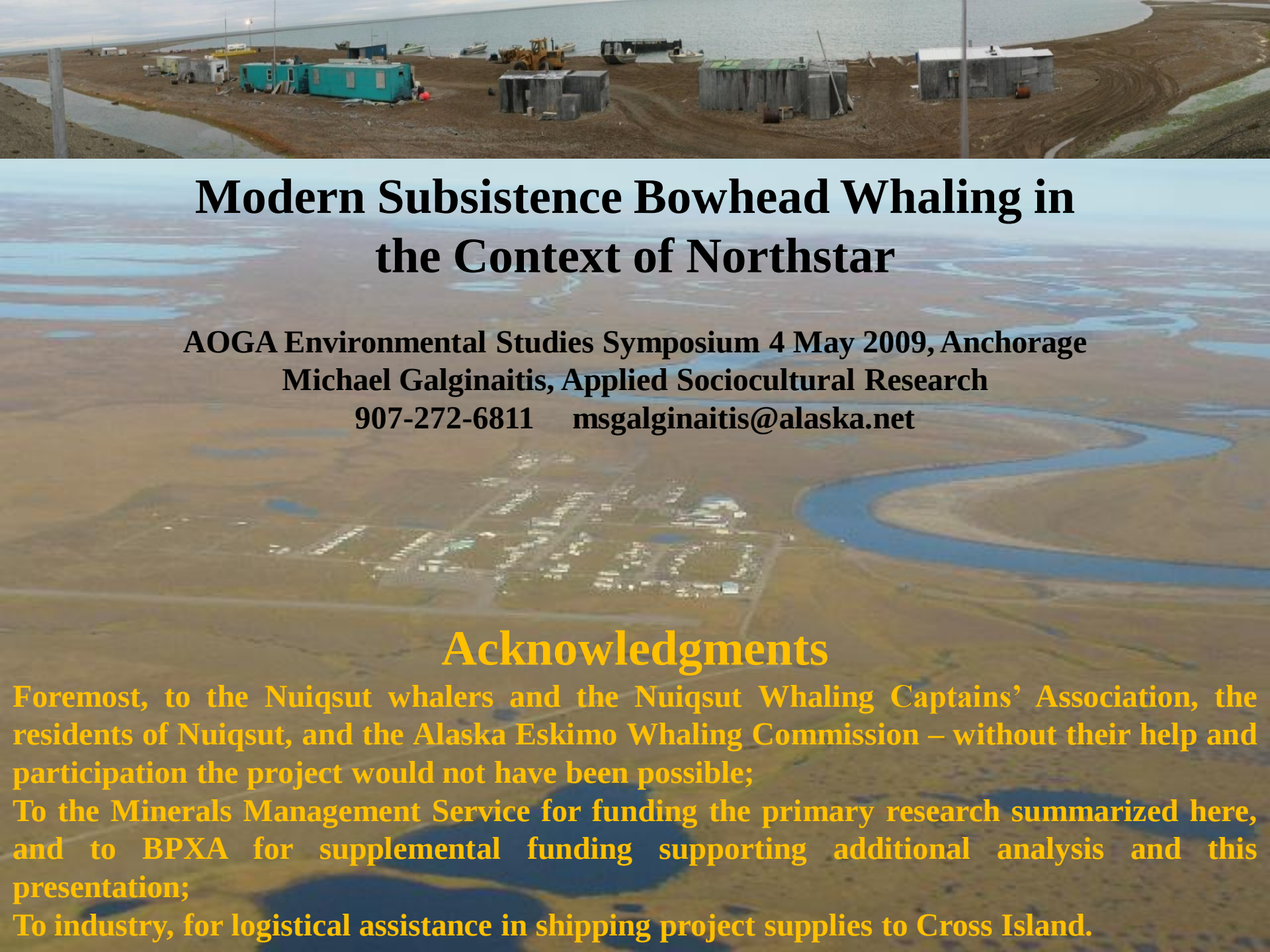


An aerial photograph of a coastal area, likely in Alaska. In the foreground, there's a wide, muddy river or estuary with a winding path. Several small, rectangular buildings are scattered along the shoreline. Some are light blue, others are grey or white. A yellow excavator is visible near one of the buildings. In the background, the ocean is visible with a few more buildings and a small boat. The sky is overcast.

Modern Subsistence Bowhead Whaling in the Context of Northstar

AOGA Environmental Studies Symposium 4 May 2009, Anchorage
Michael Galginaitis, Applied Sociocultural Research
907-272-6811 msgalginaitis@alaska.net

