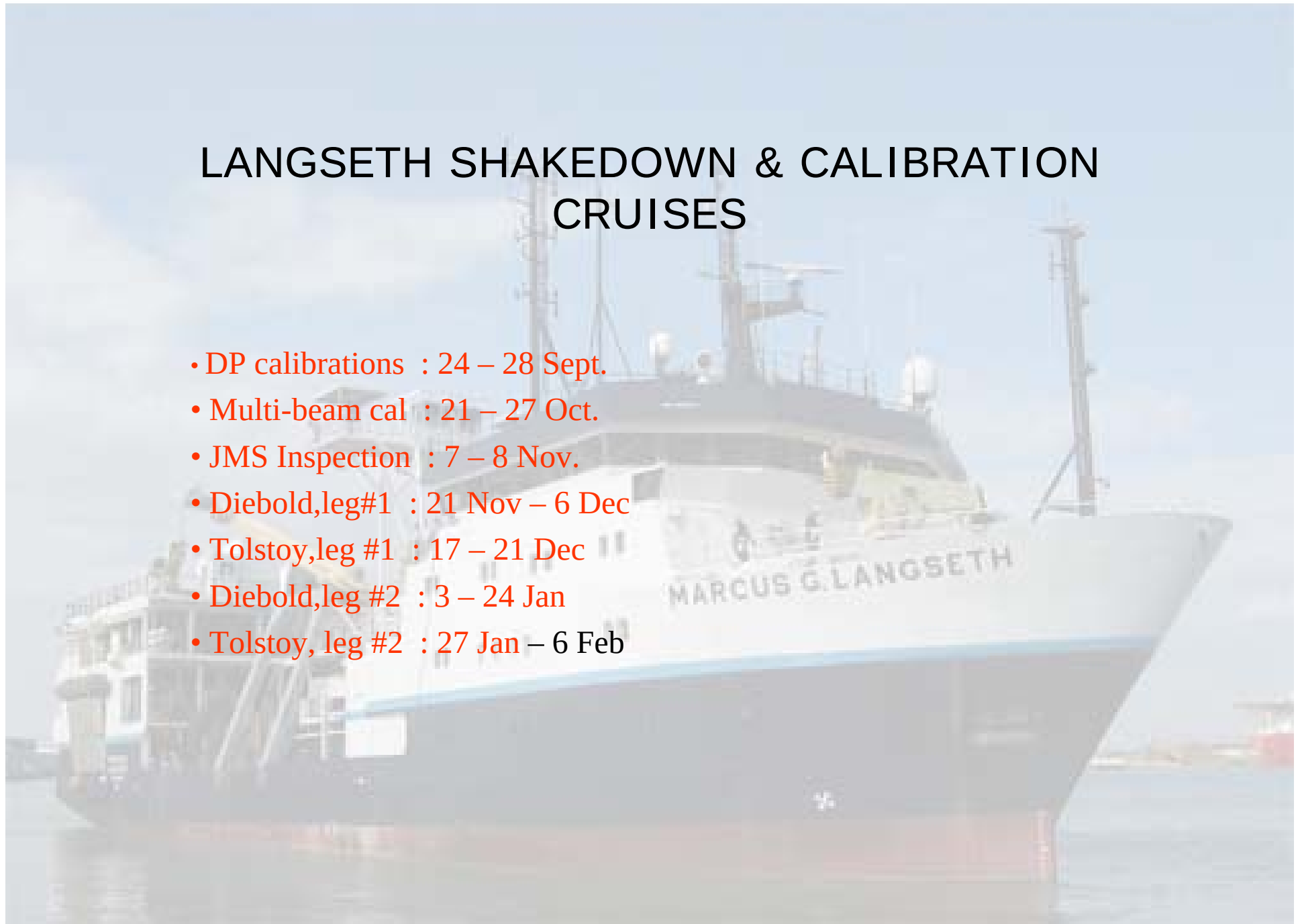


Marcus Langseth



LANGSETH SHAKEDOWN & CALIBRATION CRUISES

- DP calibrations : 24 – 28 Sept.
- Multi-beam cal : 21 – 27 Oct.
- JMS Inspection : 7 – 8 Nov.
- Diebold,leg#1 : 21 Nov – 6 Dec
- Tolstoy,leg #1 : 17 – 21 Dec
- Diebold,leg #2 : 3 – 24 Jan
- Tolstoy, leg #2 : 27 Jan – 6 Feb





CERTIFICATE OF OWNERSHIP

I certify that

Research Vessel Marcus G. Langseth

*Is an oceanographic research vessel owned by the National Science Foundation, an agency of the
United States of America, assigned for operation to Columbia University.*

Arden L. Bement, Jr.

Arden L. Bement, Jr.

