



## **Fishing vessel/Submarine “interactions”**

- History of such interactions extends back to at least “The Cold War” and probably beyond.
- Scarcity of decent data largely due to official reluctance to gather or tabulate
- Major effort has come from the Manx based citizens group **CELTIC LEAGUE**
- Celtic League built up dossier of approx 170 interactions (net snagging, towings, forced capsizes and over 30 “unexplained” sinkings) since late 80’s

## Basic vessel stats:

- **UK MFVs** (very approximate): **smaller vessels appear most vulnerable**
- **less than 12 metres (40ft)** : *max approx 7-12 knots cruising: 2 – 4 knots working/towing, max wt (fully equipped scallop dredger) up to approx 20 tons*
- **12 to 24 metres** : *max speed: 11 – 20 knots cruising (5knots working) , max weight: 155 tonnes*
  
- **Submarines (n-subs using Irish/UK waters)**
- **(UK) Trafalgar Class** (*Hunter killers*): 5,300 tons submerged, 20 knots submerged
- **(UK) Vanguard Class** (*Nuclear missile sub*), 150 metres, 15,900 tons, 25 knots submerged
- **(UK) Astute Class** (*hunter killers*): 97 metres long, 7,400 tons, 30 knots submerged
- **(US) Ohio Class** (*nuclear missile*): 170 metres, 18,450 tons, 25+ knots submerged, (ie + 29mph)

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# Relevant Areas of Submarine activity

UK and Irish waters : greatest intensity close to submarine bases:

Faslane: Clyde approaches, NW Ireland/NI waters, Southern Hebrides

Devonport: Western Approaches/English Channel

- **Europe: similar re submarine bases (e.g French base at Ile Longue, Finistere)**
- UK/Europe/NATO : submarine war gaming exercises occur  
@ approaches to submarine ports, deep water “hideouts” (eg Beaufort Trench: 200 to 300 metres deep), mid ocean hideouts, any other!!!
- Polar oceans /Iceland: Greenland Gap :cold war strategy: now revised

# Major parameters likely to lead to Incidents

- **Increased Intensity of sub activity due to:**
  - Military exercises
  - Submarine training exercises
  - Reported “enemy incursions”
  - International Political/Military situation

# **Major parameters likely to lead to Incidents**

## **Intensity of fishing activity driven by:**

- Seasonality/weather
- Fish location (migration/aggregation)
- Market demand
- Constraints of international fishing laws

# Types of Interaction

- Net drag: full astern
- Capsize
- Collision
- Surface wave
- Surfacing sub sinks vessel

## Other e.g.s of sub mismanagement

- Grounding: Oct 2010: **HMS Astute** (n-powered hunter/killer) ran aground Broadford Bay, Skye.  
Several hundred metres outside charted and marked safe route through Skye Bridge:  
officers reprimanded: (*Anglian Prince*)
- Grounding: Nov 2002 **HMS Trafalgar**: *travelling 50 metres below the surface at 14 knots (24km/hr): ran aground on a small island nr Skye. £5 million repair bill. 2 officers reprimanded*
- Collision: Feb 2009 **HMS Vanguard** and French **Triomphant** collide (submerged) in “open” north Atlantic (Both n-powered and n-armed). French reported they’d hit a submerged object perhaps a sunken cargo container: £50 million repair bill for both.  
Officers reprimanded
- Collision: Nov 2002: **USS Oklahoma** (N power/n-armed) collides with LNG Tanker in Strait of Gib’: Commander sacked and 3 others reprimanded
- In 2010 MOD admit 16 “crashes” involving UK n-subs since 1988





# Case study : net snag & drag

- MFV SHERALGA (1982 : *Falklands war*) Clogherhead: : 70ft long:
- Fishing 30 miles off Dublin coast with nets deployed
- Nets snagged and boat dragged backwards at high speed (10knots+) despite engines powering forwards
- Took water over stern and sank quickly. All crew escaped.
- Eyewitnesses and survivors claimed “only a submarine could have been responsible.....”
- Official denial from MOD (*no admission of liability/responsibility = no legal claim possible*)
- Several weeks later Official admission of responsibility
- Irish Govt refused to act as “party” in support of fishermen’s claim
- Irish Govt pushed for “submarine free” Irish fishing grounds (not gained)
- Survivors did eventually win compensation through a Belfast court

# Case study collision

\***MFV PESCADO**: Feb 1991. Scallop Dredger: 15 miles off Cornish coast:  
*sudden disappearance: 6 crew dead: NATO exercises*

\***Wreck** identified by camera inspection: *vessel upright (but tilted) on sea bed, dredges NOT deployed, large “six ft dent punched” into underside of the Pescado’s blue painted hull, 2 long “smears” of black paint running away from the dent*

\***Samples of black paint** analysed: *demonstrated similarities to paint taken from UK submarine : no link to Pesacado’s paintwork*

\***MOD** consistently denied presence of subs in the area at the time:

\***Local people** consistently reported the presence of submarines in the area at the time

\***MOD** eventually forced to admit that subs were in the area at the time

But continued to deny liability or involvement

\***Un-official position** is that PESCADO was either struck from underneath by submerged and speeding sub , or was struck during emergency surfacing procedure: vessel turned turtle and sank very quickly



# Collision: 2

- **2001: HAWAII: Ehime Maru** Japanese Fishery High School Training Ship (ex trawler: 58 metres: 741 tonnes) sunk by
- **USS Greenville:** 110 metres: 6,000 tons (*nuclear powered hunter killer*) on *training/demonstration mission*
  
