

Workshop on Ocean Energy – 18 September 2009
Centre for Renewable and Sustainable Energy Studies

CSIR's role wave energy development in South Africa

by

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The CSIR in Stellenbosch



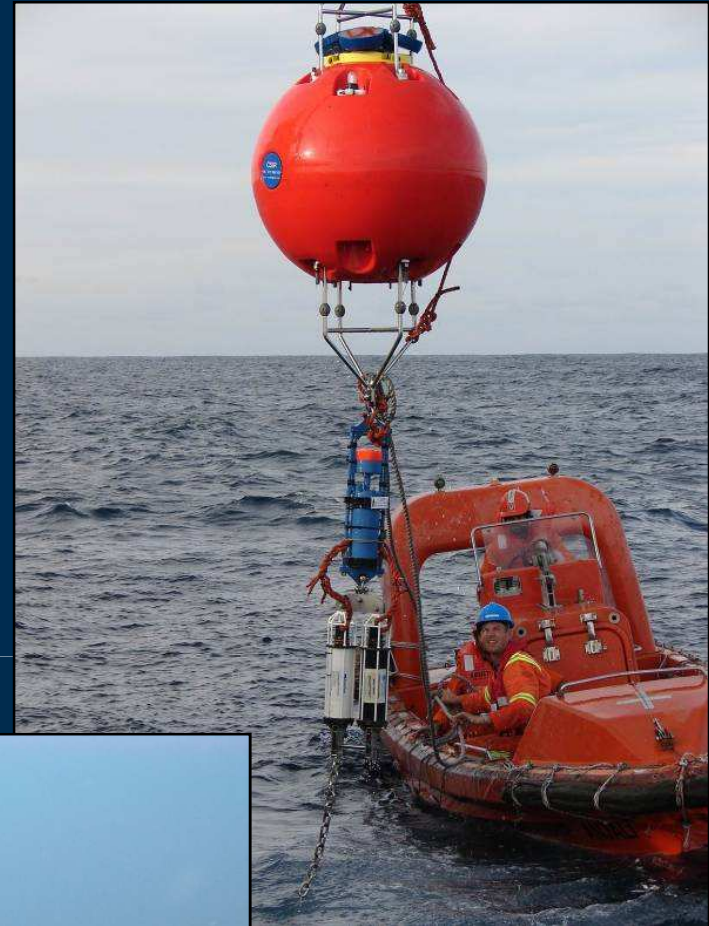
CSIR
our future through science



Environmental data monitoring

Wave buoys





Current meters



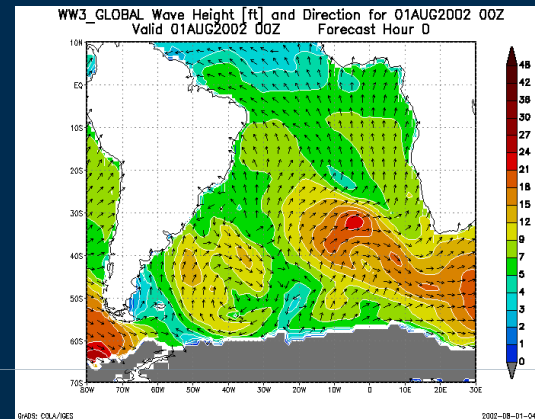
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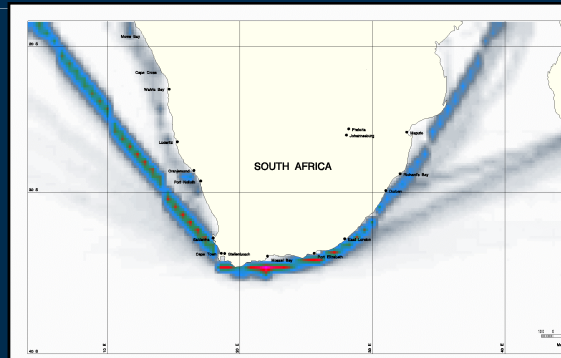
Data sources for engineering applications:

➤ Wave/current recording instruments

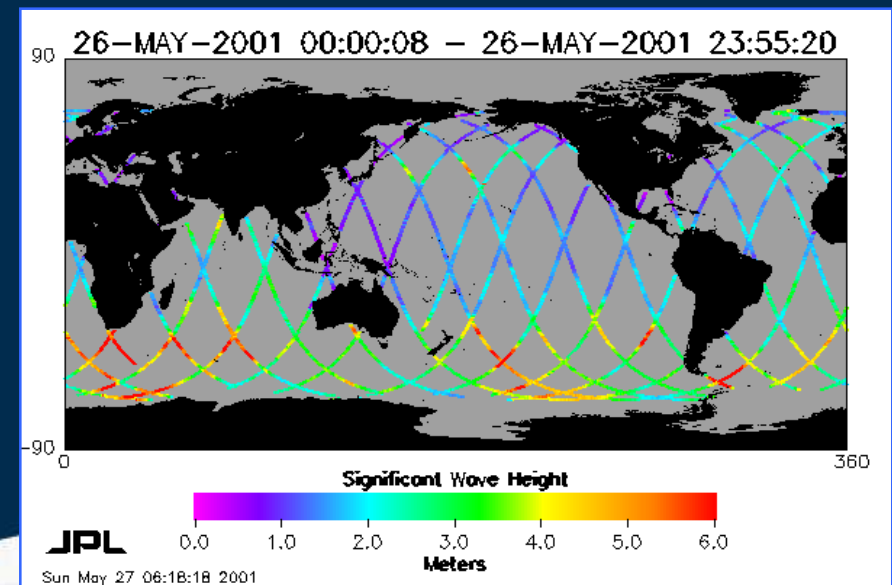
➤ Hindcasting / Numerical models



