

Company : Wavefield Inseis ASA
Vessel : Geowave Champion
Client : BPPT/PT Veritas DGC Mega Pratama



Project : 2058-CHP
Area : Pre-Tsunami, West Sumatra
Start Date : 5 May 2009

[Vessel Sensor Offsets](#)

[Navigation Mast](#)

[Towing Offsets](#)

[Towing Configuration](#)

[Separations](#)

[Acoustic Offsets](#)

[Gun Array Offsets](#)

[Gun Configuration](#)

[Head Stretch Section](#)

[Compass Offsets](#)

[Tailbouy Offsets](#)

[Timing](#)



5/14/2009

Updated for start of job.

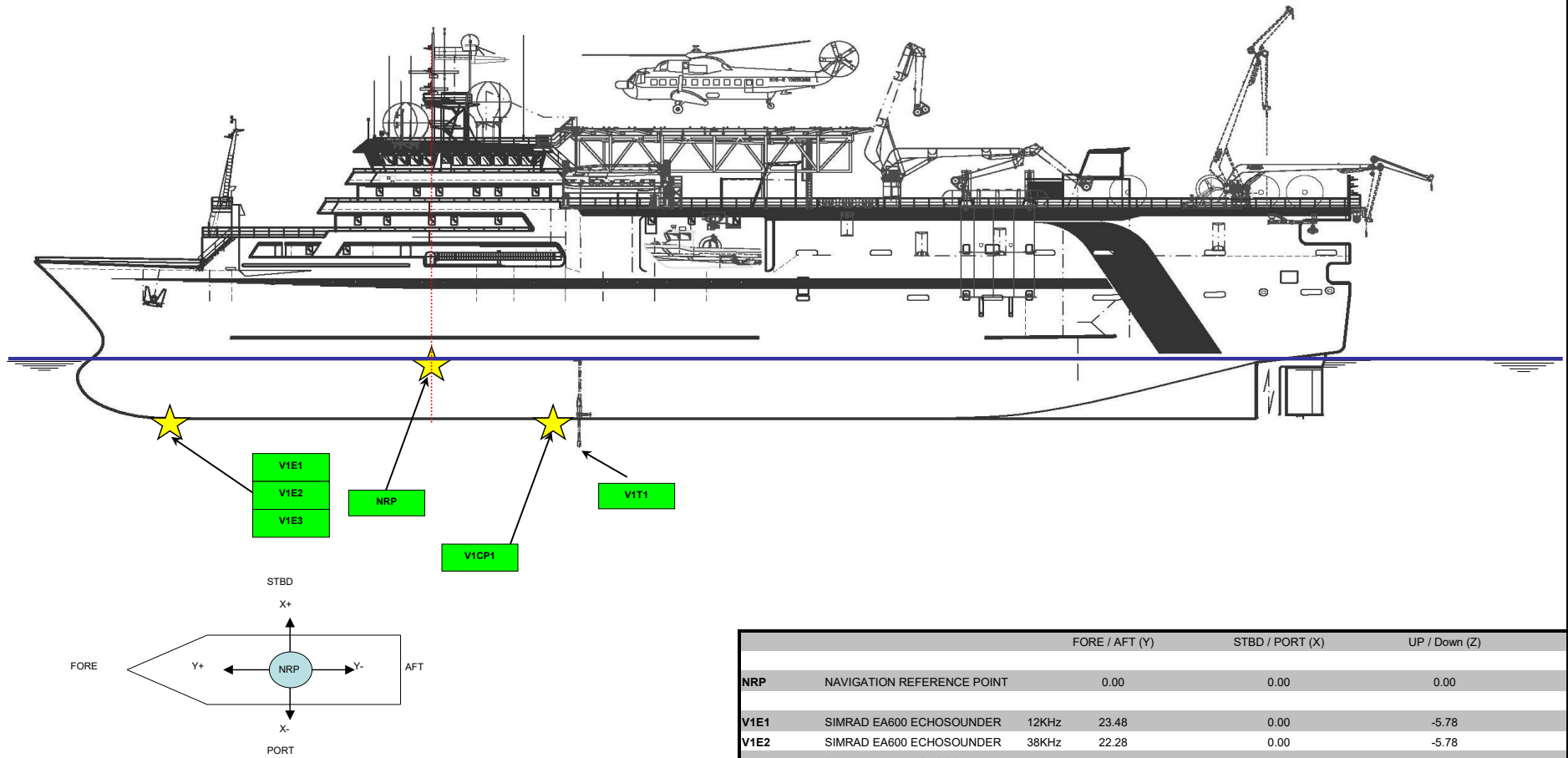
ITEMS WITH RED FONT NEED TO BE CONFIRMED

- see towing config which needs confirmation from mech dept

5/20/2009

Streamers, Acoustics, antenna offsets.

Geowave Champion - Vessel Sensor Offsets

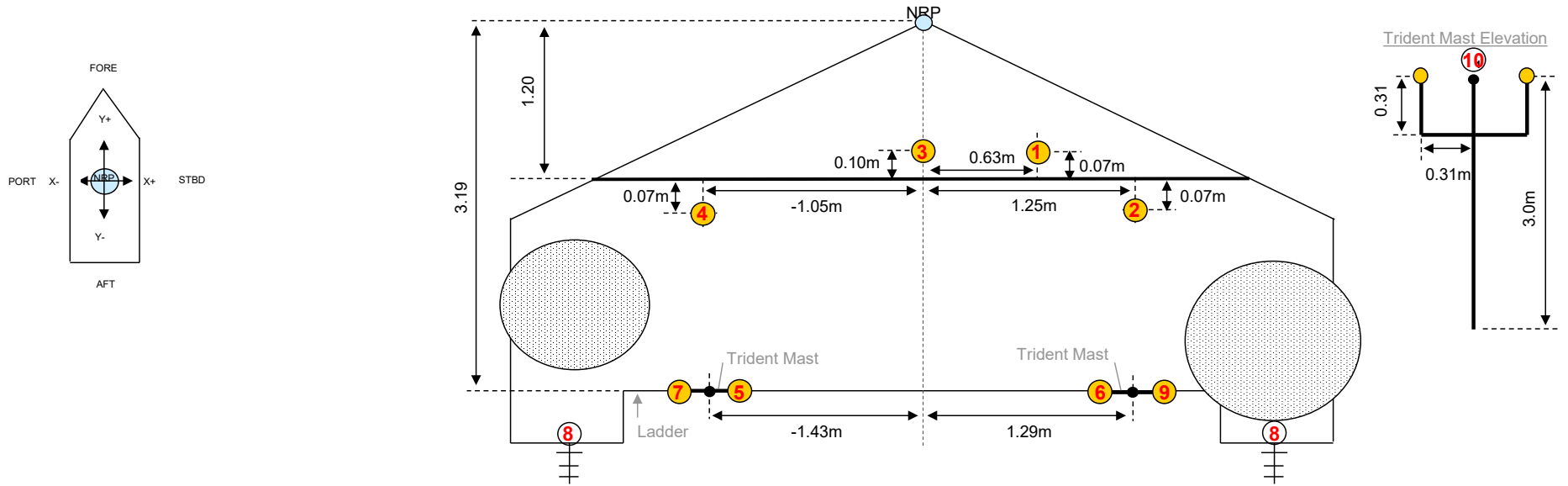


All measurements in meters

NRP is the centre of navigation lights at design water level

			FORE / AFT (Y)	STBD / PORT (X)	UP / Down (Z)
NRP	NAVIGATION REFERENCE POINT		0.00	0.00	0.00
V1E1	SIMRAD EA600 ECHOSOUNDER	12KHz	23.48	0.00	-5.78
V1E2	SIMRAD EA600 ECHOSOUNDER	38KHz	22.28	0.00	-5.78
V1E3	SIMRAD EA600 ECHOSOUNDER	200KHz	24.04	0.00	-5.78
V1T1	SONARDYNE HULL ACOUSTIC POLE		-13.10	-3.80	-8.50
V1CP1	NORTEK VM-AWAC CURRENT PROFILER				

