

***Interactive comment on “Technical Note:
Detection of gas bubble leakage via correlation of
water column multibeam images” by
J. Schneider von Deimling and C. Papenberg***

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Received and published: 12 August 2011

In this paper we predicted much better results of the proposed bubble detection method by using high frequency multibeam systems. Meanwhile, a regarding dataset was gathered at Panarea (Italy) with a R2Sonic 2024 multibeam echosounder operated at 400kHz and a short 15 μ s pulse. The transducers were mounted slightly forward looking (5° pitch angle) to reduce specular side-lobe interference caused from first arrival echoes at the outer beams. The screencaptured WCI backscatter video clearly shows several CO₂ gas bubble releases from 25m water depth, bubble rise behaviour, and bubble deflection caused from currents. Bubble streams can be visually detected

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at both, the inner and outer beams. The tempo-spatial resolution of this video is lower than the physical resolution and improvement in water column data streaming may allow for even higher temporal resolution in the future.

Please also note the supplement to this comment:
<http://www.ocean-sci-discuss.net/8/C538/2011/osd-8-C538-2011-supplement.zip>

Interactive comment on Ocean Sci. Discuss., 8, 1757, 2011.