

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

Project : MGL1204
Area : Marianas Trench
Start Date : 2 February 2012



Vessel Sensor Offsets

Towing Offsets

Acoustic Offsets

Gun Array Offsets

Gun Configuration

Streamer Front End

Tailbuoy Offsets

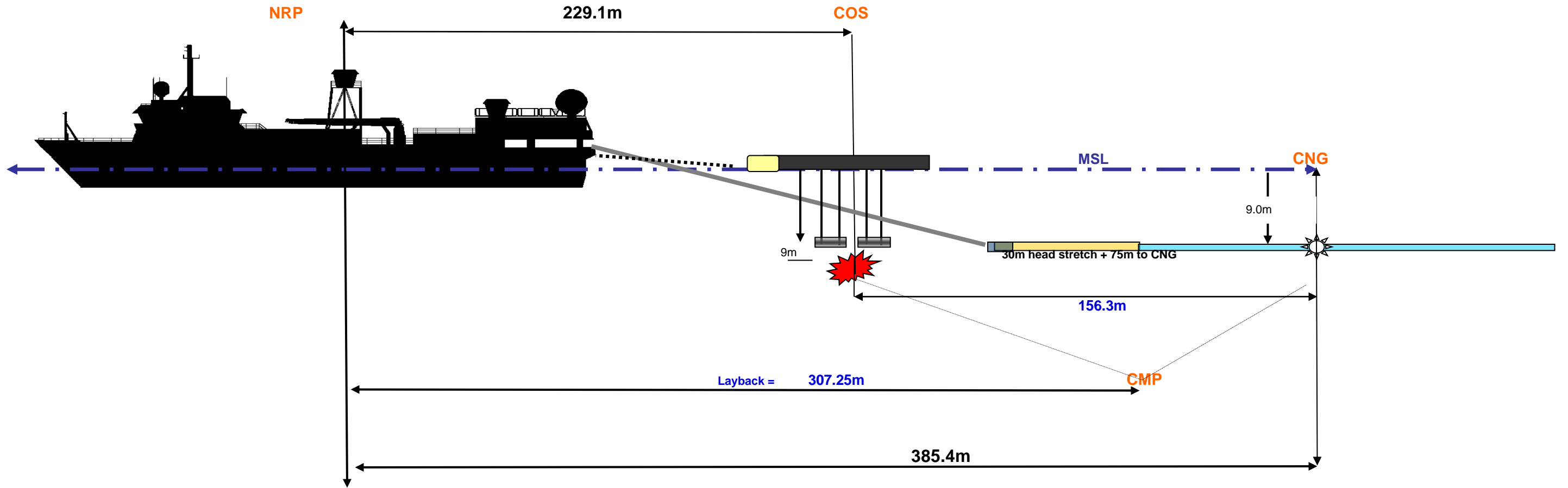
Timing Langseth

Timing Spectra



R/V Marcus G. Langseth - Towing Offsets

Note: Sequences 001 - 011 are mcs and source acquisition.
Sequences 012 to end are Source only lines.



| | | | | | |
|--------------------------------------|--------|---|--|-----|------------------------------------|
| *** Offsets used for acquisition *** | | | | | |
| NRP-Stern | 29.50 | m | | NRP | Nav Reference Point |
| NRP-COS | 229.10 | m | | COS | Centre of Source |
| NRP-CNG | 385.40 | m | | CNG | Centre of Near Group (Trace # 468) |
| COS-CNG | 156.30 | m | | CMP | Common Mid-Point |
| NRP-CMP | 307.25 | m | | MSL | Mean Sea Level |

All measurements in meters:

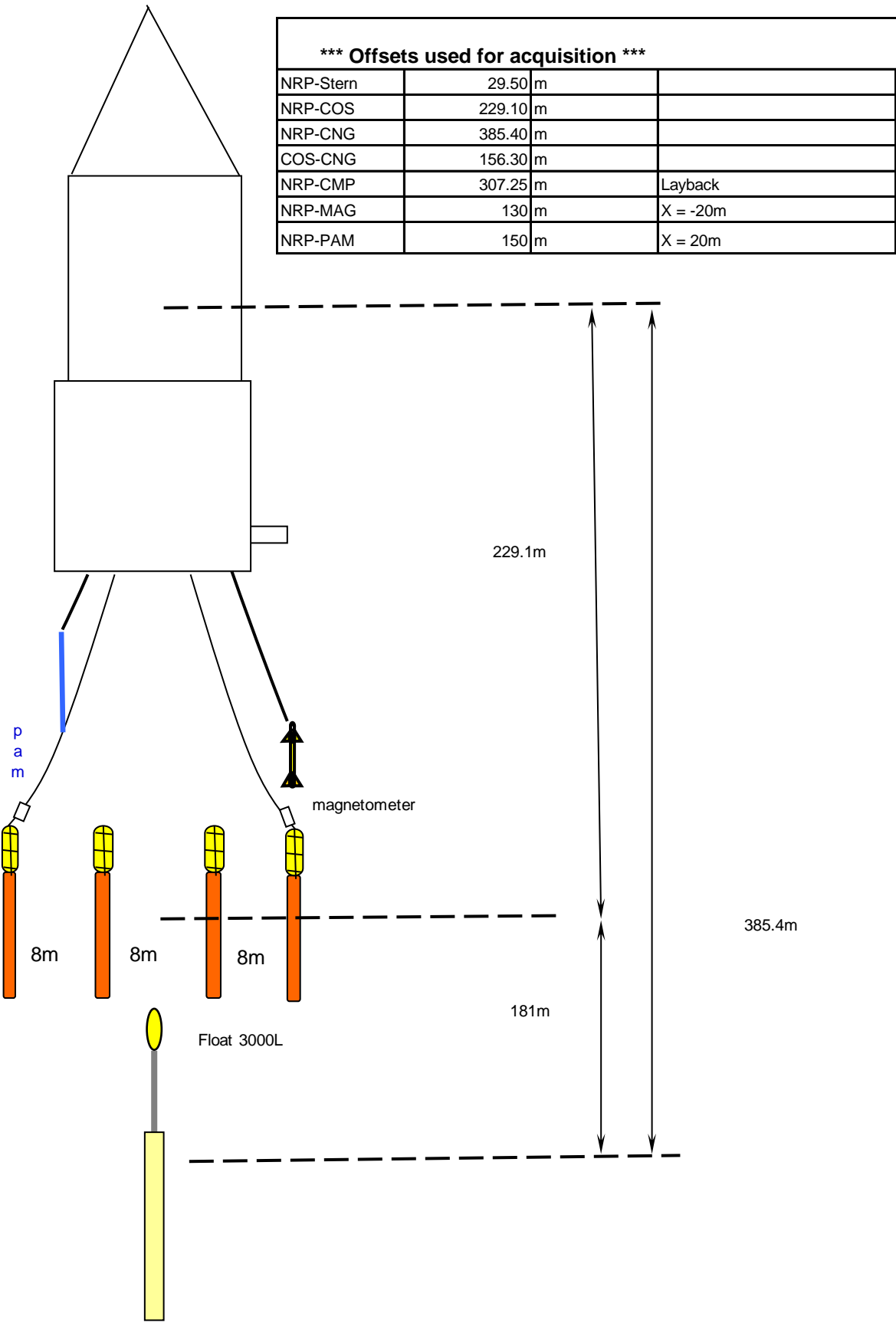
R/V Marcus G. Langseth - Tailbouv



R/V Marcus G. Langseth "tow" configurationiion