Geowave Champion - Navigation Mast



NAVIGATION MAST

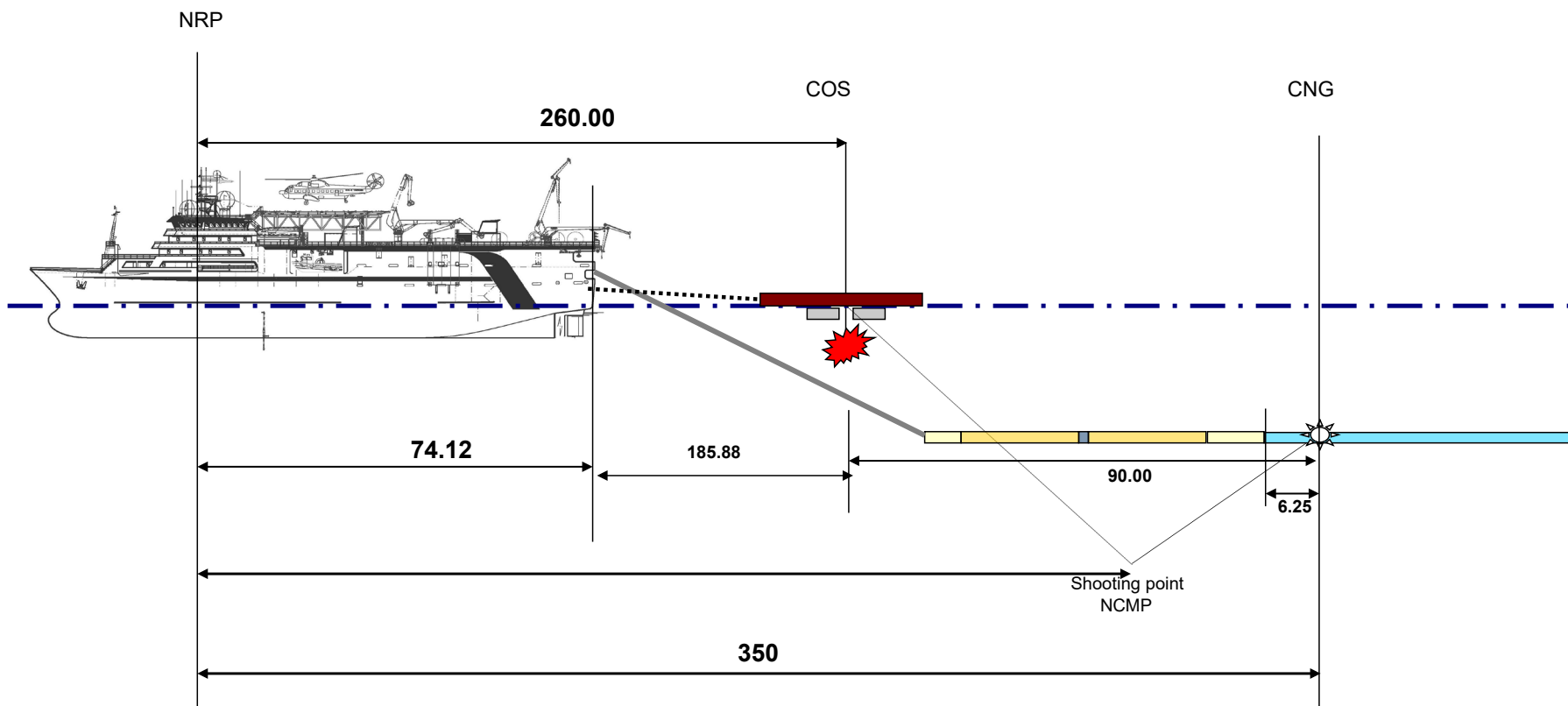


All measurements in meters

ANTENNA ORIENTATION

		FORE / AFT (Y)	STBD / PORT (X)	UP / DOWN (Z)
NRP	NAVIGATION REFERENCE POINT	0.00	0.00	0.00
1	Multifix Starfix XP V1G1-Skyfix MRDGPS V1G3(and V1R1-rGPS system)	-1.13	0.63	29.57
2	Veripos 1 Ultra (stbd) V1G2 (574)	-1.27	1.25	29.59
3	Starfix HP	-1.10	0.00	29.69
4	Veripos 2 Ultra (Port) V1G4 (562)	-1.27	-1.15	29.59
5	Veripos SPOT (Port)	-3.19	-1.12	29.60
6	Veripos SPOT (Stbd)	-3.19	0.98	29.60
7	Skyfix SPOT (Port)	-3.19	-1.74	29.60
8	RGPS ANTENNA: UHF YAGI	N/A	N/A	N/A
9	Skyfix SPOT (Stbd)	-3.19	1.60	29.60
10	TRIMBLE BULLET (PowerRTNu) Port	-3.19	-1.43	29.60
11	TRIMBLE BULLET (PowerRTNu) Stbd	-3.19	1.29	29.60

Geowave Champion - Towing Offsets (streamer 1 and 3)

