Marine Energy Research at UAF

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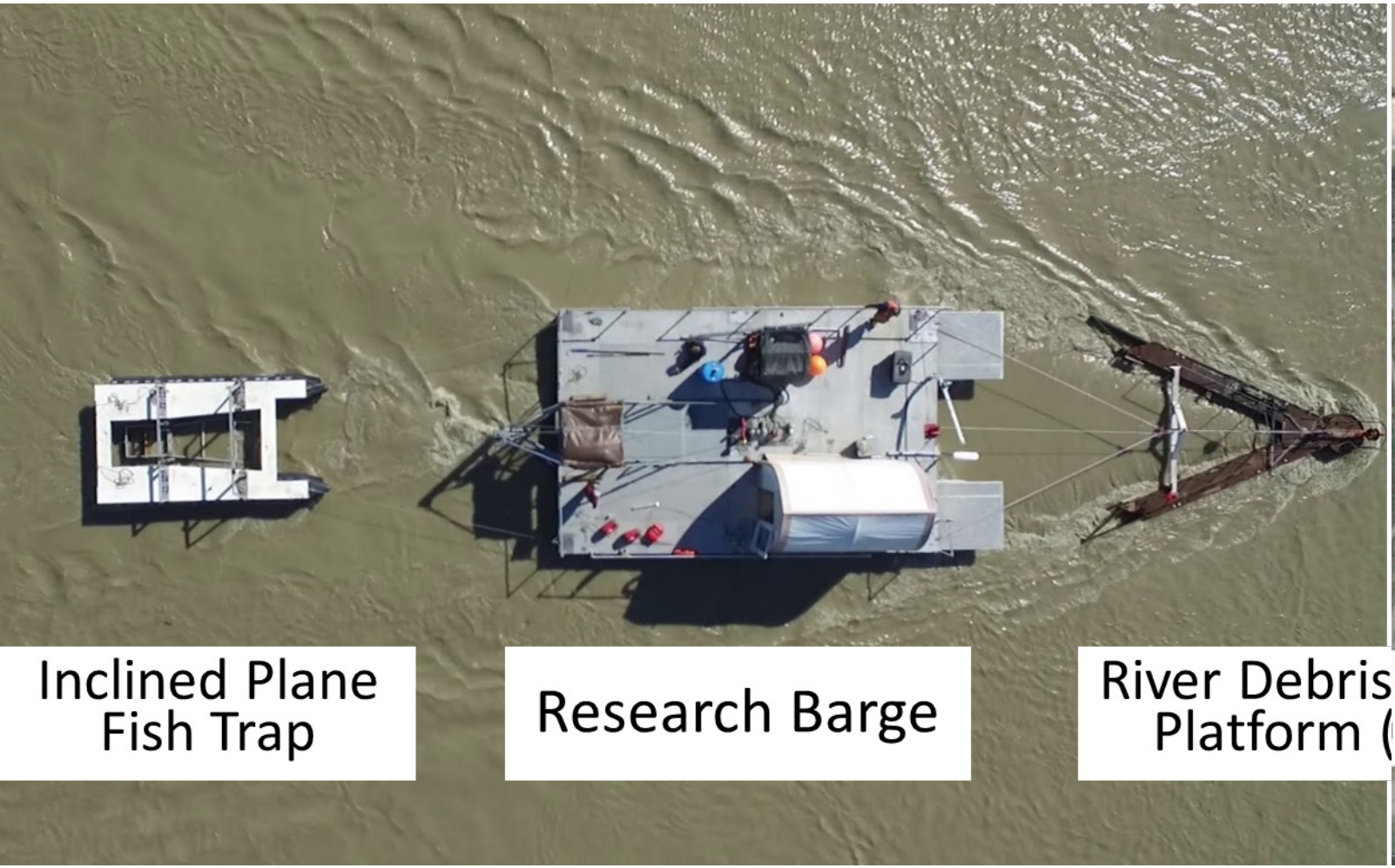
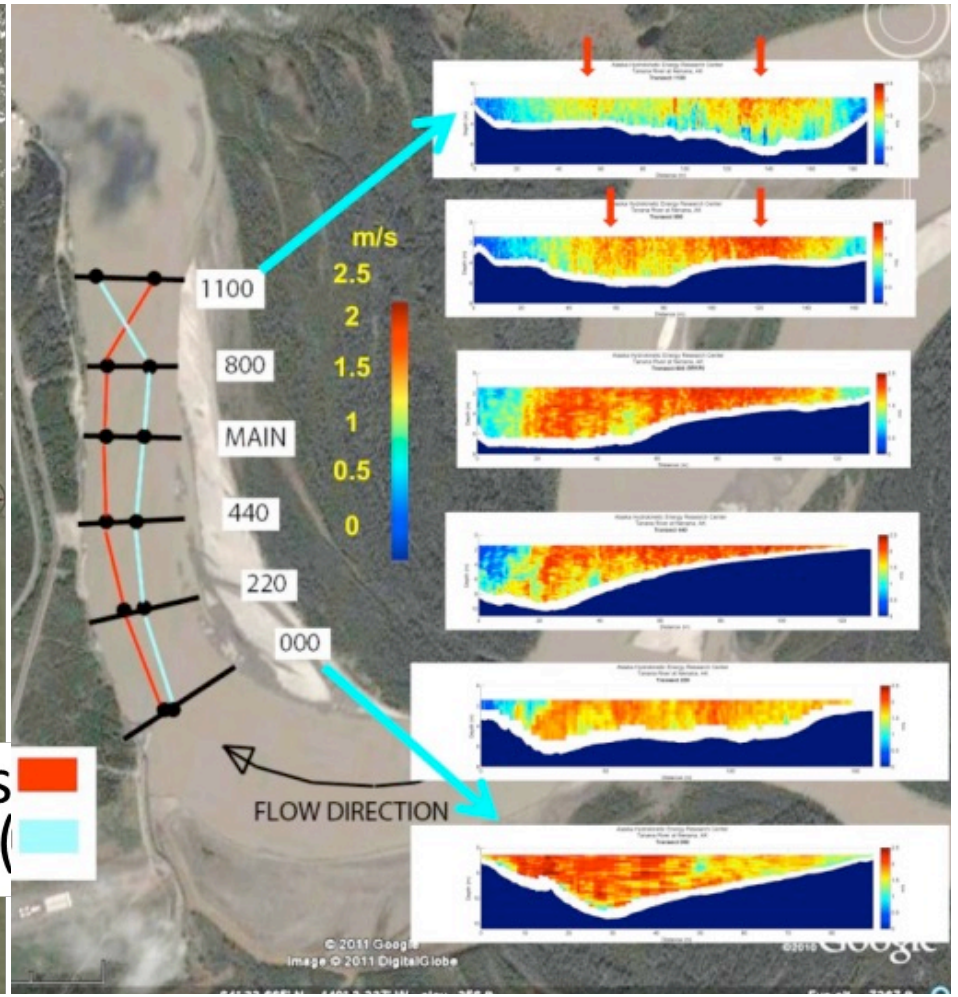
PMEC
Pacific Marine Energy Center