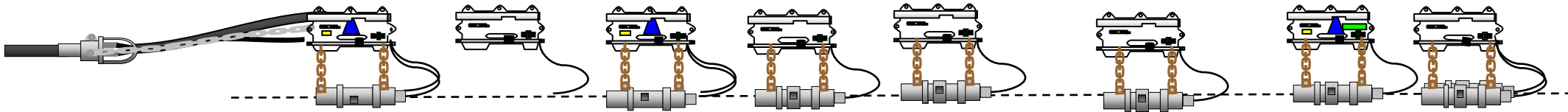
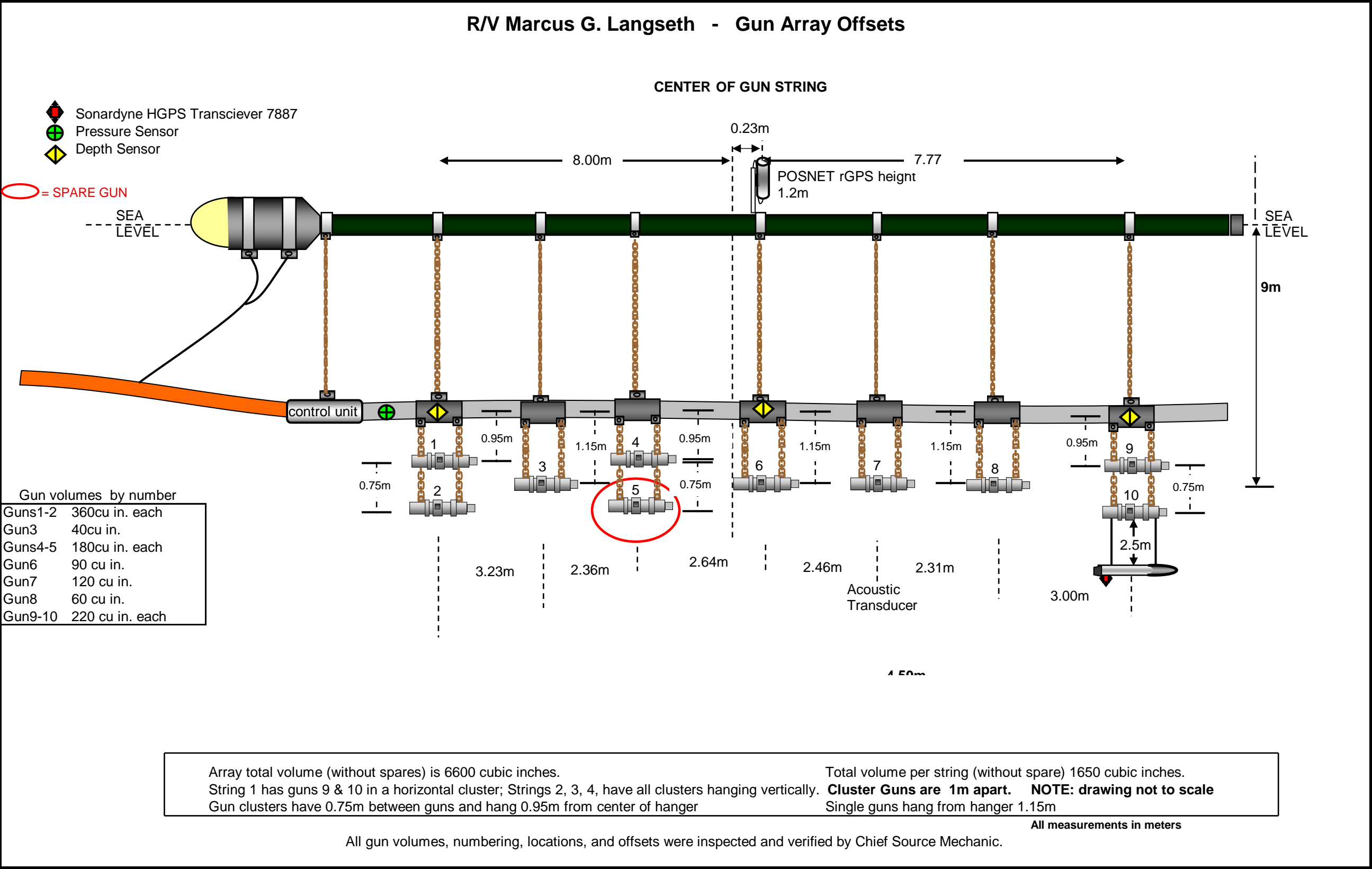
R/V Marcus Langseth
1 x 6000
4 Gunstrings