Director

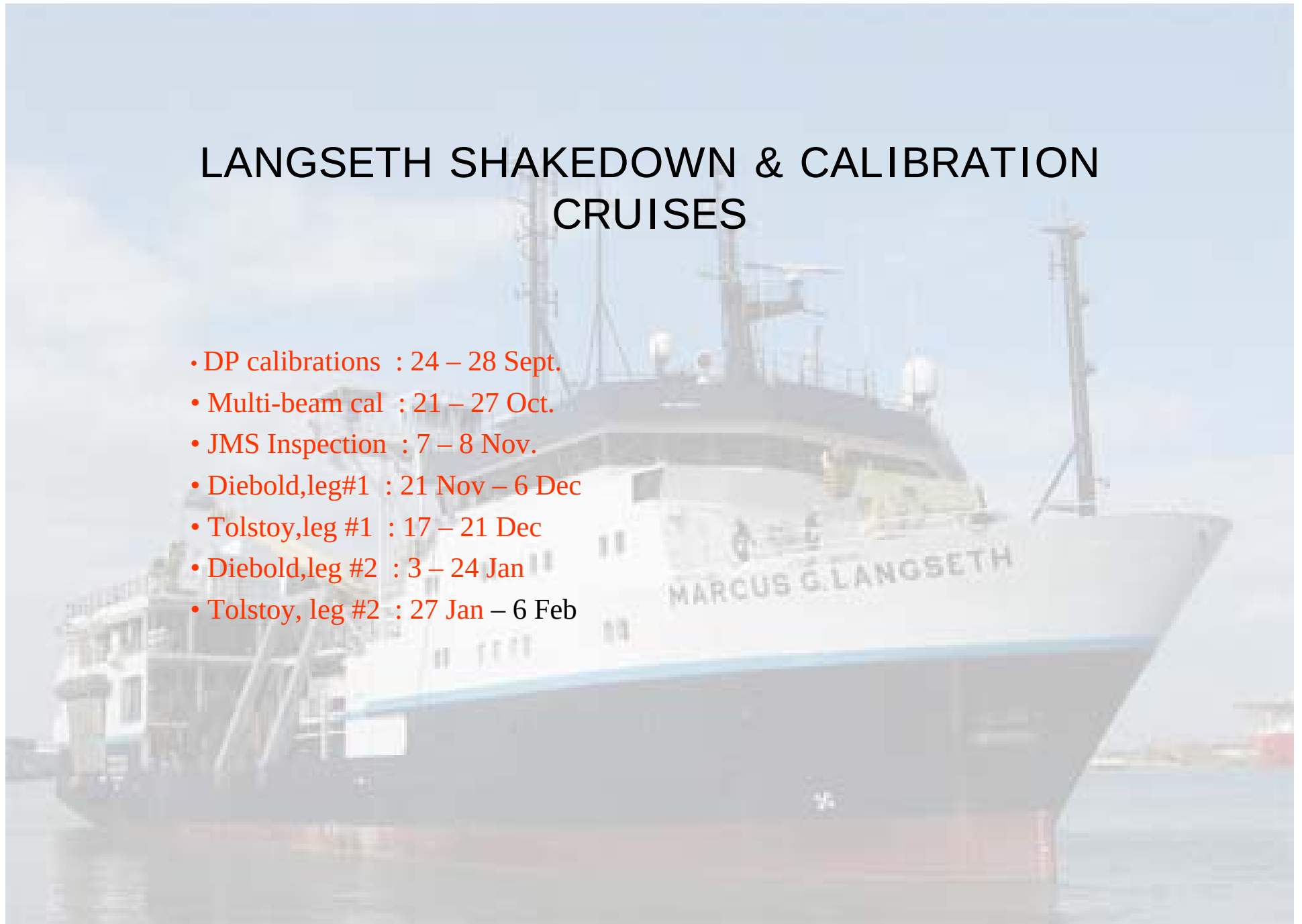
National Science Foundation





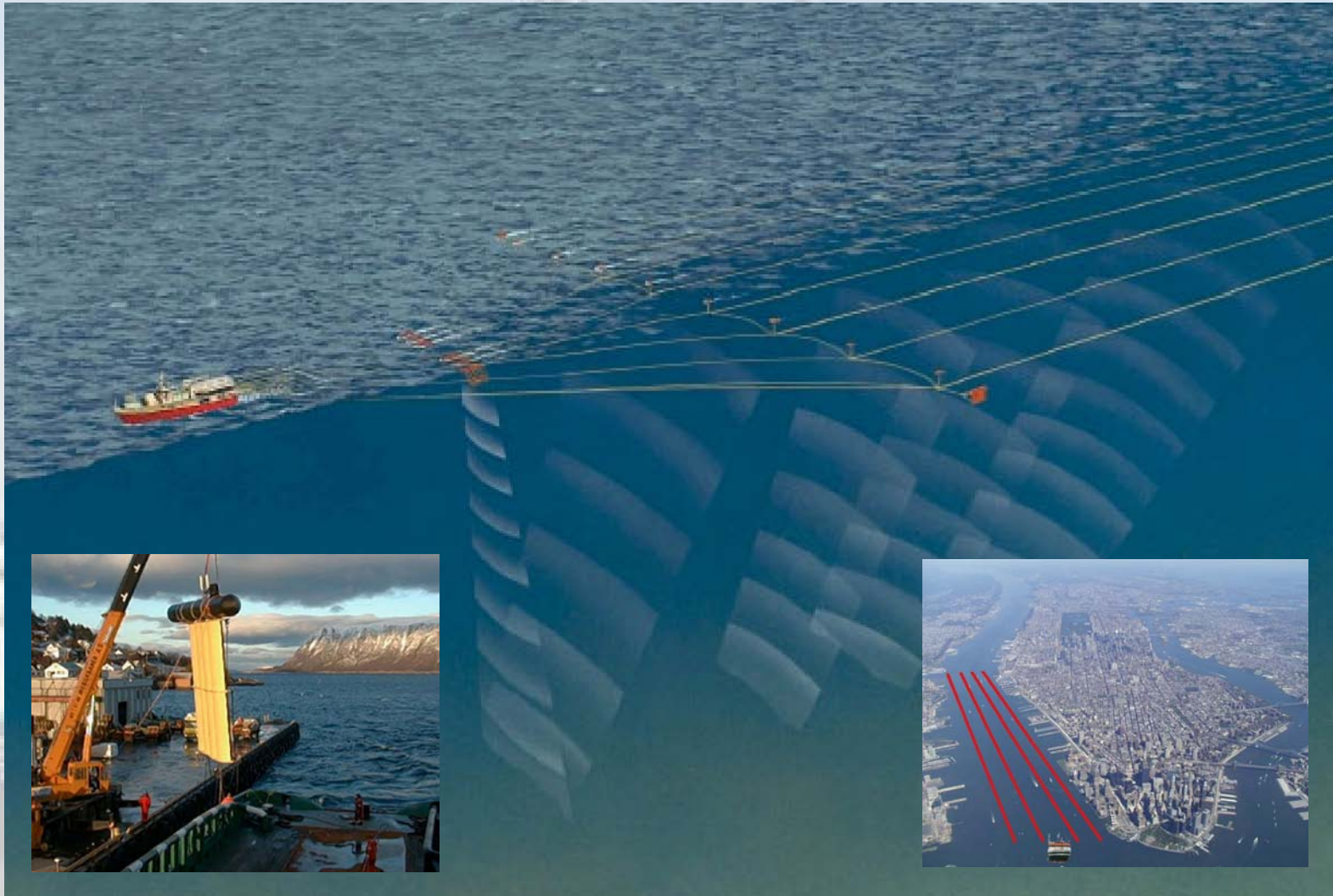
