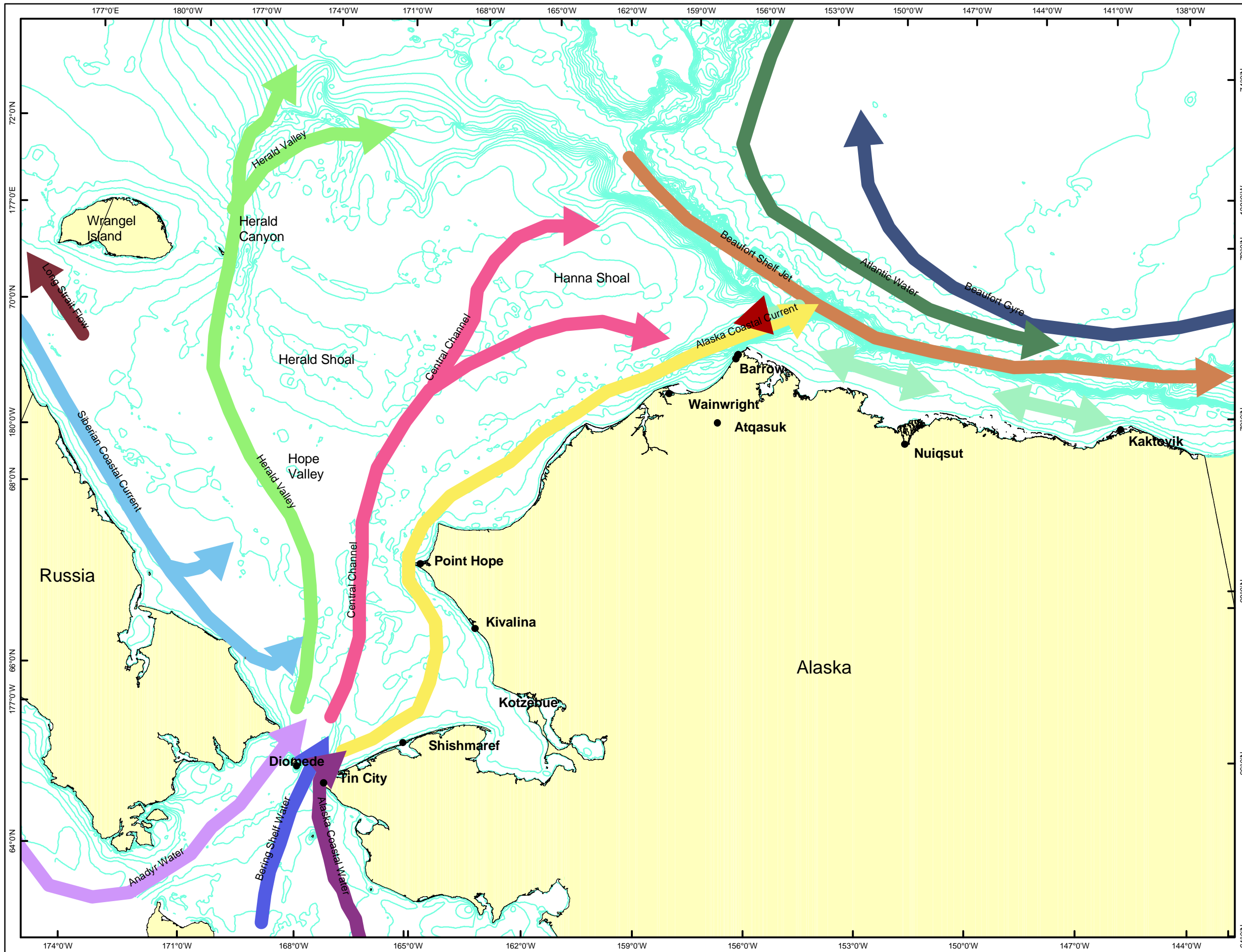


Figure I.E-1. Simple Illustration of a Marine Seismic Survey Operation using Streamers
Source: USDO, MMS, Alaska OCS Region