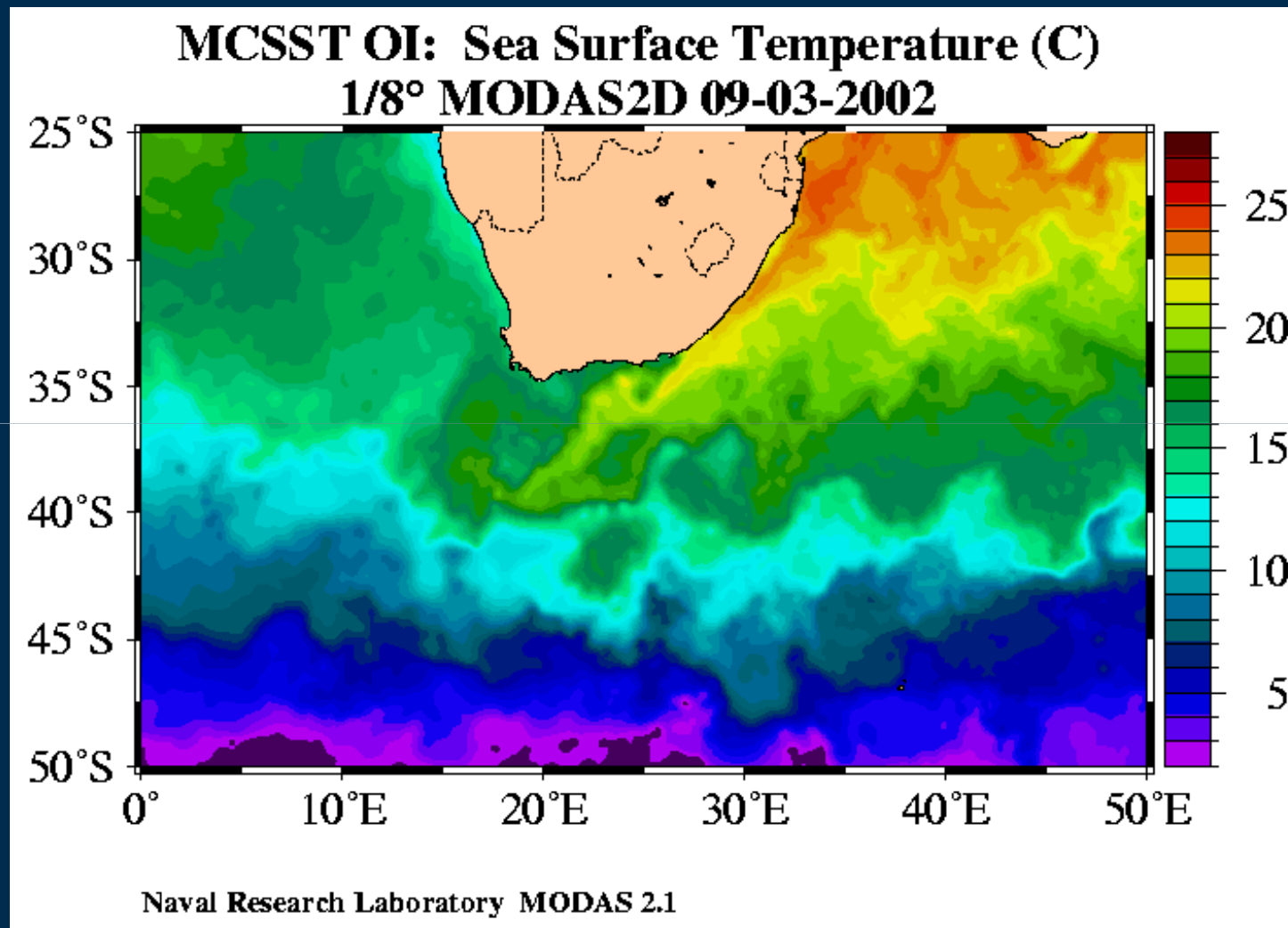
➤ VOS



➤ Remote sensing



