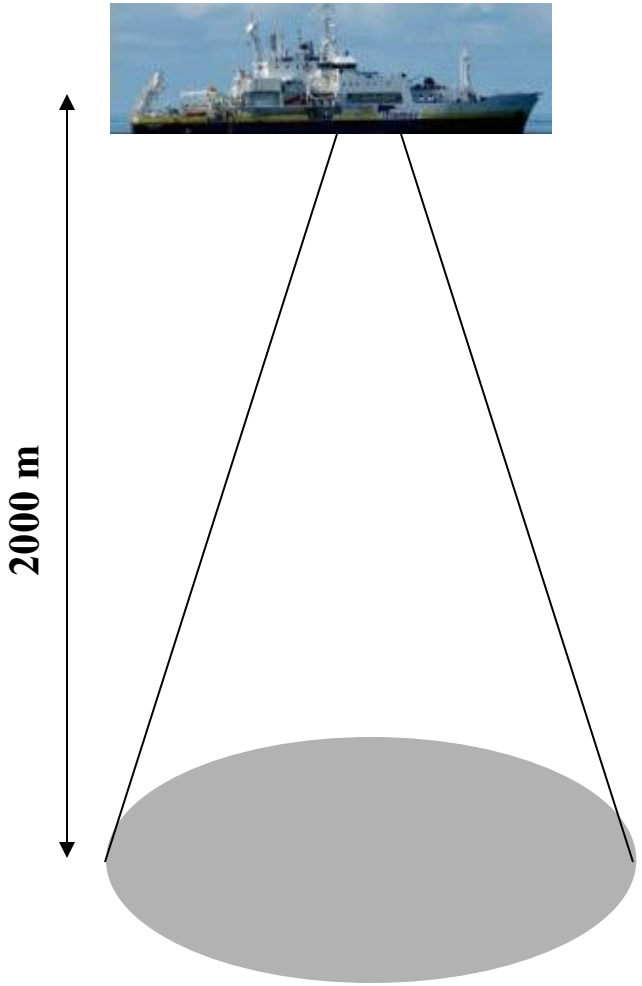
SYSIF : Imagerie sismique Haute Résolution par grande profondeur d'eau

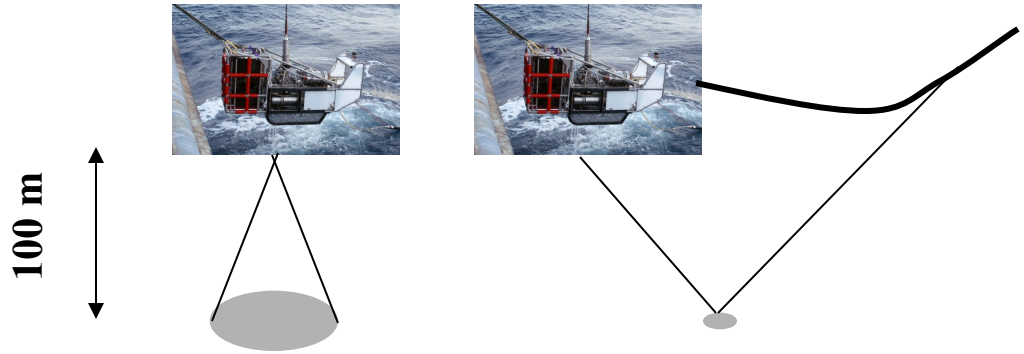
B. Marsset, S. Ker, V. Riboulot
Ifremer REM/GM/LAD

SYSIF : Imagerie sismique Haute Résolution par grande profondeur d'eau



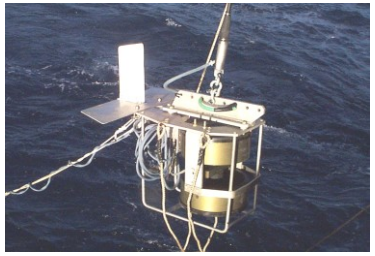
Objectif : Rapprocher la résolution des données sismiques de l'échelle des mesures *in-situ*

Domaines d'application : aléas géologiques, géotechnique, sédimentologie…



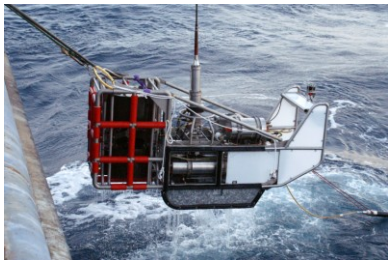
Développements technologiques 1/2

2003
Janus Helmholtz 650-2400 Hz
Immersion : 2000 m
AB Class power amplifier 9 KVA
Single channel analog streamer



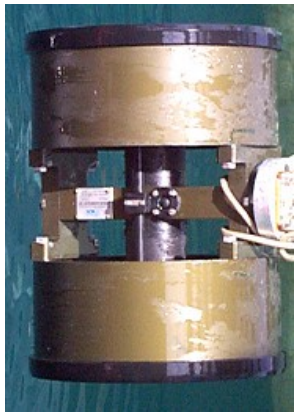
2006
Janus Helmholtz 650-2400 Hz
Immersion : 6000 m
D Class power amplifier : 3 KVA
Single channel analog streamer

2009
Janus Helmholtz 220-1050 Hz
Immersion : 6000 m
D Class power amplifier : 5 KVA
Dual channel analog streamer



2012
Janus Helmholtz 220-1050 Hz
Immersion : 6000 m
D Class power amplifier : 5 KVA
Multichannel digital streamer

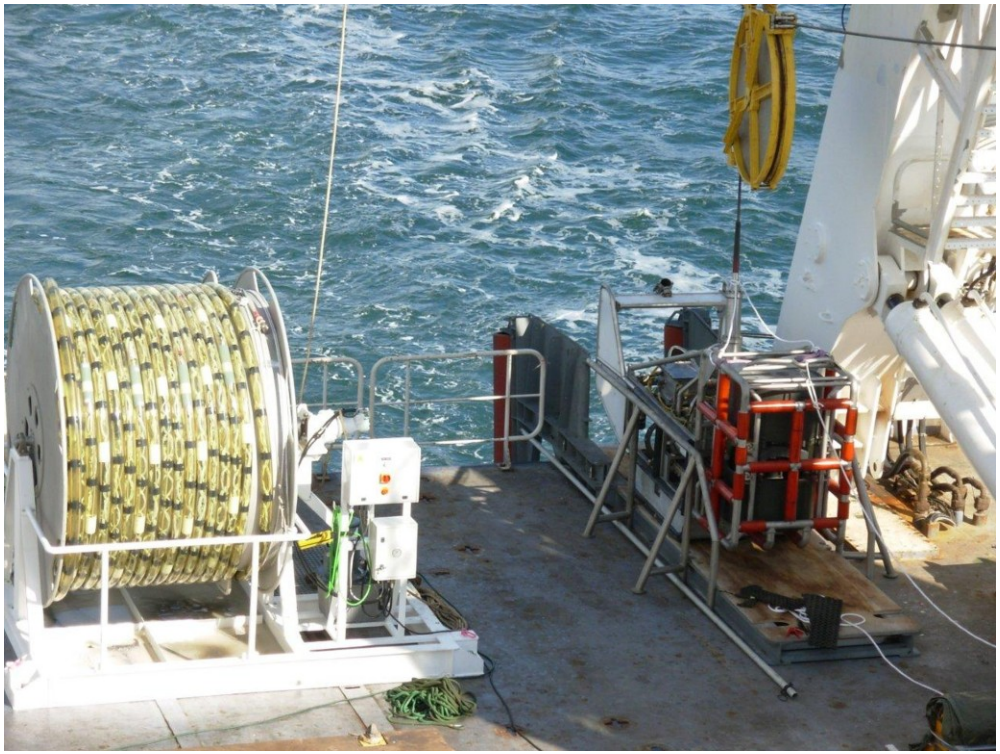
Keystone



Le Gall Y. (1999) **Low frequency Janus-Helmholtz transducers for great-depth acoustical oceanography**. *Sonar transducers '99, Birmingham*

