

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

Project : MGL-0814 Gulick
Area : St. Elias Erosion
Start Date : 09 September 2008



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[Vessel Sensor Offsets](#)

[Towing Offsets](#)

[Acoustic Offsets](#)

[Gun Array Offsets](#)

[Gun Configuration](#)

[Streamer Front End](#)

[Tailbuoy Offsets](#)

[Timing](#)





nd Survey Solutions

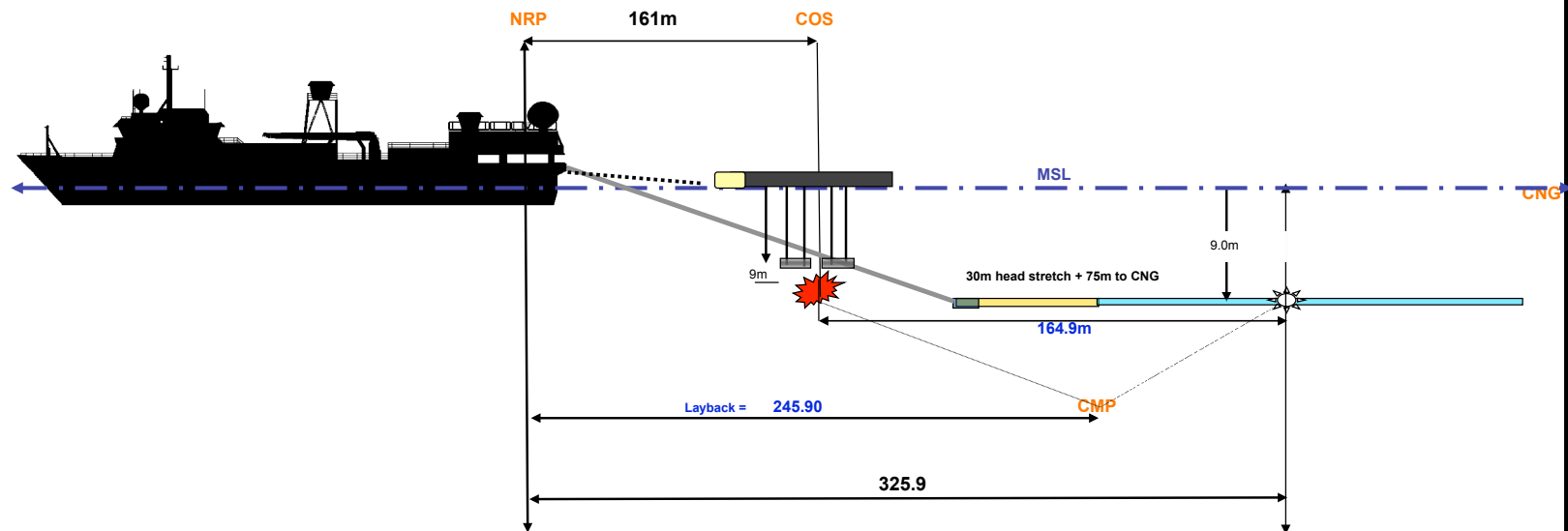
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Houma, LA 70363

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R/V Marcus G. Langseth - Towing Offsets