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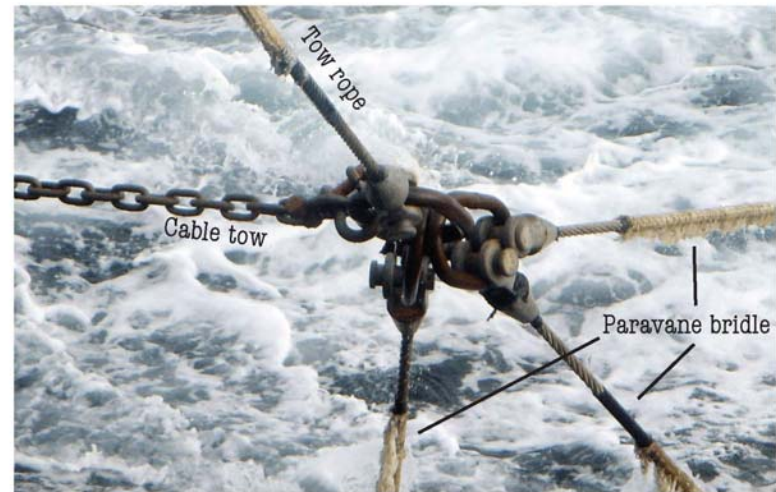
R/V Marcus Langseth