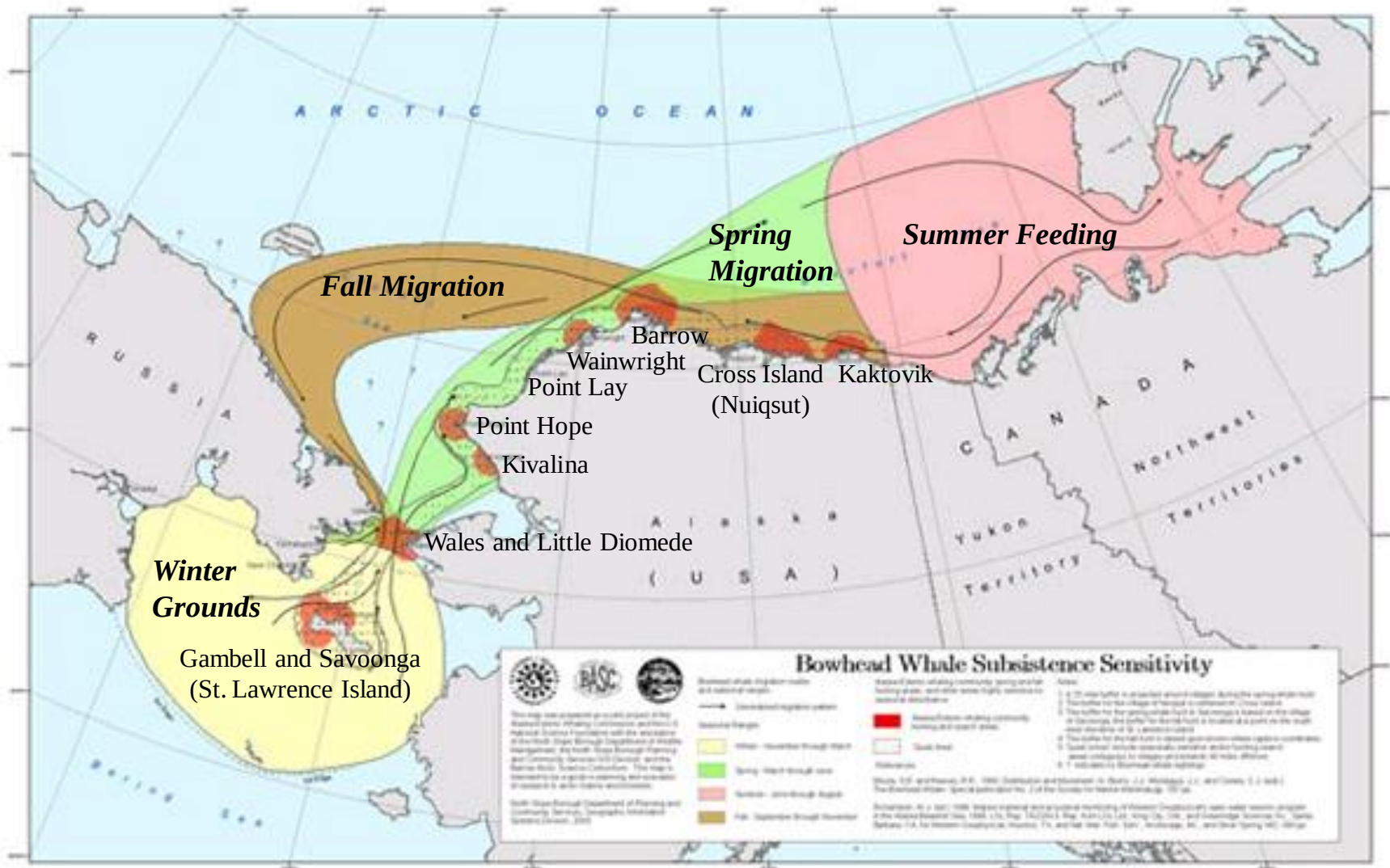
Acknowledgments

Foremost, to the Nuiqsut whalers and the Nuiqsut Whaling Captains' Association, the residents of Nuiqsut, and the Alaska Eskimo Whaling Commission – without their help and participation the project would not have been possible;

To the Minerals Management Service for funding the primary research summarized here, and to BPXA for supplemental funding supporting additional analysis and this presentation;

To industry, for logistical assistance in shipping project supplies to Cross Island.

Simplified Bowhead Whale Migration Route and Subsistence Harvest Areas -- Western Arctic Stock



Alaska Eskimo Whaling Commission and the U.S. National Science Foundation; with the assistance of the NSB Department of Wildlife Management, the NSB Planning Department GIS Division, and the Barrow Arctic Science Consortium