NOT to Scale

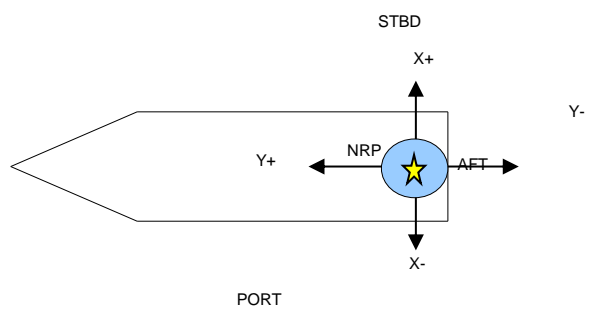
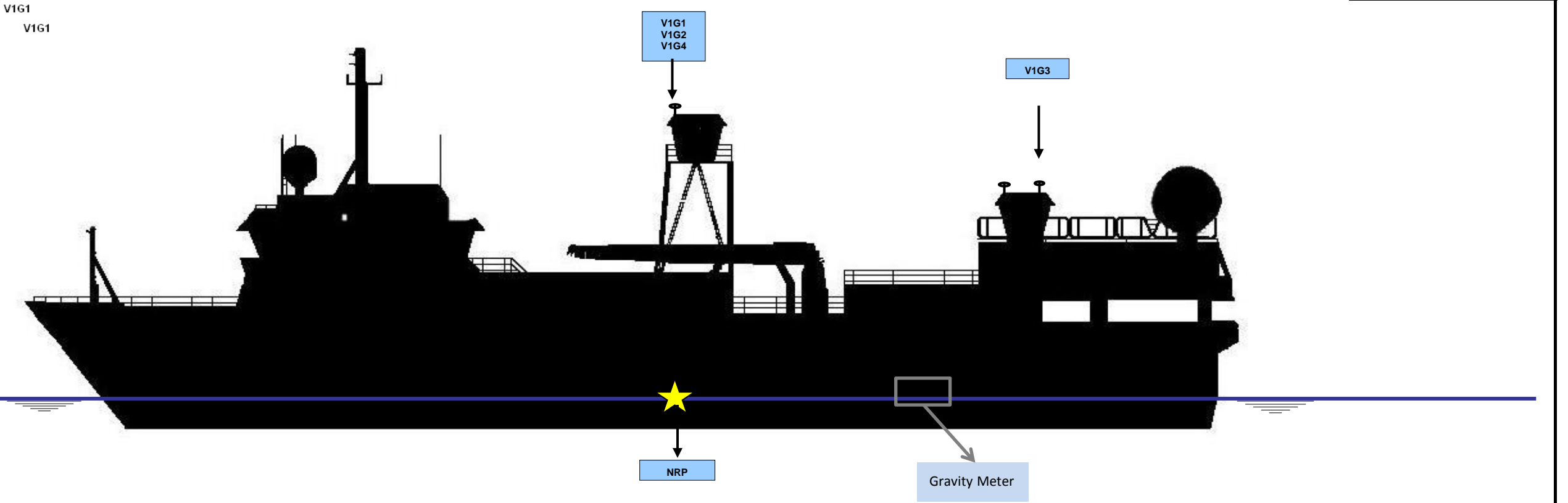


| *** Offsets used for acquisition *** | | | |
|--------------------------------------|--------|---|----------|
| NRP-Stern | 29.50 | m | |
| NRP-COS | 229.10 | m | |
| NRP-CNG | 385.40 | m | |
| COS-CNG | 156.30 | m | |
| NRP-CMP | 307.25 | m | Layback |
| NRP-MAG | 130 | m | X = -20m |
| NRP-PAM | 150 | 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 |
| | |
| | |