MCS Paravane Towing – Example of What Needs to Go Right



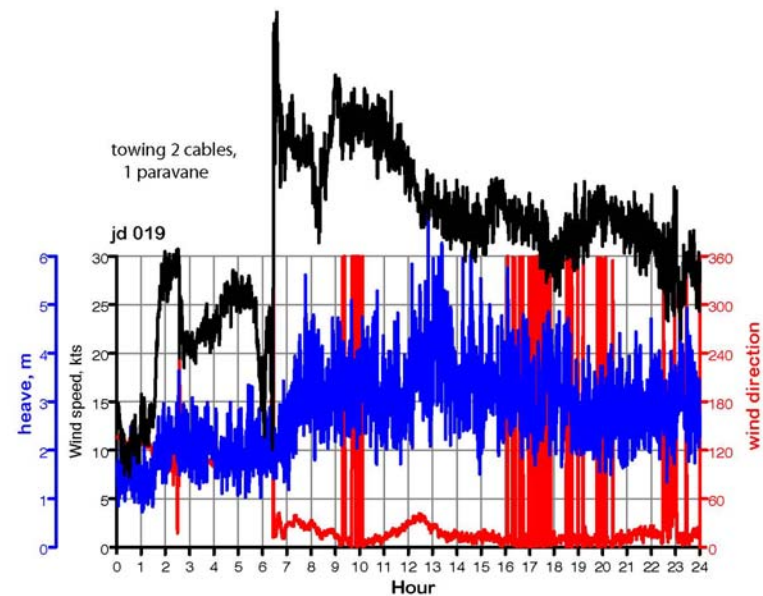
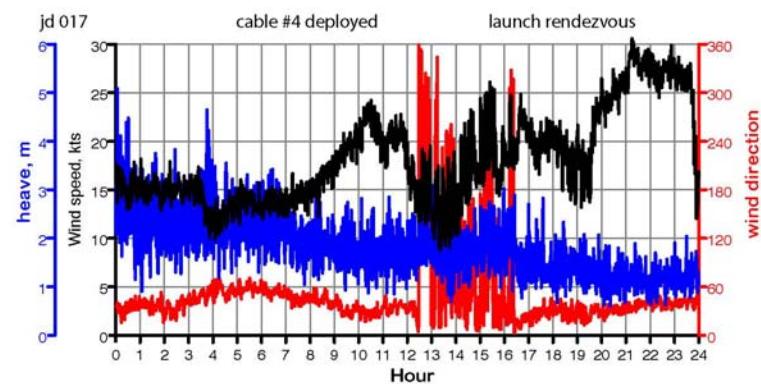
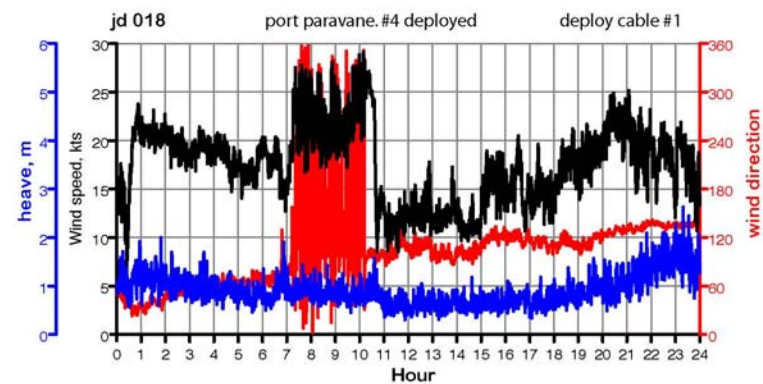
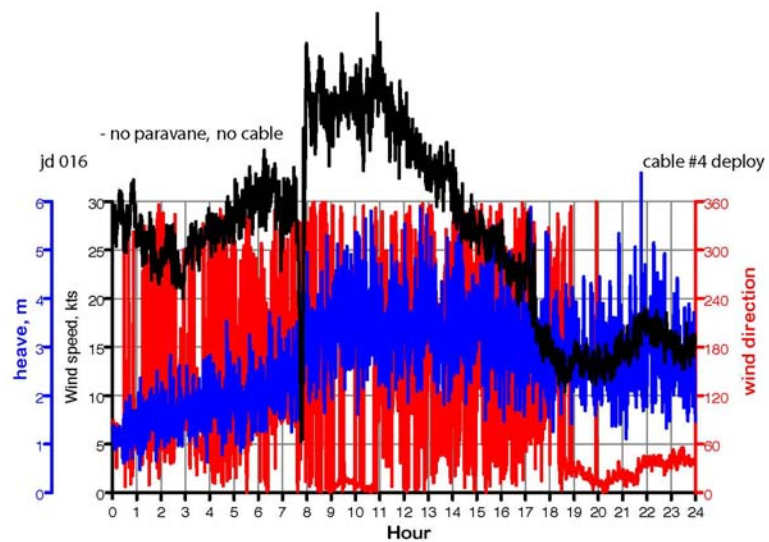
MGL 0801 cruise photos - cable/paravane rigging