Location Map, Landmarks, and Routes Between Nuiqsut and Cross Island

Figure 1

0 5 10 20 Miles

August 2004

0 10 20 40 Km

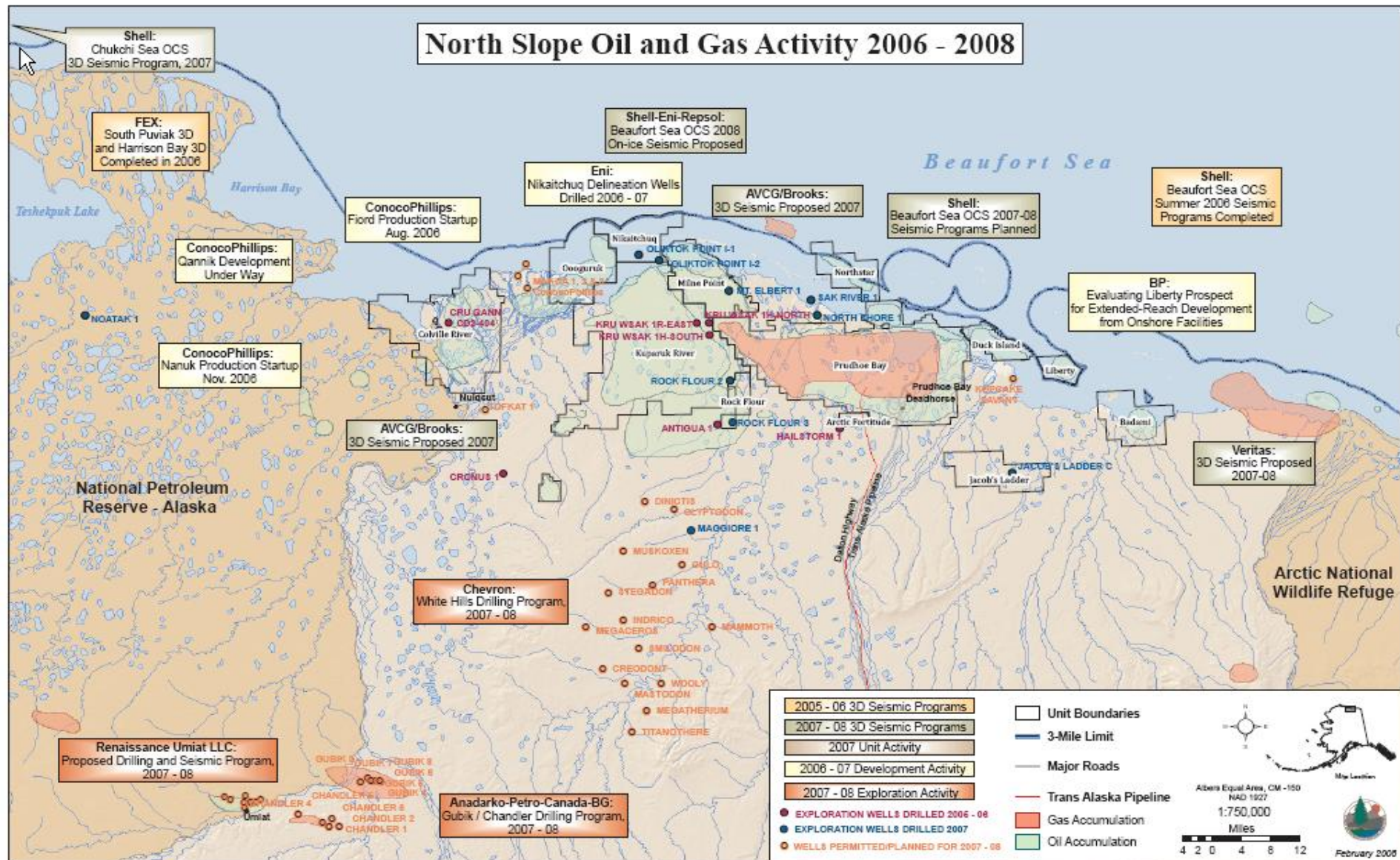
BEAUFORT SEA

Cross Island 92-109 miles from Nuiqsut by water
Cross Island 17 miles E of Northstar, 15 miles NE of West Dock, and 17 miles N of Endicott