- **USS Greenville** performed Emergency Ballast Blow Surfacing manoeuvre
- *120 metres to surface in less than 10 seconds*
- Struck underside of Ehime Maru during manoeuvre
- Rudder cut massive gash in Ehime Maru's hull
- Submarine surfaced a few seconds later: right next to the Ehime Maru
- Ehime Maru sank in five minutes
  
- 9 dead from Ehime Maru
- Many witnesses
- US Navy admitted responsibility: Commander was “retired”

# Case Study: forced capsizes

- **MFV ANTARES** trawler: (15 metres: 34 tons) Carradale. Nov 1990
- Fishing in Arran Trench: sudden disappearance
- Wreck eventually id'd: crew (4) all drowned
  
- HMS Trenchant (85 metres: 5,300 tons) on exercise in the area with other NATO vessels
- Initial denial of involvement from MOD
  
- But later official inquiries demonstrated that:
  - Trenchant in the area and submerged at the time of the incident
  - Trenchant snagged nets set at 60 metres depth while Antares turning
  - Antares pulled sidewise as Trenchant continued on course
  - Antares capsized: turned upside down and sank rapidly
  
- Trenchant's Officers reprimanded

# Case study: surface wave

- **1988: MFV Inspire (Fishguard: Pembs) working in calm weather/low winds:**
- Capsized and swamped by huge freak wave off Pembs coast
- 3 crew dead. 1 survivor rescued after 11 hours in water
  
- **Rapid official denials *of presence of subs***
- **Local reports *of sub sightings in area***
- **MOD Official denial *of presence of NATO subs***
- **MOD refusal to confirm/deny *presence of non-nato subs***
  
- **Expert witness proposed no “natural” cause of wave**
- **Expert witness proposed most likely cause was bow wave of semi submerged sub’ travelling at speed**
- **1991 inquest blamed “unknown submarine” and recorded a verdict of “unlawful killing”**
  
- **No other verdict or legal conclusion**

# Bugaled Breizh 2004

- **Bugaled Breizh:** 15<sup>th</sup> Jan 2004: lost at sea (off the Lizard) during NATO exercise
- Bugaled sent emergency “May Day” (sinking) but disappeared very quickly in calm seas and good weather
- Info that at least 7 subs present in area including 3 UK n-subs, 3 French n-subs, 1 Dutch and 1 German sub and at least 1 other (non NATO)
- HMS Turbulent sent for repairs immediately after end of exercise
- Many “denials” by UK and others
  
- **July 2008: French Inquiry finds**
  - a: that nuclear attack submarine sank the Bugaled Breizh (net snag /capsize)
  - b: all other proposed possibilities were “highly improbable”
  - c: reports by military authorities “contradictory”
  - d: but due to the absence of clarity from nations involved: no specific submarine was identified:       so no compensation for families or owner



# Patterns of Official Response

- Outright denial
- Obfuscation & insinuation
- Attack on owners/operators/skipper and crew
- Invoke Official secrets/national security

# Official response: final stage

- **If public pressure (media reportage and public concern) maintained:** often an eventual admission that submarines were in the area
- But denial; of impact or “contact” between MFV and Subs almost always maintained
- ANTARES/TRENCHANT incident a rare example of admission and attached “responsibility”
- Official secrets et al’

## **IMO Submarine code : first RESOLUTION**

- **IMO is a “consensual” organisation: has no power to enforce**
- **IMO Resolution A15: 599: adopted Nov’ 1987 (in force Jan 88)**
- **“Recommends that a submerged submarine, if information of the presence of a fishing vessel and its fishing gear is available, should, as far as possible, keep out of the way of that fishing vessel and any fishing gear connected to it unless the submarine is disabled”**

## IMO Submarine Code: 2nd Resolution

- **IMO RESOLUTION: A17:709: adopted 1991**
- *“Recommends that a submerged submarine, if information of the presence of a fishing vessel and its fishing gear is available, should, as far as possible, keep out of the way of that fishing vessel and any fishing gear connected to it unless the submarine is disabled”*
- Invites governments to
  - a: *bring the above recommendation and the concern expressed in this resolution to the attention of authorities, commanders and officers responsible for operating submarines*
  - b: *develop local arrangements to establish procedures to promote safety of fishing vessels and submarines in areas considered prone to mishaps between fishing vessels and submerged submarines (exclusion areas: stop and help protocols etc)*
  - c: *ensure that submarines navigating through areas where vessels are known to fish use all reasonably available means for determining the presence of such vessels and their fishing gear to avoid endangering such vessels and their gear*

# Future Prospects:

## April 2015 statement from Celtic League:

- In January 2015 “on the anniversary of the loss of the Bugaled Breizh, we wrote to all submarine operating powers asking what steps they have taken to implement the IMO resolutions. To date only the German government has responded positively”

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- \* Annual “unexplained” losses of MFVs in good conditions continue to be high: UK MAIB investigates only about 50% of all fishing boat accidents

- Continuing unresolved incidents to MFVs (including vessel losses and crew death) in good weather around the British Isles in areas used for submarine operations.
- Evidence for ongoing sub/MFV interactions continue to occur in Europe, US and Arctic Seas and also elsewhere.
- Incidents like MFV Aquarius (Outer Hebrides: March 2015) and MFV KAREN (Calf of Man- April 2015) demonstrate that the issue is
- **NOT CLOSED, NOT REMEDIED, and that fishing boats and their crew continue to be at major risk:**
- British Sea Fishing quote :”
- future does not look much improved