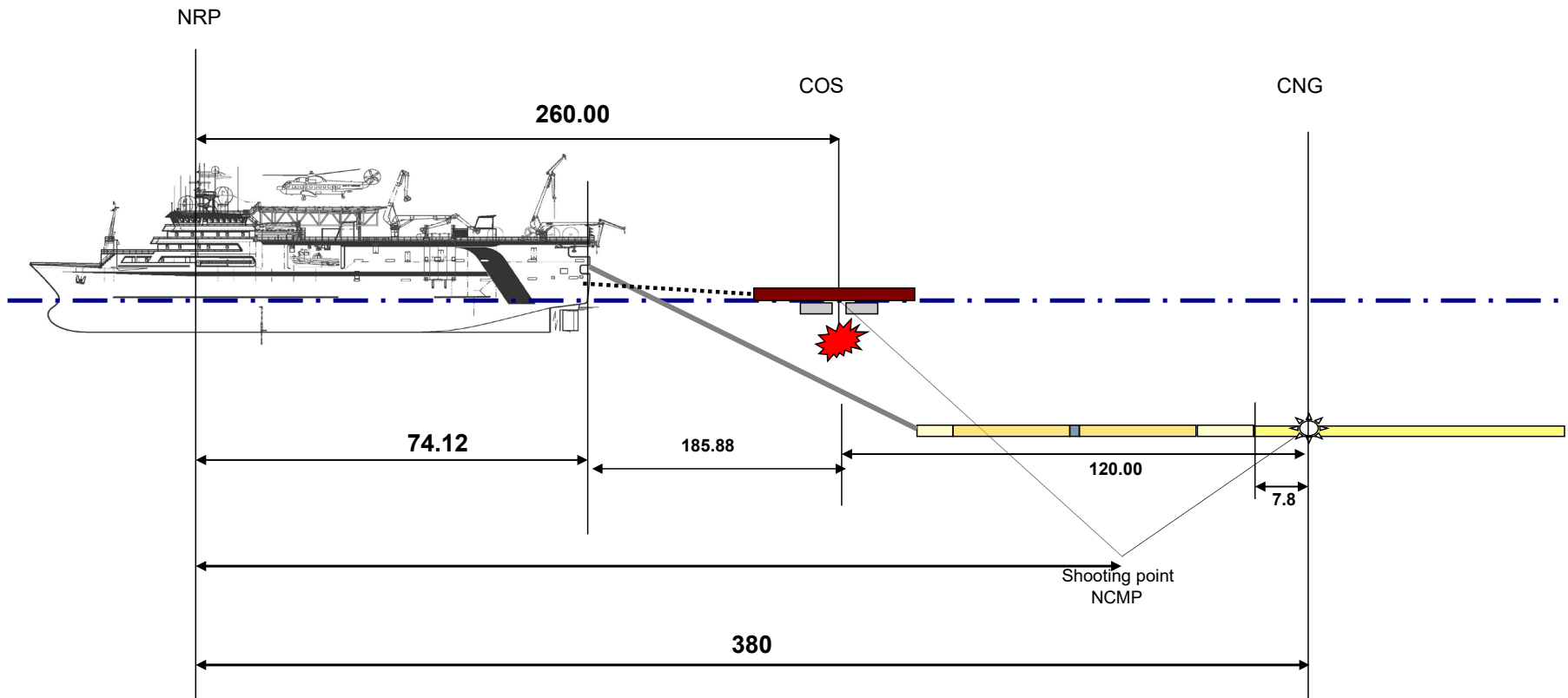


Principal Distances		Principal Offsets		Used as	
NRP-Stern	74.12	m			
Stern-COS	185.88	m	COS-CNG	90.00	
Stern-CNG	275.88	m	NRP-NTRP	305.00	
NRP-COS	260.00	m	NRP-CNG	350.00	Offset from NRP
Centre near group derived from Sercel manuals = 6.25m from coupling					

NRP	Navigation reference point (centre of mast at sea level)
COS	Centre of source
CNG	Centre of near group (Trace # 001)
CMP	Common mid point
NCMP	Near Common Mid Point

All measurements in meters

Geowave Champion - Towing Offsets (streamer 2)



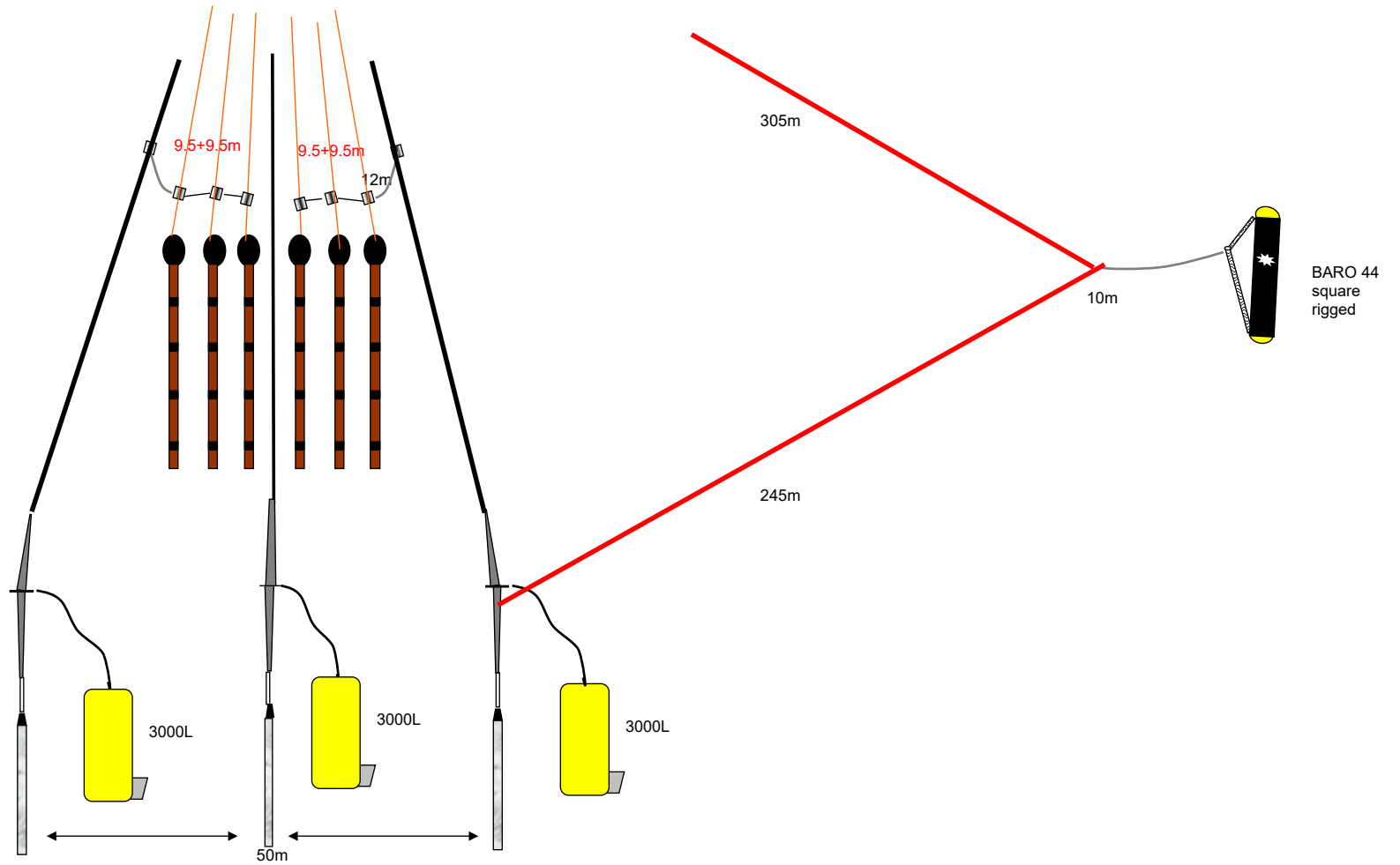
Principal Distances		Principal Offsets		Used as	
NRP-Stern	74.12	m			
Stern-COS	185.88	m	COS-CNG	120.00	
Stern-CNG	305.88	m	NRP-NTRP	320.00	
NRP-COS	260.00	m	NRP-CNG	380.00	Offset from NRP
Centre near group derived from Sercel manuals = 7.8m from coupling					

NRP	Navigation reference point (centre of mast at sea level)
COS	Centre of source
CNG	Centre of near group (Trace # 001)
CMP	Common mid point
NCMP	Near Common Mid Point