Figure III.A-1
Circulation
over Chukchi and
Beaufort Seas



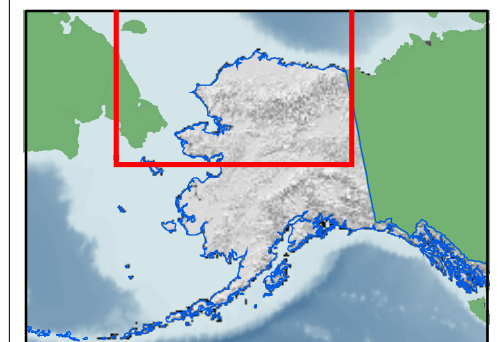
Legend

Arctic Currents

Name

-  Herald Valley
-  Alaska Coastal Current
-  Alaska Coastal Water
-  Anadyr Water
-  Atlantic Water
-  Beaufort Gyre
-  Beaufort Shelf Jet
-  Bering Shelf Water
-  Central Channel
-  Herald Valley
-  Long Strait Flow
-  Siberian Coastal Current

Locator Map



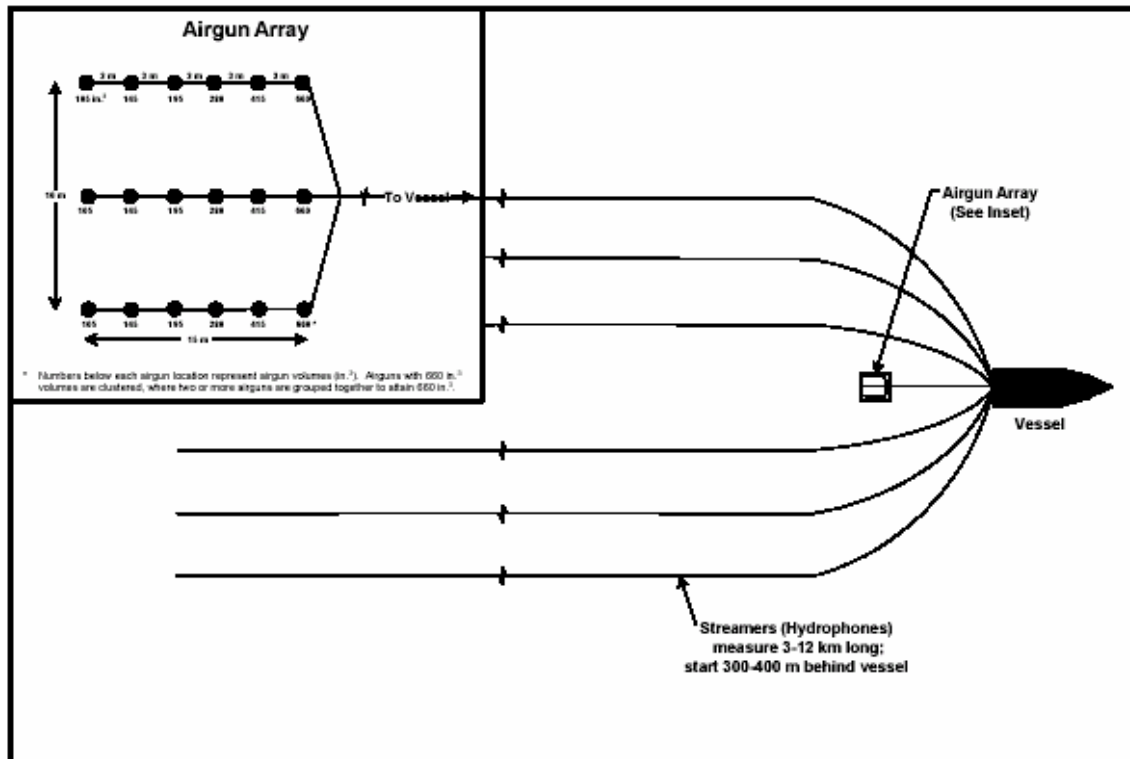


Figure III.B-1. Typical 3D marine seismic array configuration (Sources MMS AK OCS).

