

Brief Update on the UKHO's Vertical Offshore Reference Frame (VORF)

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Status of VORF

- Since 2007 testing and utilising VORF during normal CHP Hydrographic Instructions
- Static validations with vessels undertaken adjacent to tide gauges.
- Also land observations made on quays etc.
- Focussed VORF Testing Programme ongoing.



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VORF Testing During Hydrographic Instructions



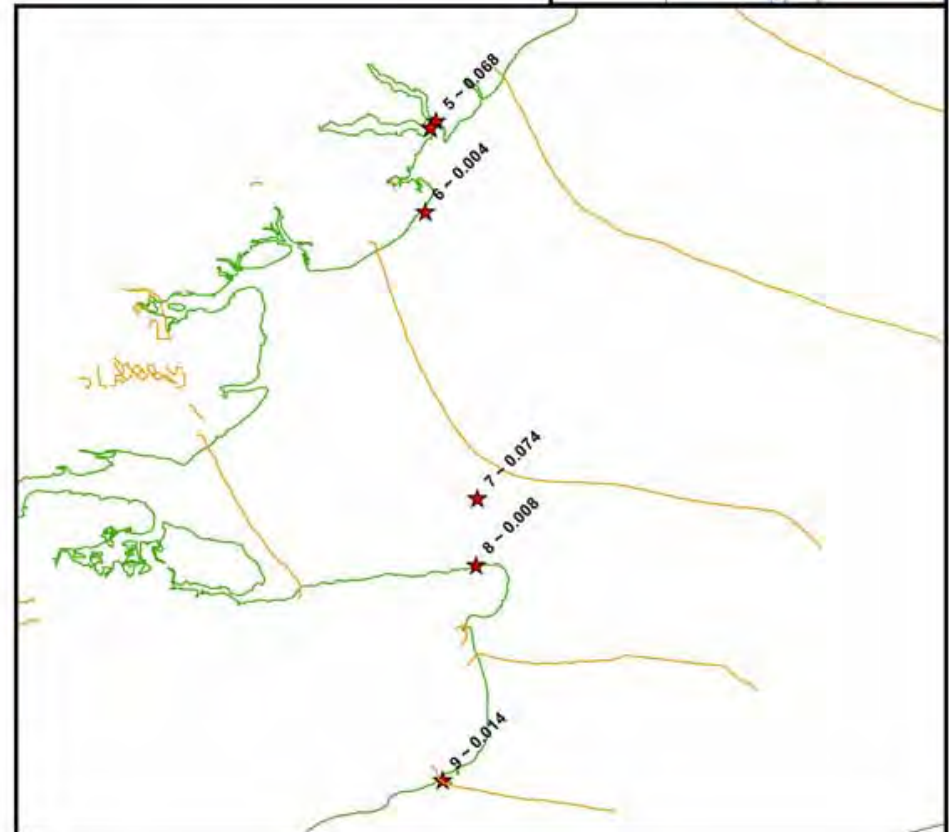
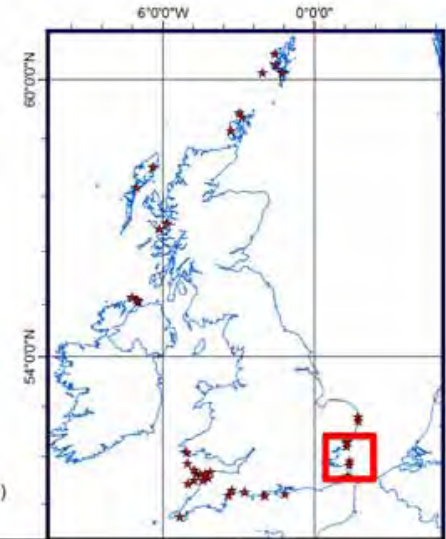
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VORF VALIDATION

VORF MODEL - OBSERVED DATA
COMPARISON



- MHWS-MLWS_VORF
- ★ Station ID (Position) ~ VORF comparison (DOVORF)