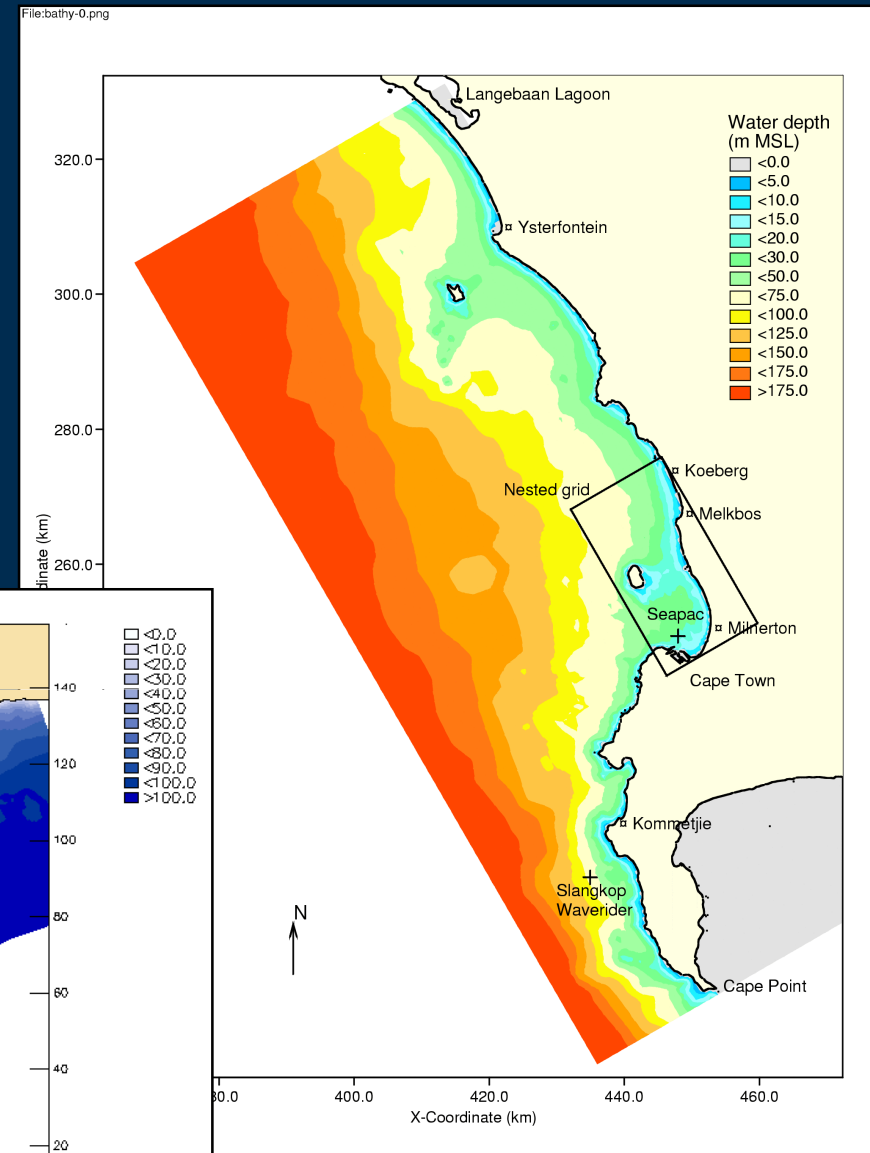
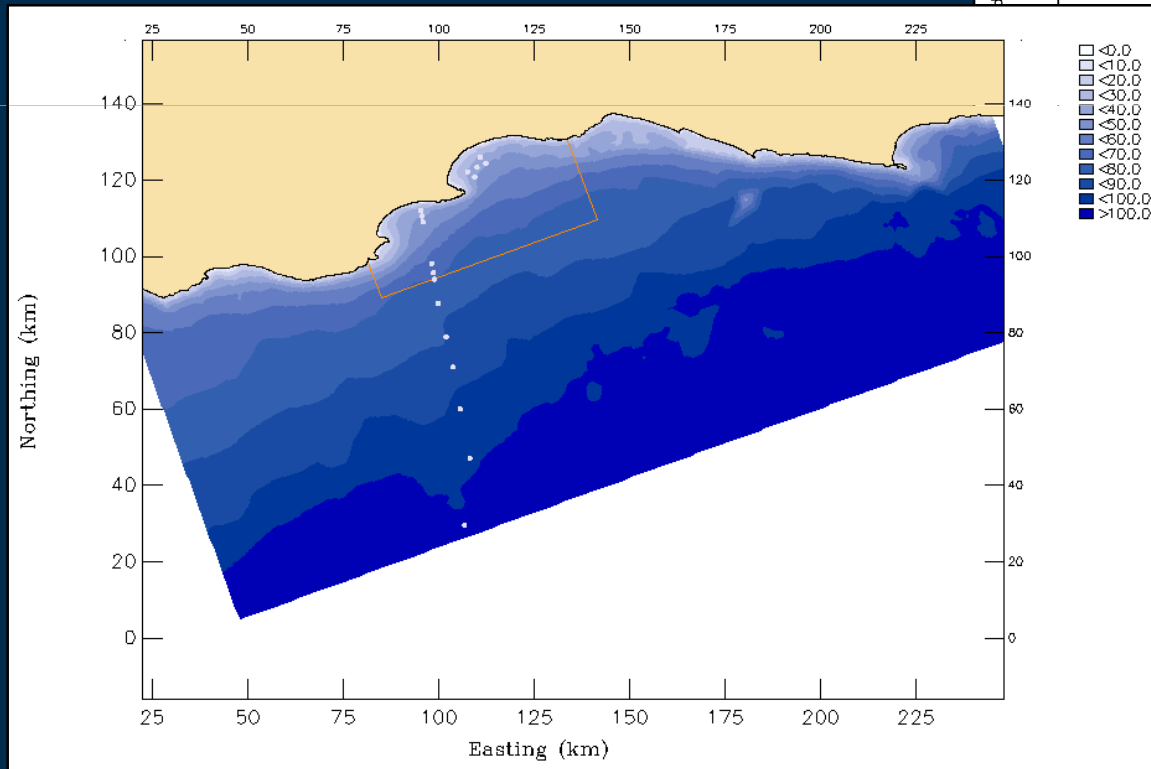
Research focusing on Agulhas current



