

# Coastal Futures Short Presentations

## Wednesday 18<sup>th</sup> January 2017

- Will MacLennan
- Stuart Anderson
- Chris Pater
- Chris Williams



# Kincardine Floating Offshore Windfarm

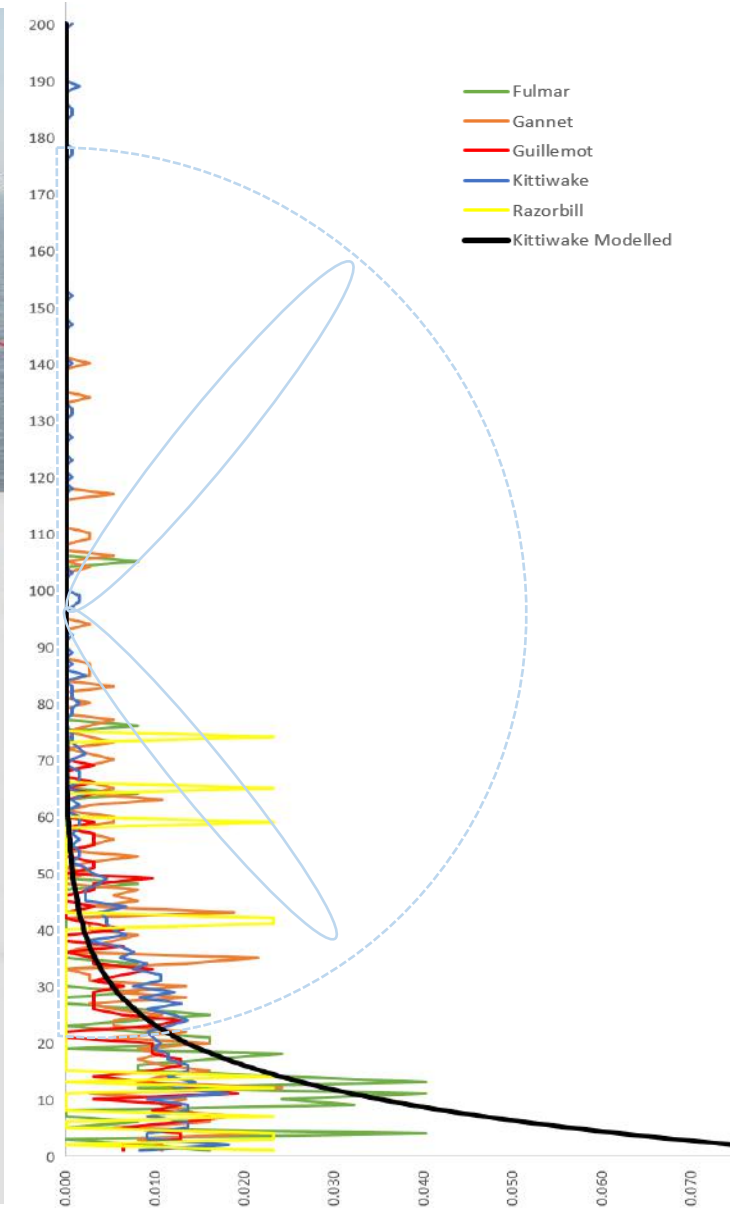
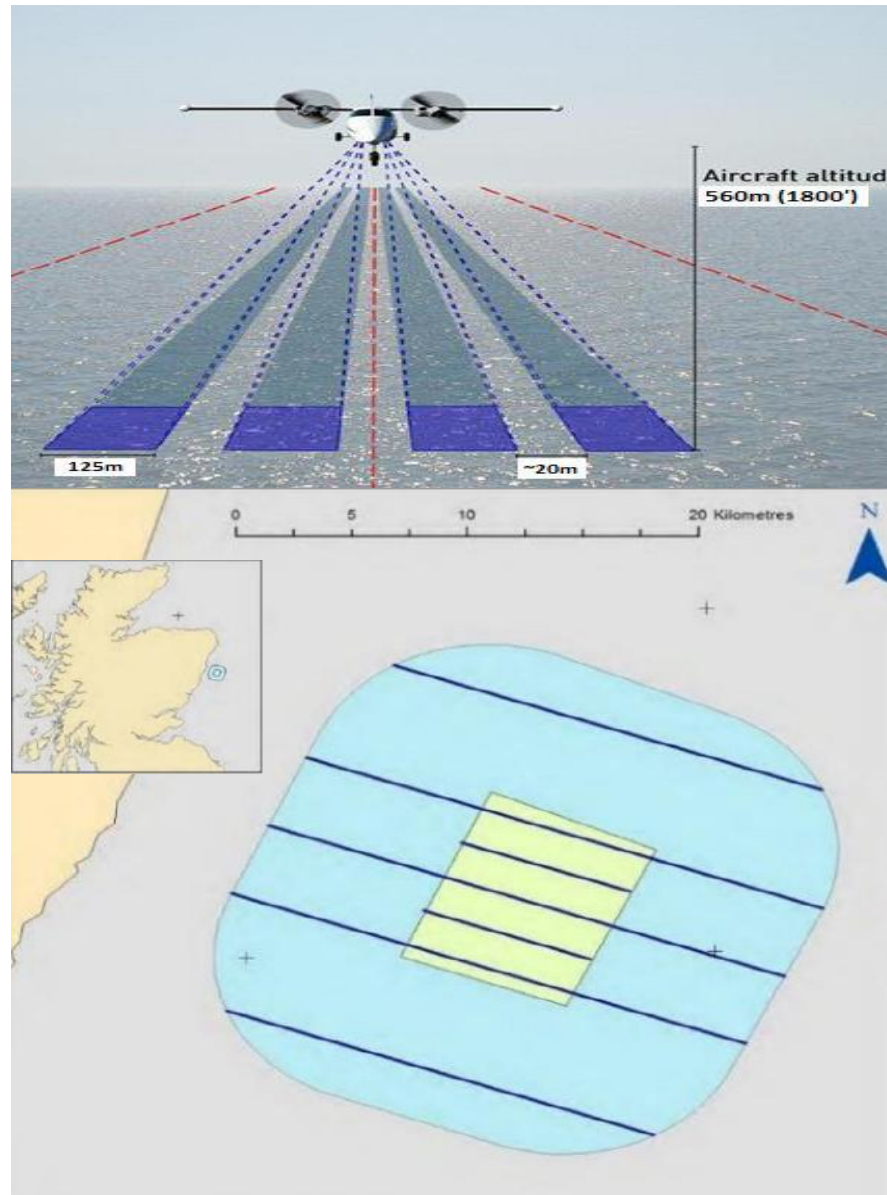
**Will Maclellan**  
Senior Marine Environmental Scientist

