

New Approaches to Oil Spill Technologies and Response Strategies in Remote Contexts

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The goals:

- Rapid response through distributed technologies
- Maximize recovery and removal (IDROS)
- Reduce storage and transport
- Reduce responder / oil contact
- Gain social licence through maximized remediation
- Addressing new risks and issues: the Arctic

The RESTCo criteria:

- ✓ Rapid deployment
- ✓ Engage 1st responders
- ✓ Effective & efficient
- ✓ Sealed storage
- ✓ Minimum responder exposure
- ✓ No additional damage
- ✓ Minimal addition to the waste stream (air, land and water)
- ✓ Ice capable and works in harsh weather
- ✓ Max'ed remediation
- ✓ Cost effective

Issues with current technology portfolio:

- In situ burning
 - soot, 'dark snow'
- Dispersants
 - increased bioavailability in the water column
- Conventional booming, herding, skimming
 - require daylight and calm weather
- Absorbents
 - toxic waste stream

Future R&D Directions:

- ✓ Next generation mechanical recovery
- ✓ Bioremediants
- ✓ Adsorbents
- ✓ Molecular binders
- ✓ Increased safety for responders
- ✓ Community delivered
- ✓ New tech, e.g., nano

Still needed:

- *Policy making which inspires innovation*
- *Desire to improve*

acknowledgements: Dr. Ian Stewart, University of Kings College

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