*** Offsets used for sequences ***



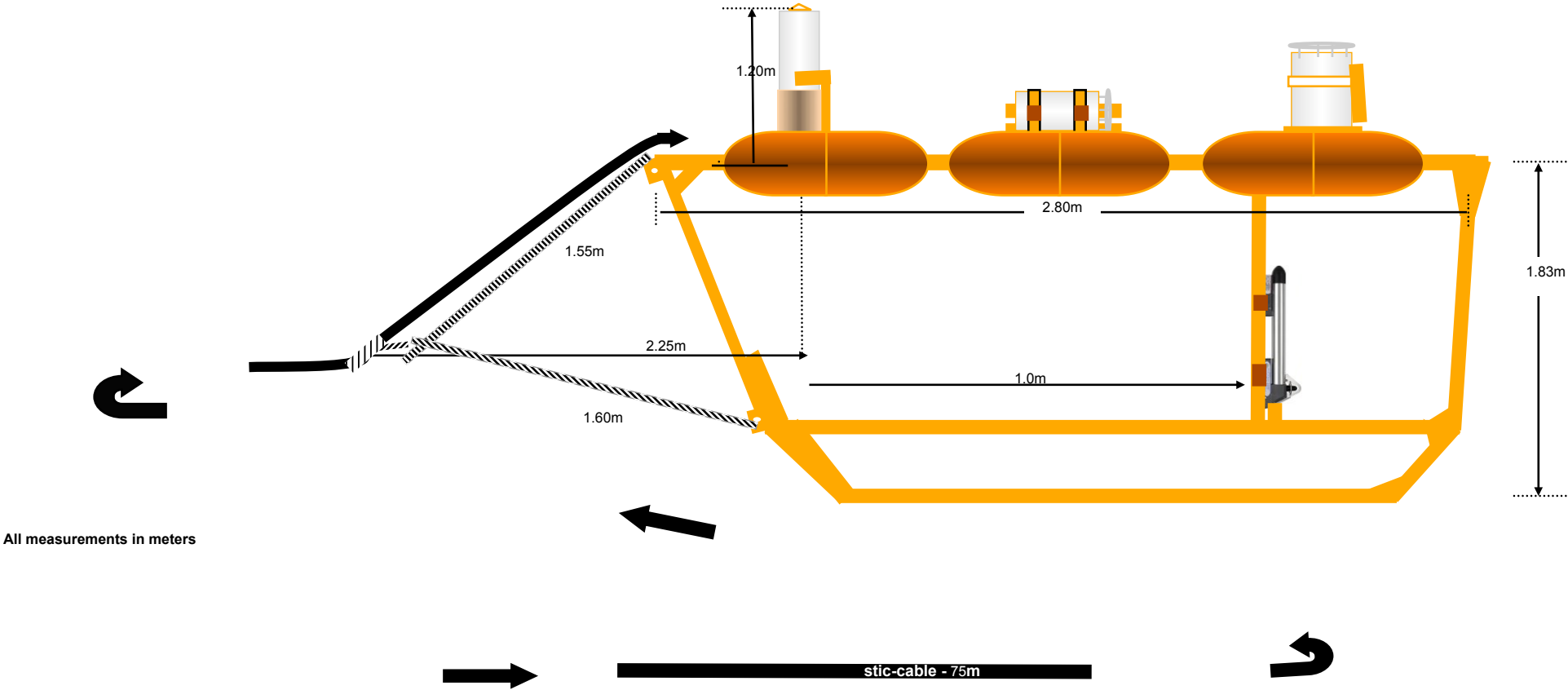
*** Offsets used for acquisition ***			
NRP-Stern	4.20	m	
NRP-COS	161.00	m	211m
NRP-CNG	325.90	m	375.9m
COS-CNG	164.90	m	164.9m
NRP-CMP	325.9	m	Layback 375.9m

NRP	Nav Reference Point
COS	Centre of Source
CNG	Centre of Near Group (Trace # 001)
CMP	Common Mid-Point
MSL	Mean Sea Level