All measurements in meters

M/V Geowave Champion - Towing Configuration

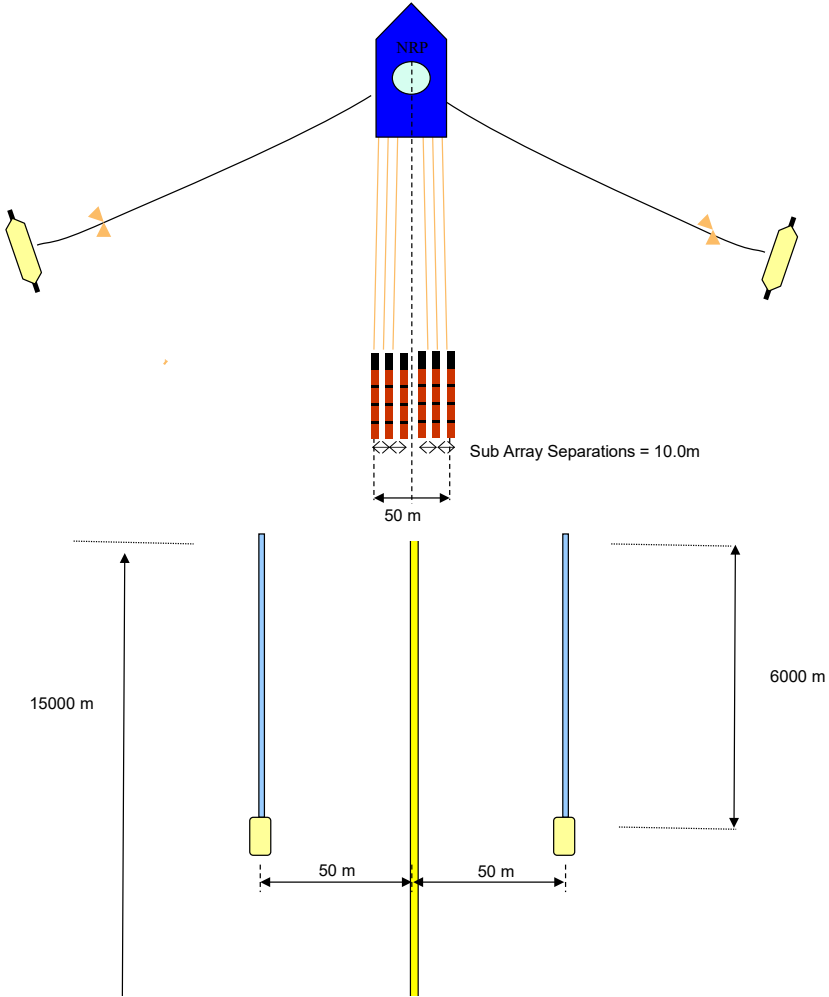
Guncables 258m



All measurements in meters

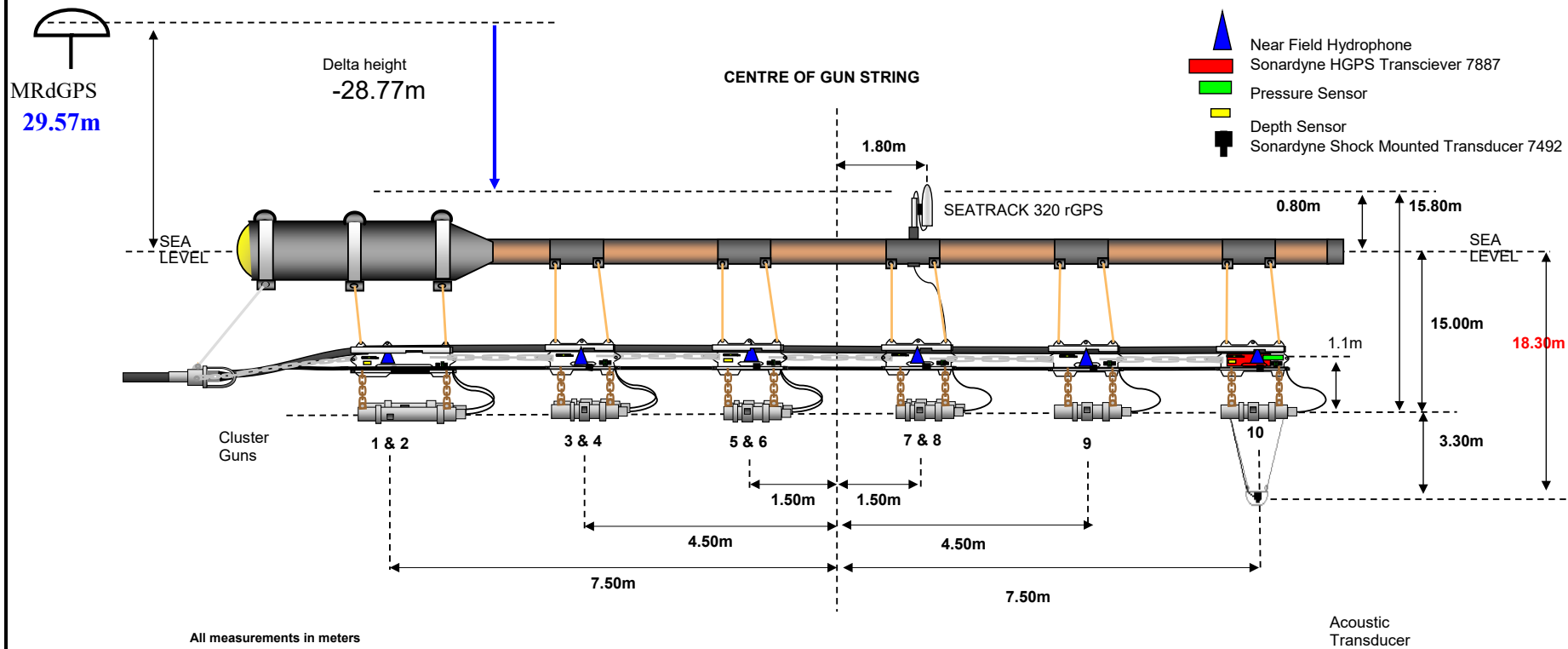
Streamer Towing Config. - last updated 02/06/2009

