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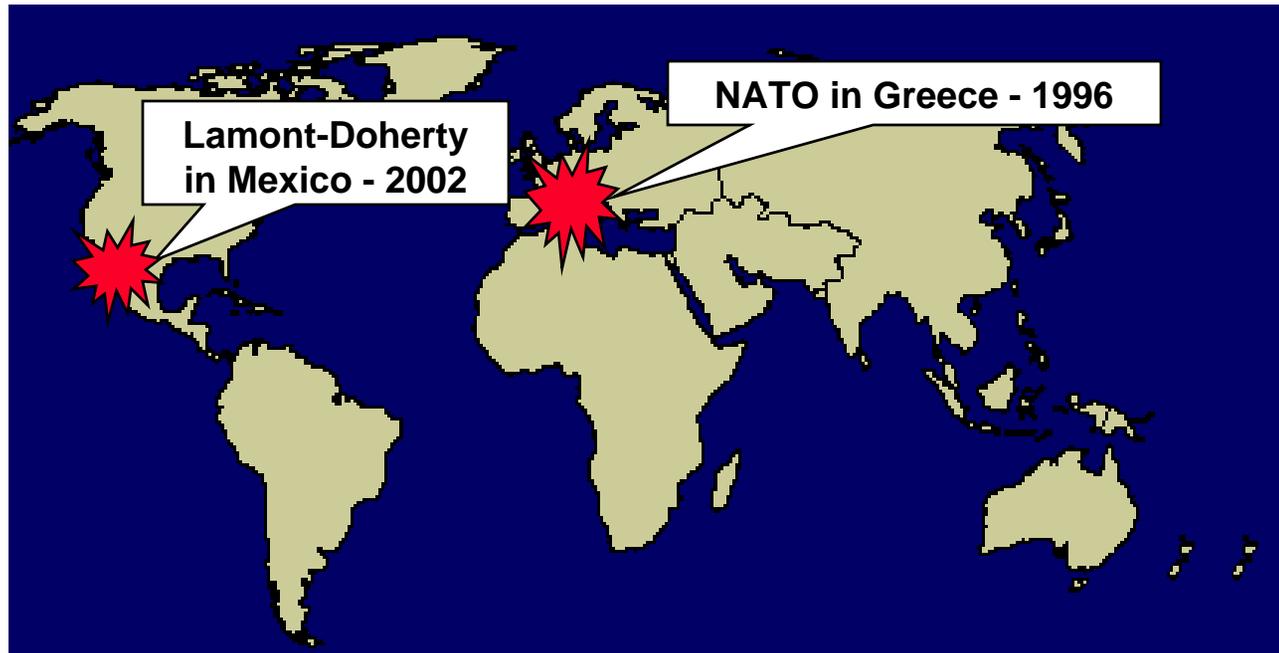
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The Transboundary Challenges of Addressing Ocean Noise: Two International Focusing Events

