Sea Level Change and Baselines

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Sea Level Change and Baselines

- Global Climate Change and Sea Level Rise
- Baselines in the United Convention on the Law of the Sea
- Views on the Nature of Baselines
- Graphics and Scenarios
- Discussion
Global Climate Change and Sea Level Rise

- Global Warming
- Implications of sea level rise
- Sea Level Rise due to glacier and ice sheet melt and thermal expansion of water

- Contrasting opinions
UNCLOS and Baselines

- Normal (Article 5)
- Straight (Article 7)
  - Archipelagic (Article 47)
- Closing Lines (Articles 9-13)
- The use of normal vs. straight baselines
- Due publicity and deposit of charts (Article 16)
The Nature of Baselines

- Fixed
- Ambulatory
- Hybrid

- What is the legal baseline?
- How often should the baseline be updated?
  - Article 7.2
- Sea Level Rise or Decrease
The Nature of Baselines

- Approximately 116 entities with partial or full straight baselines
- Approximately 22 of these have made revisions of an original claim
- 27 nations fulfilled deposit of charts requirements (as of 4 January 2008)

Graphics and Scenarios

- United States
- Bangladesh
- Denmark
- Indonesia
Graphics and Scenarios

- There are several online sea level rise viewers and illustrations. Two of these are:
  - University of Arizona: 1-6 meters  
    - [http://geongrid.geo.arizona.edu/arcims/website/slrus48prvi/viewer.htm](http://geongrid.geo.arizona.edu/arcims/website/slrus48prvi/viewer.htm)
  - Firetree.net: 0-14 meters  
    - [http://flood.firetree.net/?ll=43.3251,-101.6015&z=13&m=7](http://flood.firetree.net/?ll=43.3251,-101.6015&z=13&m=7)
United States: Gulf Coast Maritime Claims and Boundaries
United States: 0-2 meter land
ETOPO2v2 data (NOAA NGDC)
United States - Gulf coast:
1 meter sea level rise
http://flood/firetree.net
Rising Temperatures, Disappearing Coastlines

Greenland and Antarctica hold the world's largest reservoirs of fresh water, locked in their giant ice sheets. Global warming may cause large parts of these ice sheets to melt within centuries. If they did, this is what would happen to Florida...

Florida: 6 meter sea level rise
http://www.npr.org
Bangladesh: Straight Baseline Claim
Bangladesh:
0-2 meter land
ETOP02v2 data (NOAA NGDC)
Denmark: Straight Baseline Claim
Denmark: Southeastern coast:

North Sea
Denmark:
0-2 meter land
ETOP02v2 data (NOAA NGDC)
Denmark:
1 meter sea level rise
http://flood/firetree.net
Indonesia:
2002 Archipelagic Baseline
Indonesia: 1960 Archipelagic Baseline
Indonesia:
0-2 meter land
ETOPO2v2 data (NOAA NGDC)
Indonesia: Maritime Boundaries
Indonesia:
2 meter sea level rise
http://flood/firetree.net
Discussion

- What is the response to the potential acceleration of coastline change?
  - Are better definitions needed?
  - Baseline Enforcement (a la CLCS)
  - State Parties agreement
Conclusions

- Further Discussion is Needed
- Legal Case Review
- Consensus

“Coastlines: How Mapmakers Frame the Worlds and Chart Environmental Change”: by Mark Monmonier due out this month

International Marine Conservation Congress (20-24 May, Fairfax, VA)
Questions?

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