Geowave Champion - Separations

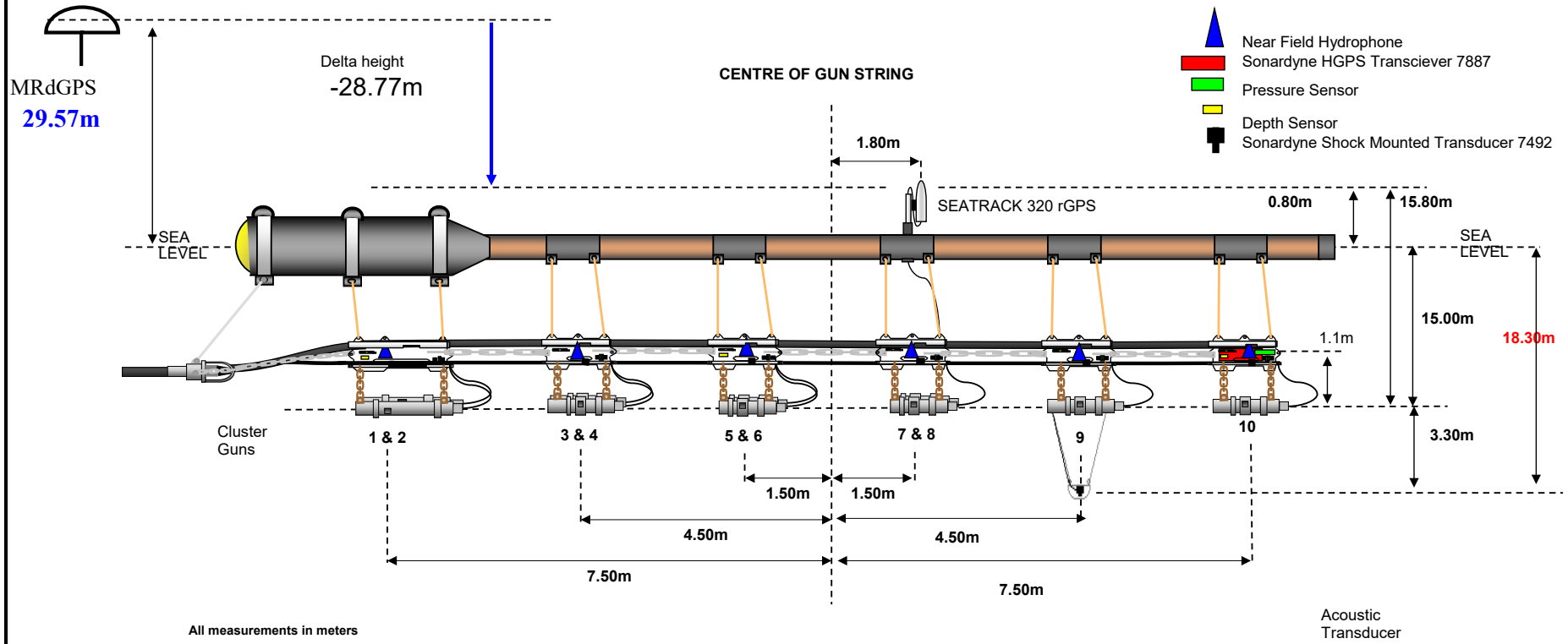


All measurements in meters

M/V Geowave Champion - Gun Array Offsets Strings 1, 3, 4 and 6





M/V Geowave Champion - Gun Array Offsets Strings 2 and 5




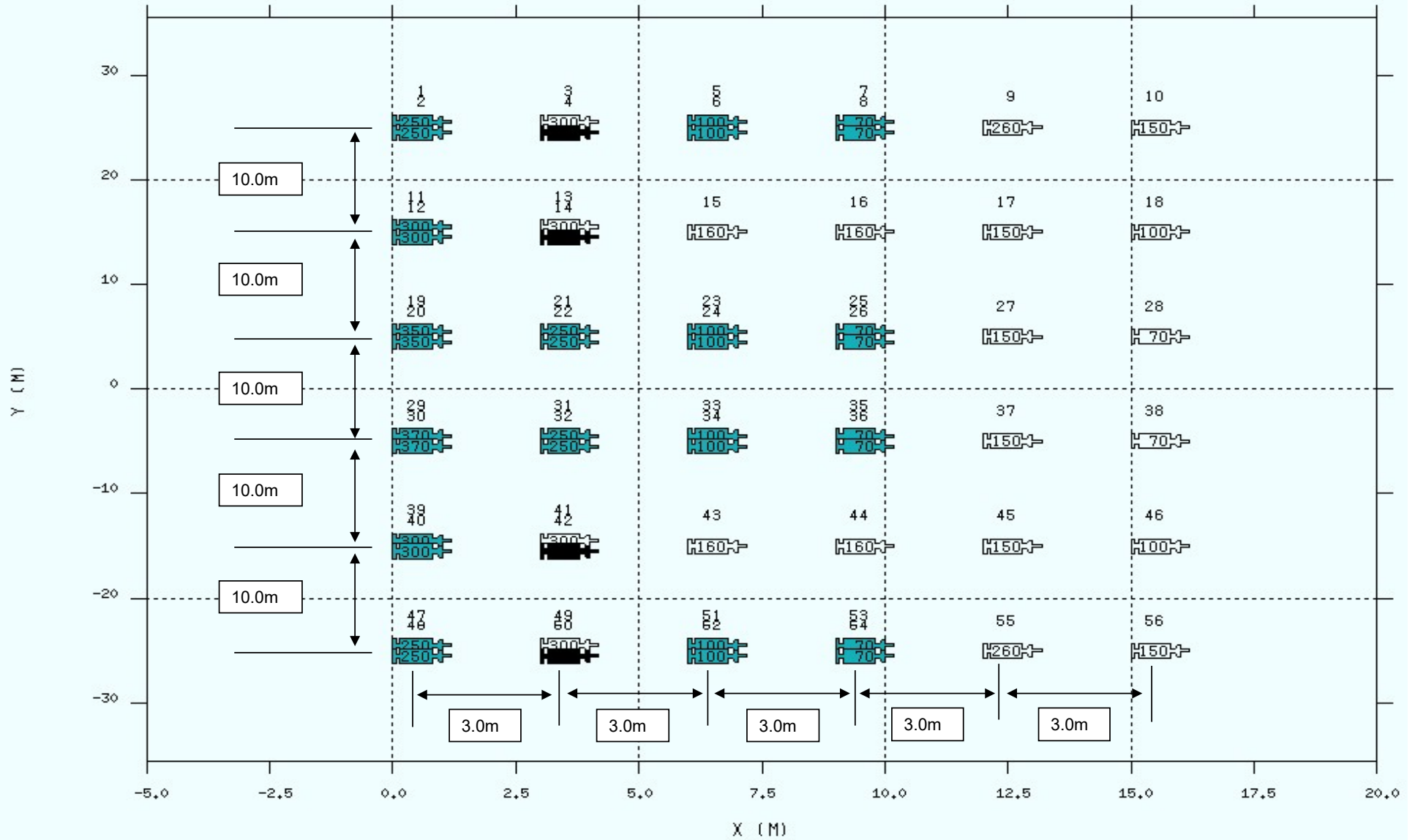
Array : 9600ci_v2_Champion

Total volume : 9600.0 cubic inch

 - Inactive guns

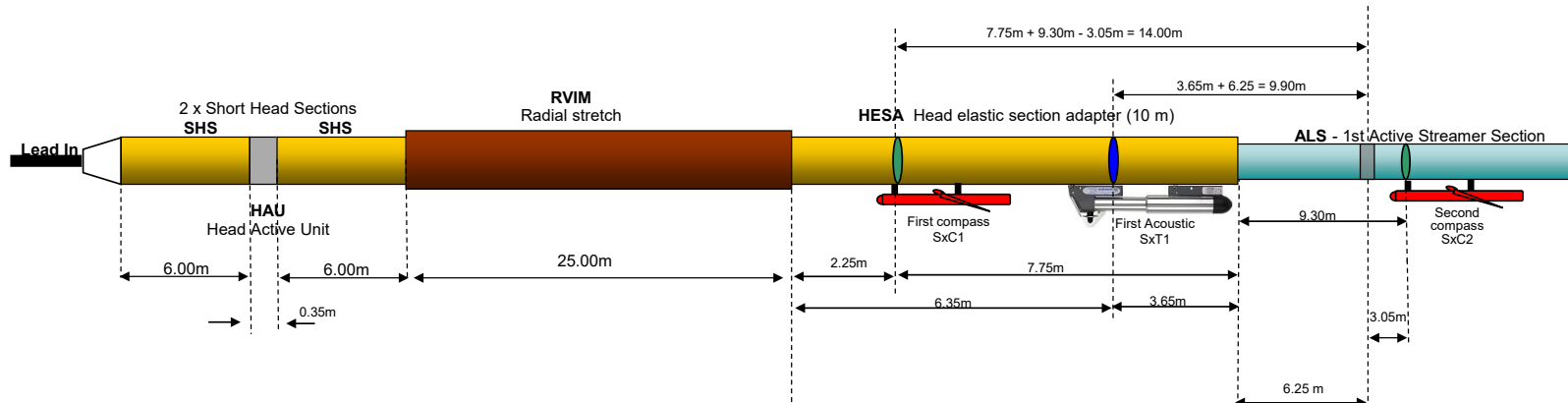
 - Single guns

 - Cluster guns

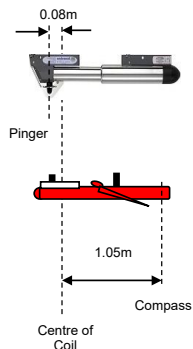


Geowave Champion - Head Stretch Section Streamer 1 and 3

Note: drawing not to scale



Type of Section	Length
SHS	6.00m
RVIM	25.00m
HESA	10.00m
ALS	150.00m
Module	0.35m