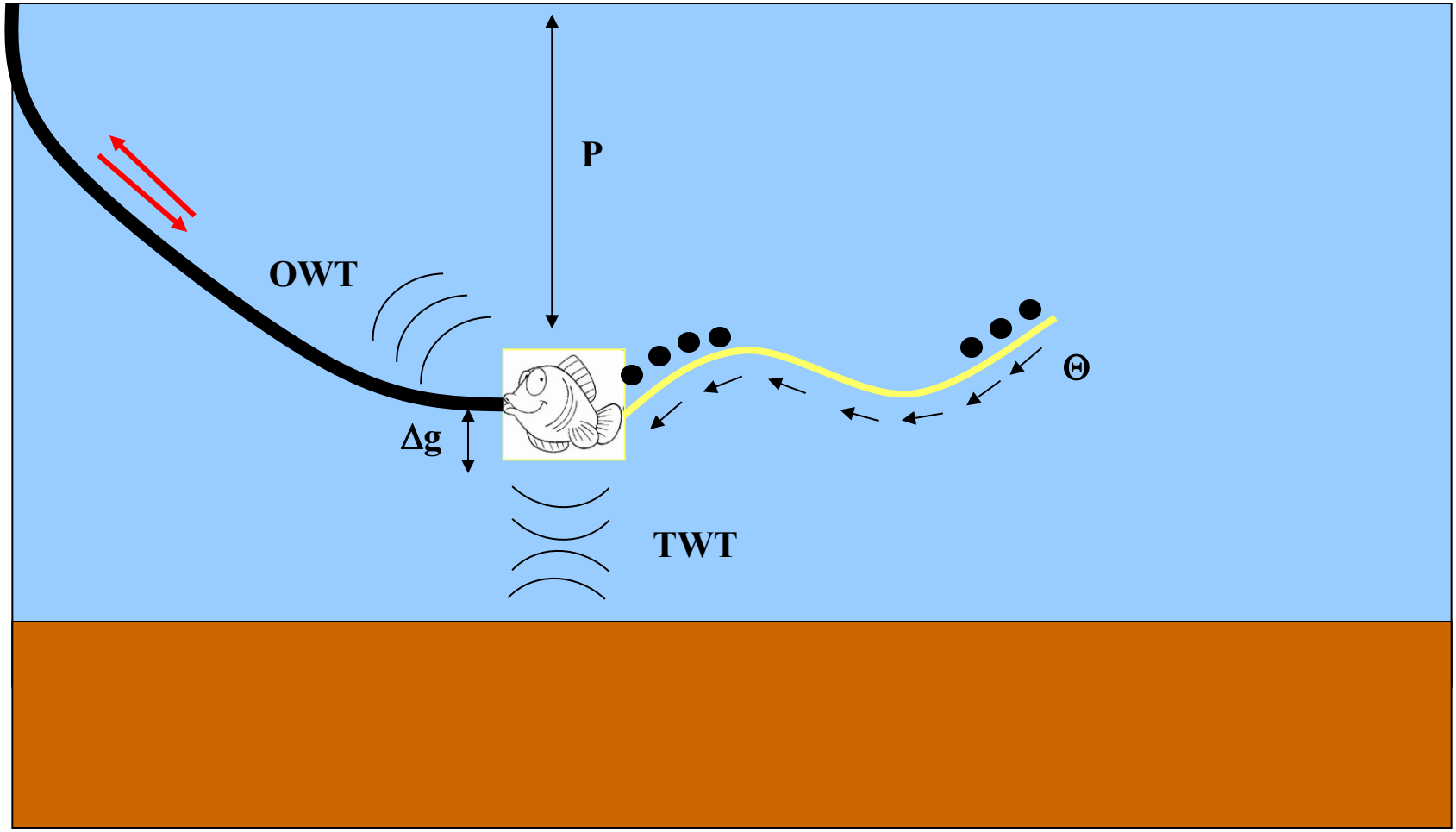
IXSEA

Développements technologiques 2/2

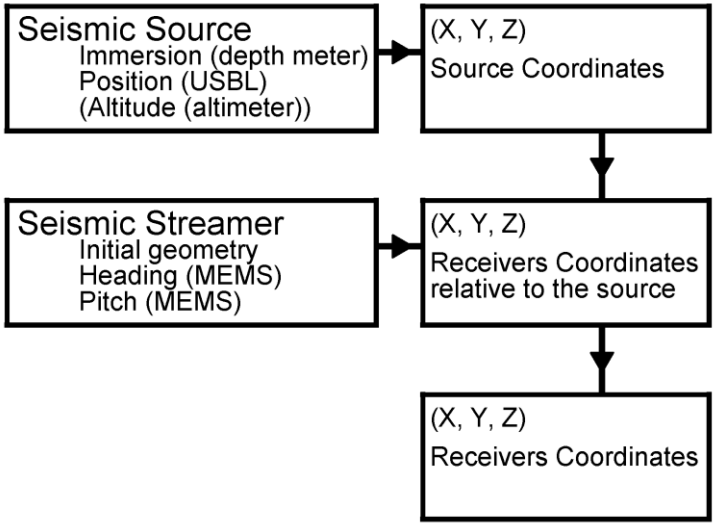


Keystone

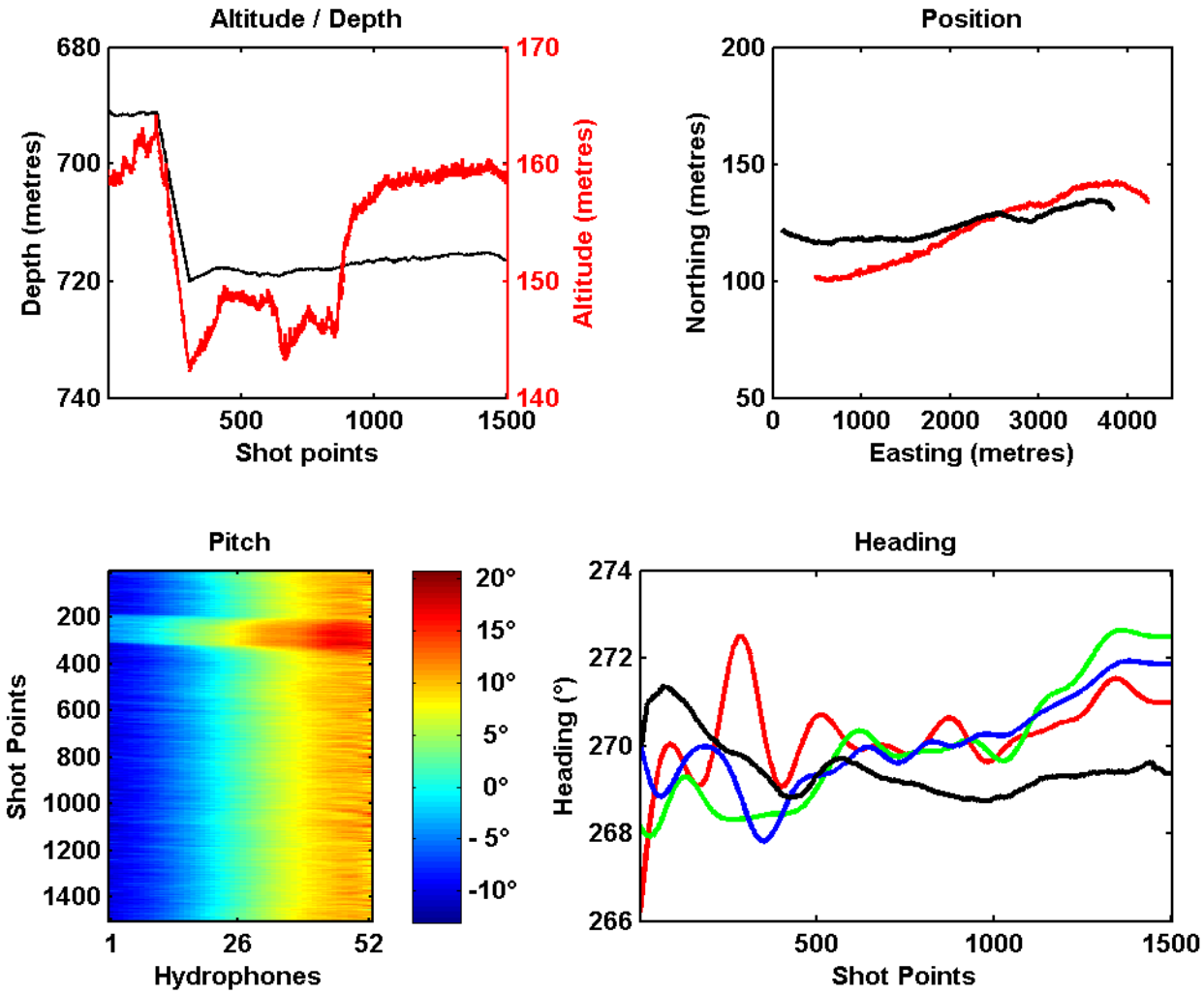
Acquisition



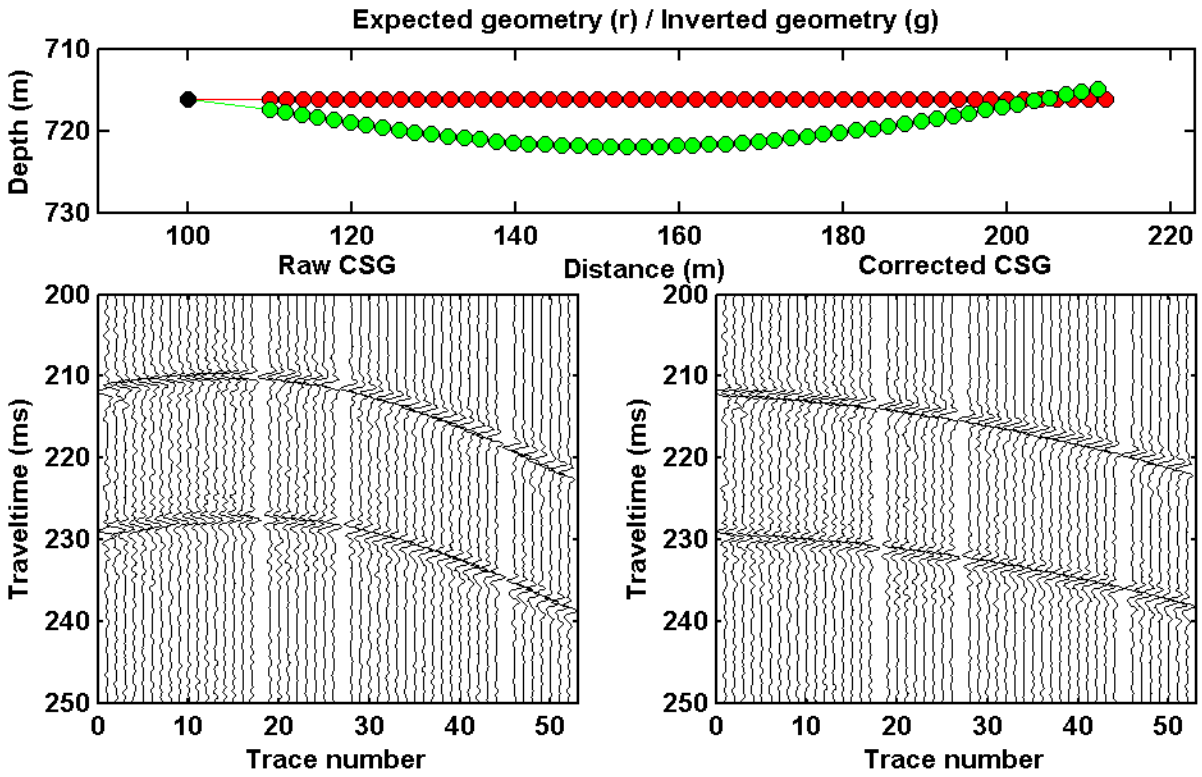