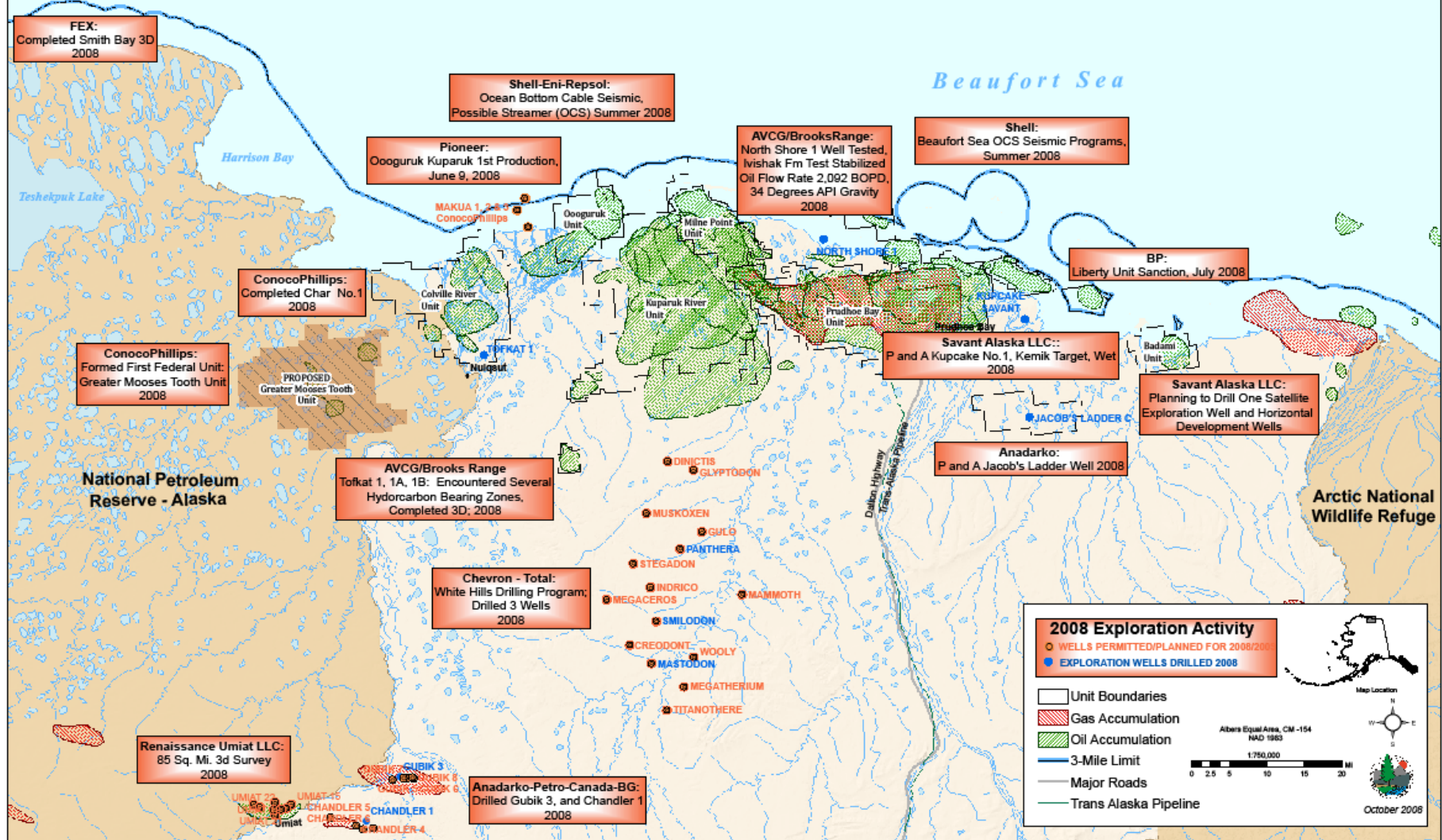


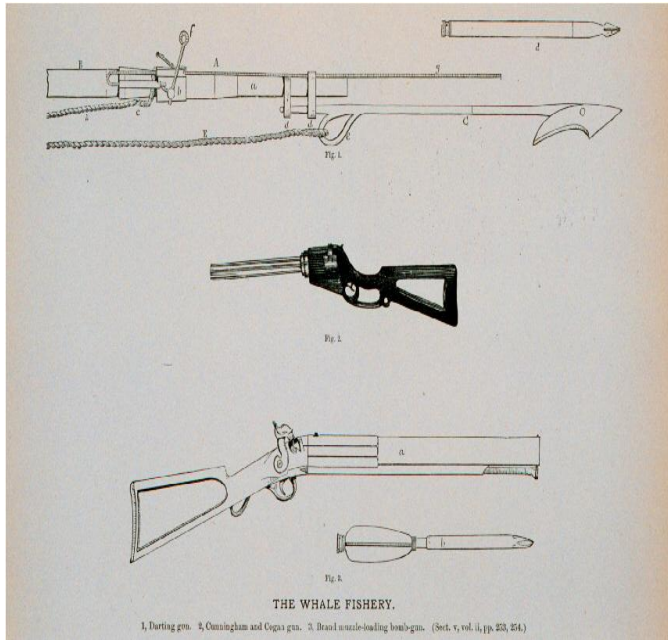
Recent North Slope Oil and Gas Activity

Source - Department of Natural Resources, State of Alaska



Source - Department of Natural Resources, State of Alaska