26 January 2017



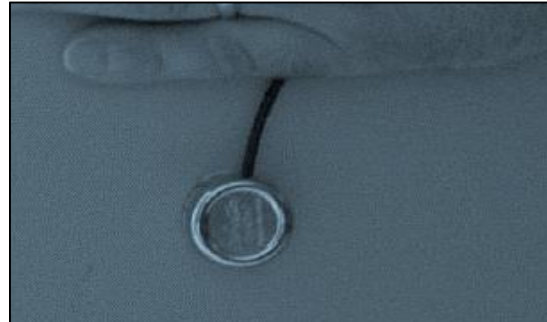
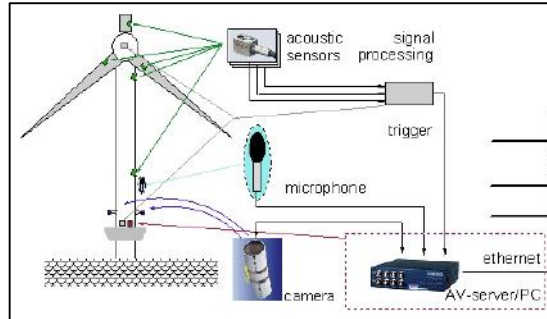
# Aerial Surveys

- Sixteen months of aerial surveys
- Transects covering site and 8km buffer.
- Identification of birds to species level.
- Calculation of site specific bird flight heights.