Cable separation rope rigging



Source spreader rope and slider

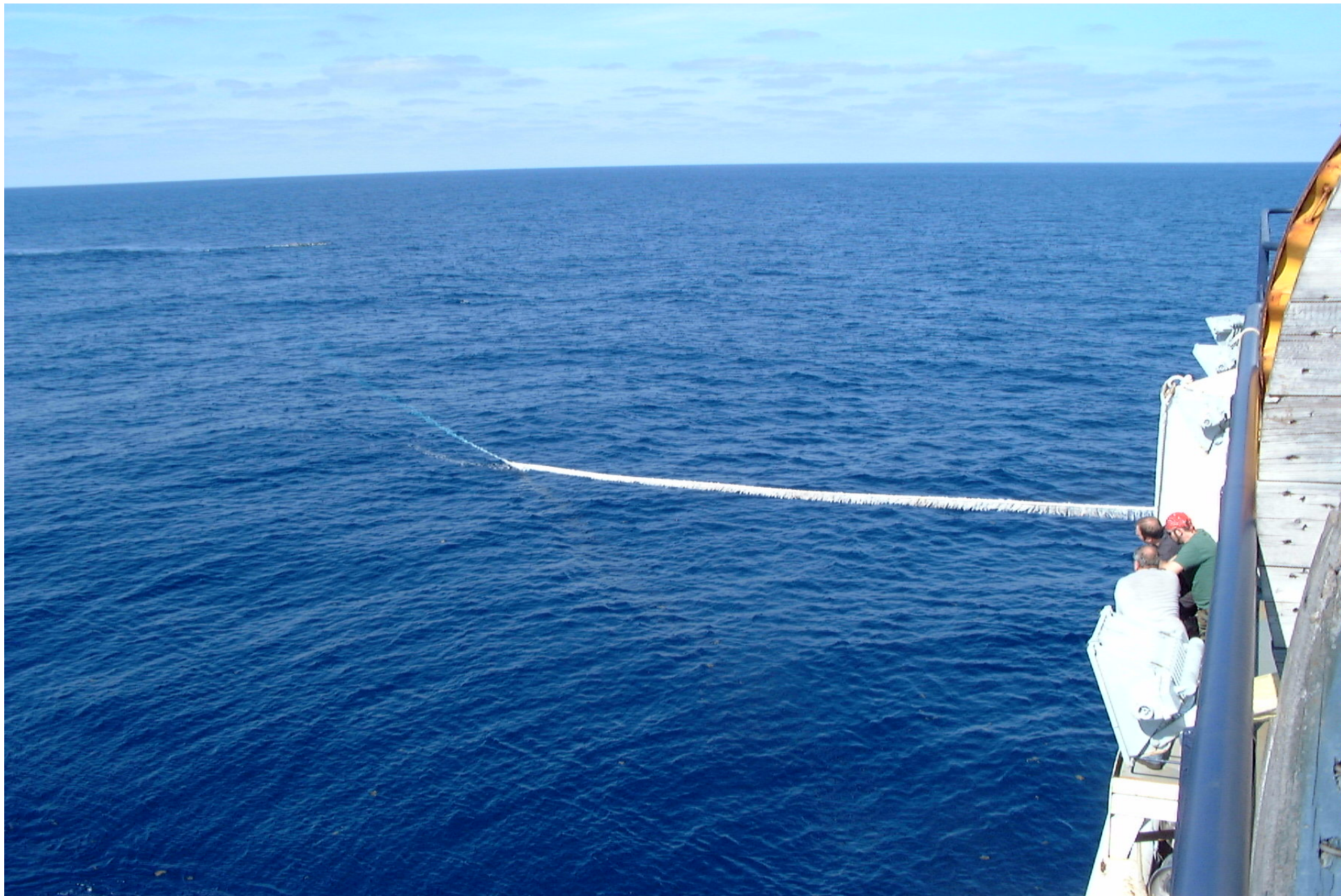




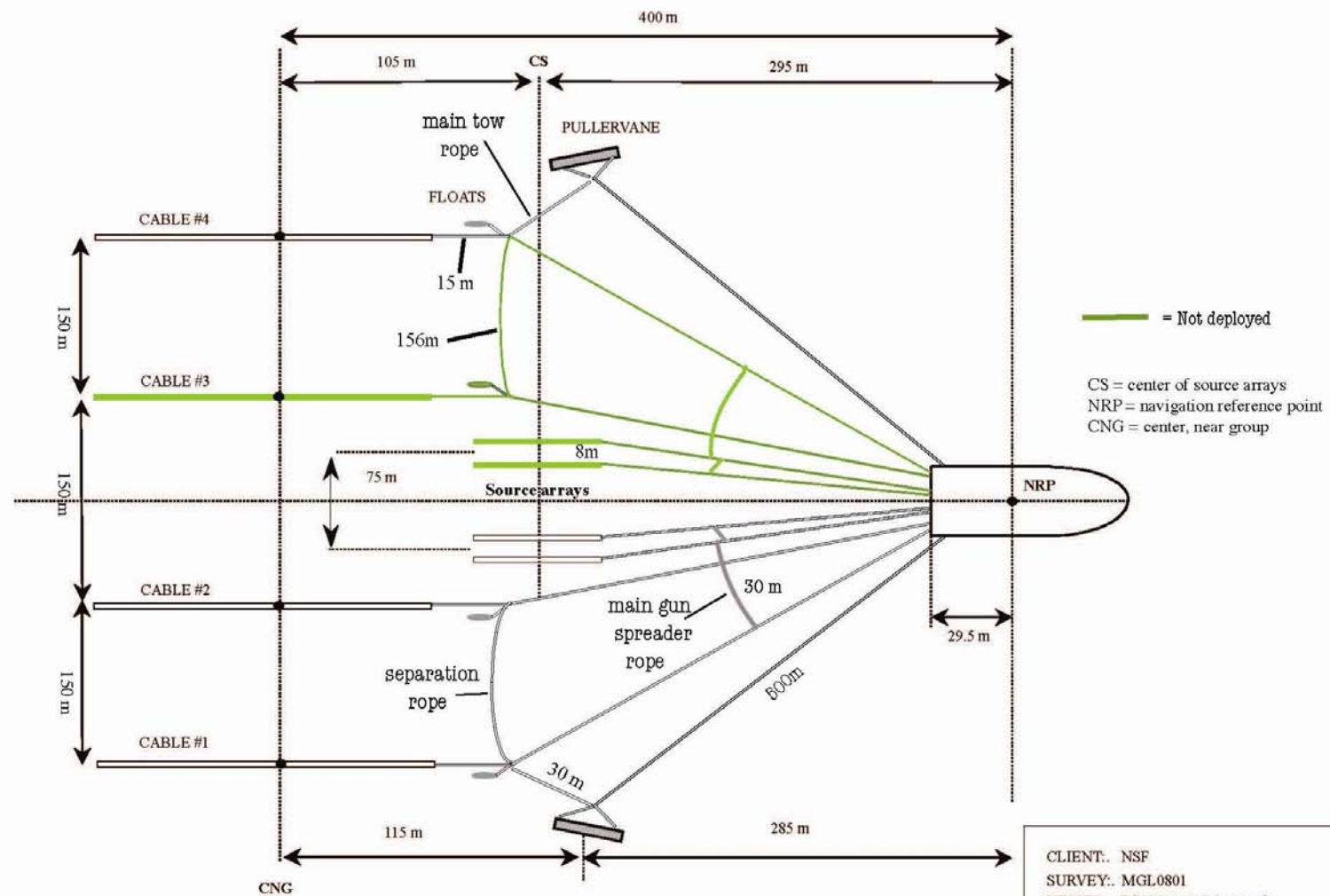








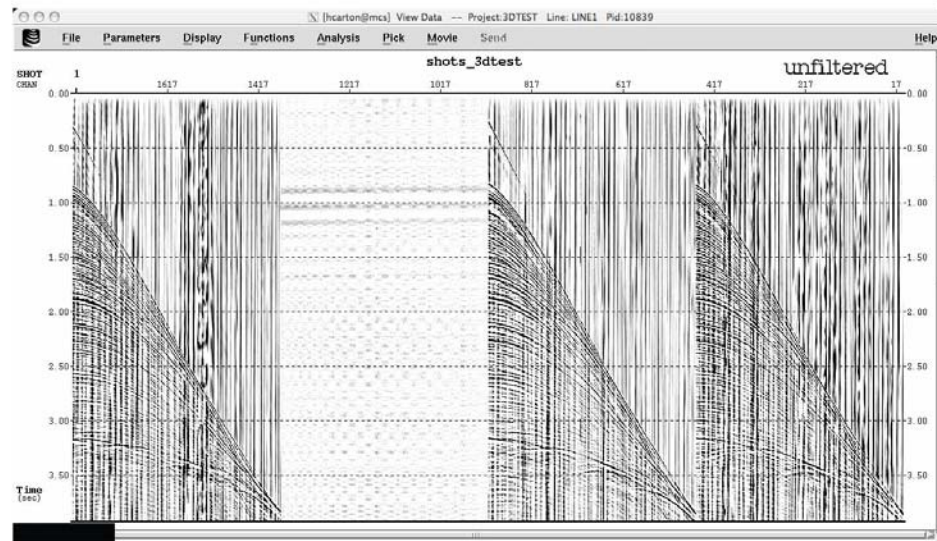
TOWING CONFIGURATION AND OFFSETS



