

## Experts Workshops to Comparatively Evaluate Coastal Currents and Ice Movement in the Northeastern Chukchi Sea

March 11–12, 2013 (Mon–Tues.) at Ilisagvik College (Tom Albert Room) in Barrow, Alaska

March 14–15, 2013 (Thurs–Fri.) at the Community Center in Wainwright, Alaska

### Summary

- Two round table workshops of 2 days in duration each will be held in Barrow and Wainwright.
- Participant will include Iñupiat ocean and ice experts, geophysicists, oceanographers, operational and industry representatives, etc.
- Workshop goals:
  1. **Sharing knowledge.** Invited participants will share their knowledge of coastal currents and ice movement in the northeastern Chukchi Sea. Participants are highly encouraged to make contributions that are understandable to others that may not share the same expertise or culture. Information will be shared in various forms (stories, summaries of observations, graphical material such as animations or maps, web resources, etc.). Printed material that can be placed on the walls or tables, or provided as handouts, is generally preferred over PowerPoint presentations; however, a computer and projection screen will be available.
  2. **Combining knowledge.** We will identify areas where different bodies of knowledge agree and disagree and where one body of knowledge or available information may complement another. We will focus on dominant, persistent, or recurring spatial patterns, processes that aggregate marine life, and case studies of marine hazards or emergency events.
  3. **Identifying relevance and making recommendations.** We will apply our collective understanding of coastal currents and ice movement in the northeastern Chukchi Sea toward identifying data and knowledge gaps and making joint recommendations on how to improve environmental monitoring, ocean and oil spill trajectory modeling, and risk management and emergency response capabilities.
- Outcomes:
  1. **Improved understanding.** Sharing knowledge between different experts will improve the collective understanding of the role of coastal currents, local weather patterns, and bathymetry in controlling ice movement and the dispersal of marine life in the northeastern Chukchi Sea.
  2. **Report for improved monitoring and response.** A report will be prepared to convert lessons-learned into strategic guidance for improving environmental monitoring programs, ocean and oil spill trajectory modeling, and risk management and emergency response capabilities.
  3. **Report for communities.** A report will be prepared for participating communities that summarizes the knowledge and information shared during the workshop and the practical outcomes. Much of the workshop will be recorded, especially the shared knowledge of the invited experts. These recordings will be available as part of the report.

## Draft Workshop Summary and Agenda (last updated Feb 28, 2013)

**Agenda** *(the same 2-day agenda will be applied to both the Barrow & Wainwright workshops)*

**Primary Organizer:** Matt Druckenmiller

**Facilitator:** Richard Glenn

### Day 1 AM – Welcome, Introductions, Overview, and Objectives

8:00-8:15 AM – Arrival

8:15 AM – Invocation (TBD)

8:15-8:45 AM – Local expert from Barrow/Wainwright to introduce the workshop setting (TBD)

8:45-9:15 AM – Background and purpose of workshop (Hajo Eicken, UAF)

9:15-9:30 AM – Introductions

9:30-9:50 AM – Break

9:50-10:10 AM – Background on ocean circulation (Mark Johnson, UAF)

10:10-10:30 AM – Background on sea ice movement (Matt Druckenmiller, NSIDC)

10:30-11:00 AM – Additional comments on topics of concern by participants

11:00-11:20am – Break

11:20-12:00 AM – Preliminary discussion on what to accomplish

12:00-1:30 PM – Lunch at Ilisagvik College Cafeteria in Barrow / Catered lunch in Wainwright

### Day 1 PM – Knowledge Sharing

1:30-4:15 PM (with one scheduled break) – Contributions from:

- Local experts on their knowledge and observations of marine mammal behavior, coastal currents, sea ice, and search and rescue issues
- Summary of past efforts to document local expert knowledge – Craig George
- Observations of surface currents by high frequency radars – Tom Weingartner
- Shell's observation activities and information needs – Michael Macrander
- GNOME (General NOAA Operational Modeling Environment) - Amy MacFadyen
- Arctic ERMA (Environmental Response Management Application) - Zach Winters-Staszak

4:15-4:30 PM – Break

4:30-5:00 PM – Summarize key points from the day and set discussion priorities for Day 2

The wrap-up discussion from Day 1 will set discussion priorities for Day 2. To the extent possible, we will devote scheduled time blocks to these priorities so that outside participants who wish to join by teleconference can appropriately plan.