# Monitoring and Mitigation

- Proposed Measures:
  - **WT-Bird System**
    - Acoustic Sensors
    - HD Cameras
  - **Collision Avoidance Measurement System (CAMS)**
    - Stereoscopic cameras with 3D flight paths
  - **Three years post-construction aerial surveys**
  - **A phased approach to the construction of the turbines**
    - Allows 12-18 months of monitoring following installation of the first turbine.



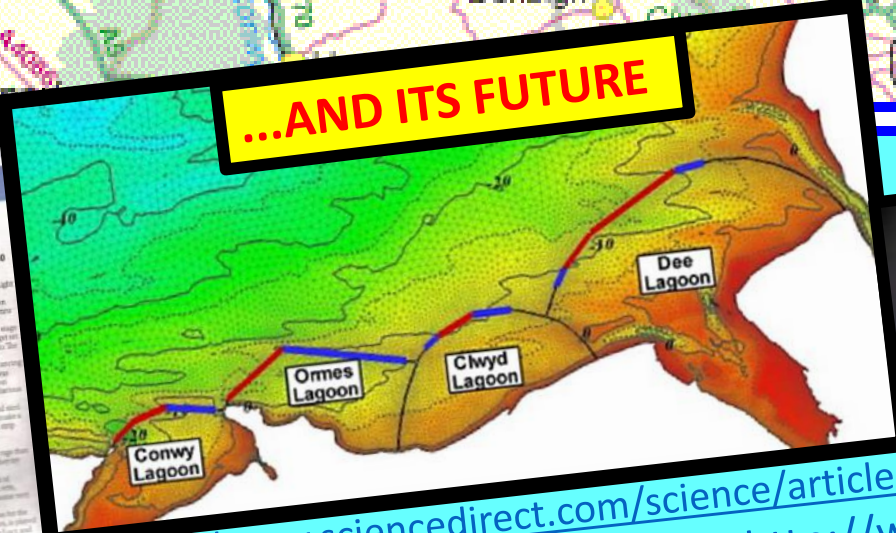
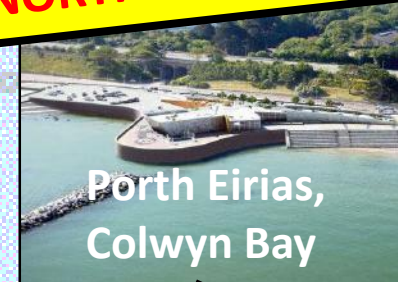
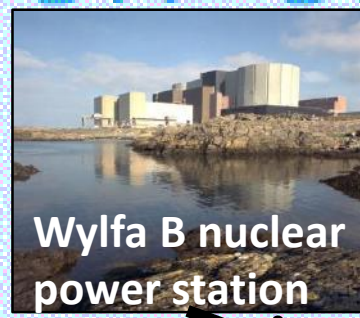
## Image sources:

- Verhoef *et al*, WT-Bird – A novel Bird Impact Detection System.
- Wiggelinkhuizen *et al*, Bird collision monitoring system for the multi-megawatt wind turbines WT-Bird – Summary of prototype development and testing.



# BRITANNIA'S COASTAL POWERHOUSE

## 1. CONTEXT OF NORTH WALES COASTAL INFRASTRUCTURE...



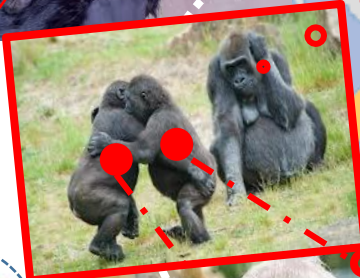
<http://www.sciencedirect.com/science/article/pii/S0306261915016529>  
See also <http://www.bright-sparks.biz/>



## 2. UK CONTEXT: FOSTERING A MARKET JUNGLE ORPHAN



'Once you eliminate the impossible, whatever remains, however improbable, must be the truth'