Numbers in RED apply to STEEP02 MCS and STEEP11

All measurements in meters

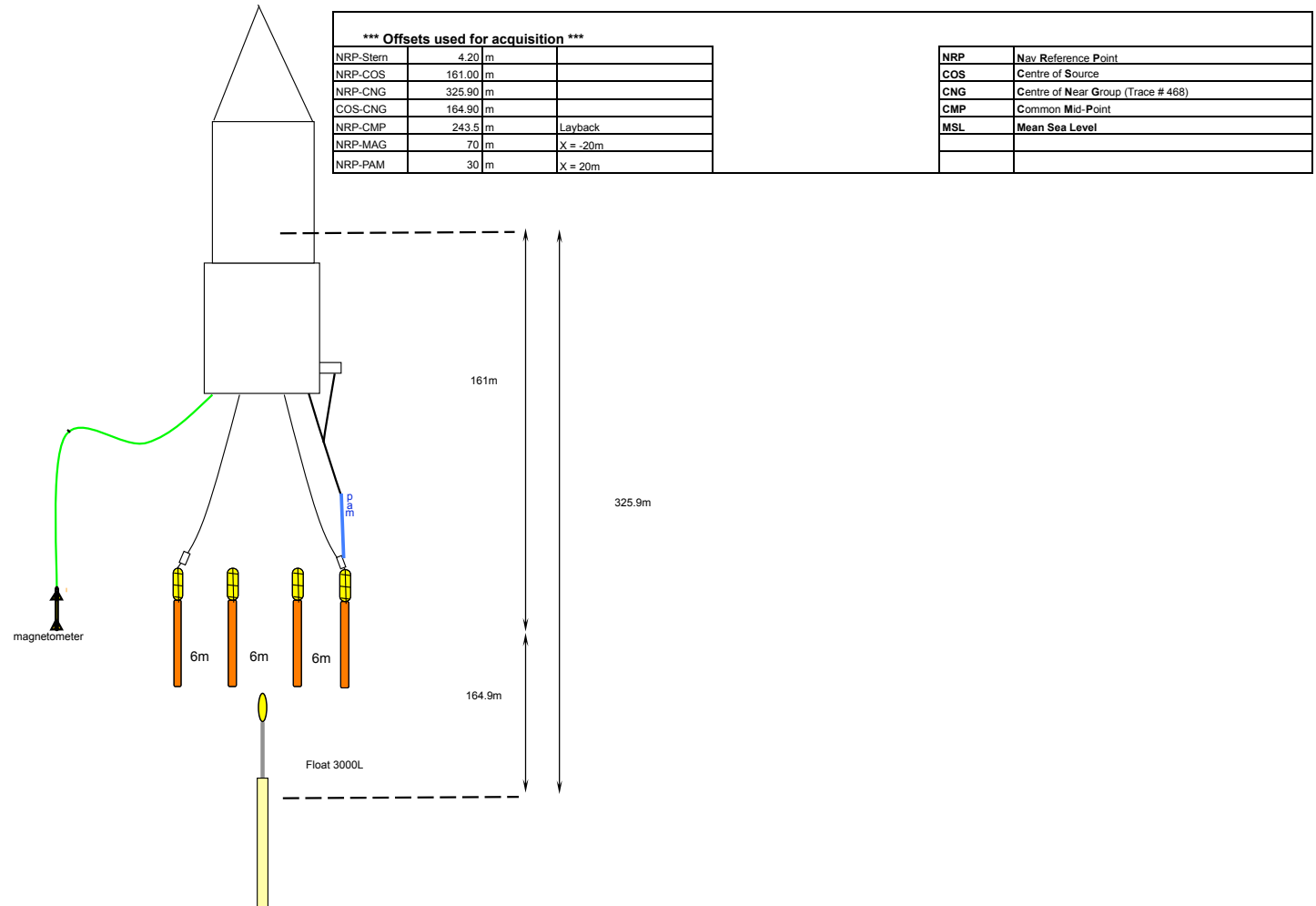
R/V Marcus G. Langseth - Tailbouy