Traitement du positionnement 1/4



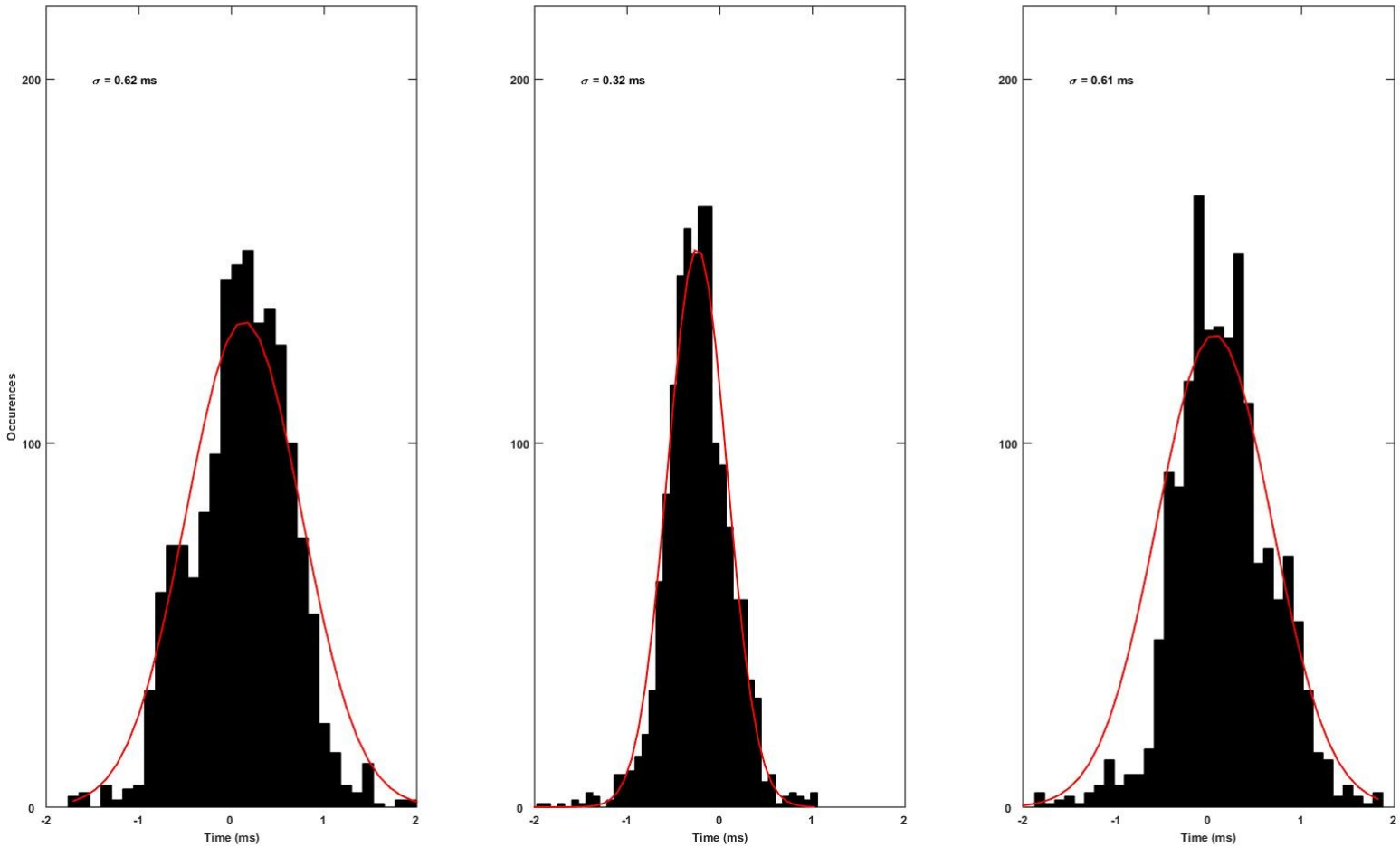
Traitement du positionnement 2/4



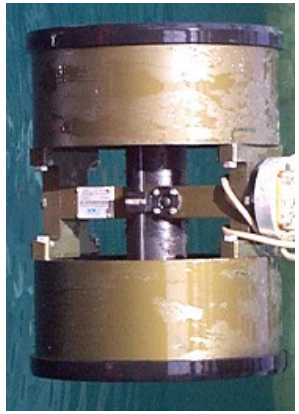
Traitement du positionnement 3/4