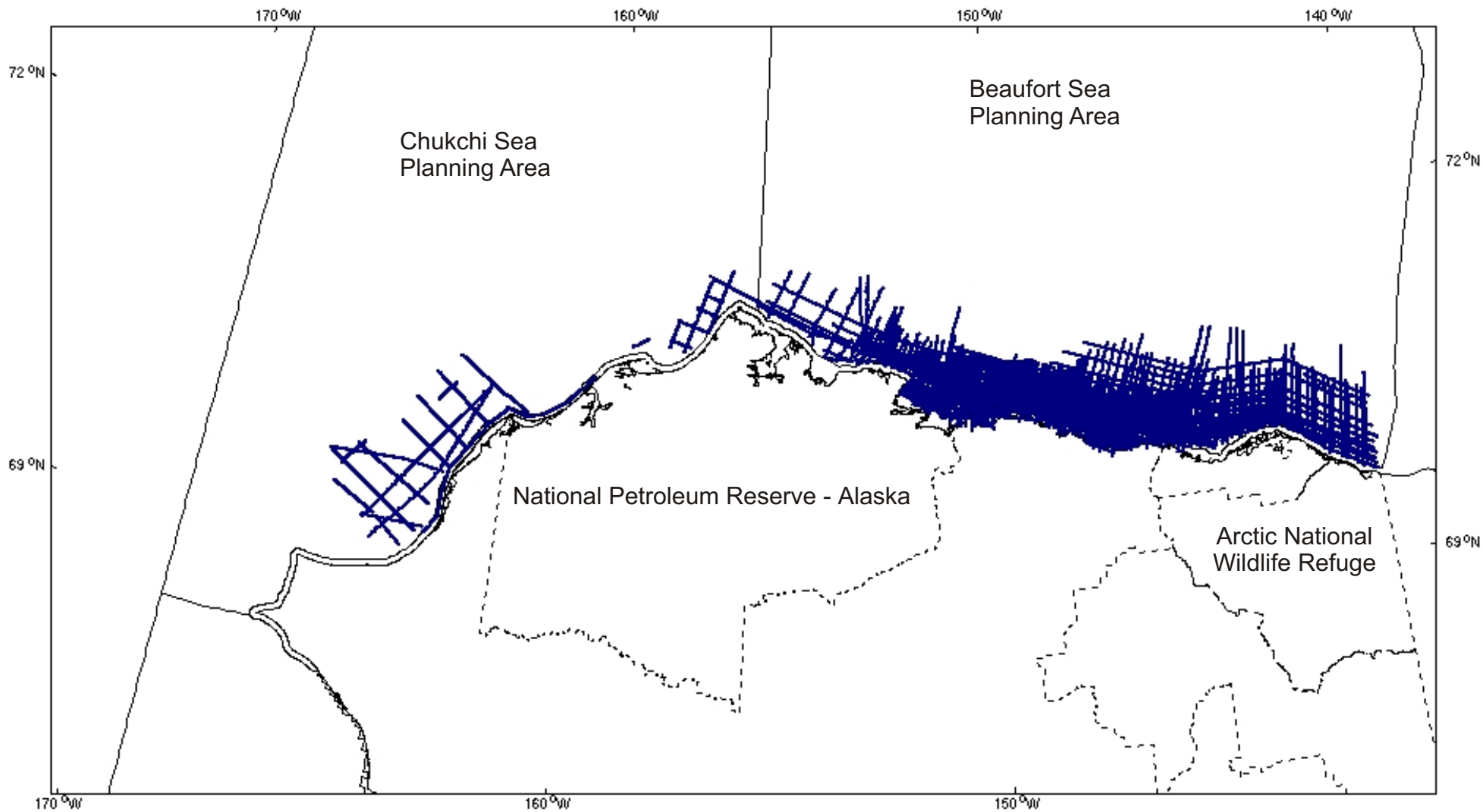


Figure III.C-1. Arctic Ocean Outer Continental Shelf 2D Seismic Data Collected from 1970 through 1979 (Source: MMS-AK OCS, Anchorage, Alaska).