r/v Marcus G. Langseth "tow" configuration

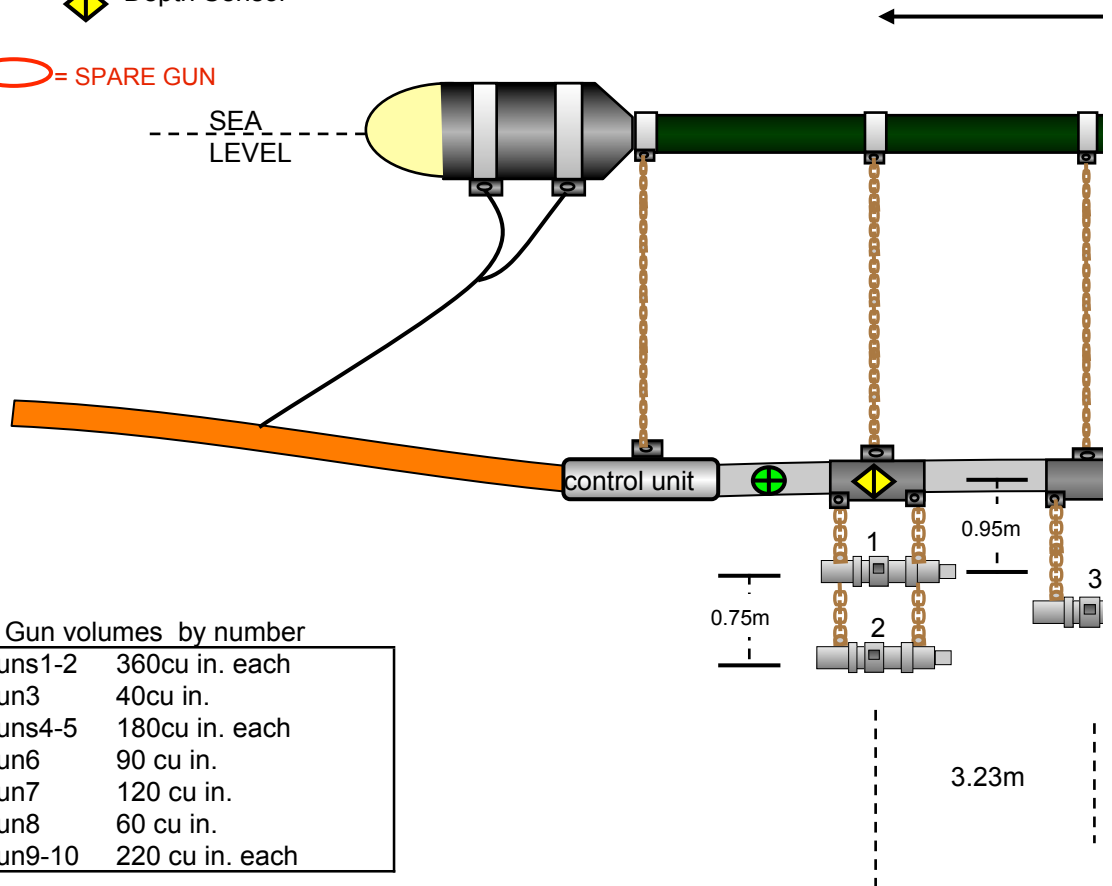
R/V Marcus Langseth
1 x 8100
4 Gunstrings