V1G1
V1G1



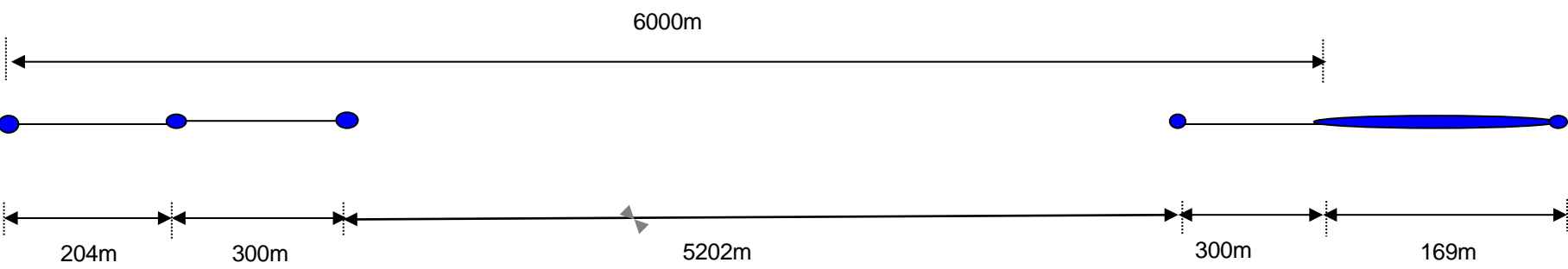
Note: All Echosounders are used in Spectra with 6.6m ship's draft correction applied.



| | | 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 | 4.87 | -15.27 | -14.50 | |
| V1G4 | Pos MV | -1.30 | 1.20 | -16.90 | |
| V1R1 | PosNet | -1.30 | 0.00 | -16.90 | |
| EM122 | Multibeam Transducer Array | 0.00 | 20.20 | 7.49 | |
| MRU | Seapath MRU | 2.30 | -14.16 | -4.30 | |
| BGM | Bell Gravity Meter | 4.40 | -13.10 | -3.49 | |

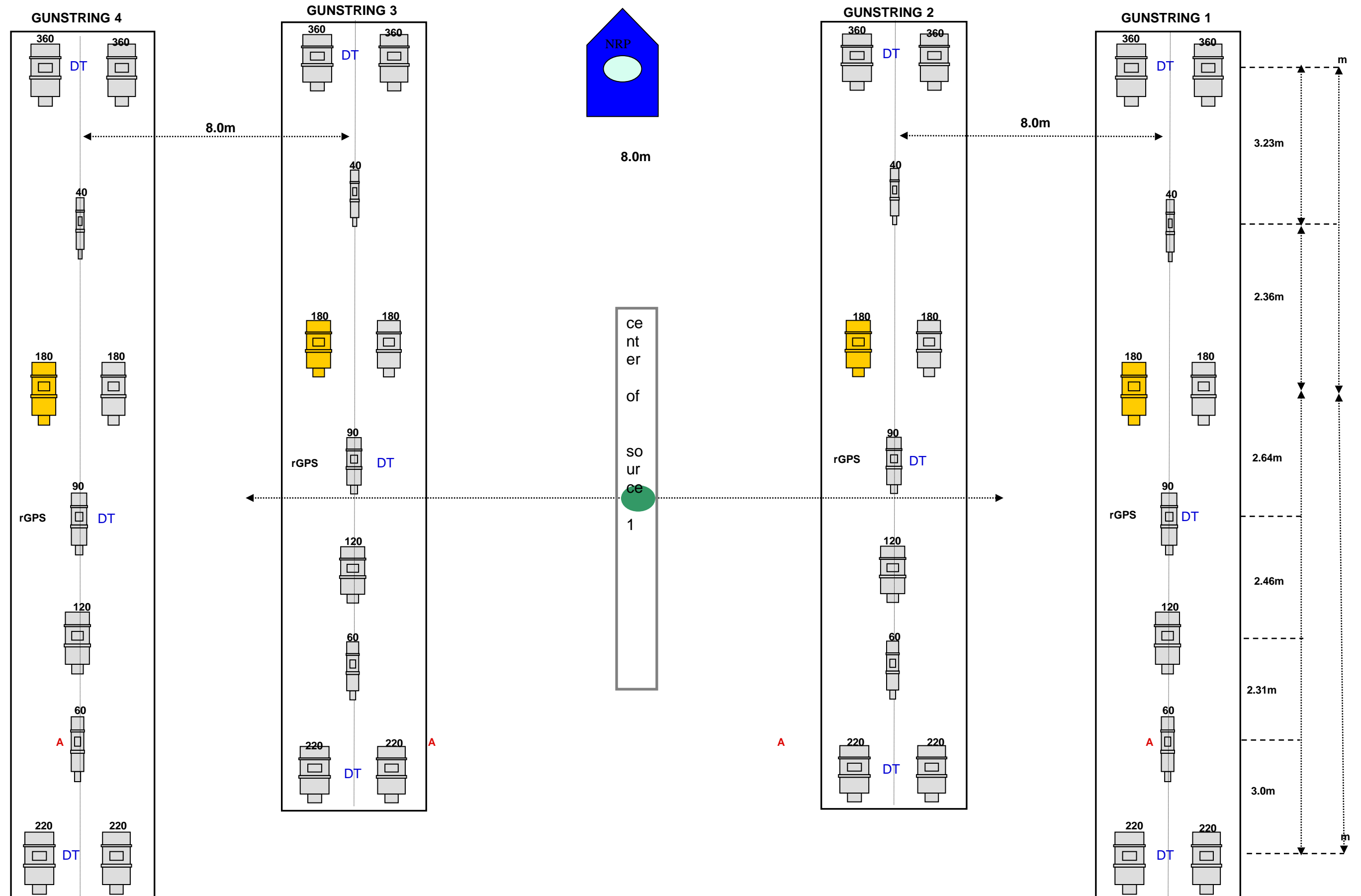
R/V Marcus G. Langseth - Acoustic Offsets
Sonardyne SIPS 1