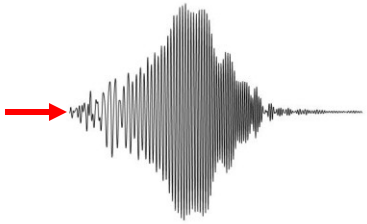


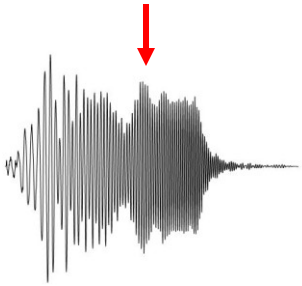
Traitement du positionnement 4/4

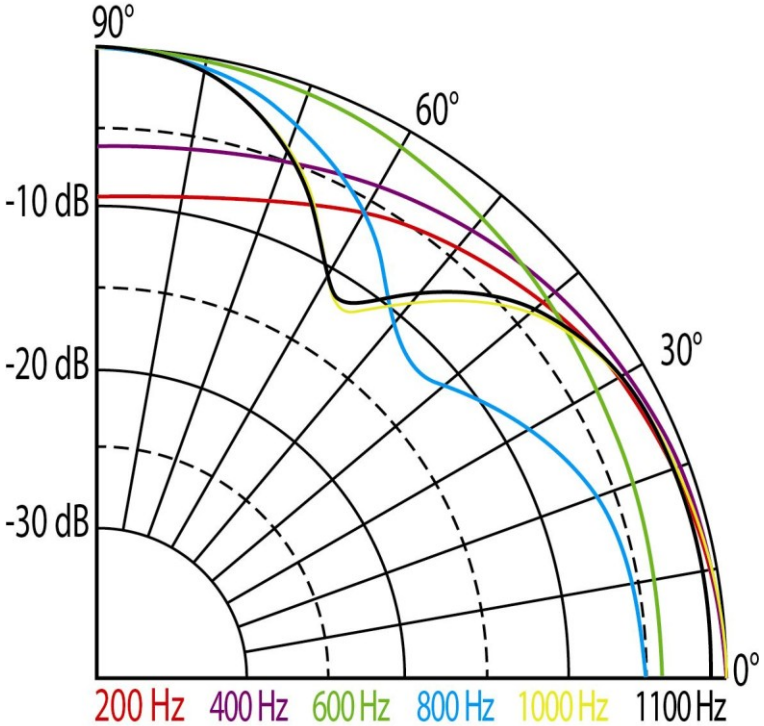


Traitement du signal 1/4

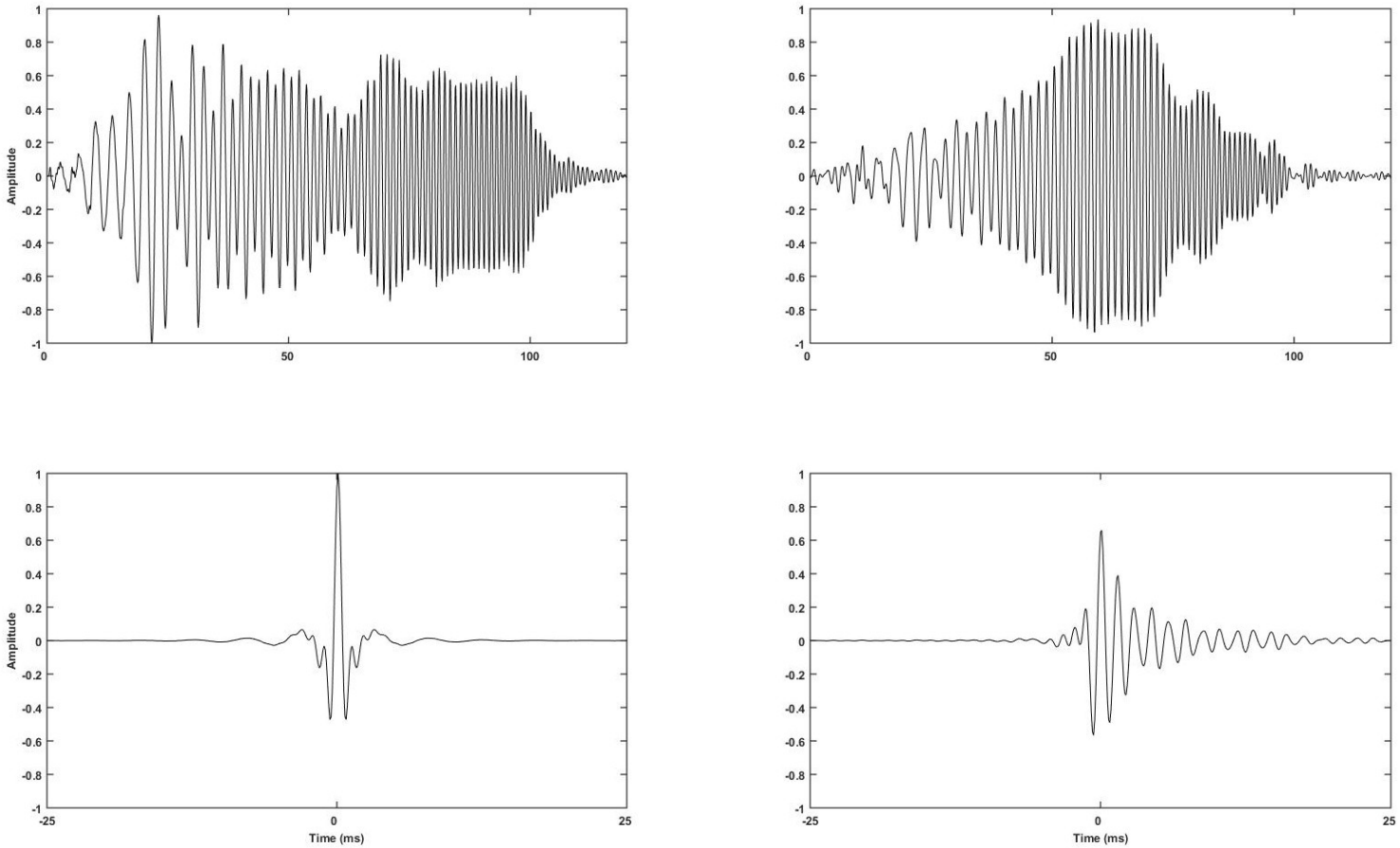