NOT to Scale



-  Sonardyne HGPS Transciever 7887
-  Pressure Sensor
-  Depth Sensor

 = SPARE GUN

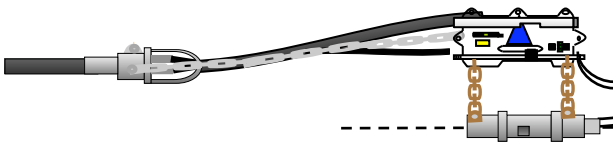


Gun volumes by number

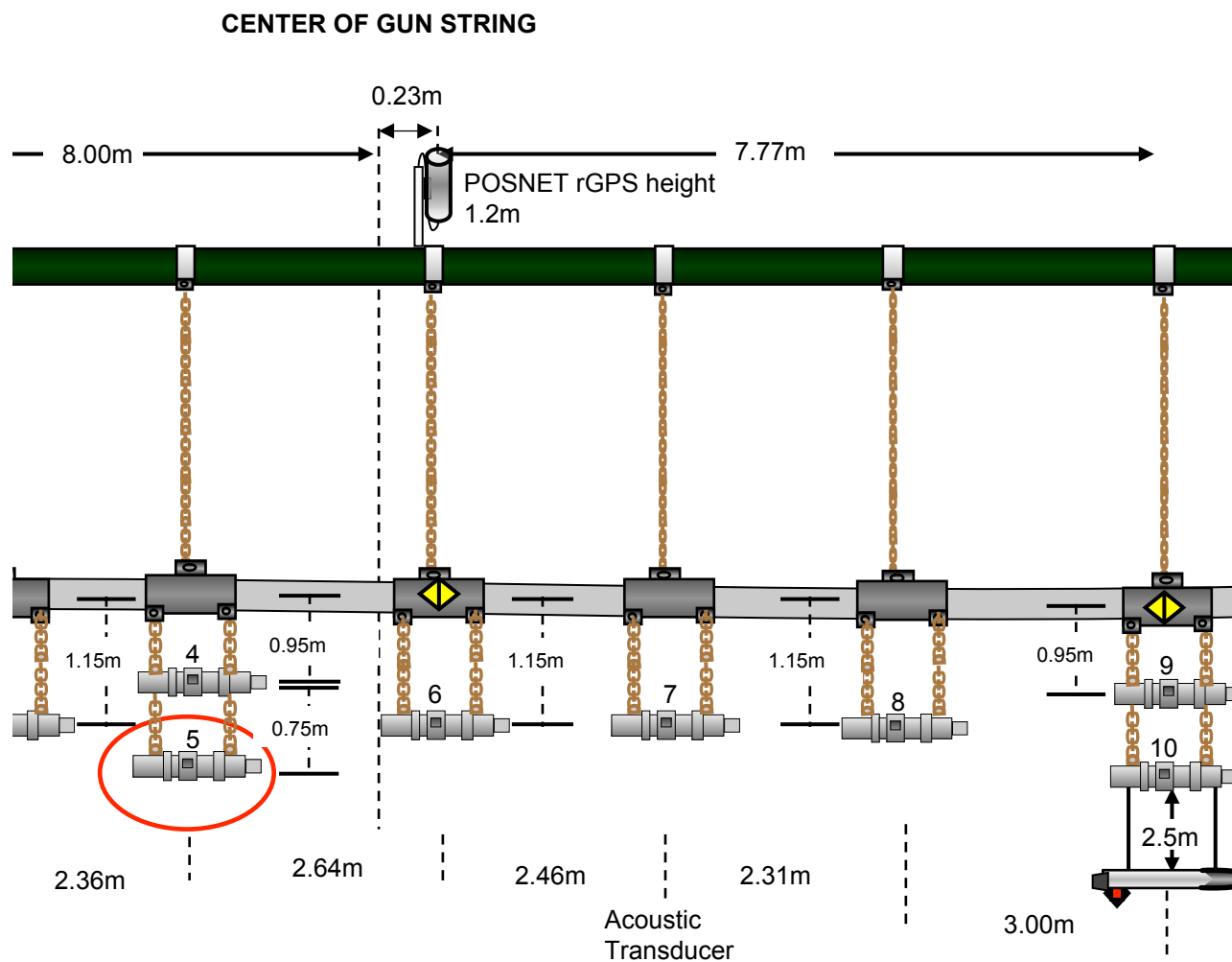
Guns1-2	360cu in. each
Gun3	40cu in.
Guns4-5	180cu in. each
Gun6	90 cu in.
Gun7	120 cu in.
Gun8	60 cu in.
Gun9-10	220 cu in. each

Array total volume (without spares) is 6600 cubic inches.
String 1 has guns 9 & 10 in a horizontal cluster; Strings 2, 3
Gun clusters have 0.75m between guns and hang 0.95m from

All gun volumes, numbering, location



rcus G. Langseth - Gun Array Offsets



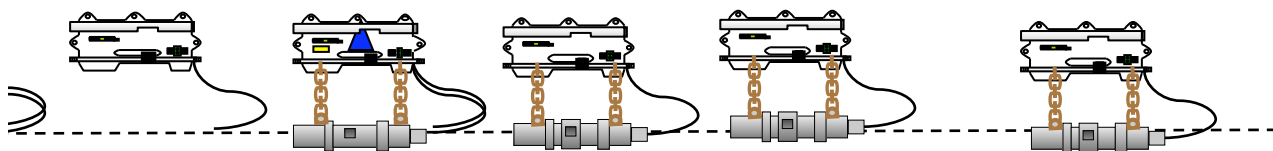
}, 4, have all clusters hanging vertically.
om center of hanger

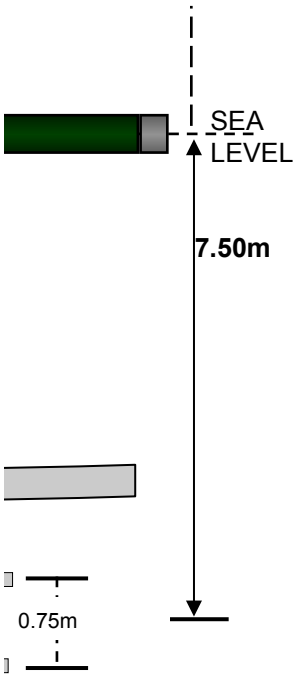
Total volume per string (without spare) 1650 cubic inches.