### Day 2 AM – Combining Knowledge

Identify areas where different bodies of knowledge agree and disagree and where one body of knowledge or available information may complement another.

8:30-12:00 AM (with one scheduled break) – Focus on:

- More detailed presentation on current model simulations
- Dominant, persistent, or recurring spatial patterns
- Processes that aggregate marine life
- Case studies of marine hazards or emergency events

12:00-1:30 PM – Lunch at Ilisagvik College Cafeteria in Barrow / Catered lunch in Wainwright

### Day 2 PM – Synthesis and Recommendations

Apply collective understanding of coastal currents and ice movement in the northeastern Chukchi Sea toward identifying data and knowledge gaps and making joint recommendations.

1:30-4:00 PM (with one scheduled break) – Focus on:

- Identifying data and knowledge gaps
- Recommendations on improving environmental monitoring
- Ways to improve ocean and oil spill trajectory modeling
- Ways to improve emergency response capabilities

4:00-4:15 PM – Break

4:15-4:45 PM – Summarize what has been accomplished, ensure key points for the report, and discuss next steps

4:45:00-5:00 PM – Complete survey on workshop approach and effectiveness

### List of Participants – Tentative

#### Barrow Workshop

- 5-10 local experts from Barrow (TBD)
- 1-2 local experts from Nuiqsut (TBD)
- 1-2 local experts from Atqasuk (TBD)
- Billy Adams, Barrow
- Archie Ahkiviana, Nuiqsut
- Paul Bodfish, Atqasuk
- Eugene Brower, Barrow
- Lewis Brower, Barrow

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- Matthew Druckenmiller, National Snow and Ice Data Center
- Hajo Eicken, University of Alaska Fairbanks
- Craig George, North Slope Borough Department of Wildlife Management
- Richard Glenn, Arctic Slope Regional Corporation
- Charlie Hopson, Barrow
- Ben Itta, Barrow
- Mark Johnson, University of Alaska Fairbanks
- Joe Mello Levitt, Barrow
- Amy MacFadyen, NOAA
- Michael Macrander, Shell
- Andy Mahoney, University of Alaska Fairbanks
- Eli Nukapigak, Nuiqsut
- Clifford Okpeaha
- Margaret Opie, Barrow
- Billy Oyagak, Nuiqsut
- Robert Suydam, North Slope Borough Department of Wildlife Management
- Ellen Tyler, Alaska Ocean Observing System
- Tom Weingartner, University of Alaska Fairbanks
- Zach Winters-Staszak, Arctic ERMA
- National Weather Service Representative (TBD)

### Wainwright Workshop

- 5-10 local experts from Wainwright (TBD)
- 1-2 local experts from Point Lay (TBD)
- 1-2 local experts from Point Hope (TBD)
- 1-2 local experts from Atqasuk (TBD)
- Ransom Agnasagga, Wainwright
- Ben Ahmaogak Jr., Wainwright
- Mary Ellen Ahmaogak, Wainwright
- Paul Bodfish, Atqasuk
- Matthew Druckenmiller, National Snow and Ice Data Center
- Hajo Eicken, University of Alaska Fairbanks
- Craig George, North Slope Borough Department of Wildlife Management
- Richard Glenn, Arctic Slope Regional Corporation
- Mark Johnson, University of Alaska Fairbanks
- Amy MacFadyen, NOAA
- Michael Macrander, Shell
- Thomas Nukapigak, Point Lay
- Enoch Oktollik, Wainwright
- Julius Rexford Sr., Point Lay
- Bob Shears, Wainwright
- Ellen Tyler, Alaska Ocean Observing System
- Tom Weingartner, University of Alaska Fairbanks
- Zach Winters-Staszak, Arctic ERMA
- National Weather Service Representative (TBD)