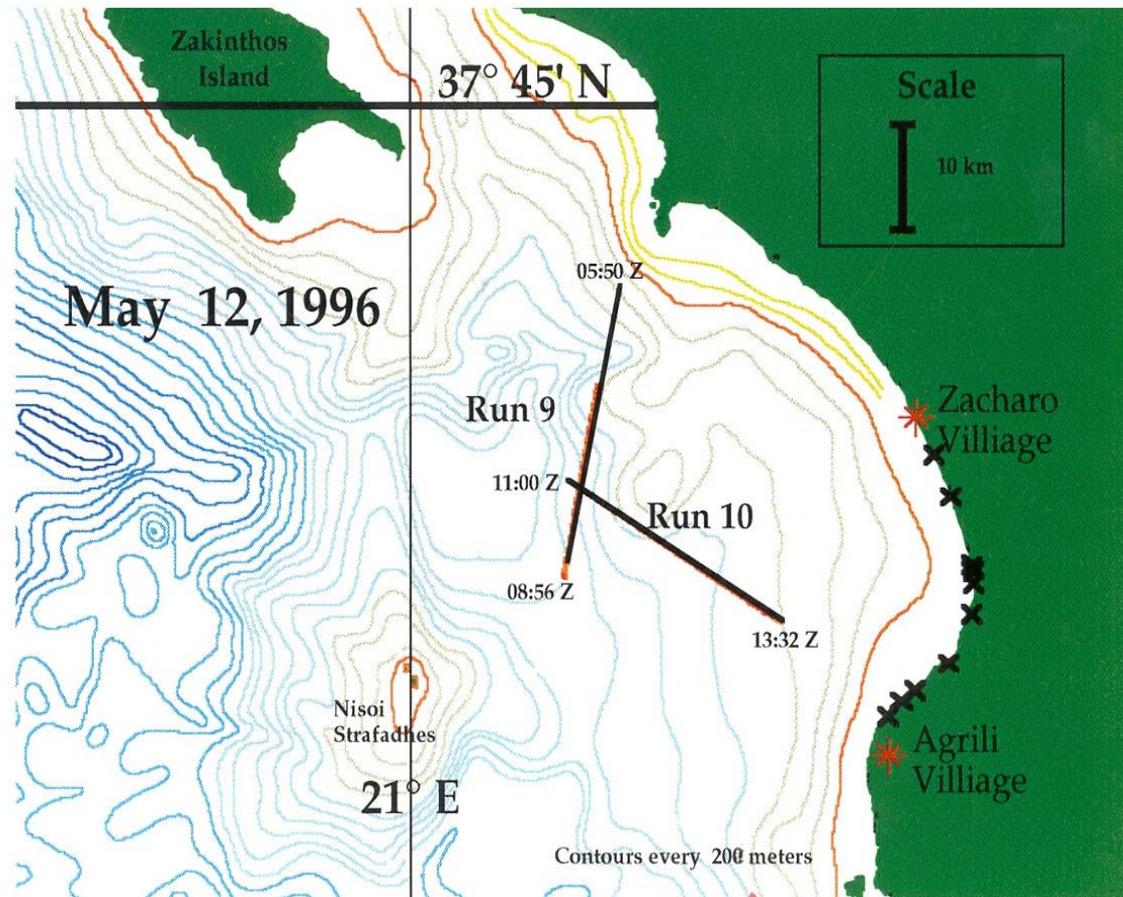
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