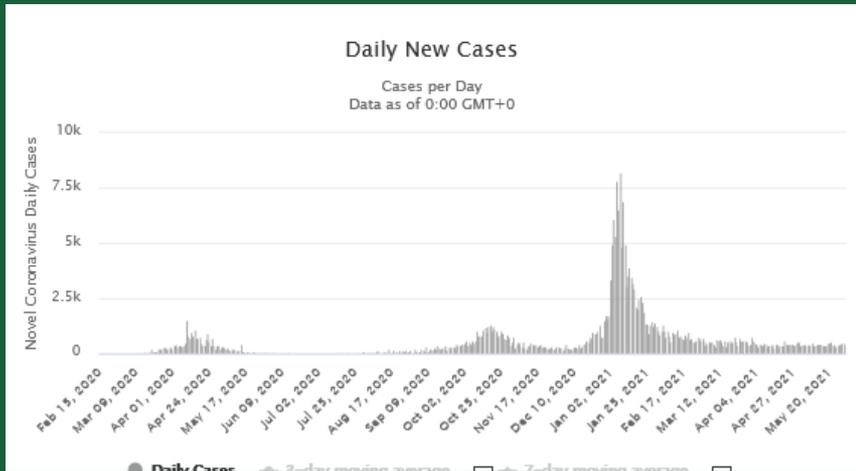


# Operations during a pandemic Marine Institute experience

23rd ERVO Annual Meeting – June 01st - 02nd, 2021



Aodhan Fitzgerald

Research Vessel Operations Manager,  
Marine Institute





# COVID-19 ...

**COVID-19** emerged rapidly in Ireland in early March.

Schools, colleges and childcare facilities closed on 12<sup>th</sup> March and Ireland entered full lockdown on 27<sup>th</sup> March 2020 until beginning a gradual re opening from May to July.

## RV Operations

Operations continued throughout lockdown on RV Celtic Explorer as Marine Institute work deemed essential activities under Government guidelines, Celtic Voyager stood down from 10<sup>th</sup> March to 10<sup>th</sup> May before resuming full survey schedule.

## Mitigation Measures

14 day isolation period for scientists and crew introduced in March with detailed health checklist at 14 days and 24 hours prior to sailing

Weekly updated COVID-19 risk assessment and procedures introduced in early March

No private testing facilities available until July 2020

Pre departure (<48 Hour) COVID-19 PCR tests introduced in July 2020 when private service became available

Coronavirus  
**COVID-19**

Coronavirus COVID-19 Public Health Advice

**Help prevent coronavirus**

- Wash your hands
- Cover mouth if coughing or sneezing
- Avoid touching your face
- Keep surfaces clean
- Stop shaking hands and hugging
- Keep a safe distance

The virus spreads in sneeze and cough droplets, so regularly taking the above measures helps reduce the chance of it spreading.

Visit [HSE.ie](https://www.hse.ie)  
For updated factual information and advice  
Or call 1850 24 1850

Protection from coronavirus.  
It's in our hands.

HSE  
Riadas na hÉireann  
Government of Ireland



# Dealing with COVID-19 continued...

- Irish port calls only in Lock down period, No foreign joiners...
- Post July vessel worked German Ports for Oceanographic survey with strict controls with PCR testing for all joiners. Strict controls for pilots, port personnel to avoid infection.
- Vessel managed an Arctic trip to 79 North in August/September with two port calls to Bergen, Norway to collect/drop off Norwegian scientists (avoiding air travel), UK joiners joining by car /ferry to avoid air travel.
- Private aircraft charter for crew and scientists on occasion

## Life onboard

- Single Cabin occupancy introduced onboard with occasional exception (by agreement for scientists)
- Staggered mealtimes
- Hand sanitizer
- Social distancing, restrictions on Gym use
- Restriction on bridge access, social distant familiarization tours, temperature check on joining
- Minimization of visitors to vessel to absolute minimum
- Mask wearing for scientists /crew if 2 meter social distancing not possible
- Signage, weekly situation updates, crew awareness
- Private bus transfers for scientists
- Rental cars for Crew



# COVID 19 ....

## Modified Operations

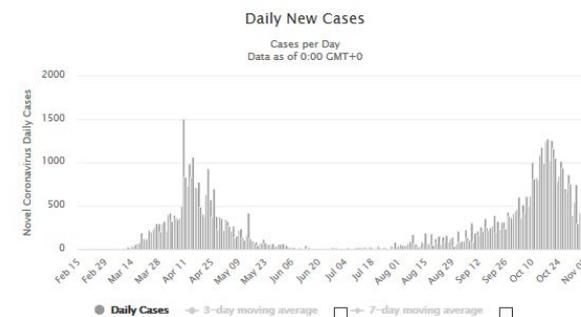
**Celtic Explorer** operated with only 2 scientists for 36 days of Multibeam survey, Highly successful with >3750 Sq Km Mapped!, shore support via Broadband for trouble shooting, daily reporting and assisting with running systems essential. Reduced scientist numbers to 11 for all other surveys and all operated successfully

## Celtic Voyager

Only 1 cabin available for some surveys due to requirement to house crew in single cabins 4 Underwater tv surveys totaling 46 days required to be completed in 2020, normal complement of 6 scientists with burrow (prawn) counting undertaken onboard ...

Solution .....

