Marine Scientific Research in the UN Convention on the Law of the Sea and in State Practice

Workshop on international scientific collaboration & legal regimes in a changing Arctic Ocean

21 September 2009, IARC UAF/Betsy Baker, Vermont Law School
On leave 2009-2010 Dartmouth College Institute of Arctic Studies

Photo: Steve Roberts UCAR/LDEO
Cont. Shelf up to 200 nmi: coastal state “exclusive, sovereign rights” to explore, exploit, protect resources of the seabed (coterminus w/ EEZ water column)

Outer Continental Shelves (beyond 200 nm): near-total coastal state rights to resources of the seabed

The Area: resources of seabed and subsoil= “Common Heritage of mankind” ISBA
ECS Submissions under UNCLOS

• Commission on the Limits of the Continental Shelf - CLCS
  – Coastal state limits based on CLCS recommendations are “final and binding”

• Must submit w/in 10 years of ratification of UN Convention on the Law of the Sea

• 40+ Submissions/Indications as of May 2009
Arctic ECS Mapping

- Two Arctic submissions to date:
  - Russia (2001),
  - Norway (2006/Recommendation 2009)
- Others actively mapping: Canada, Denmark/Greenland, U.S.
- U.S. is the only Arctic state not party to LOS (signed but not ratified)
Part XIII LOS Convention

Marine Scientific Research = MSR
and where it fits in the larger Convention

MSR is not defined in the treaty

Not all activities = MSR (e.g. MSR consent not required for hydrographic survey but other rules may apply)

MSR can be conducted in the territorial sea, EEZ or on the continental shelf only with consent of the Coastal State

EEZ = water column
Continental Shelf = seabed and subsoil
Early law of the sea

Figure adapted from
Harald Brekke
Member CLCS
Creeping state jurisdiction over ocean space: Seaward ➔

- Territorial sea breadth changed over time
  - 3 miles (cannon shot)
  - 6+6 miles (Russia 1911)
  - Why not out to 200 miles?

Downward ↓

- “Exploitability” - 200 meters in 1945
Today:

Maritime zones of jurisdiction under the LOS Convention

Figure adapted from Harald Brekke
Member CLCS
Territorial Sea:
“innocent passage” for all; coastal state consent required for MSR

EEZ (water column)
Cont. Shelf (seafloor/subsoil): all states enjoy high seas freedoms of navigation and overflight; coastal state consent for MSR

Figure adapted from Harald Brekke
Member CLCS
Part XIII LOS Convention

Article 246
(2) “MSR in the EEZ and on the continental shelf shall be conducted with the consent of the coastal State” (art. 245 same for Terr. Sea)

(3) “Coastal States shall, in normal circumstances, grant their consent” which shall not be delayed or denied unreasonably

Article 252
After four months, consent is implied
(realistically, no scientist wants to test this)
Part XI LOS Convention

Article 143 MSR in “The Area”

The Area = common heritage of mankind, seabed and subsoil beyond national jurisdiction

All States, and the International Seabed Authority, may carry out MSR in The Area.

States shall promote international cooperation in MSR in the Area
What is Marine Scientific Research?

U.S. EXCLUDES (i.e. does not require research consent for):

- Hydrographic surveys (art. 21(g) - considered “innocent passage”)
- Operational Oceanography (e.g. short-term estimation and forecasts, climate prediction)
- Exploration and exploitation of natural resources, underwater cultural heritage - but other, non-MSR, requirements may apply
• **U.S. scientists - MSR in Foreign EEZs**

  - Authorization to Conduct MSR in Foreign EEZs
    - Must be pursued through State Department, Office of Oceans and Polar Affairs (OPA)
    - Largely follows U.N. standard form
    - Chief Scientist obligated to submit a copy of the data collected during the cruise to each authorizing country. OPA facilitates this process
Advance U.S. Department of State consent is required for MSR “if and only if” any portion of the research
- is conducted within the U.S. territorial sea

or if any portion of the research w/in U.S. EEZ:
- involves the study of marine mammals or endangered species;
- requires taking commercial quantities of marine resources; or
- involves contact with the U.S. continental shelf.
Norwegian MSR Permissions