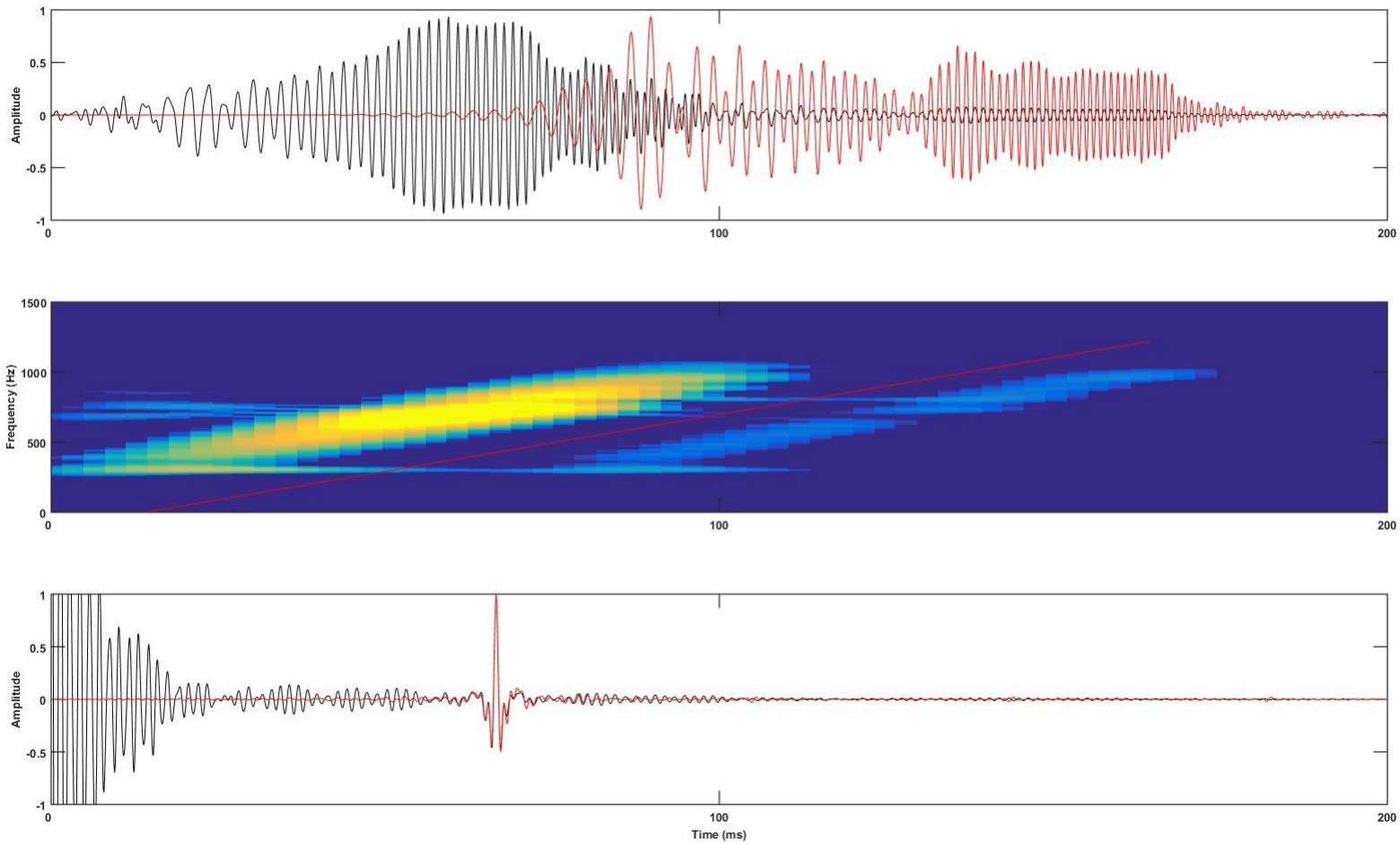




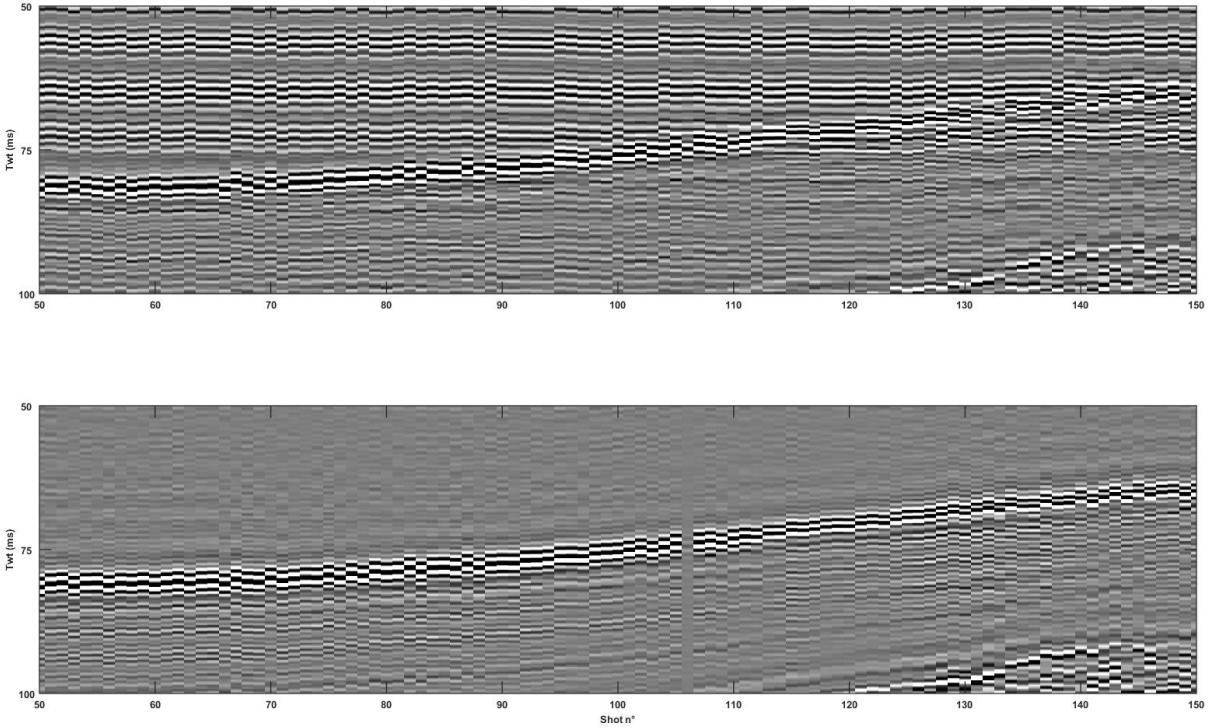
Traitement du signal 2/4



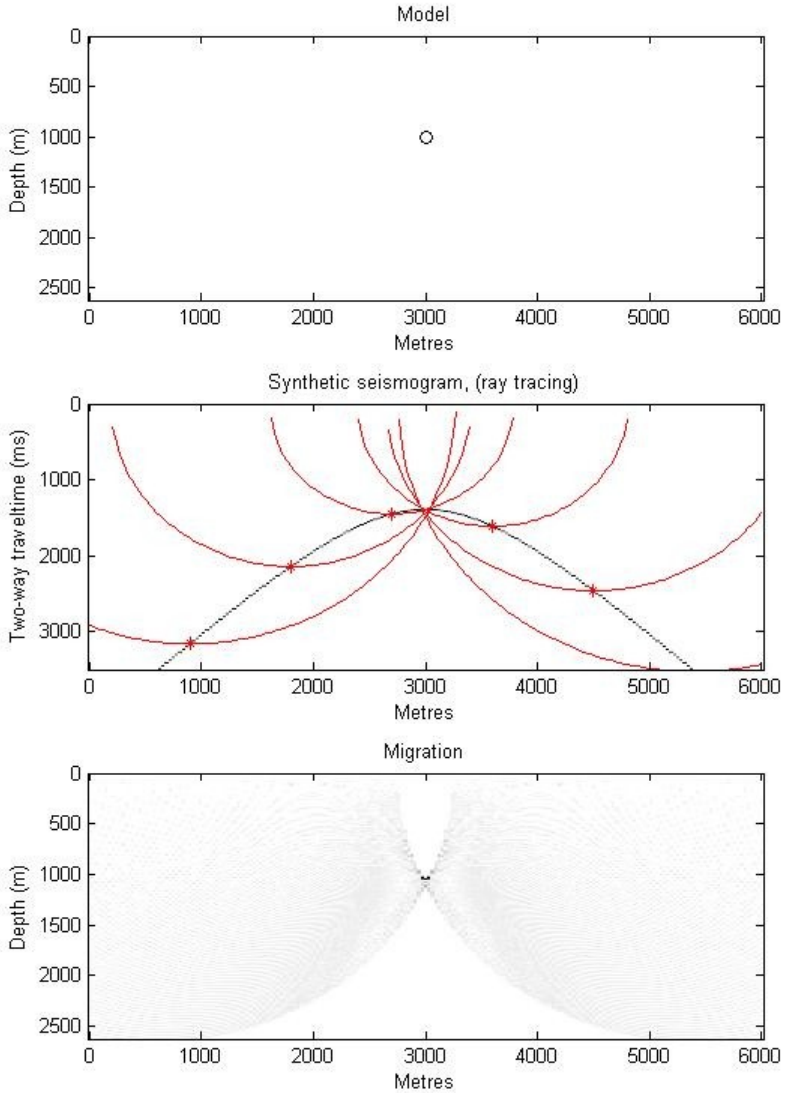
Traitement du signal 3/4



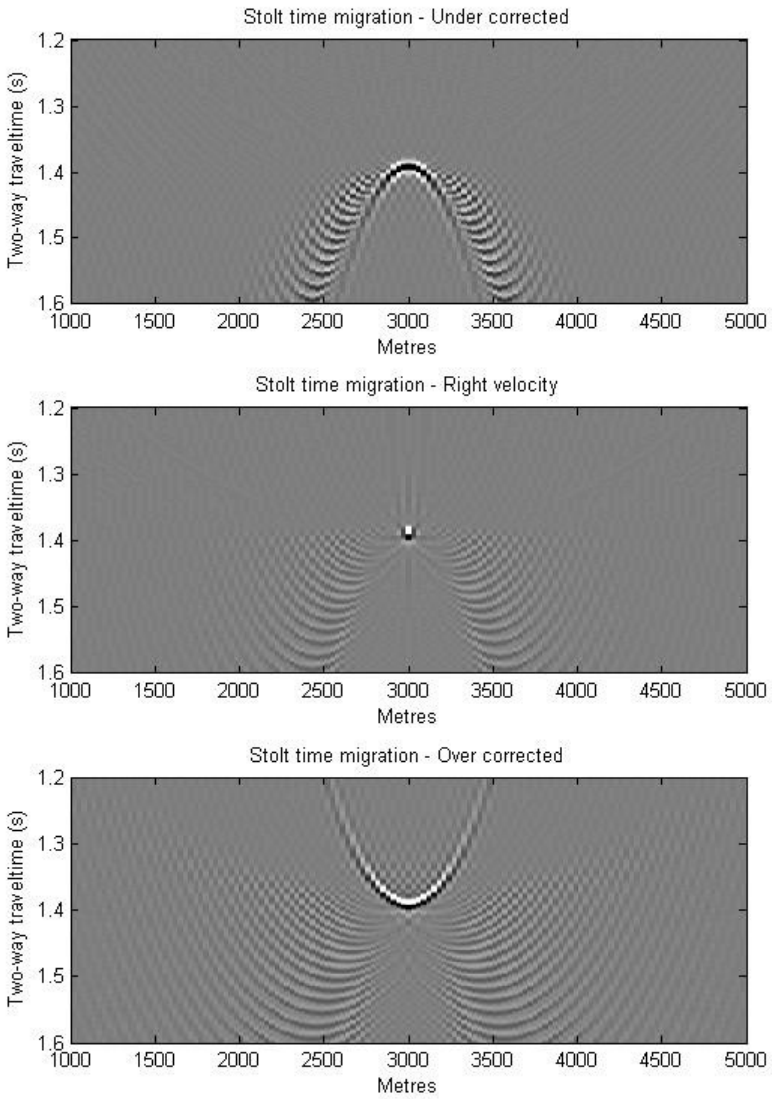