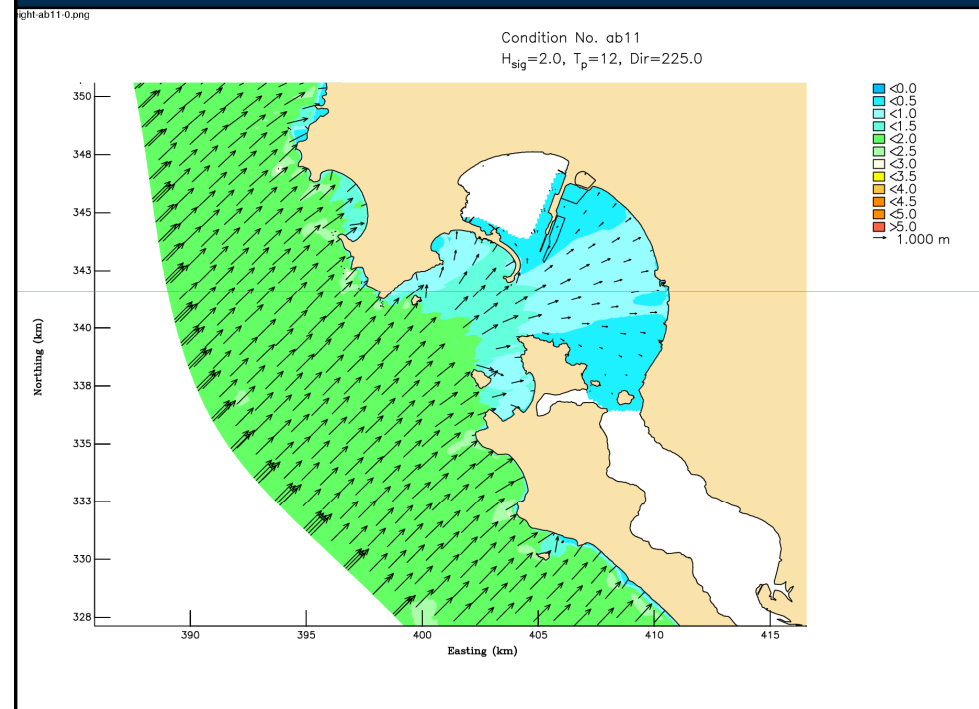
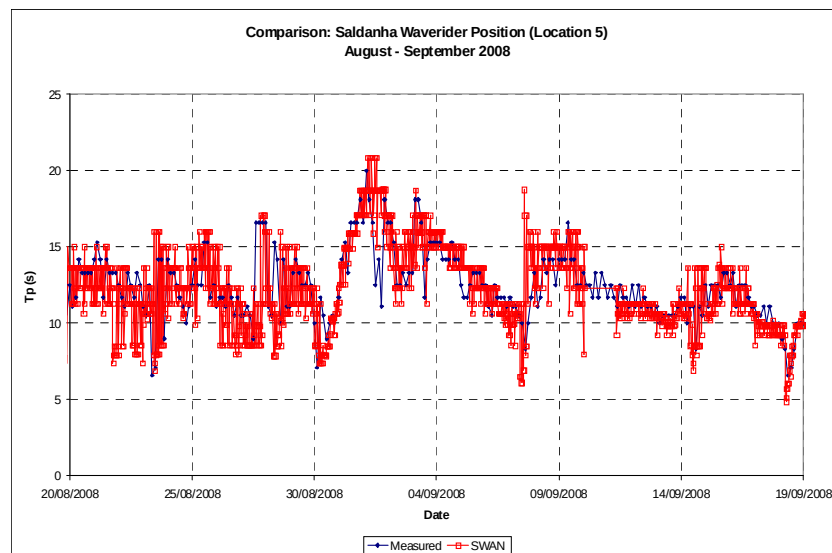
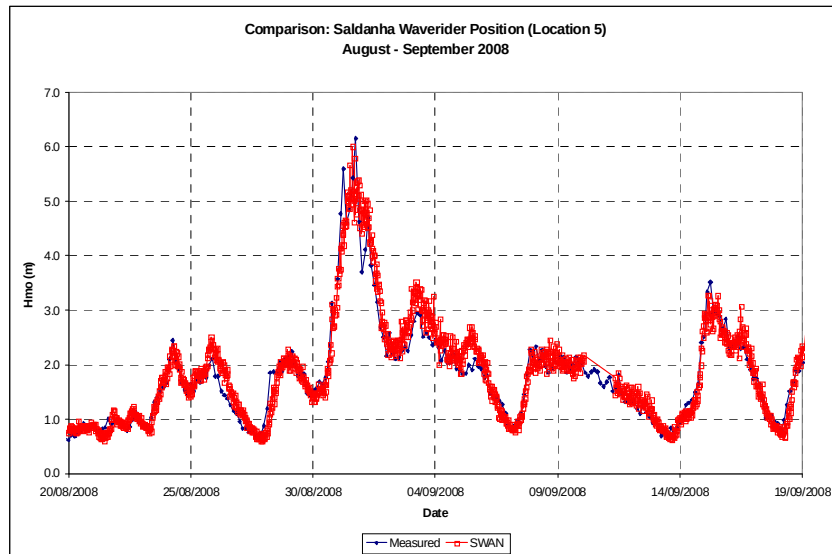
Numerical modelling:

(i) Hydrodynamics

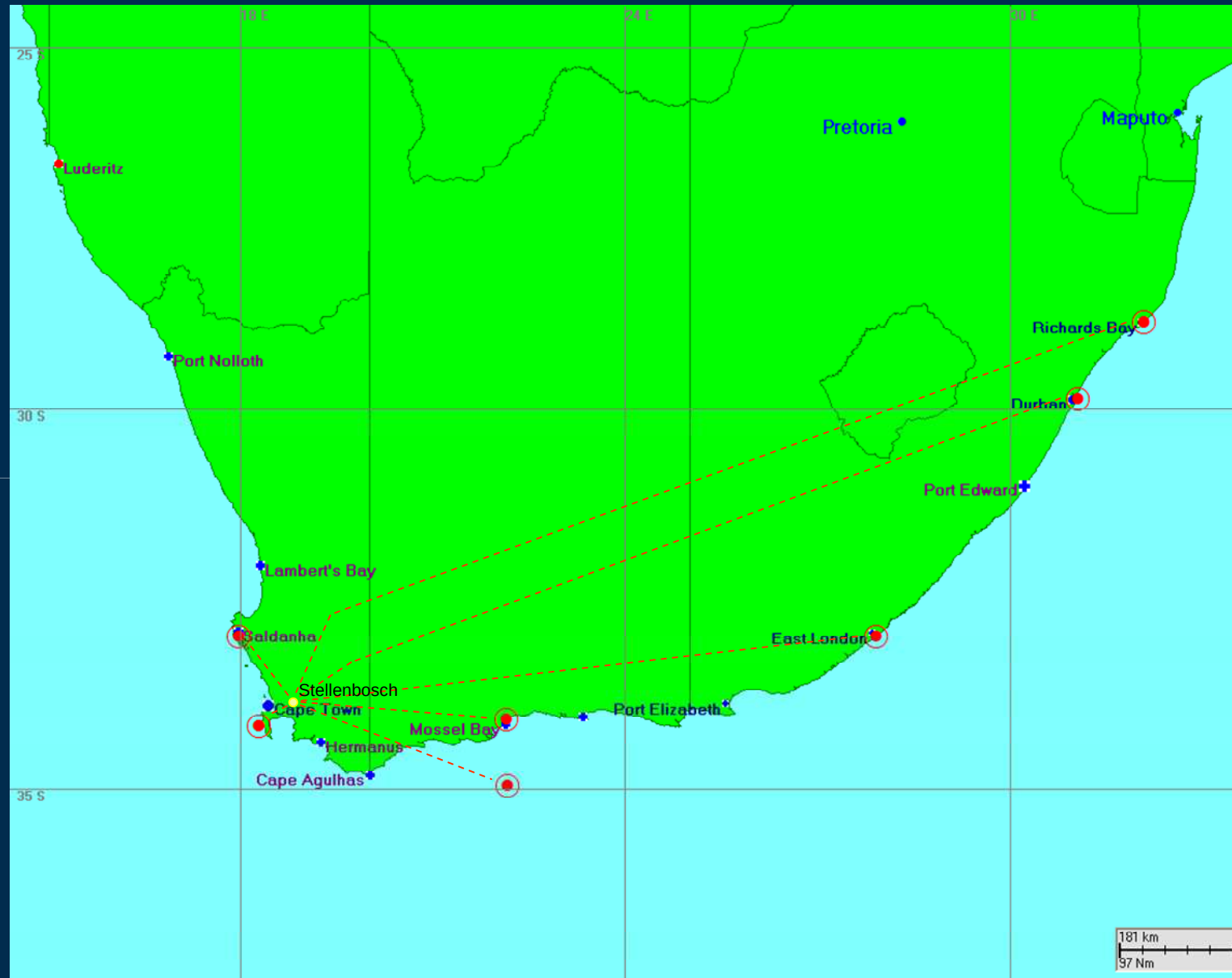
(ii) Waves



Model calibrations