Cluster Guns are 1m apart. **NOTE: drawing not to**
Single guns hang from hanger 1.15m

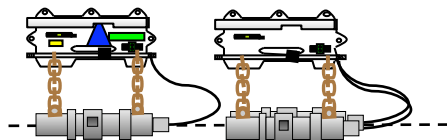
All measurements in meters

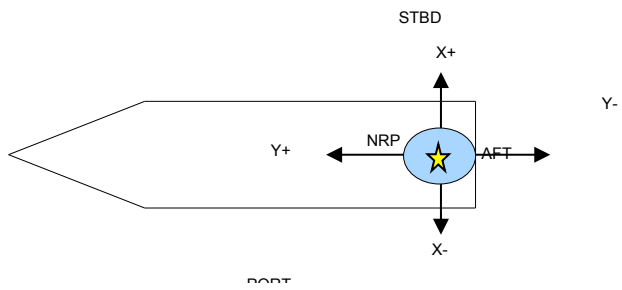
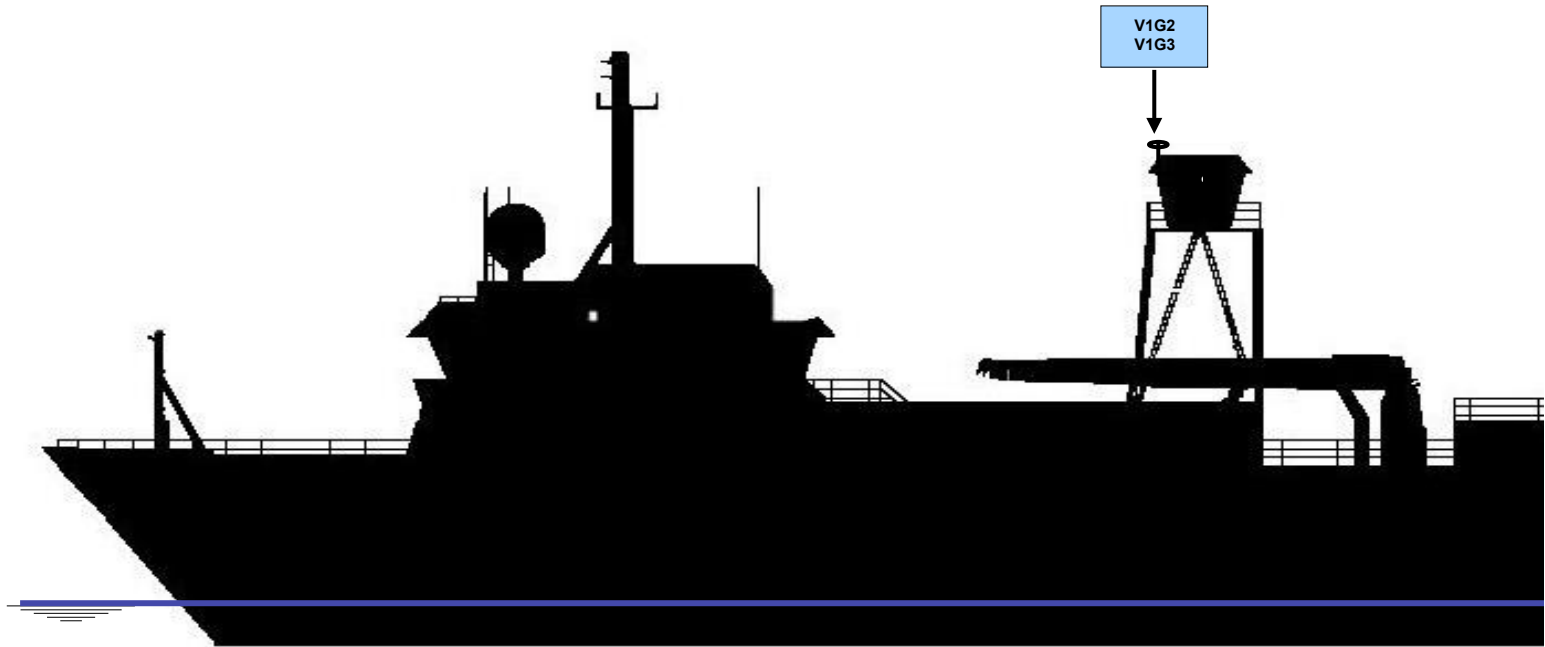
ns, and offsets approved by chief gunner Tom Spoto.





