



# CIL-ICPC Workshop on Submarine Cables

## Session # 5

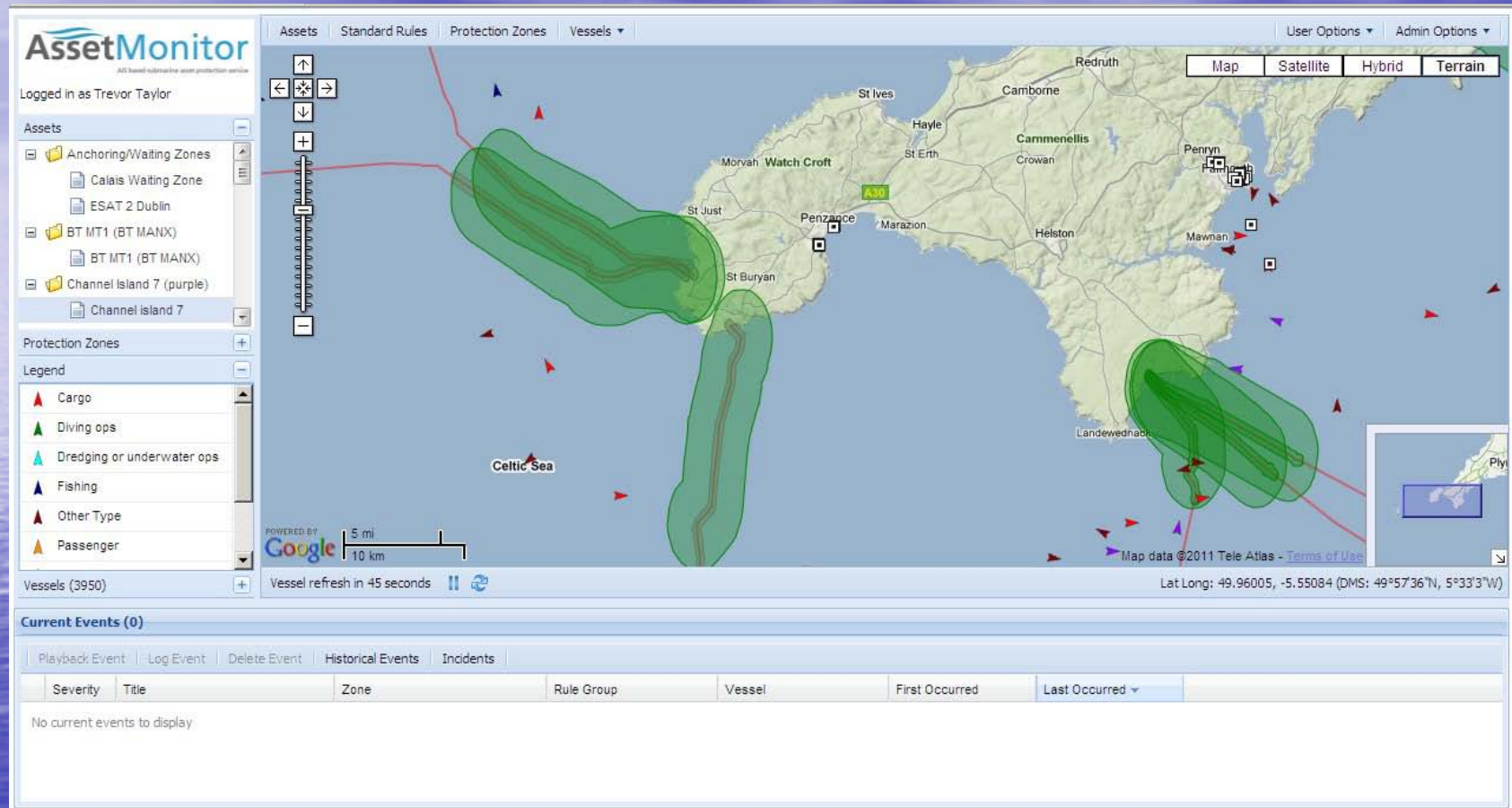
# Using IMO Rules & Regulations to Protect Submarine Cables

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# Automatic Identification System (AIS)



- Cable operators in UK started using AIS in 2006
- AIS provided conclusive proof for some faults

# Automatic Identification System (AIS)

CAUSE OF FAULT	Pre 2006	2006-2010
Fishing	67%	39%
Anchor	8%	36%
Dredging	2%	0%
Other	23%	25%

▪ Courtesy Global Marine

- Changed distribution of faults due to anchor
- Proved existence of two types of fault due to anchor:
  - ship dragging anchor whilst at anchor
  - **ship dragging anchor whilst underway**



# Ships Dragging Anchor whilst Underway

- 13 faults around UK since 2007
- Presents risk of multiple cable failure
- Cost per repair \$1-3m
- Not unique to the UK
- Extent of problem likely to increase with increased use of AIS by cable operators

# Ships that have Dragged Anchor whilst Underway



- Majority of the ships were relatively small
- Primarily engaged in coastal trade
- Damages recovered from owners



# Anchor Securing Mechanisms



Courtesy TE SubCom



Courtesy TE SubCom

- Technical standards defined by Classification Societies but use subject to discretion of master
- Inconceivable that a correctly secured anchor will accidentally release regardless of weather

# Probable Cause

- Anchor held on brake and not properly secured prior to passage
- Anchor becomes loose in heavy weather and released
- Anchor not visible from bridge and loss of speed attributed to weather
- Anchor dragged until chain parts or arrive at destination



# Way Forward

The IMO should be invited to consider:

- whether the securing of anchors prior to passage should be of a minimum standard methodology and a mandatory requirement
- the introduction of interlock on anchors when secured for sea passage with an alarm on bridge
- securing of the anchor for sea with the interlock or a reason why the interlock is not used should be a required entry in the vessel log book and subject to Port State inspection
- greater promulgation of the problem via 'M' notices (Marine Coastguard Agency) and appropriate notices worldwide
- wider port inspections by the state following future submarine cable failures due to anchors





Sharing the seabed in harmony