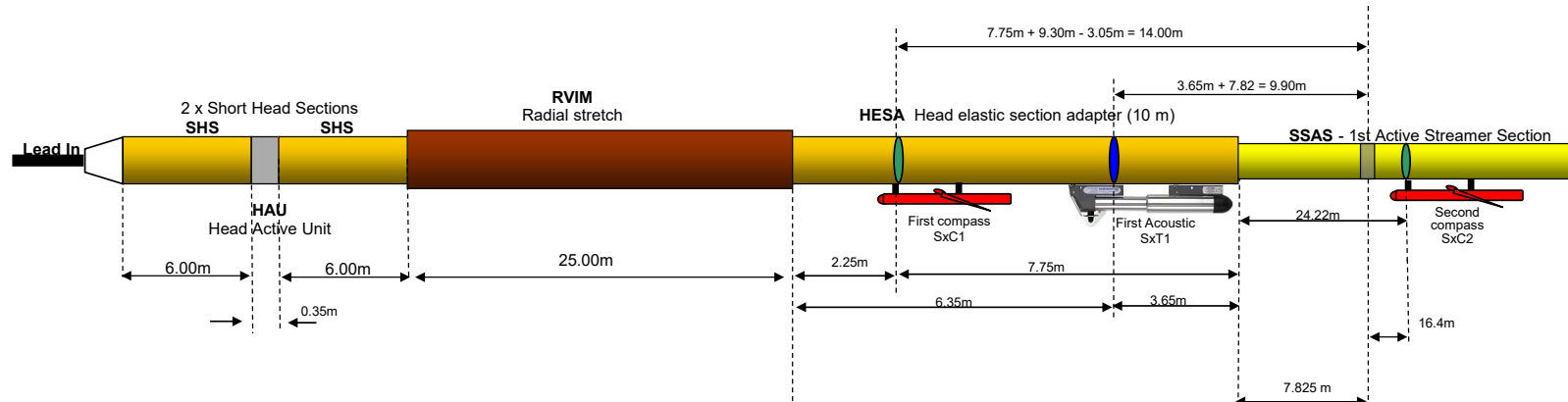
SHS	6.00
HAU	0.35
SHS	6.00
RVIM + stretch	27.65
HESA	10.00
Total	50.00m

CNG - Center of Near Receiver Group

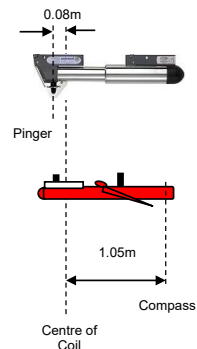
All measurements in meters

Geowave Champion - Head Stretch Section Streamer 2

Note: drawing not to scale



Type of Section	Length
SHS	6.00m
RVIM	25.00m
HESA	10.00m
ALS	150.00m
Module	0.35m