scale



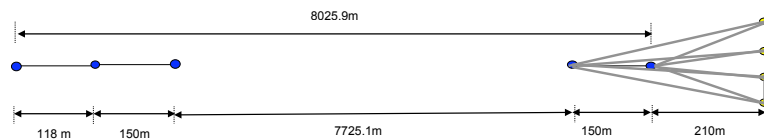


NRP	NAVIGATION REFERENCE P
V1G1	C-Nav
V1G2	SeaPath 200
V1G3	Pos MV
V1G4	PosNet
V1R1	PosNet

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

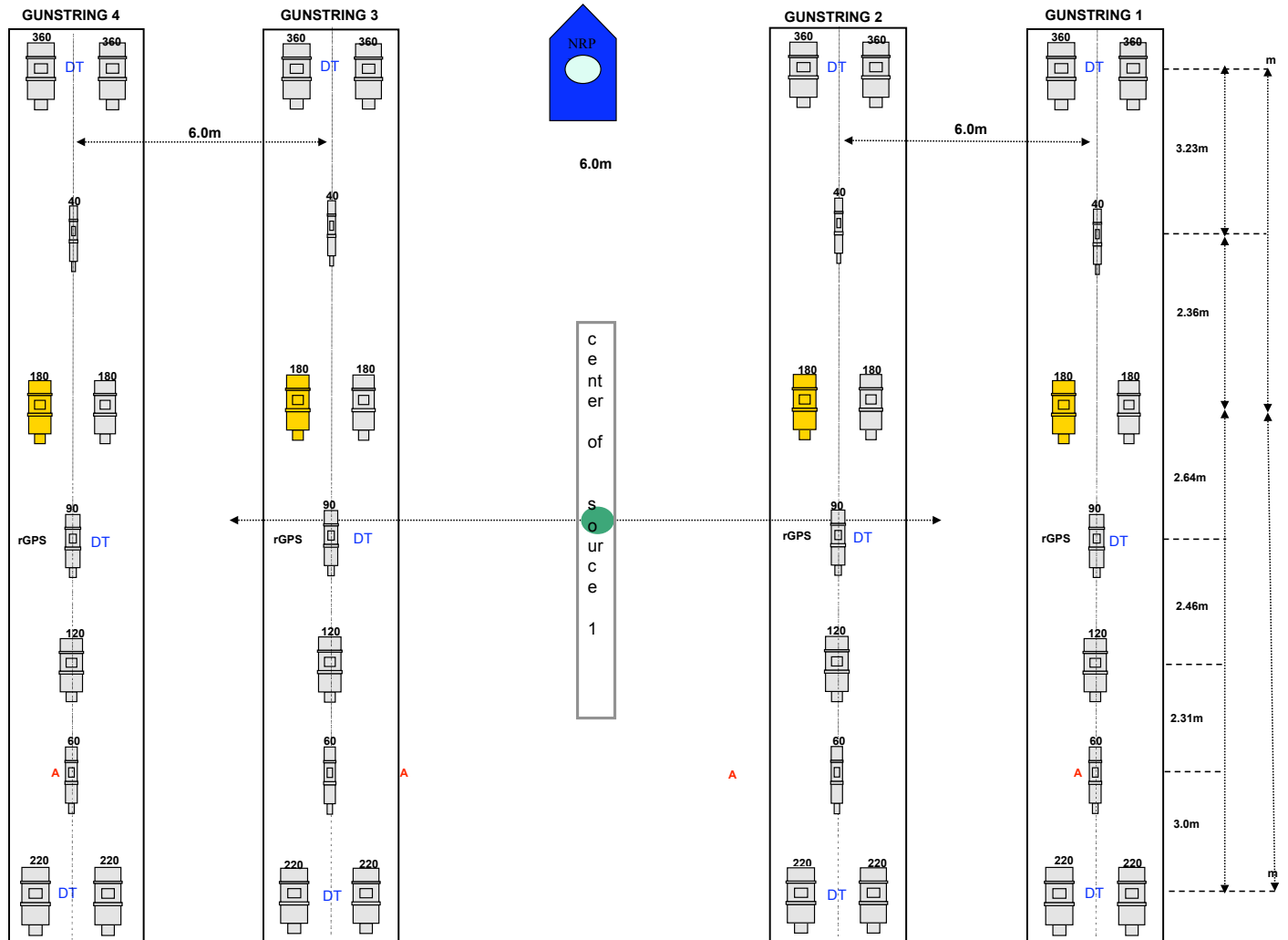
r/v Marcus G. Langseth - Gun Configuration