Norwegian Directorate of Fisheries grants permits

- **a)** Six month lead time unless DF allows shorter time limit for individual application;
  
  » Two months reply (normal response time)

- **b)** Norwegian legislation follows closely the provisions of LOS Part XIII.
Norwegian MSR Permissions

• Consent granted § 10
  • *when Directorate of Fisheries notifies applicant or*
  • *4 months after receipt of application, unless notified that consent will not be granted, info is wrong or inadequate, or the researcher has outstanding obligations to Norway*

• Conditions §11: *If requested, Norwegian authorities shall be provided with*
  
  » *(1) access to all data and samples from the project and copies/samples, if division won’t be detrimental*
  
  » *(2) assessment of data, samples, etc. or with help in assessing them.*
### Who has Regulatory Authority: Coastal or Flag State? (U.S. view)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Territorial sea</th>
<th>EEZ/Continental Shelf</th>
<th>High Seas</th>
<th>The Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine scientific research</td>
<td>Coastal State</td>
<td>Coastal State</td>
<td>Flag State</td>
<td>Flag State/ISBA</td>
</tr>
<tr>
<td>Hydrographic survey</td>
<td>Coastal State</td>
<td>Flag State</td>
<td>Flag State</td>
<td>Flag State</td>
</tr>
<tr>
<td>Military survey</td>
<td>Coastal State</td>
<td>EEZ: Flag State; Shelf: coastal State</td>
<td>Flag State</td>
<td>Flag State</td>
</tr>
<tr>
<td>Operational oceanography</td>
<td>Flag State/Coastal State</td>
<td>Flag State</td>
<td>Flag State</td>
<td>Flag State</td>
</tr>
<tr>
<td>Explore/exploit natural resources</td>
<td>Coastal State</td>
<td>Coastal State</td>
<td>Flag State</td>
<td>ISBA</td>
</tr>
<tr>
<td>Explore/exploit UCH</td>
<td>Coastal State</td>
<td>Flag State</td>
<td>Flag State</td>
<td>Flag State</td>
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</tbody>
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*Slide adapted from Captain J. Ashley Roach, COLP, Dublin 2006*
Although the means of data collection are often the same (and may appear indistinguishable from MSR) ...

... it is the *intended use* to which the data is to be put that distinguishes MSR from surveys, operational oceanography, and exploration/exploitation of resources.

Not MSR if available immediately and broadly to public.
R/V Marcus Langseth
Seismic study of geological fault line
Endeavour Hydrothermal Vents
Marine Protected Area (British Columbia)

Lawsuit by EcoJustice resulted in August 25, 2009 temporary injunction, Federal Court of Canada

Injunction lifted August 28, 2009, on conditions:
Reduce seismic db level 180 to 160 db
Increase # of Marine Mammal Observers
Increase distance for shut-down to 7.5 km

Credit: http://www.nature.com/news/2008/080430/images/453007a-i1.0.jpg
"In fact, their imminent legal action may have precipitated the requirement for increased mitigation measures."

Justice Michael Kelen, Federal Court of Canada

28 August 2009
1959 Antarctic Treaty as model?

• Need for a comprehensive *Arctic* treaty rejected by “Arctic 5”

• *Arctic ≠ Antarctica*, where there is no permanent population and sovereignty claims are suspended

• 1991 Environmental Protocol to ATS problematic for science
“The five coastal states currently cooperate closely in the Arctic Ocean with each other and with other interested parties. This cooperation includes the collection of scientific data concerning the continental shelf, the protection of the marine environment and other scientific research. We will work to strengthen this cooperation, which is based on mutual trust and transparency, inter alia, through timely exchange of data and analyses.” Ilulissat Declaration May 2008
Possible ways forward

• Ilulissat Declaration:
  – almost mentioned need for special Arctic research regime
  – points to Barents Euro-Arctic Council, Arctic Council

• Negotiated bilateral or regional research regime for Arctic Ocean

• Possible models:
  – IABP
  – EU Draft Directive (tabled) more lenient