Note: Drawing not to scale

CLIENT: NSF
 SURVEY: MGL0801
 VESSEL: R/V Marcus G Langseth

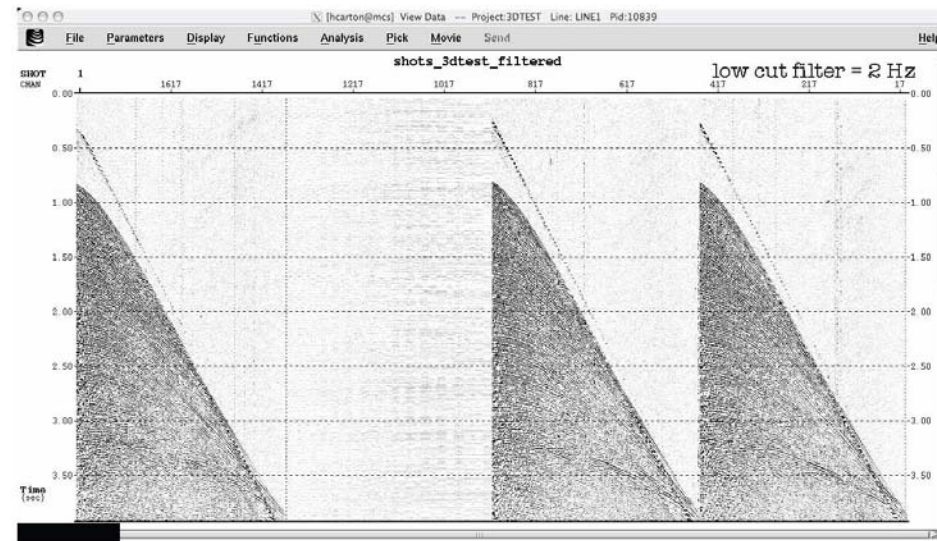
MGL0801 3D test line shot gathers



cable 1

cable 3

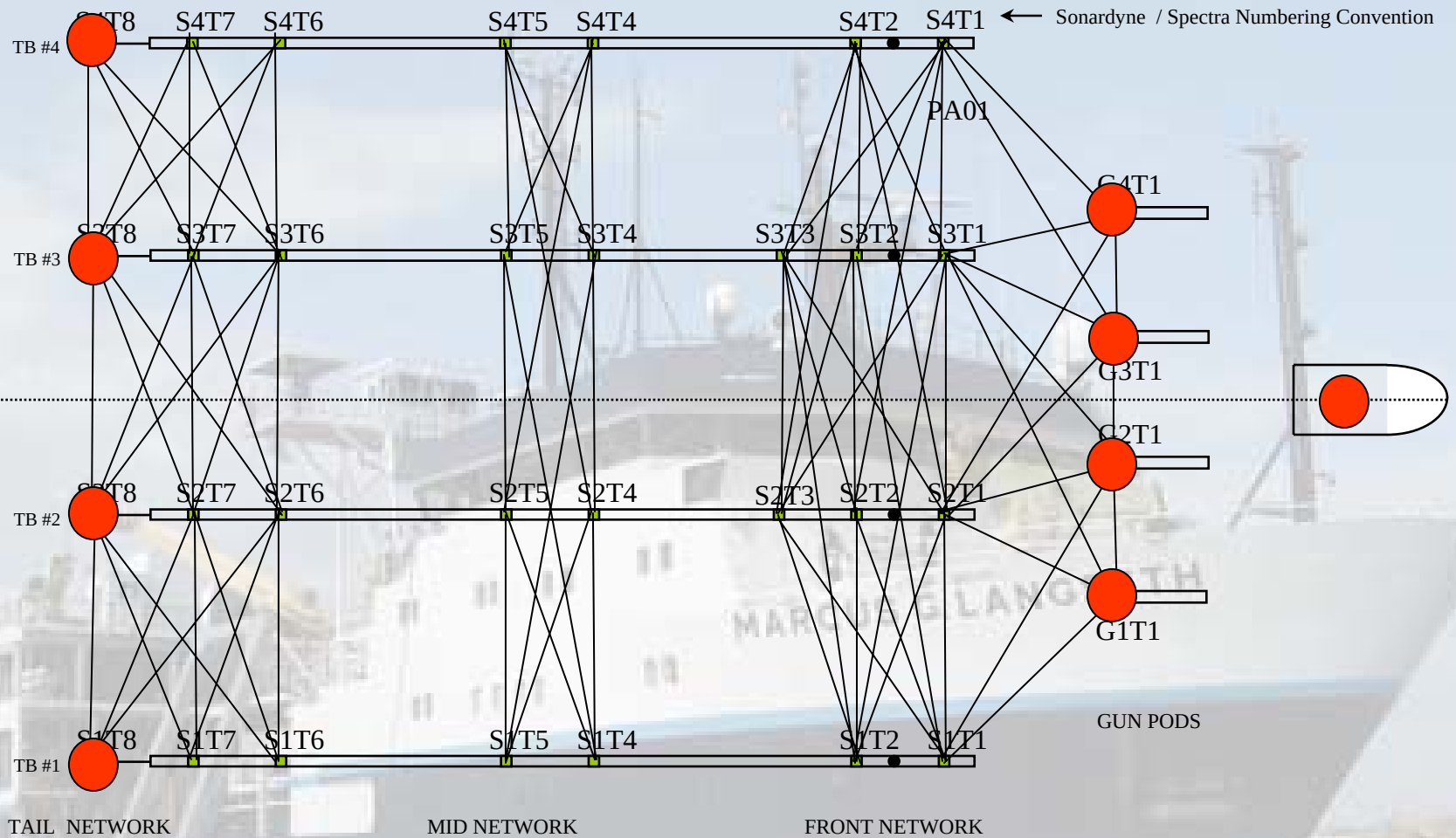