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



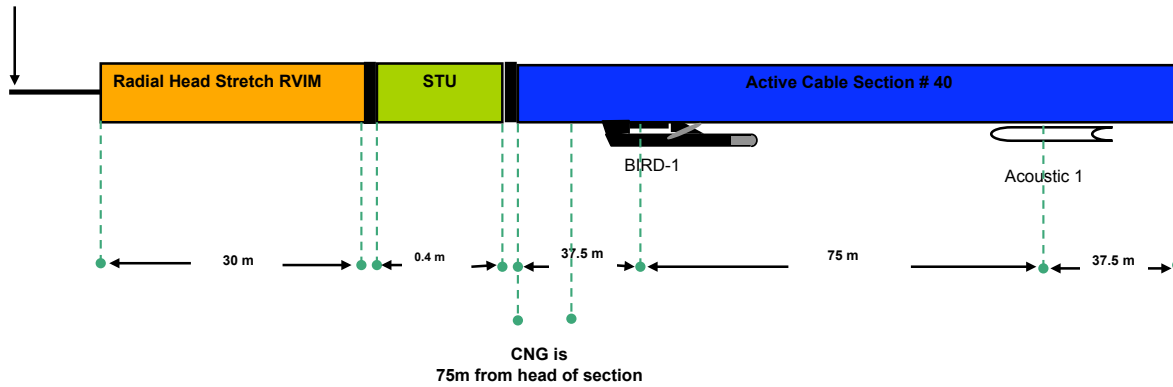
Cluster Guns are mounted 1m apart
String 1 cluster 9 & 10 mounted
horizontally
String 2, 3, & 4 all clusters mounted
vertically.

All measurements in meters

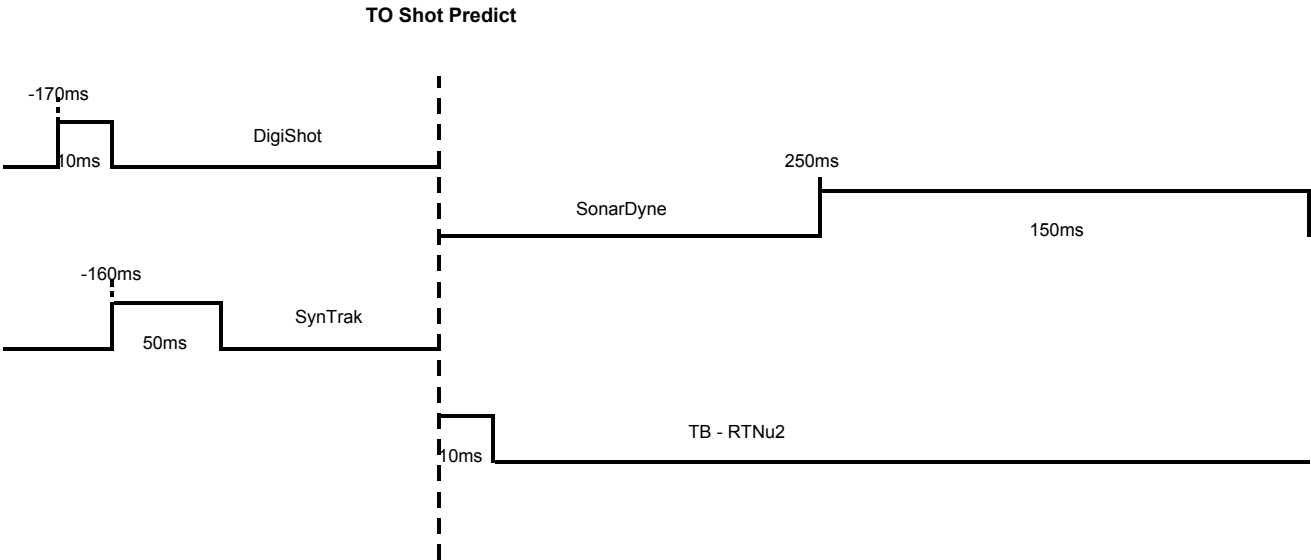


R/V Marcus G. Langseth - Streamer Front End

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



MGL0814



TIMING

Gulick

Spectra timing for r/v Marcus G. Langseth