Representative Boat Crew Prepared to Go Scouting for Whales



Napageak Boat
at Nuiqsut



Taalak Boats at Cross Island



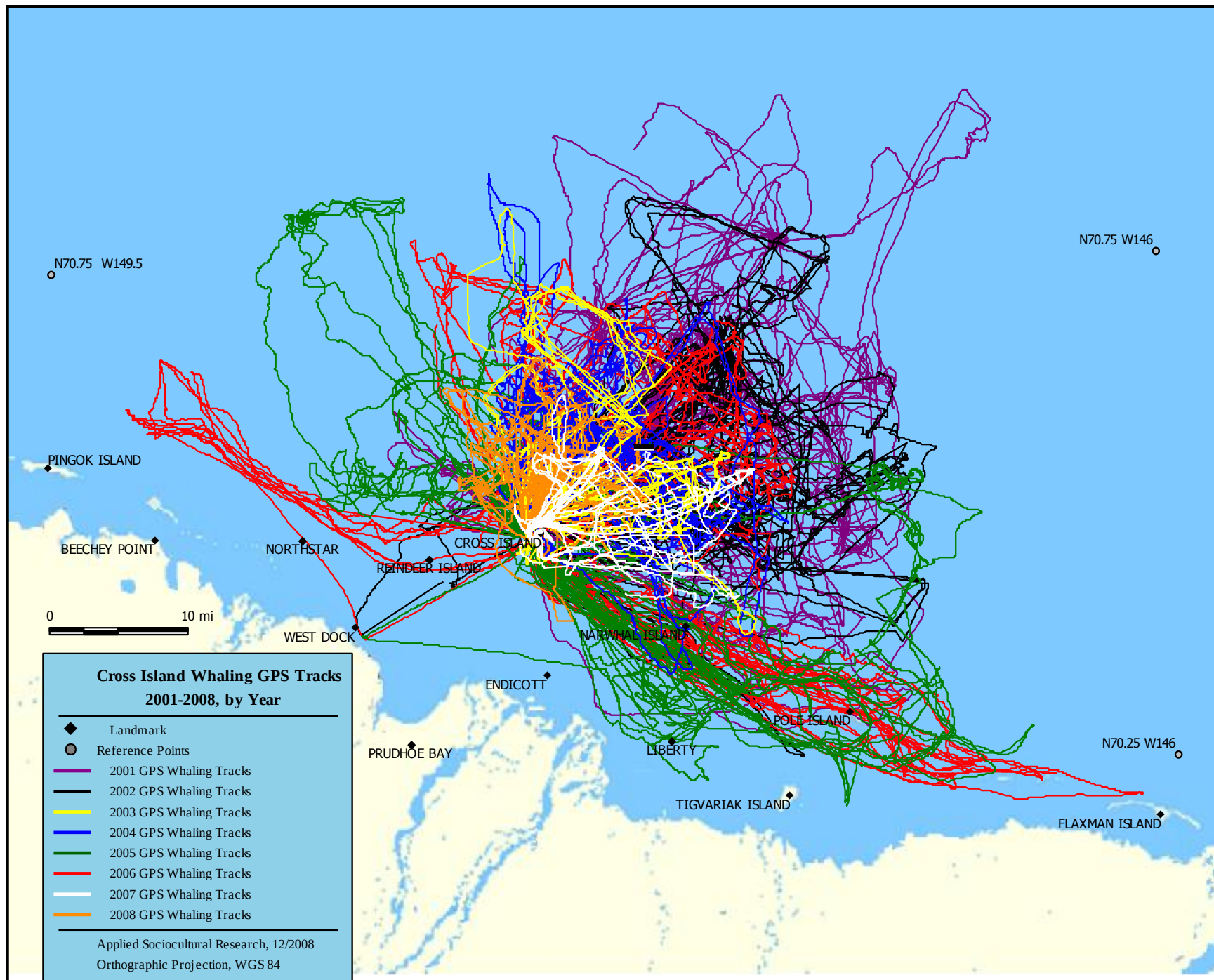
Ipalook Boats at Nuiqsut

Nukapigak Boats at Cross Island



Oyagak Boats at Cross Island

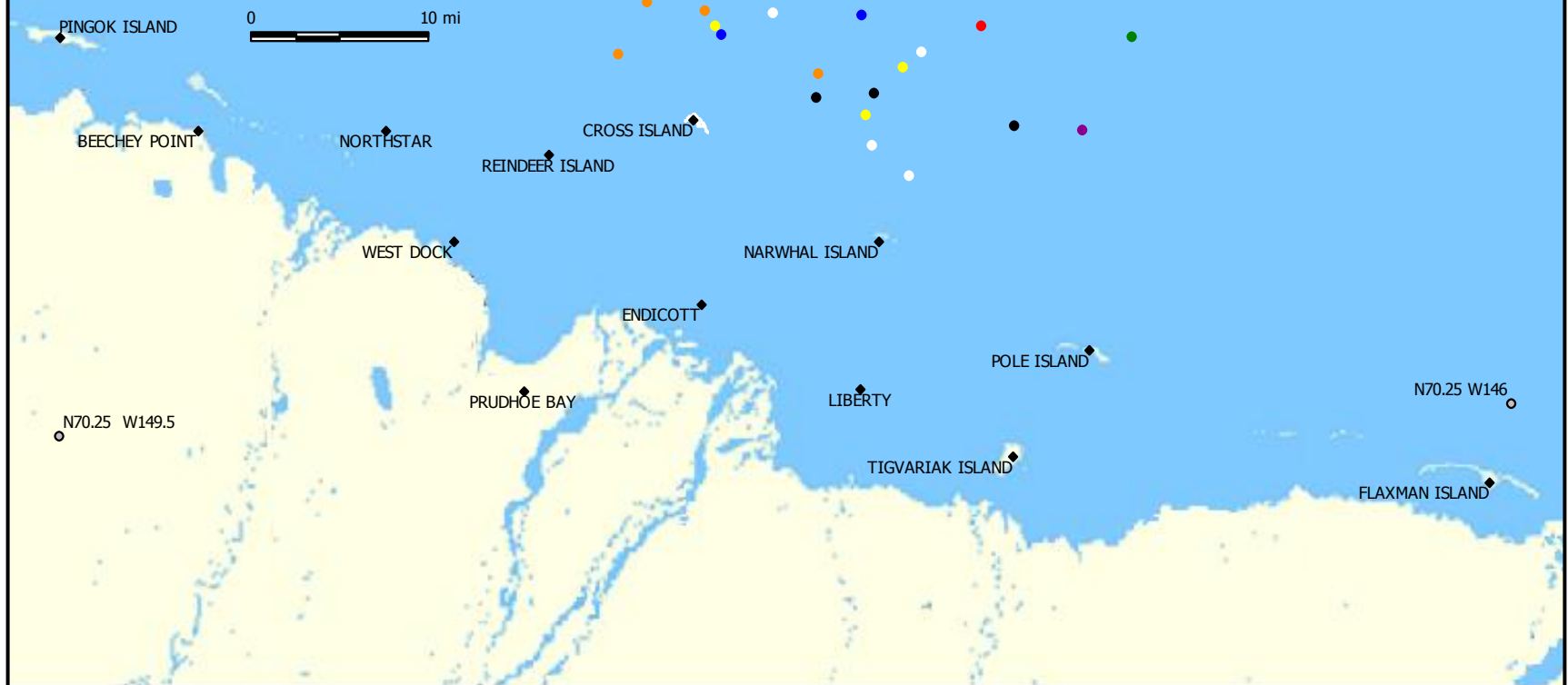