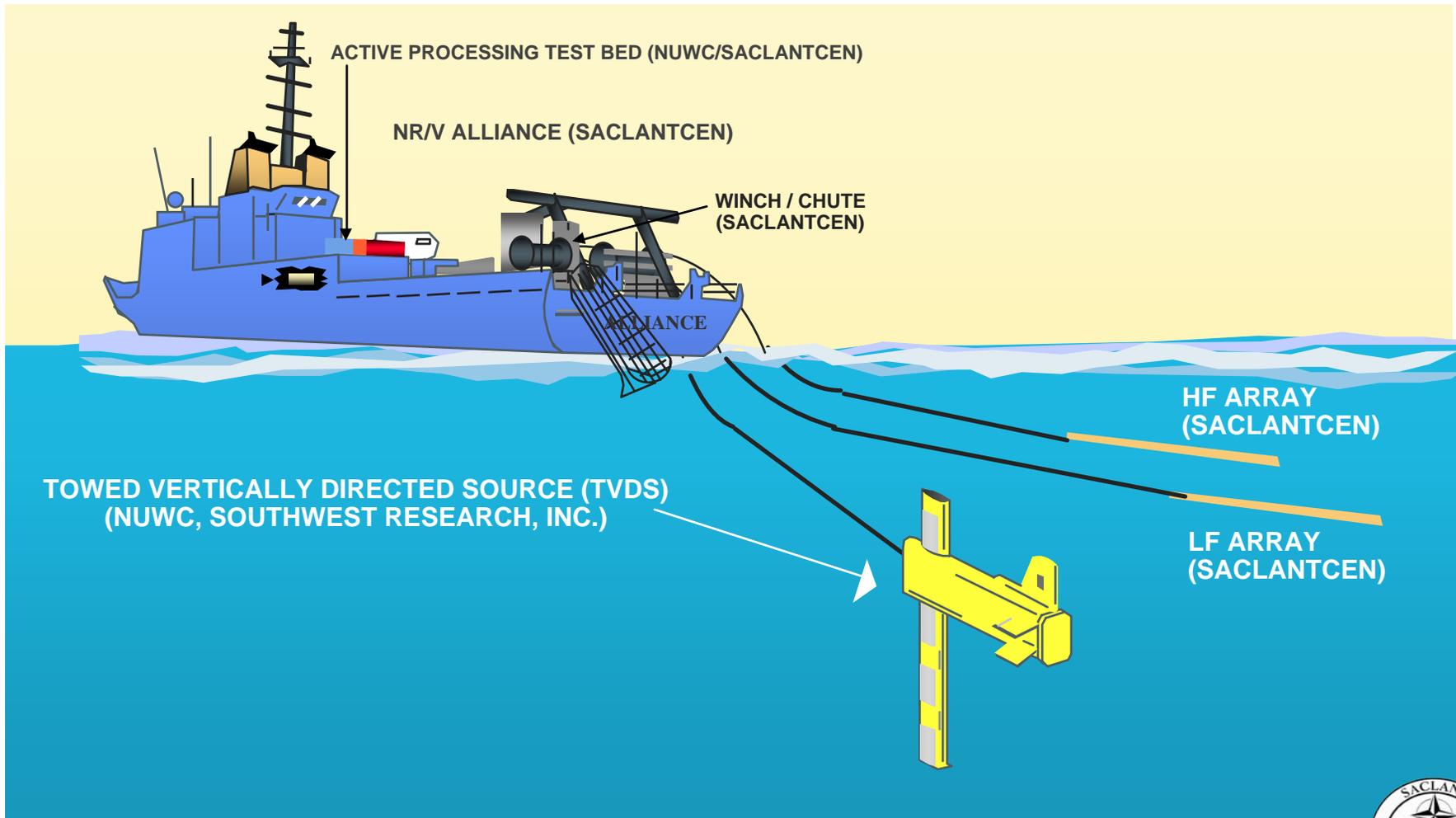
Two International Events