cable 4



H. Carton, L-DEO



SONARDYNE ACOUSTIC NETWORK WITH GPS REFERENCE



CLIENT:
SURVEY:
VESSEL: R/V Marcus G Langseth

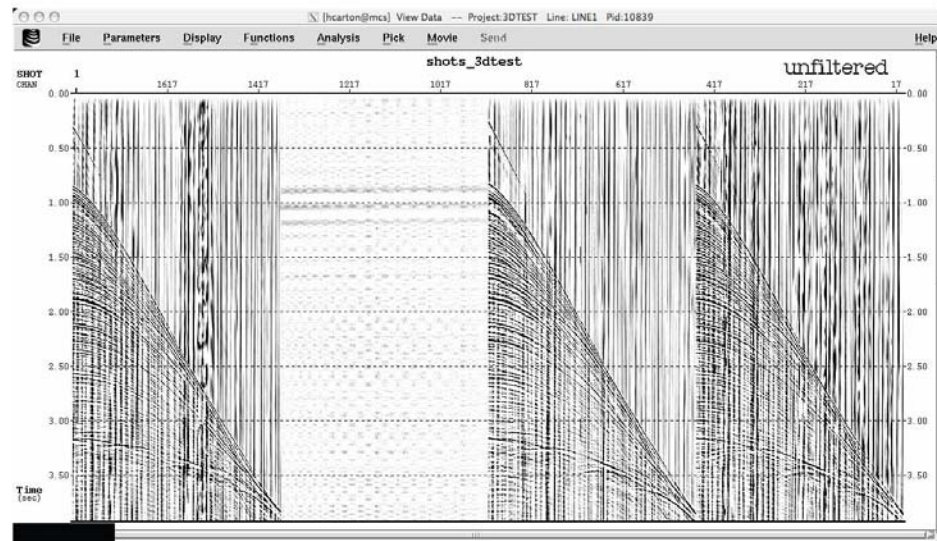
SEQ: 001-

2008 cruises

- Holbrook -1 & -2 (MCS & OBS)