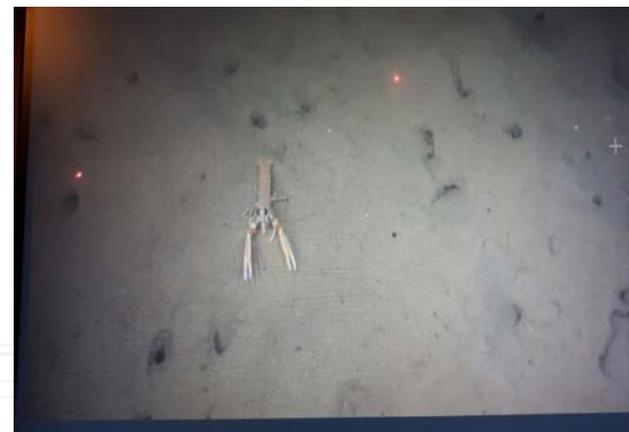
Daily New Cases in Ireland





# Celtic Voyager Underwater TV operations

- Used 2 scientists working 4/8 hour opposite shifts
- Scientists focusing on Data acquisition and QC only
- Crew operating sled /Camera system
- All data brought ashore for processing
- 5 surveys successfully completed so far .. 3 In Irish waters 2 in French waters....
- Voyager completed full schedule from May onwards with limited scientists numbers ...





# Remote operations

- Celtic Voyager completes c. 50 days of student training per annum
- 2<sup>nd</sup> wave affected student populations in some areas quite badly
- Moved certain student training fully remote with live broadcast from the vessel with 2 x trainers + recorded material
- Worked very well and used in the 3<sup>rd</sup> wave also
- For some programs just tested all students when cost efficient

## Celtic Voyager Training Video



### Conductivity, Temperature and Depth (CTD) Instrument

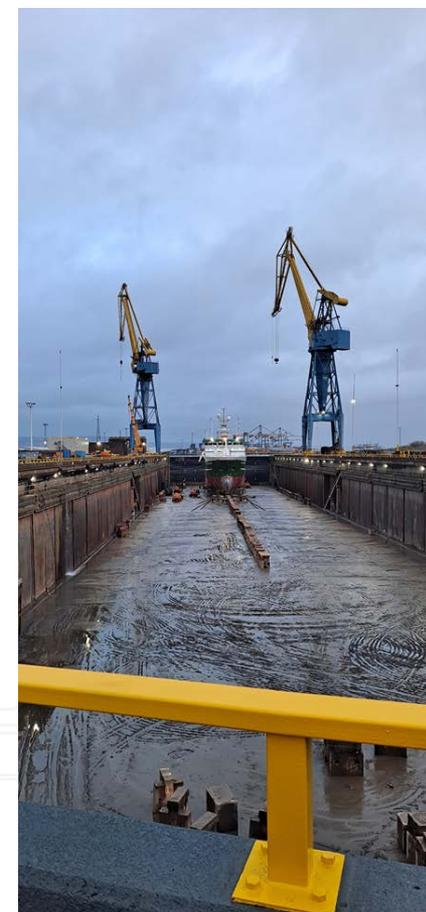
- Profiles the salinity, temperature and depth of the water column
- Precision sampling of the water column
- Fundamental Oceanographic Data
- Sound Velocity Profiling for calibrating Multibeam Echosounder





## Celtic Explorer refit Belfast December 2020/January 2021

- P&O undertook major refit of Celtic Explorer Dec 2020
- Chose Harland & Wolfe Belfast due to simpler travel from UK and Ireland in the light of Covid restrictions
- Detailed COVID risk management
- Worked with yard to ensure compliance with requirements
- Testing for contractors/ships staff /technicians
- Coincided with Northern Ireland having worst outbreak in Europe (December) and the Republic being worst in the world (January)..
- Full credit to P&O as no cases in any of the team or contractors,
- Difficulty with travel from Sweden, last minute changes of plan required!





# COVID Impacts on Diplomatic Clearance Process

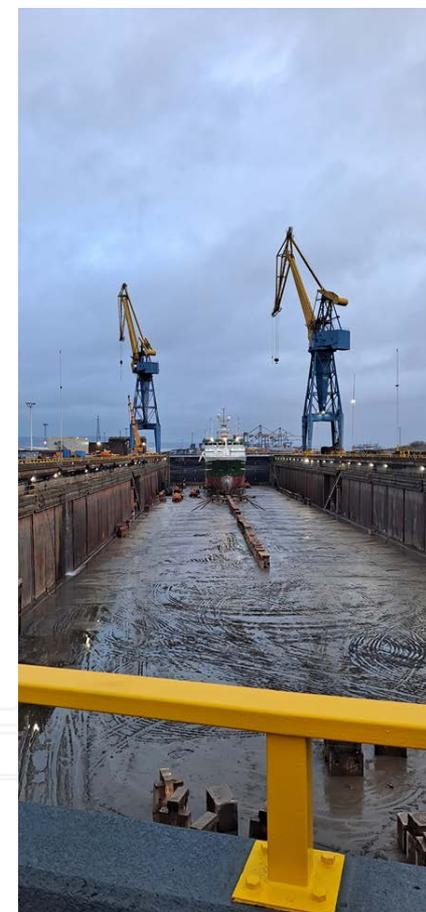
- Lockdown in Europe /UK seemed to disrupt the Diplomatic clearance process in many countries
- COVID-19 forced re arrangement of survey schedules somewhat which seems to be a major issue for many countries to accommodate within diplomatic clearance process
- Both our vessels had flyby's by military aircraft in one jurisdiction due to communication/clearance issues!
- In future we are allowing a buffer of +/- a week at beginning an end of survey to allow for minor survey date changes without causing entire new application





## Next steps....

- Will need to scale back measures cautiously as situation improves
- Need to establish policy for vaccinated personnel
- Need to establish policy re un vaccinated personnel!
- GDPR issues ...
- Many initiatives will remain e.g wats ap groups for each survey , reduced visitors , remote operations teams meetings ship to shore
- More detailed planning of port calls and vessels schedules



Thank you for  
your attention!