Traitement du signal 4/4



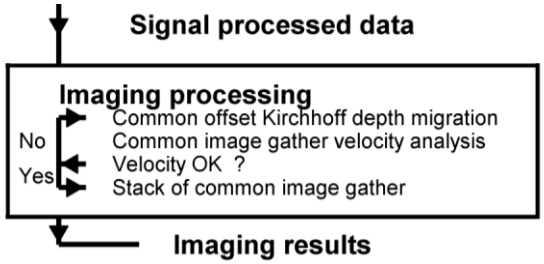
Rappel imagerie sismique 1/2

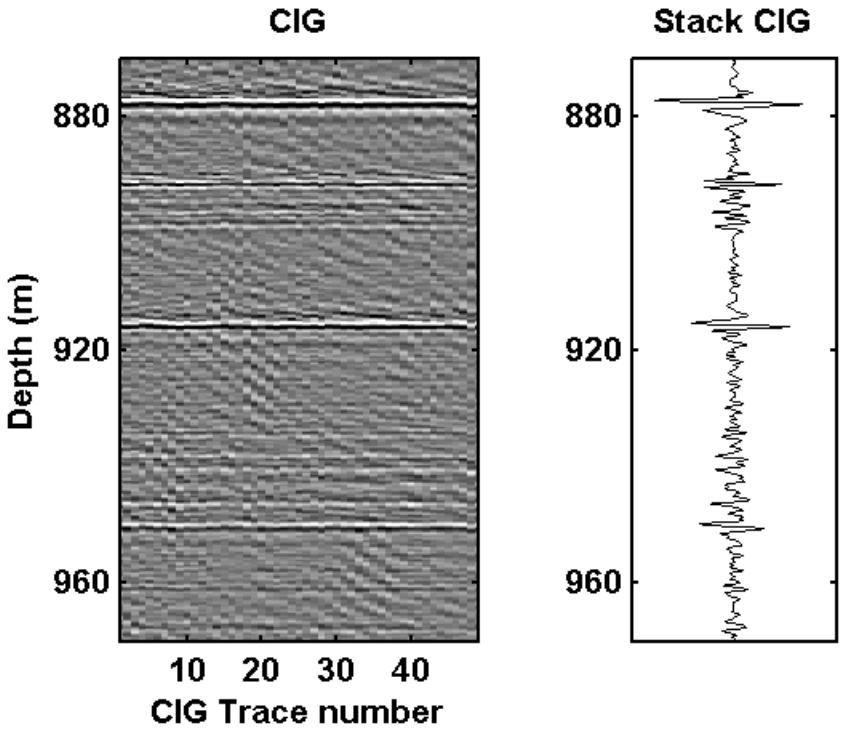


Rappel imagerie sismique 2/2

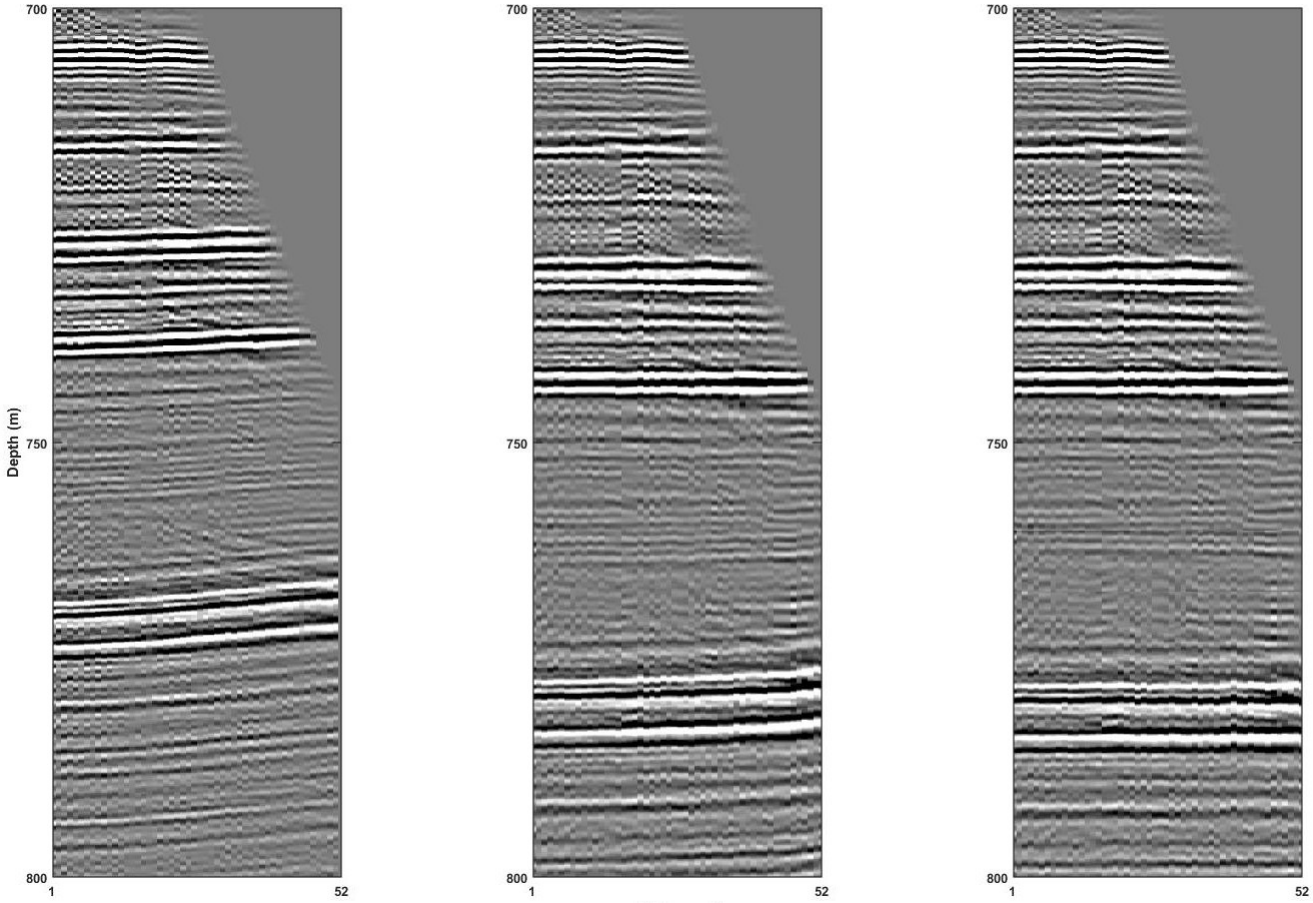