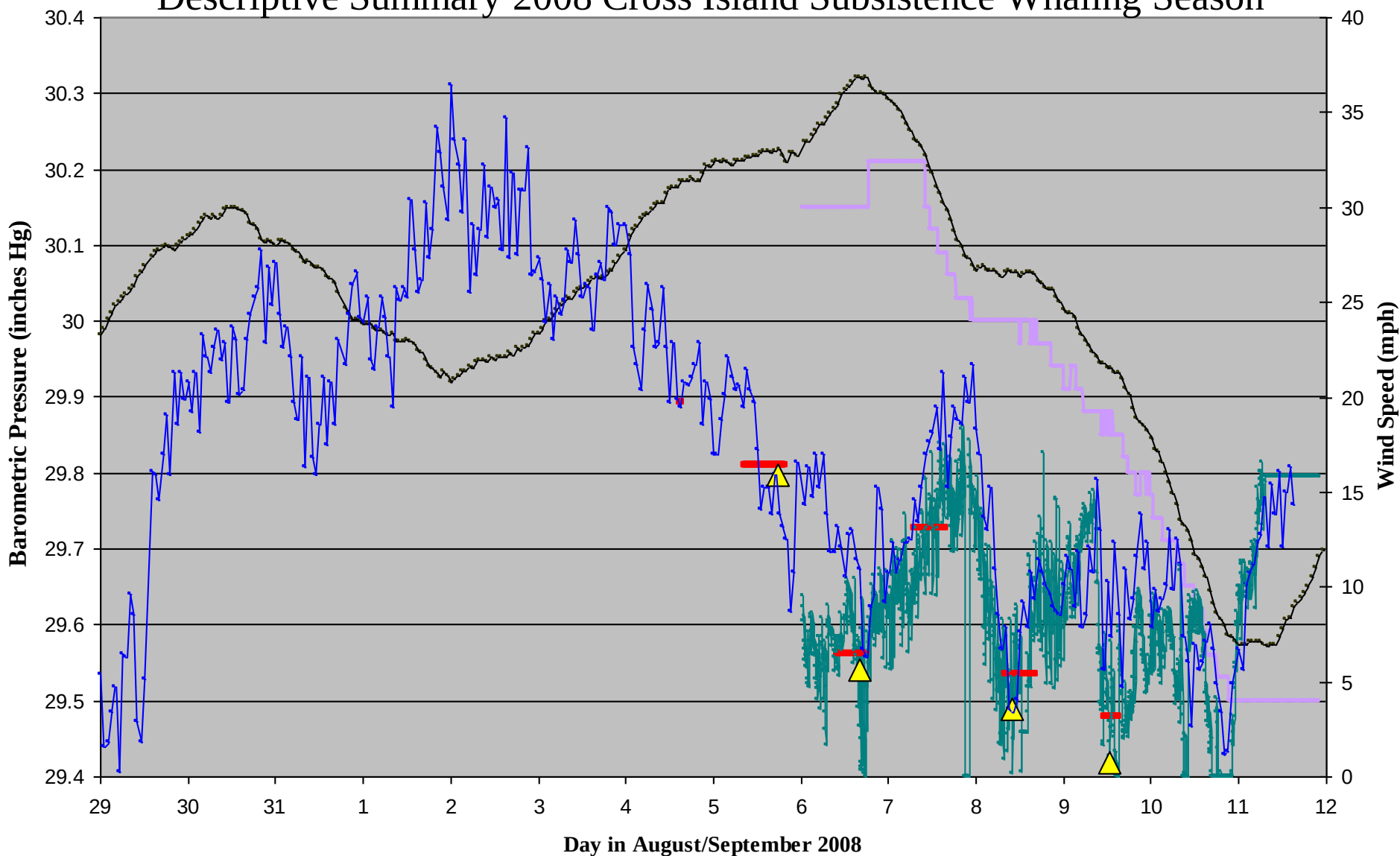
Cross Island Whale Strikes 2001-2008, by Year

- ◆ Landmark
- Reference Points
- 2001 Whale Strikes
- 2002 Whale Strikes
- 2003 Whale Strikes
- 2004 Whale Strikes
- 2005 Whale Strikes
- 2006 Whale Strikes
- 2007 Whale Strikes
- 2008 Whale Strikes