Prepare for winter floods to get much worse, Met Office warns



Source: Prof DJC Mackay

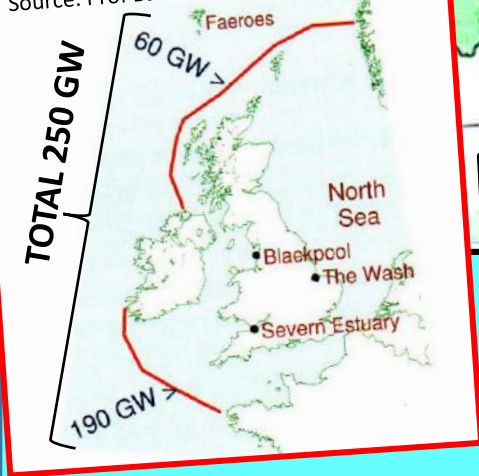
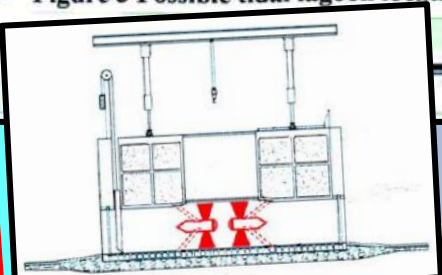


Figure 3 Possible tidal lagoon locations



Atkins/R-R twin-turbine (section)



- Potential extent of flooding in areas predicted to be at risk
- Most at risk from tidal flooding/history of flooding (Environment Agency)
- At risk of serious flooding (Science Media Centre)

SOURCE: Environment Agency/Science Media Centre.





Historic England

## Yesterday, Today and Tomorrow



Signing of the Treaty of Rome  
1957

EC Treaty gives the EU competence in relation to culture, to the extent of encouraging co-operation between the Member States, and 'supporting and supplementing' their activities in this area. **There is no cultural heritage equivalent to the Habitats Directive although there is inclusion within SEA and EIA**

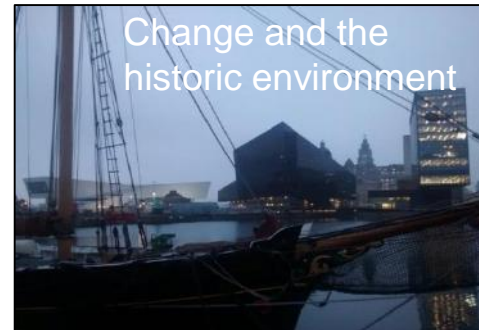


Heritage assets  
and dynamic  
coasts



New seabed  
industrial  
infrastructure

### Directives



Change and the  
historic environment

HMS  
*Colossus*  
(1798) –  
dive trail,  
Isles of  
Scilly

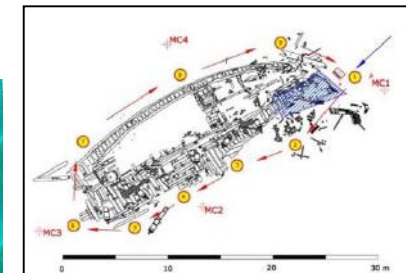


**UK Marine Policy Statement (2011):** "In considering the significance of heritage assets and their setting the marine plan authority should take into account the particular nature of the interest in the assets and the value they hold for this and future generations"

**Christopher Pater – Head of Marine Planning**

**Coastal Futures Conference – 18<sup>th</sup> January 2017**

Wreck found in  
2015



# The Blue New Deal Action Plan

Update – Chris Williams

<http://neweconomics.org/turning-back-to-the-sea/>



## Background on Blue New Deal

- 20-point action plan led by NEF & developed in partnership
- Aim: give coastal communities control over their future whilst restoring UK seas
- Sectors: Energy, Coastal Mgmt., Fisheries, Aquaculture, Tourism
- Could support 160,000 additional jobs and £7.2 billion additional income in coastal Local Authorities

## Turning back to the sea

- Marine environment -unique asset -huge economic & social regeneration potential
- Coasts dotted with innovative projects
- Transformative economic coastal reform is possible.
- NEF will continue to work with coastal communities, help them reinvent; take control; amplify their voice.
- Launched in November 2016, with cross-party support from dozens of MPs and a number of coastal organisations

....**BE PART OF IT**....