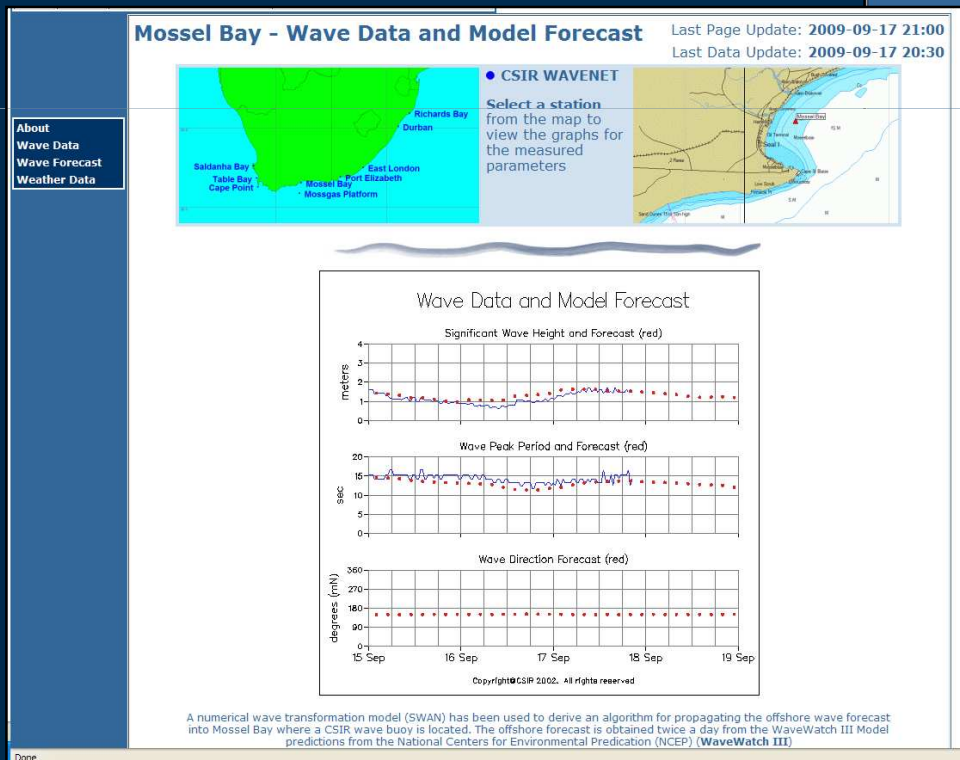
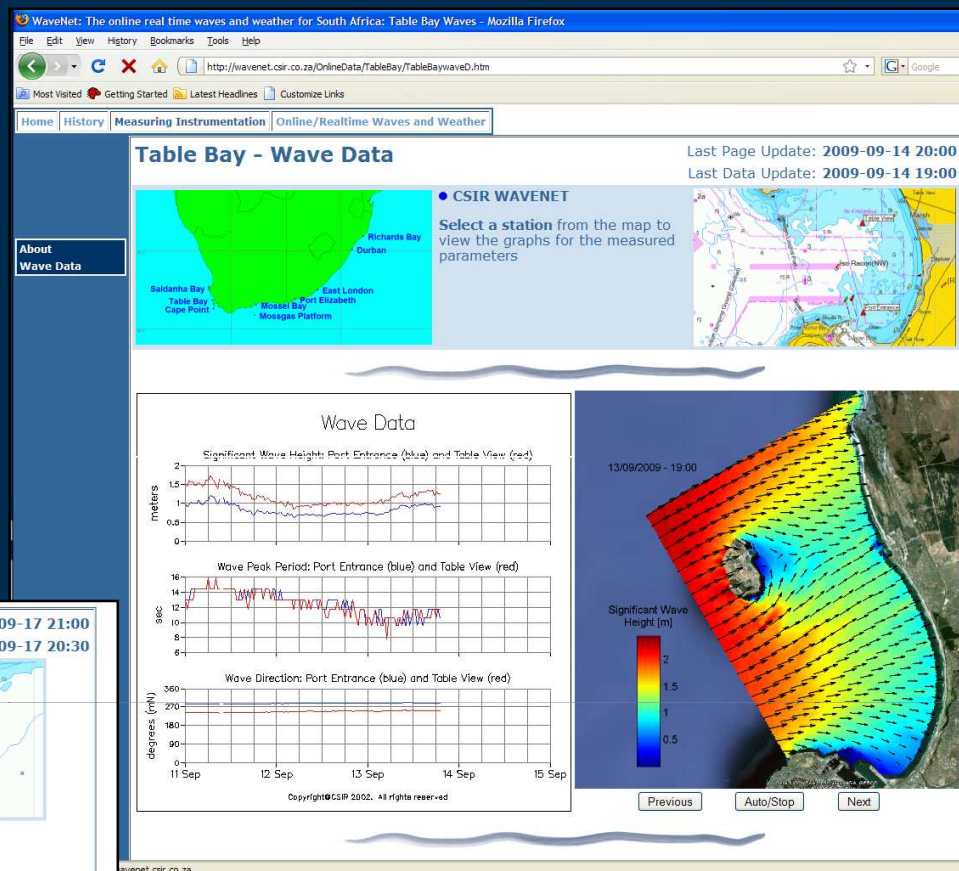