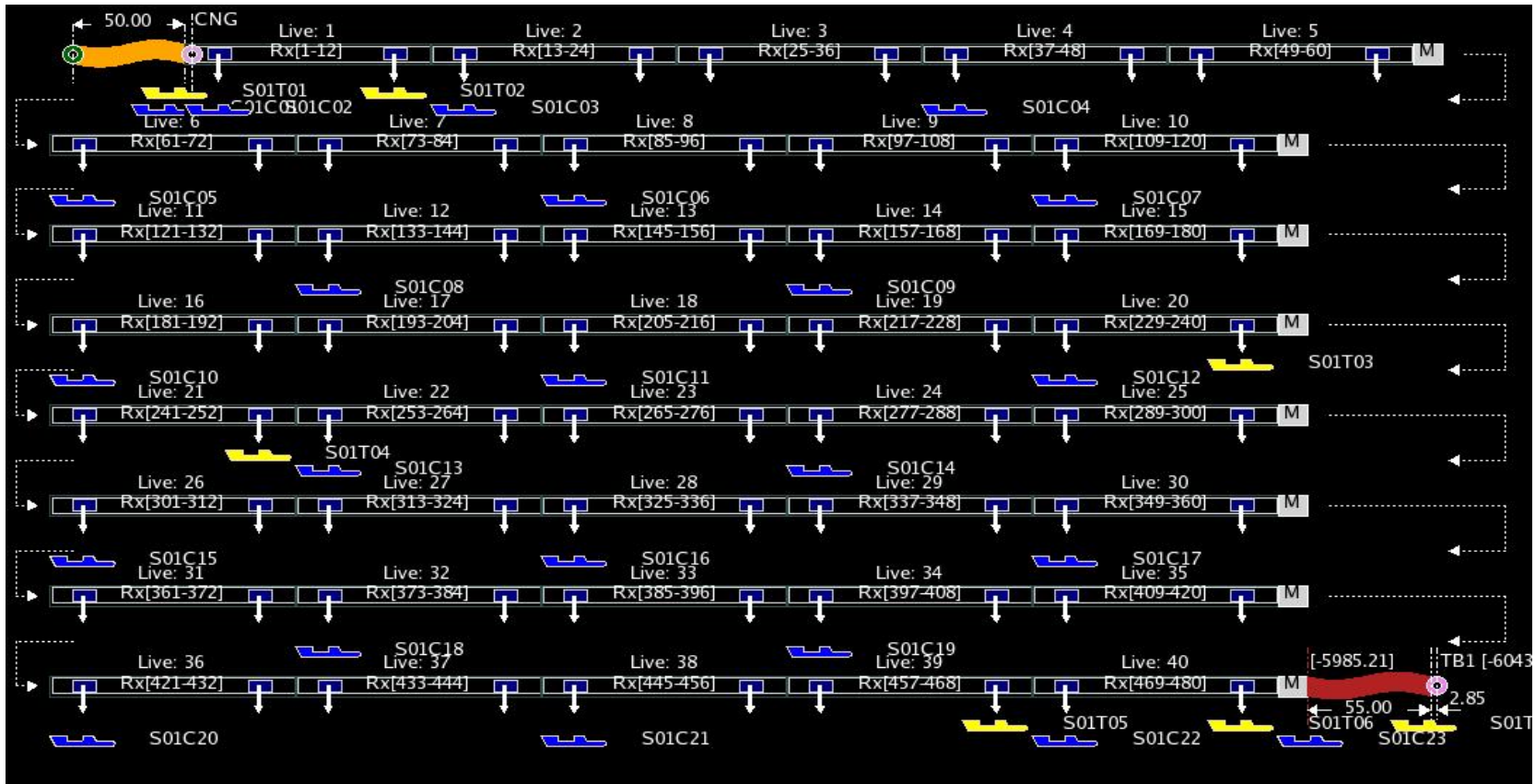


SHS	6.00
HAU	0.35
SHS	6.00
RVIM + stretch	27.65
HESA	10.00
Total	50.00m

CNG - Center of Near Receiver Group

All measurements in meters

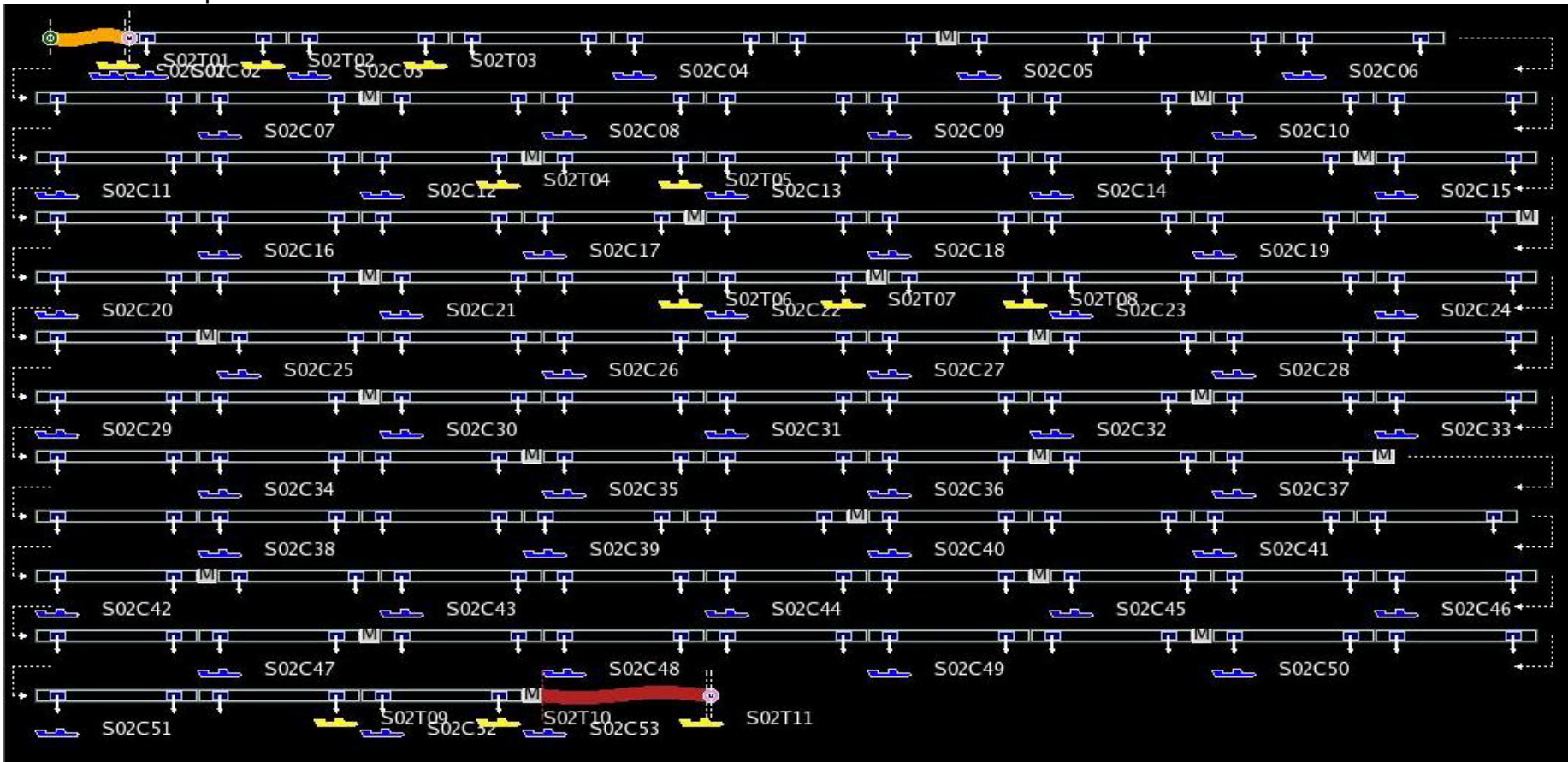
Geowave Champion Streamer 1 configuration



NOTE:

Streamers 1 and 3 have the same number (23) of compass units at identical offsets.
 Streamer 3 has one additional tail stretch

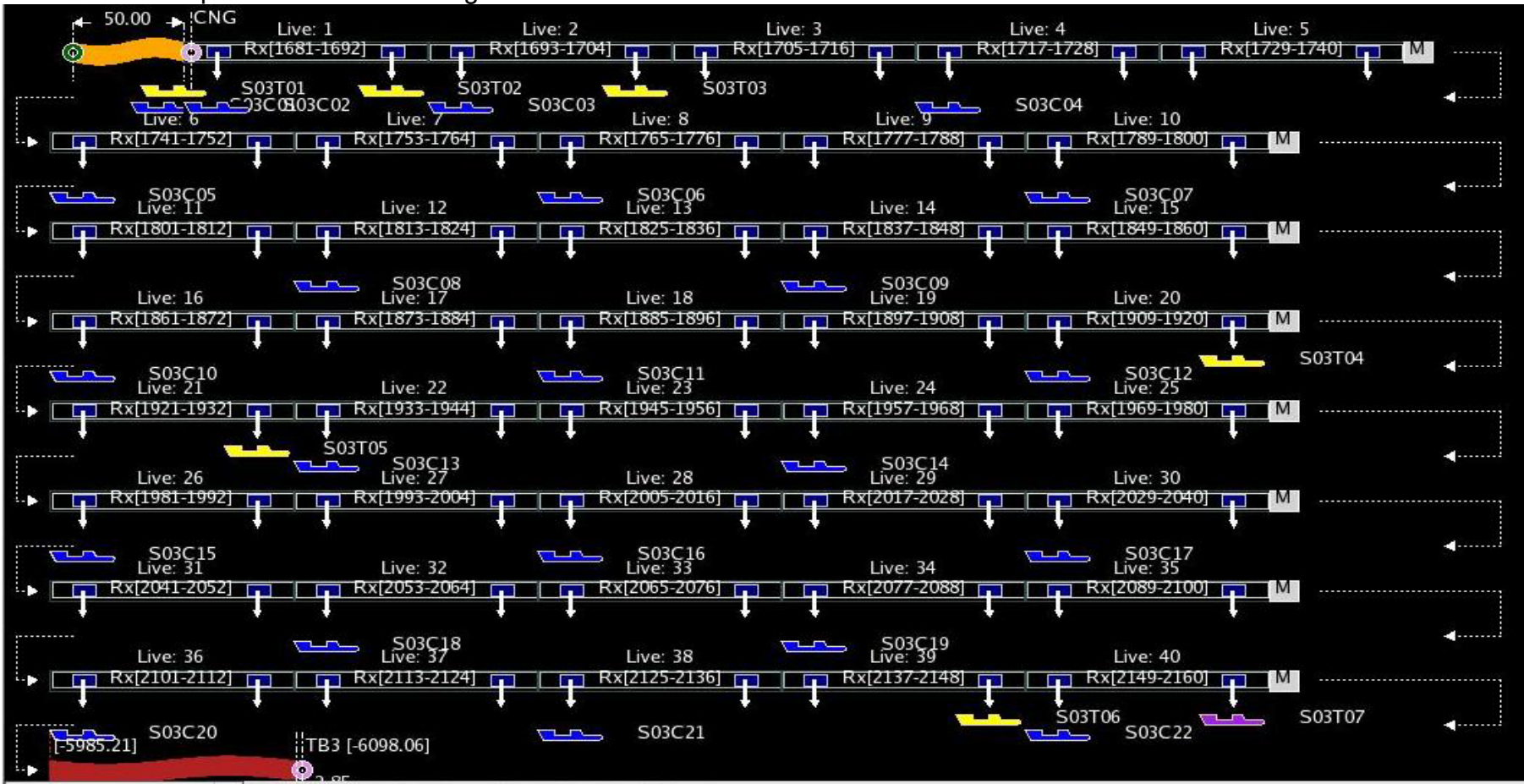
Geowave Champion Streamer 2



NOTE:

Streamer 2 is 15km Solid Sentinel towed at 22.5m.