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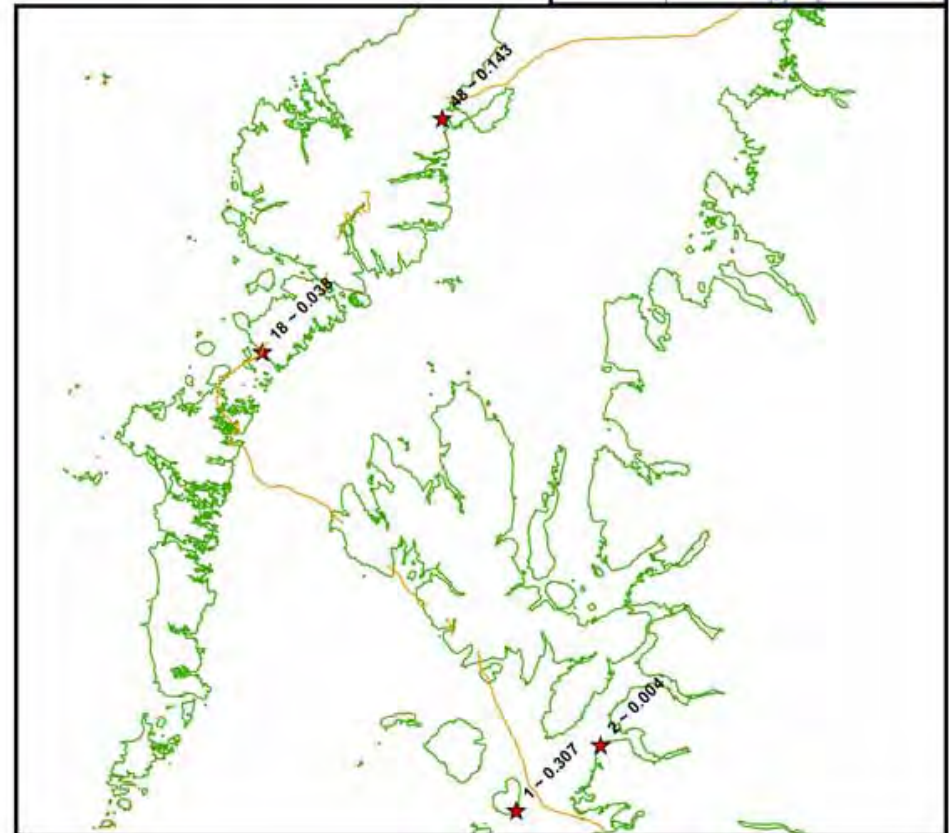
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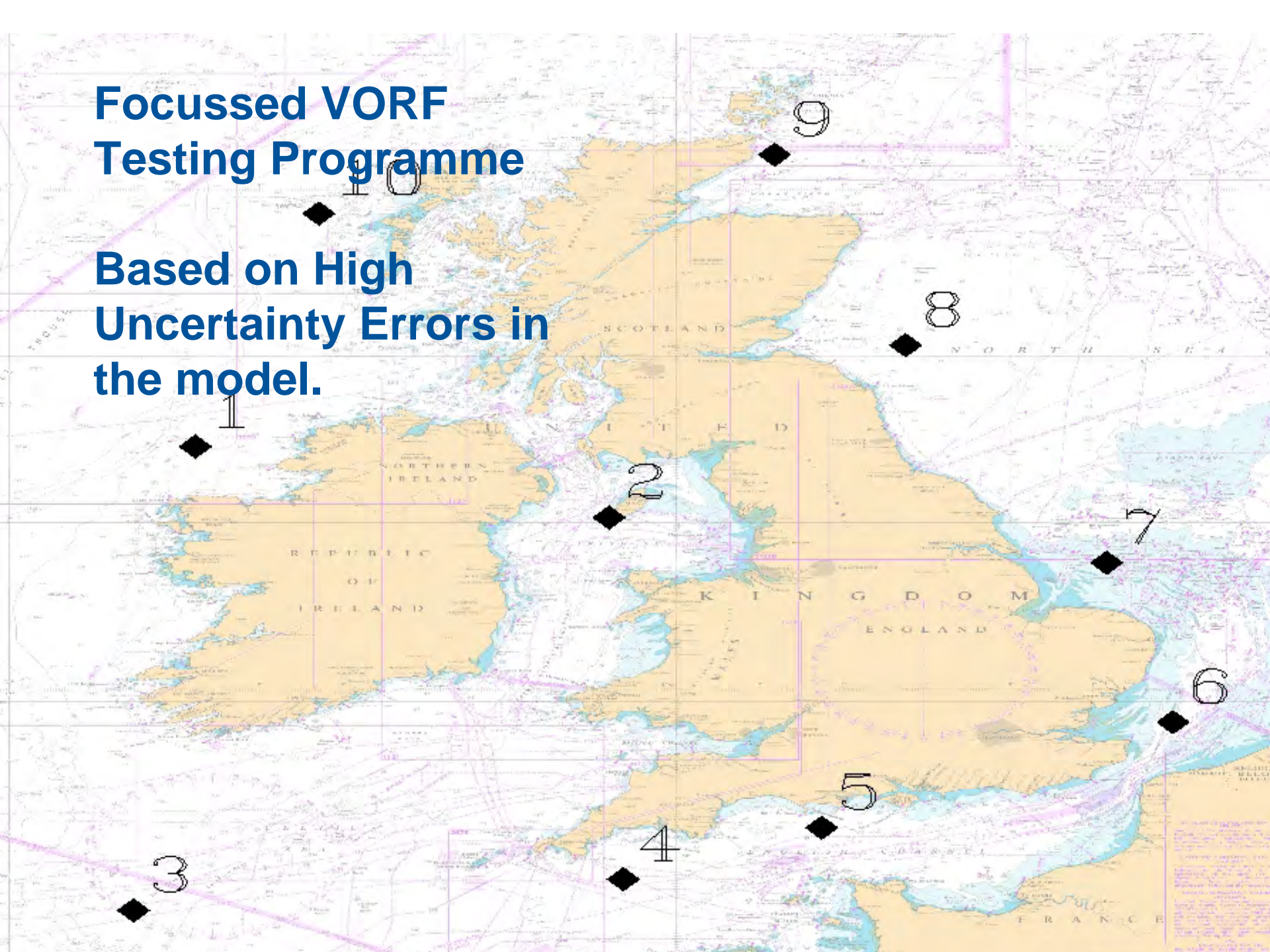
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Focussed VORF Testing Programme

Based on High
Uncertainty Errors in
the model.



Initial Results

- Initial results are very good.
- Typically $<20\text{cm}$ misclosure when compared to traditional tidal derivation of Chart Datum
- Some areas 0 – 7cm misclosure.
- A few test sites have shown higher misclosures, but usually due to measurement gross error rather than model error.



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Release of VORF

- VORF testing scheduled for completion by the end of 2009
- Assuming the testing shows VORF to be accurate, VORF will then go before the UKHO's Product Safety Management Board (PSMB)
- It is only the surfaces that are being tested. The VORF software is not a part of this.
- The VORF surfaces should be passed as ready by early 2010.
- How the VORF surfaces will be made available is not yet finalised. Potential users should contact UKHO on a case by case basis until this policy is agreed.

