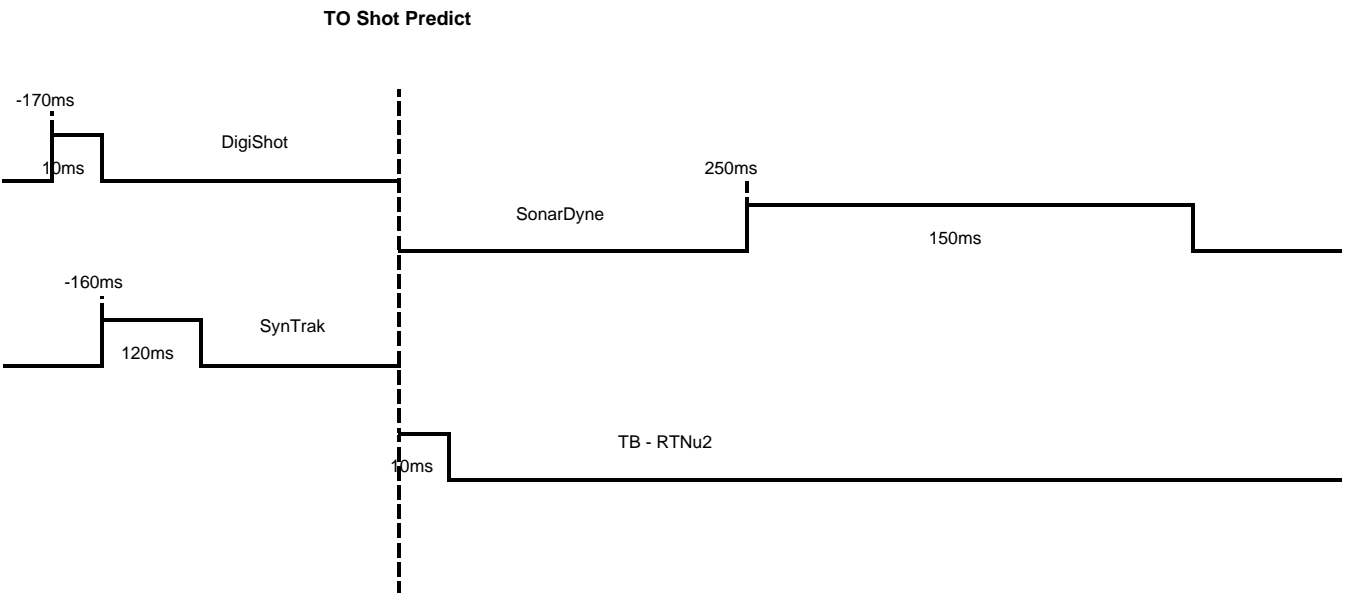


3.23m
2.36m
2.64m
2.46m
2.31m
3.0m

R/V Marcus G. Langseth - Streamer Front End

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





Spectra timing for r/v Marcus G. Langseth