Applied Sociocultural Research, 05/2009
Orthographic Projection, WGS 84



Descriptive Summary 2008 Cross Island Subsistence Whaling Season



Deadhorse Barometric Pressure

Cross Island Barometric Pressure

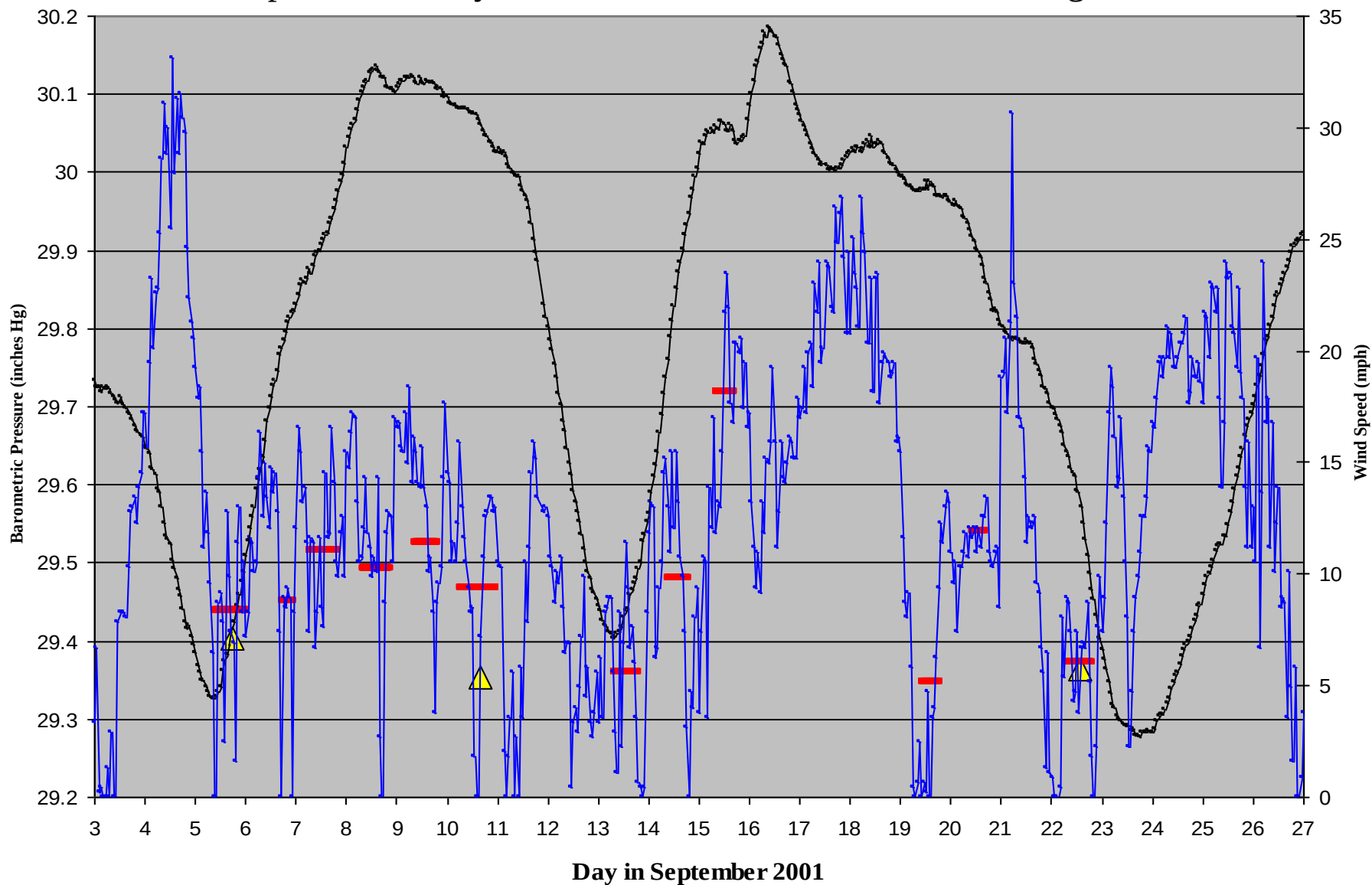
Boating

Deadhorse Wind (mph)

Cross Island Wind (mph)

Whale Strike

Descriptive Summary 2001 Cross Island Subsistence Whaling Season



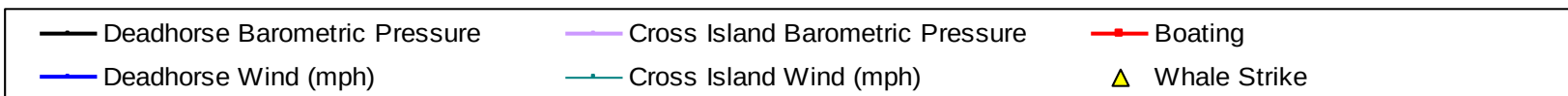
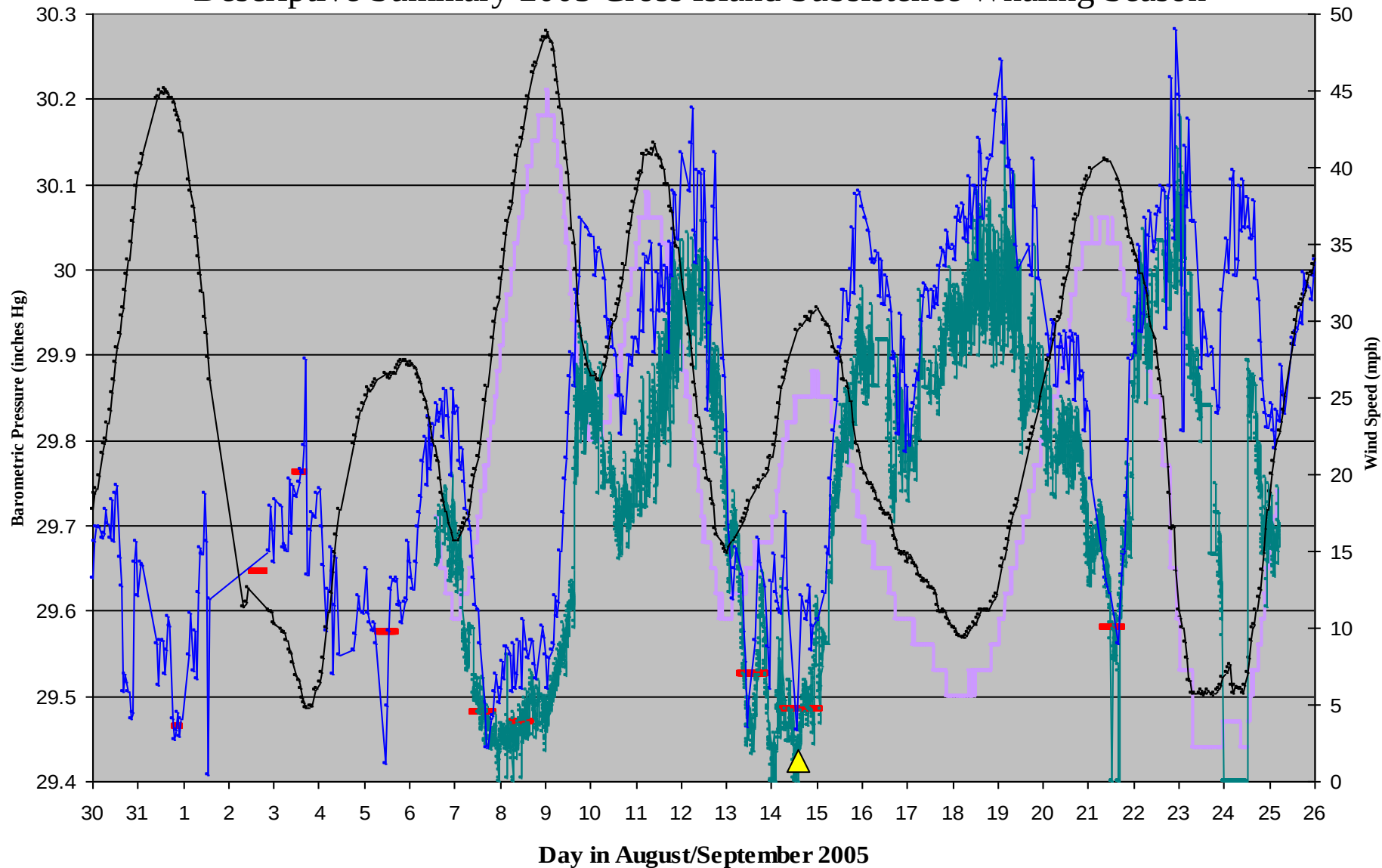
— Deadhorse Barometric Pressure