UNIVERSITY OF ALASKA FAIRBANKS

Oregon State University

Tanana River Test Site





Hydrokinetic Experience

Hydrokinetic Experience

Alaska State Investment in Tidal

- Governor's office interested in planning for Alaska's post-oil future.
- Recognize immense potential in Cook Inlet
- Funding to ACEP (UAF applied research group) to prepare roadmap for Cook Inlet tidal development
- ACEP subcontracting NREL and PNNL:
  - Host working group and in-person workshop
  - Prepare and deliver report on tidal roadmap to AK legislature

TEAMER – Hilcorp Cook Inlet Survey

- Hilcorp awarded UAF technical support through TEAMER
- Work will perform ADCP transects and multibeam bathymetry in vicinity of Hilcorp gas platforms
- Will deliver data to PNNL for model validation/refinement
- Will deliver data to Hilcorp for technology evaluation and demo project planning

Alaska Energy Future

1. Tidal R&D, platform power
2. Tidal to electric utilities (RPS)
3. Tidal to synthetic fuels (export market)
    1. Hydrogen Hub
    2. Ammonia, etc to export markets and rural Alaska
    3. AK heating and transportation
4. Tidal, synthetic fuels and carbon sequestration
    1. Natural gas export, CO2 import
    2. Synthetic fuel decarb and sequester

Renewable Portfolio Standard Assessment for Alaska's Railbelt

Paul Denholm, Marty Schwarz, Elise DeGeorge, Sherry Stout, and Nathan Wiltse

NREL is a national laboratory of the U.S. Department of Energy
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