

EXAMPLES OF PULSE-PAIR (DOPPLER) PROCESSING OF ENVISAT INDIVIDUAL ECHOES IN COASTAL AND INLAND WATERS



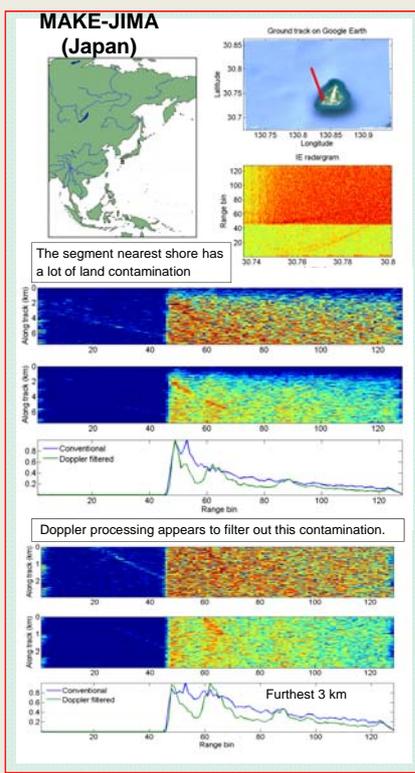
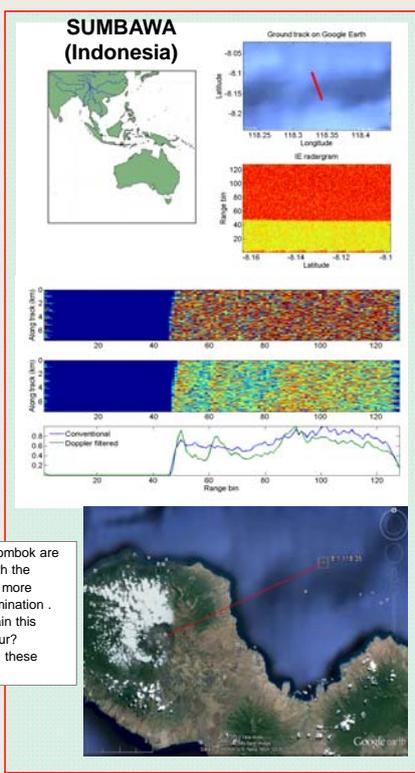
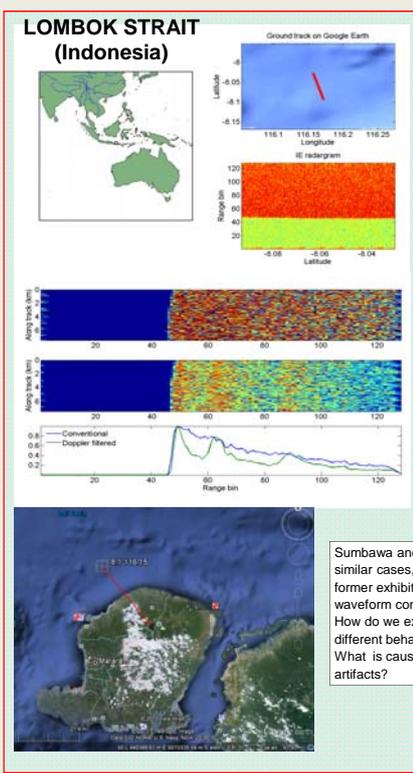
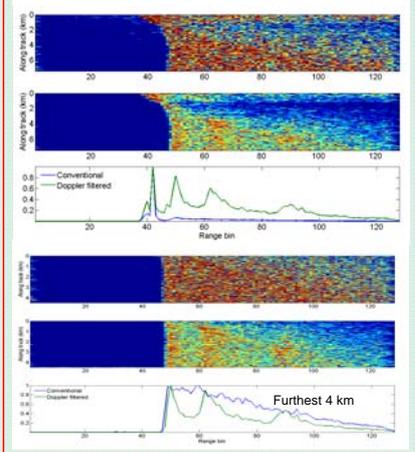
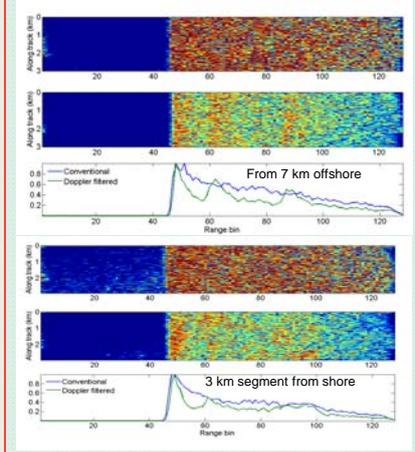
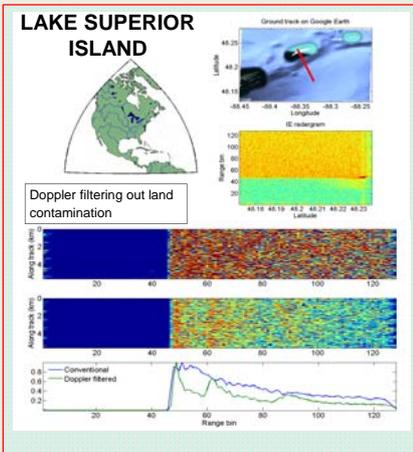
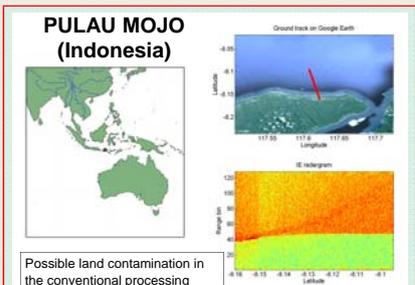
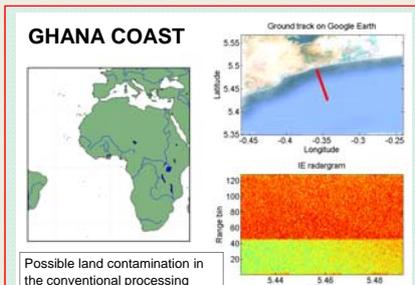
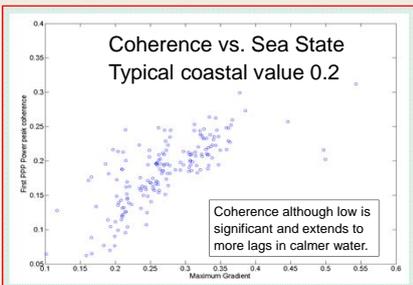
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A provision was made for Envisat satellite to collect 1-second bursts of 1984 Individual Echoes (IEs) returns every 1 minute. At present, there is a global archive of IE data since September 2004 that can be exploited, especially for experimenting beyond the conventional methods. A subset of this large archive has been catalogued and stored on disk. Matlab routines were developed for extracting, visualizing and processing IE data. A GUI interface locates one or multiple packets for analysis. The first analysis shows the satellite nadir track during the 1-second data interval superimposed on a Google Earth map which can be very useful for analysis of tracks at land/sea interface in relation to surface morphology. The visualization of the typical radargram aids in interpreting the behaviour of the radar return amplitudes vs. latitude. The processing also includes Doppler analysis with conventional Fourier transforms and with Pulse Pair based spectral moments. In this poster some case-studies of coastal ocean and inland waters are presented and discussed. The below examples are case-studies of coastal ocean and inland waters that complement the content of the presentation titled "Pulse-Pair (Doppler) Processing of Envisat Individual Echoes".



Sumbawa and Lombok are similar cases, with the former exhibiting more waveform contamination. How do we explain this different behaviour? What is causing these artifacts?

ACKNOWLEDGMENTS

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