▲ Whale Strike

— Boating

— Deadhorse Wind (mph)

Descriptive Summary 2005 Cross Island Subsistence Whaling Season



Selected Measures of Cross Island Whaling, 2001-2008

Metric		Season							
Measure	Type	2001	2002	2003	2004 ⁹	2005 ⁹	2006	2007	2008 ¹⁰
Whales Taken/Whales Struck and Lost	count	3/0	4/1	4/0	3/0	1/0	4/0	3/1	4/0
Active Crews on Cross Island (maximum)	count	4	3	4	4	5	4	5	6
Scouting Boats on Cross Island (maximum)	count	7	9	10	8	8	7	9	12
Cross Island Population	average	27.7	26.6	20.4	18.9	29.8	29.2	26	22 (36)
Length of Season ¹	count	24	23	19	30	27	21	13	14 (7)
Average Length of Season/Crew (days on Cross Island)	average	22.5	19.34	13.25	19.25	21	21	10.4	7.3
Weather Days	count	8-9	4	8	10	11-15	4	3	6 (0)
# days scouting ²	count	12	15	7	12	9	10	5	5 (5)
# days whales seen ³	count	9	9	7	6	7	8	4	5
Boats scouting/day	average	4.8	4.3	4.9	3.4	4.0	4.8	3.2	4.8 (5.4)
# boat days ⁴	count	57	65	34	41	35	48	16	29 (27)
# boat trips (possible # of GPS tracks) ⁵	count	59	67	42	46	48	53	22	33 (31)
Actual # of GPS tracks collected	count	49	52	37	44	48	51	20	30
Length of trip (miles)	average	84.0	64.3	37.2	45.3	60.7	60.8	30.1	32.1
Duration of trip (hours:minutes)	average	9:43	7:58	4:31	6:51	7:07	8:13	5:39	5:03
Furthest point from Cross Island (miles)	average	23.6	19.5	11.6	12.1	19.1	22.2	10.4	8.3
Strike distance from Cross Island (miles) ⁶	average	19.5	13.4	9.3	9.7	25.9	17.0	12	6.5
Strike Direction from Cross Island –degrees ^{6,7}	average	64°	67°	56°	36°	82°	59°	80°	05°
Boat Crew Size	average	3.9	3.6	2.9	3.6	4.4	4.3	4.2	3.8
Total Seasonal Boat Effort (Boat-Hours) ⁸	sum	572.9	533.6	162.9	301.2	341.3	427.1	124.3	158.0
Boat Hours/Strike	average	191.0	106.7	40.7	100.4	341.3	106.8	31.1	39.5

¹Number of days with at least one crew on Cross Island - includes day of arrival at and departure from Cross Island.

²Number of days when at least one boat went out scouting for whales

³Number of days when at least one crew saw whales while scouting from a boat. Blows were seen from Cross Island on a few non-scouting days, but are not included in these totals.

⁴Each boat scouting for whales on any given day counts as one "boat day" – regardless of the duration of the trip or if whales are seen or not. Thus if 2 boats scout on one day and 4 boats scout on the next, the total for the two days would be 6 boat days.

⁵Some boats made more than one scouting trip on a single day

⁶Includes "struck and lost" whales in 2002 and 2007

⁷Due north is 0 (and 360) degrees, due east is 90 degrees – includes struck and lost as well as landed strikes

⁸Yearly total equals aggregate sum of duration of all whaling trips by all boats. Includes estimates for missing information.

⁹One crew went to Cross Island well before other crews, so total season measures may be somewhat misleading. See 2004 and 2005 Annual Reports.

¹⁰Figures in parentheses () are values for the 7 days when more than 1 crew was on Cross Island.

Ipalook Whale, 2008



Peeling Muktuk



Taking Intestines



Muktuk Crew Shares



Meat



Polar Bears at Butcher Site



Boxed up Whale

Nulukataq in Nuiqsut

June 2008, celebrating one of
2007's whales

QUESTIONS?