Traitement en imagerie





Résultat profil GHASS PL01PR02B



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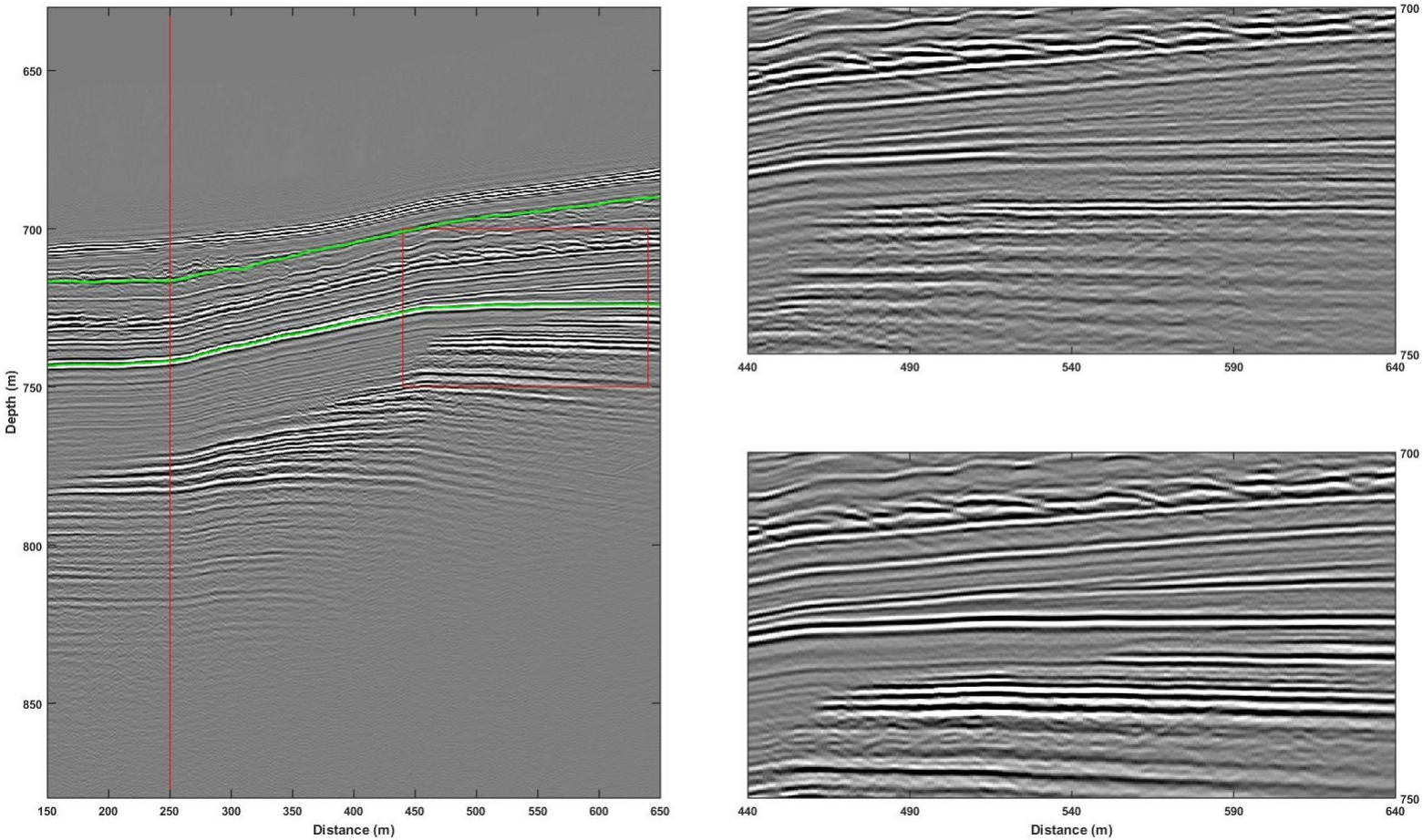
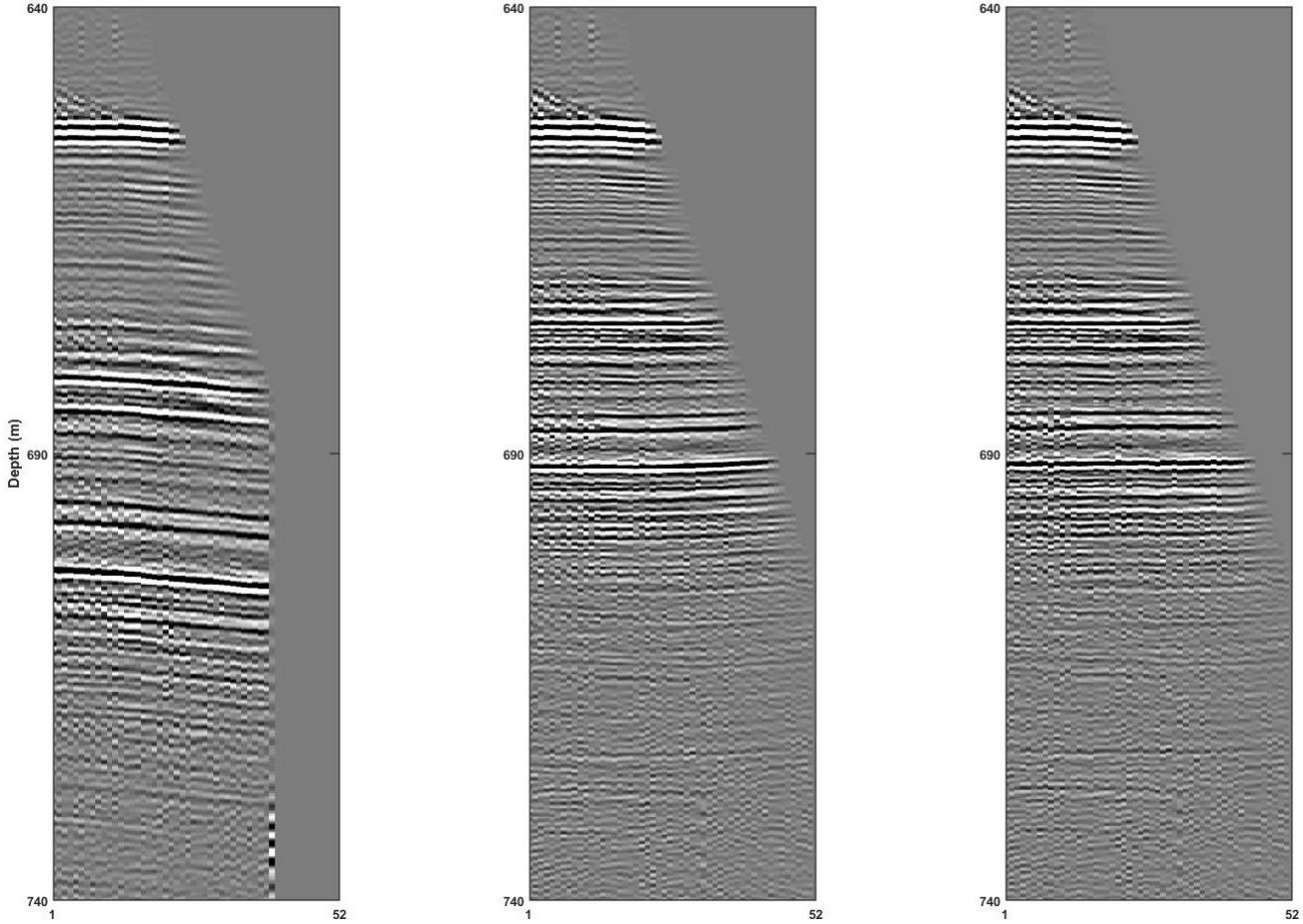