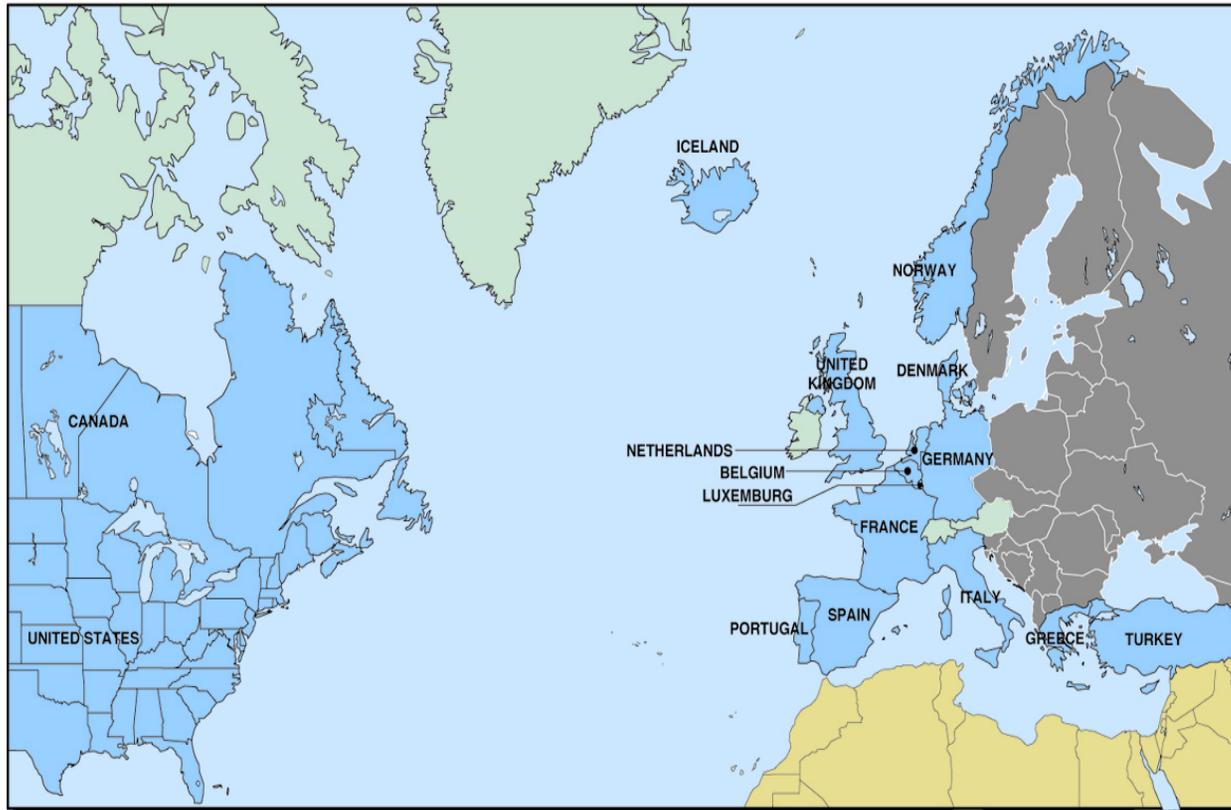
NATO Sonar Experiments in Greece 1996



Sonar Configuration



NATO Alliance



Ship: Owned by 16 nations; Italian home port; German flag

Sonar: United States

Operational Area: Greece

Whales: ???

What happened?

- **Timely necropsies not carried out – no causal link established**
- **Responsibilities of each state were not clear**
- **No mitigation or monitoring was in place**
- **No specific national or international policies to address underwater sound existed**

What did we learn?

- **Communication between partners is important**
- **Coordination among stranding networks is required**
- **Monitoring and mitigation techniques are needed**
- **NATO marine mammal guidelines were established**
- **A whale research program was started by NATO (Project SOLMAR)**

Lamont-Doherty Seismic Research in Mexico - September 2002



Lamont Doherty's Research Vessel "Ewing"



What happened?

- **Litigation (*Center for Biological Diversity v. NSF*)**
- **Cruise shut down – significant costs incurred**
- **Bad press**
- **No causal link established**
- **Misinterpretation of when permits/authorizations were needed (when/where does the MMPA apply?)**
- **Jurisdictional confusion (high seas vs. Mexican territorial waters)**
- **Lack of international and national guidelines**

What did we learn?

- **Checking with foreign states is not enough. For US citizens, the MMPA may apply**
 - *U.S. must provide clear guidance on when the law applies*
- **Better communication between flag and coastal states is needed**
 - *Be proactive-initiate contacts with environmental ministries*
 - *Support from scientific partners is important (e.g., Mexican scientists have been helpful to LDEO in dealing with the Mexican Environmental Secretariat)*
- **There can be significant costs to not having permits and authorizations in place.**
 - *Multiple permits/authorizations may be required (e.g., LDEO Alaska cruise required permits from: NMFS, Glacier Bay National Park, Alaska Fish & Game, US Army Corps of Engineers)*

In the absence of an international framework, what can we do?

- Check with all national authorities involved
- Know guidelines from each country
- Establish a contact in each country
- Local outreach may be required (e.g. local agencies, fishing groups)
- Establish causal links; coordinate stranding networks
- Conduct more research on effects of noise on marine life
- Have mitigation and monitoring procedures in place (e.g., LDEO invested in a whale detecting system)



What questions remain?

- **What role will international organizations play (e.g., UNEP, IWC, IOC)**
- **What about non-discrete sources of noise, like shipping?**
- **Can lawsuits and operational shutdowns be avoided?**
- **Would additional mitigation and monitoring have made a difference?**
- **Is being proactive good?**
 - *(e.g., LDEO's attempt to establish a stranding network in the Bahamas led to the denial of required authorization)*