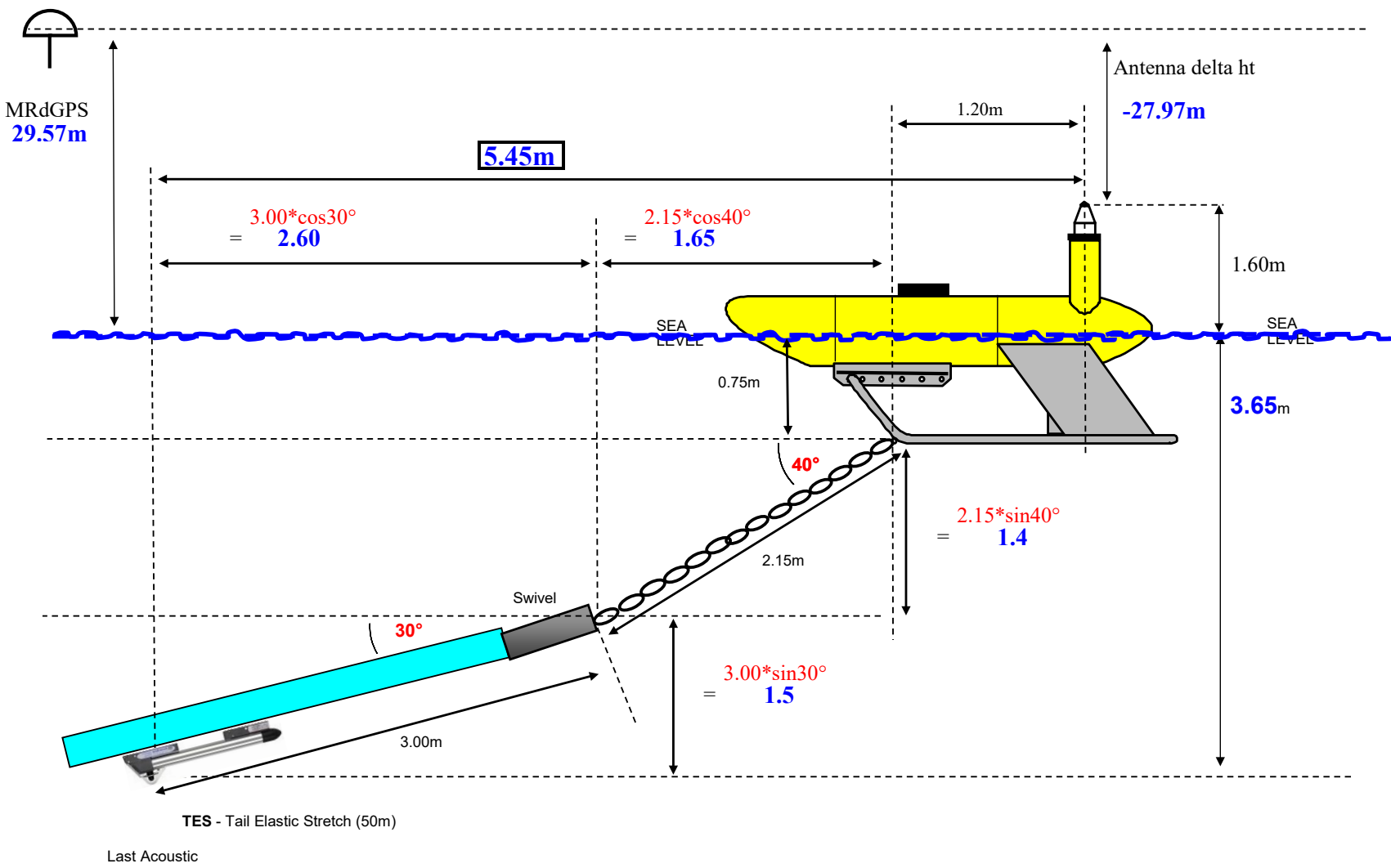
Geowave Champion Streamer 3 configuration



NOTE:

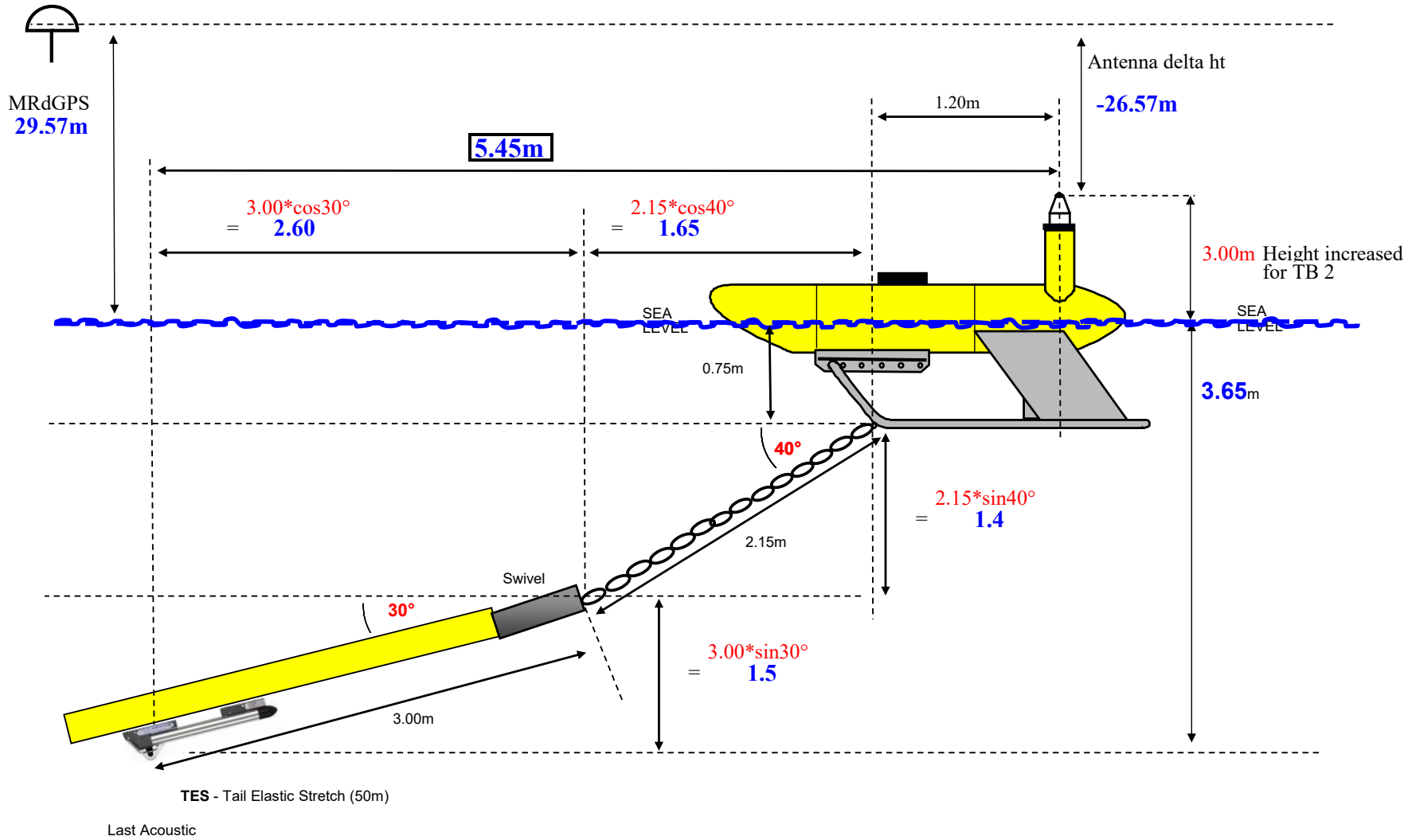
Streamers 1 and 3 have the same number (23) of compass units at identical offsets.
 Streamer 3 has one additional tail stretch

Geowave Champion - Tailbuoys



All measurements in meters, angles estimated in degrees

Geowave Champion - Tailbouy 2



All measurements in meters, angles estimated in degrees

Geowave Champion Timing Diagram