Résultat profil GHASS PL03PR06



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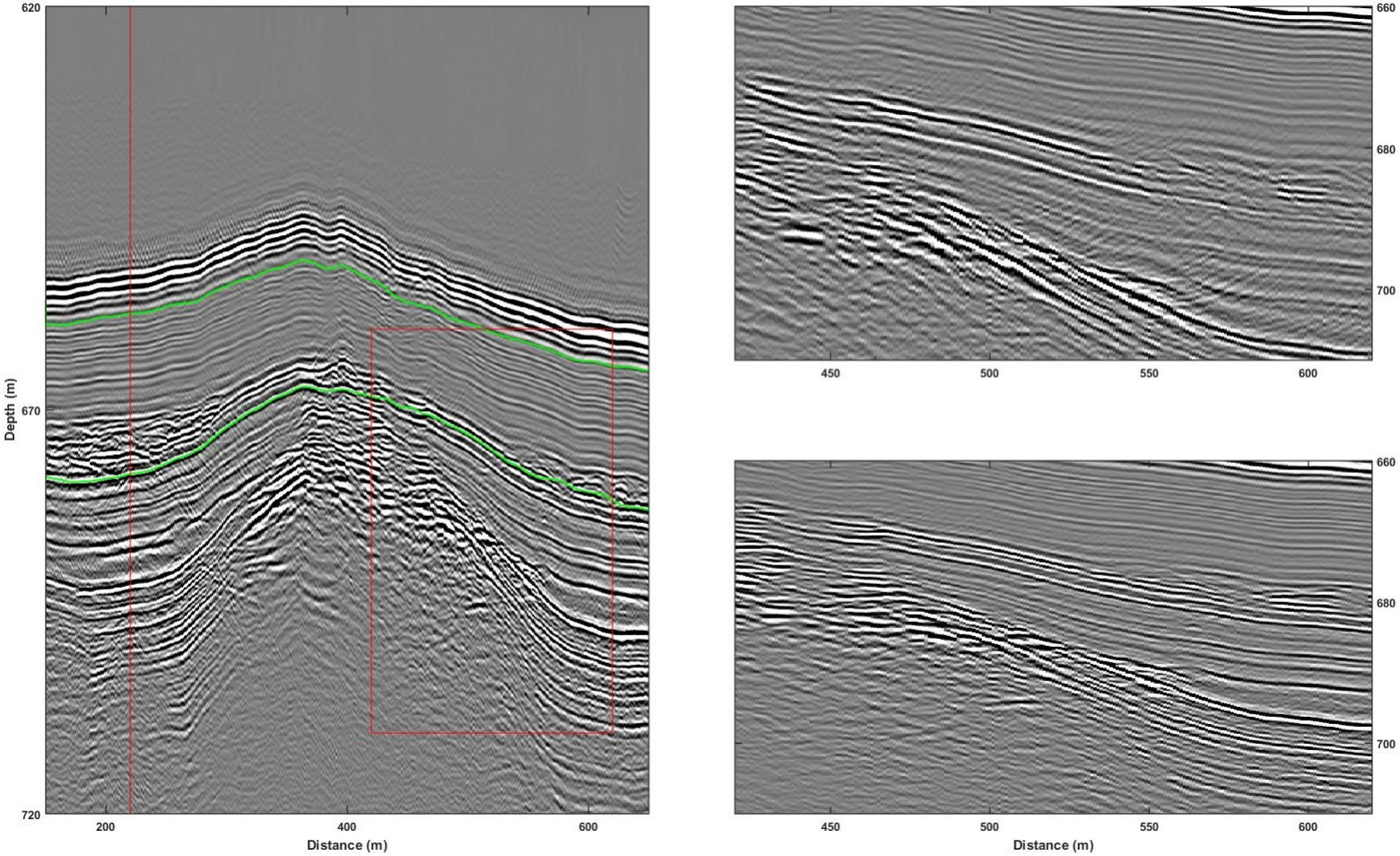
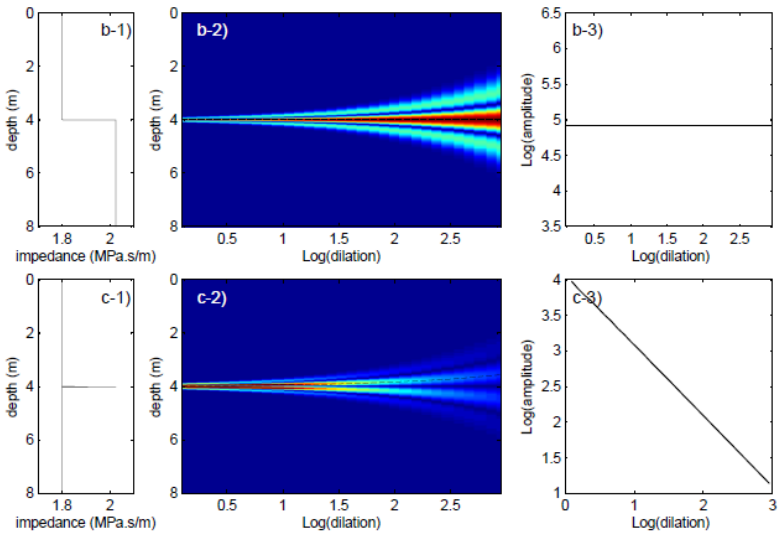
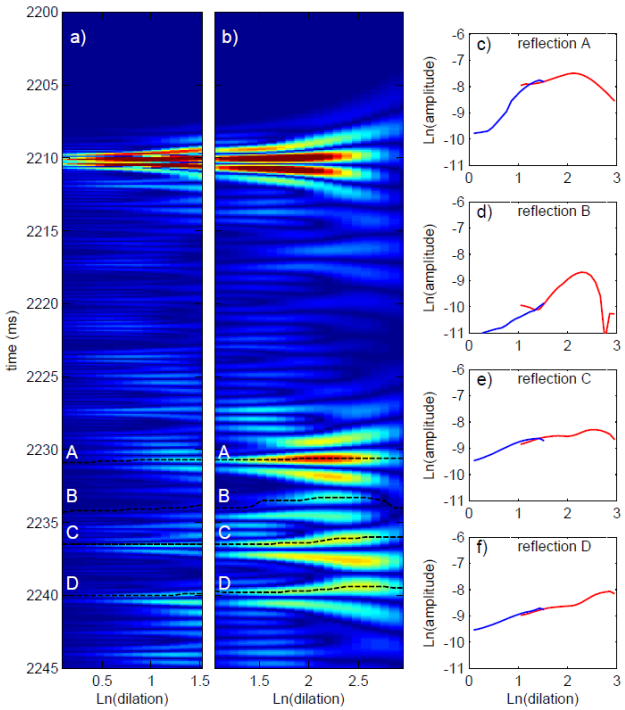
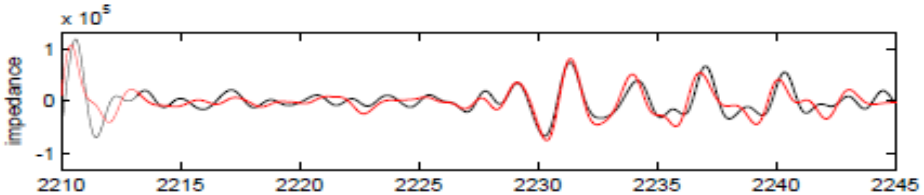


Quantification / Caractérisation







Merci de votre attention !