Wave recording network: WaveNet

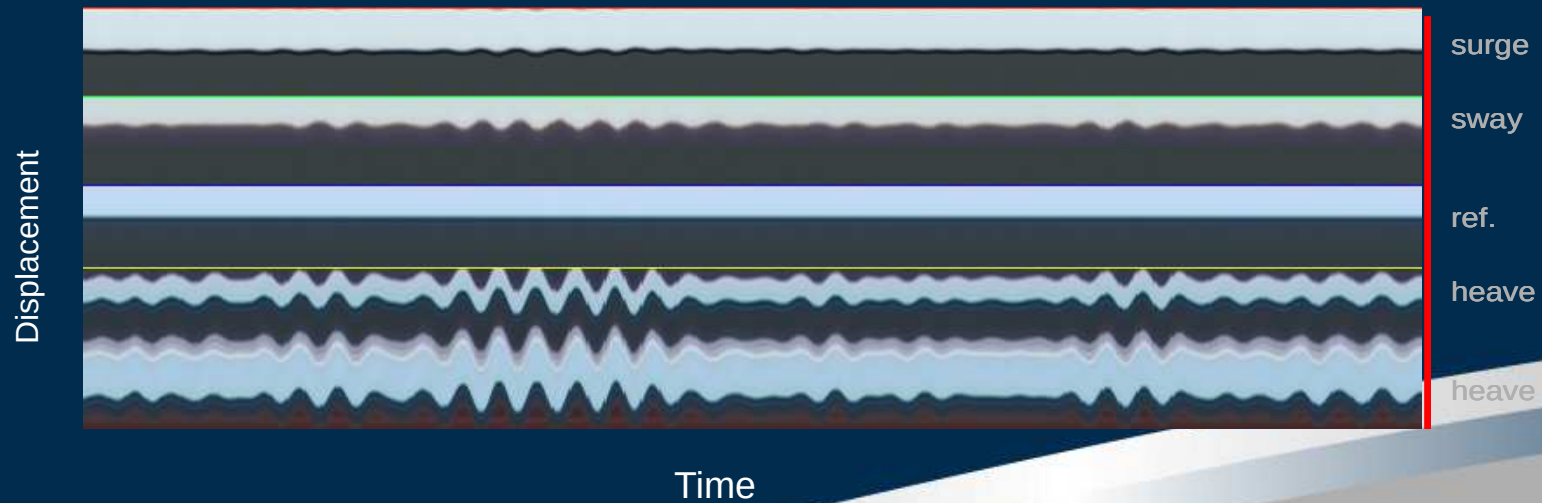


Wavenet:

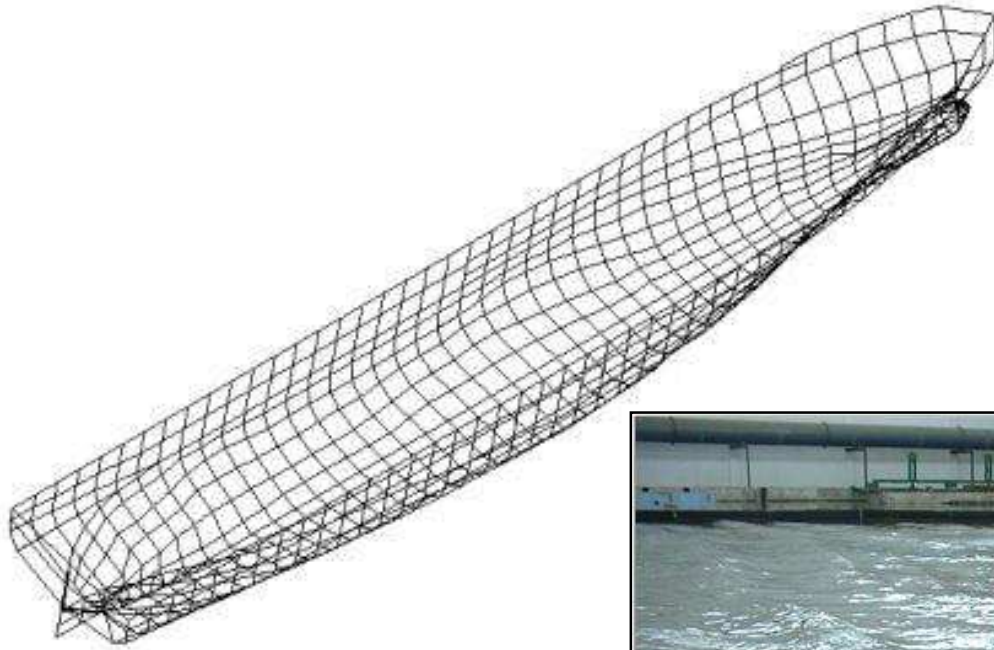
<http://wavenet.csir.co.za>



Physical Model Studies



Physical and Numerical Ship Motion Studies



Thank you!