- McGuire (OBS)
- Mutter (3D)
- Gulick (MCS & OBS)
- Toomey (OBS)



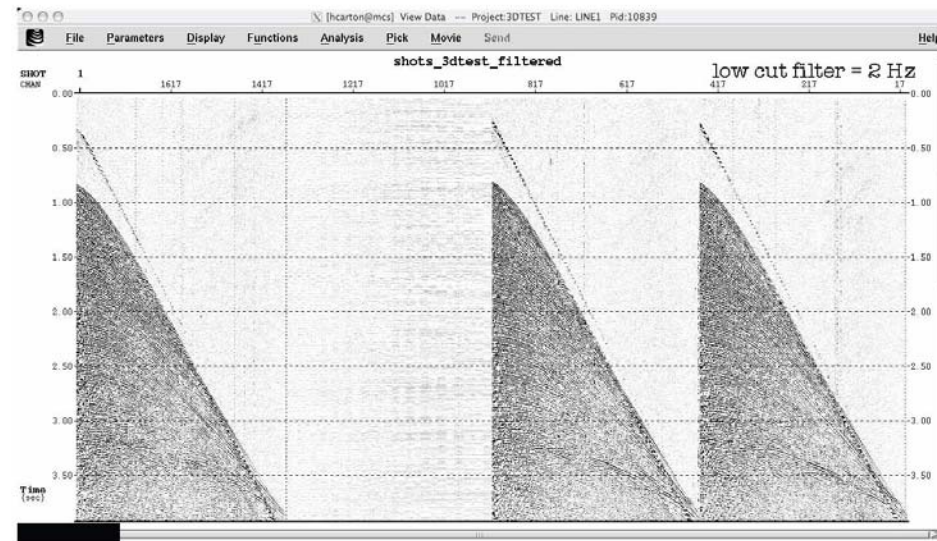
MGL0801 3D test line shot gathers



cable 1

cable 3

cable 4



H. Carton, L-DEO



Marcus Langseth

