1. Overview



- U864 is on the seabed just off the Norwegian coast
- It sank with 70 tons of mercury and about 7 tons of TNT aboard
- A chain of unfortunate events could lead to an environmental catastrophe



## 2. Chain of unfortunate events

- Spontaneous detonation of a torpedo that is still ready for combat
- Chain detonation leads to fine distribution of Hg in the sea water
- Strong sea current transports Hg along the shore
- Fishing industry would be affected



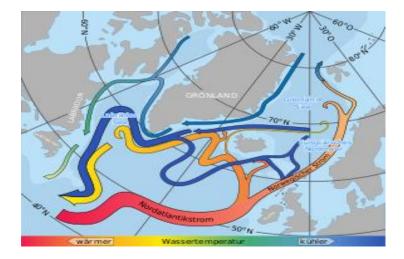






#### 3. Sea currents along the Norwegian coast





If the spontaneous detonation of several torpedoes should meet with a chain of other unfortunate events, a stretch of 2650 kilometres just off the Norwegian coastline could be contaminated with mercury in just 2 months



# 4. Is a spontaneous detonation of TNT really possible?





• A report from 2008 on the issue – DNV REPORT NO 23916-2 – has this to say: *"The explosives are assessed not able to self detonate during salvage"* 



• A professional evaluation in 2010 by the ministry of the interior of SH on the other hand states: *"However, with such an old system that has also been improperly stored, it is simply impossible to make any statement about how the system would behave. Accordingly, we would assume the greatest risk." (that)...a detonation of several torpedoes in sequence in this case .... Cannot be excluded."* 



Kamera: Torsten Dzienus / David Pilgrim Schnitt: Thomas Wegner

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## 5. Solutions

- Covering and encapsulating. Chernobyl as a role model but under water?
  - A concrete sarcophagus is a constant risk, especially if the 7000 kg TNT should detonate
- Salvage oft he entire wreck
  - The manipulation of explosive devices is always fraught with the risk of triggering an explosion.
  - In particular, the torpedoes in the torpedo tubes of U864 have been inserted "ready to use".
  - It is simply impossible to make any statement about how the system would behave.



### 6. Conclusion



- The mercury is the main problem for the environment
- Solutions need to focus on removing the mercury from the wreck safely, without causing an explosion.
- Politic will is required
  *"When it comes to international environmental and climate conferences, Norway is one of the most committed participants."* This also applies to the field of environmental development aid; Norway regularly spends more than one percent of its BIP on it" = 30 Billion NOK per annum.



Stavanger 13. September – U 864 - Is an environmental catastrophe on the Norwegian coast impending?

7. Questions?