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



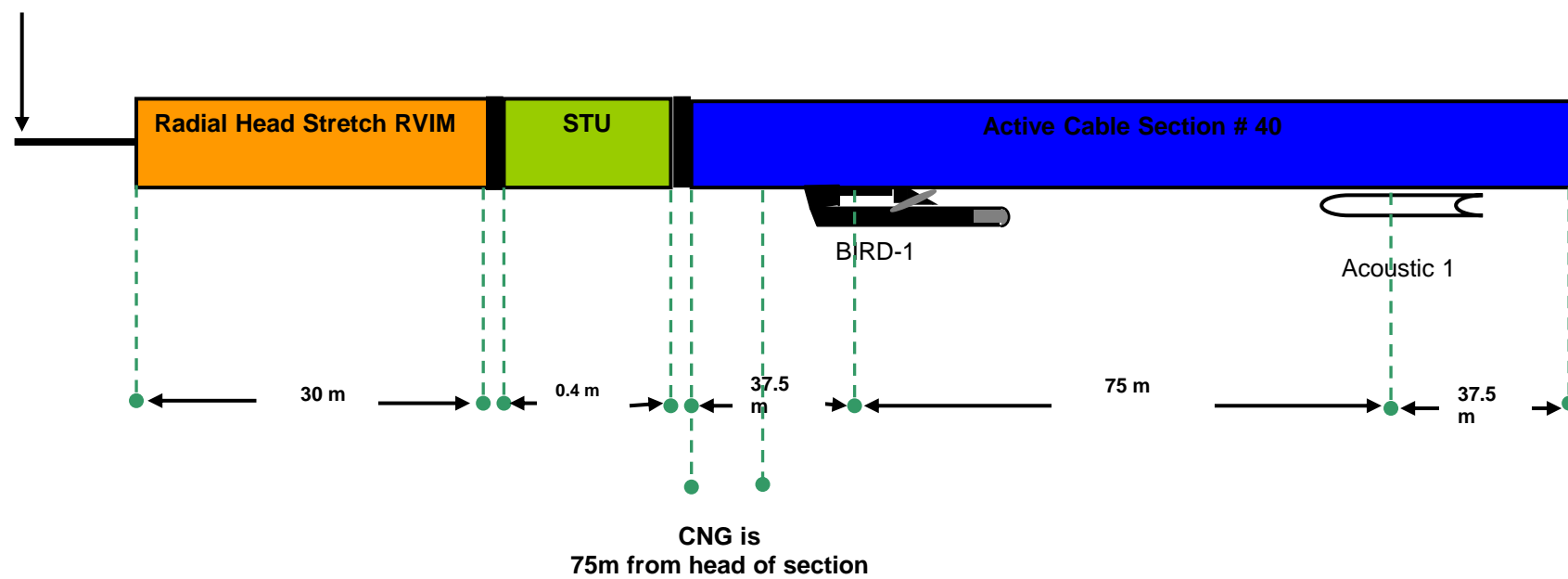
All measurements in meters

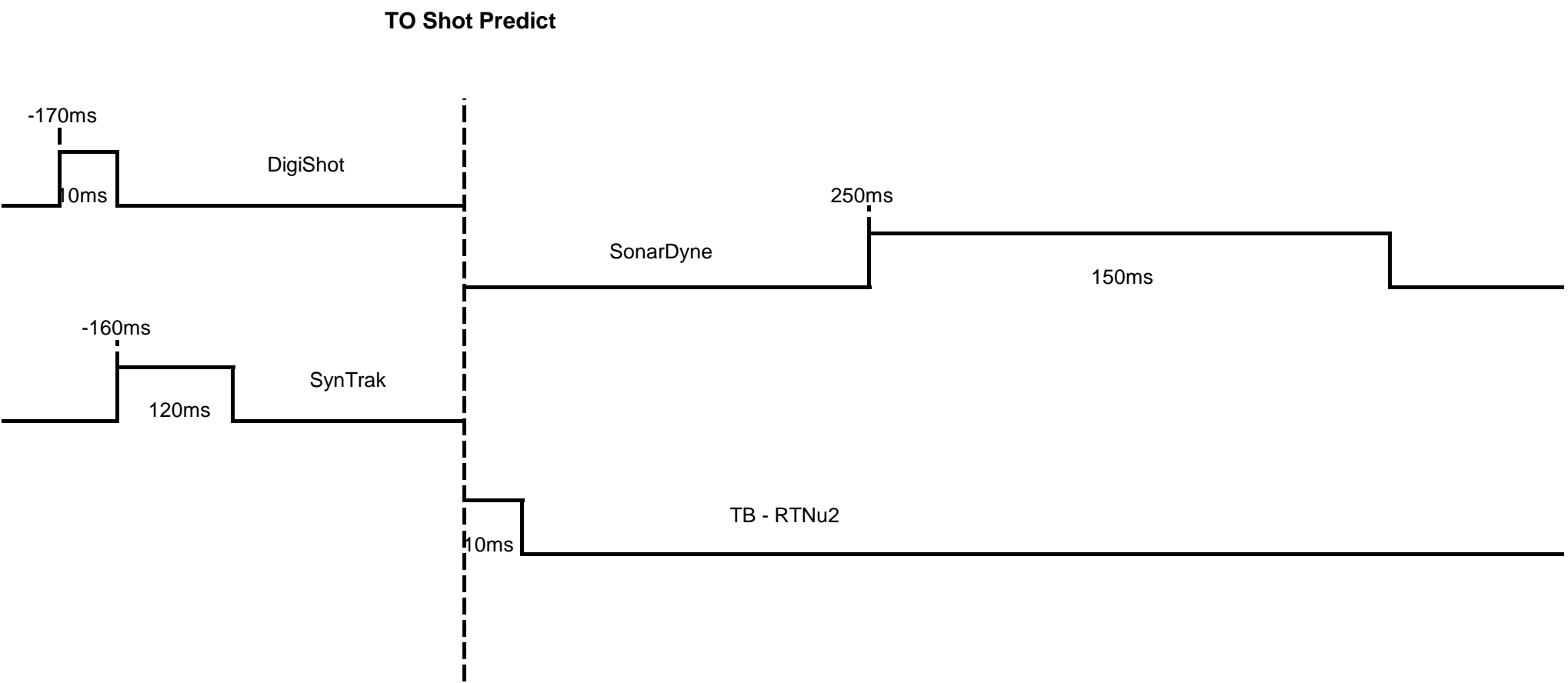
All measurements in meters



R/V Marcus G. Langseth - Streamer Front End

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





Spectra timing for r/v Marcus G. Langseth