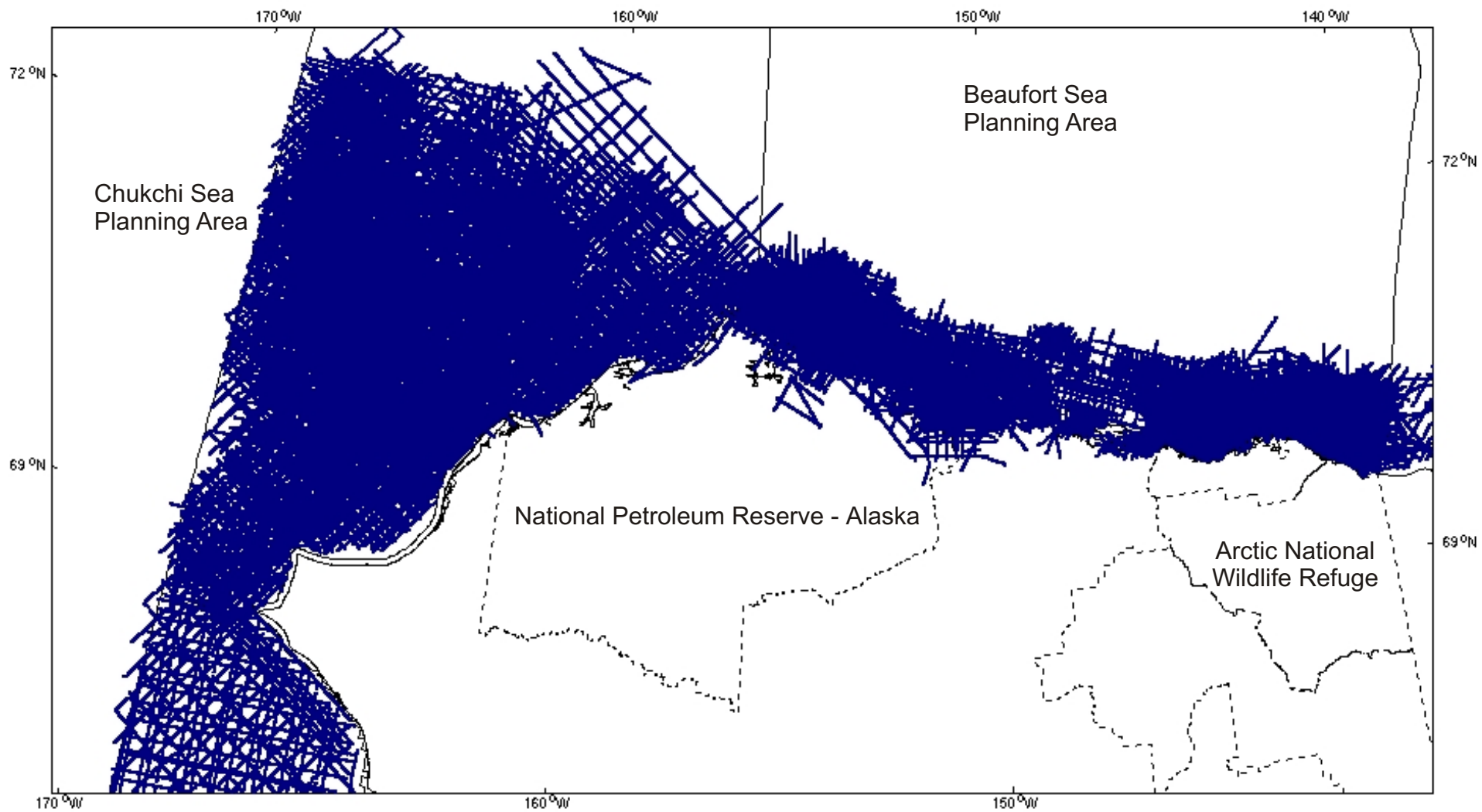


Figure III.C-2. Arctic Ocean Outer Continental Shelf 2D Seismic Data Collected from 1980 through 1989 (Source: MMS-AK OCS, Anchorage, Alaska).

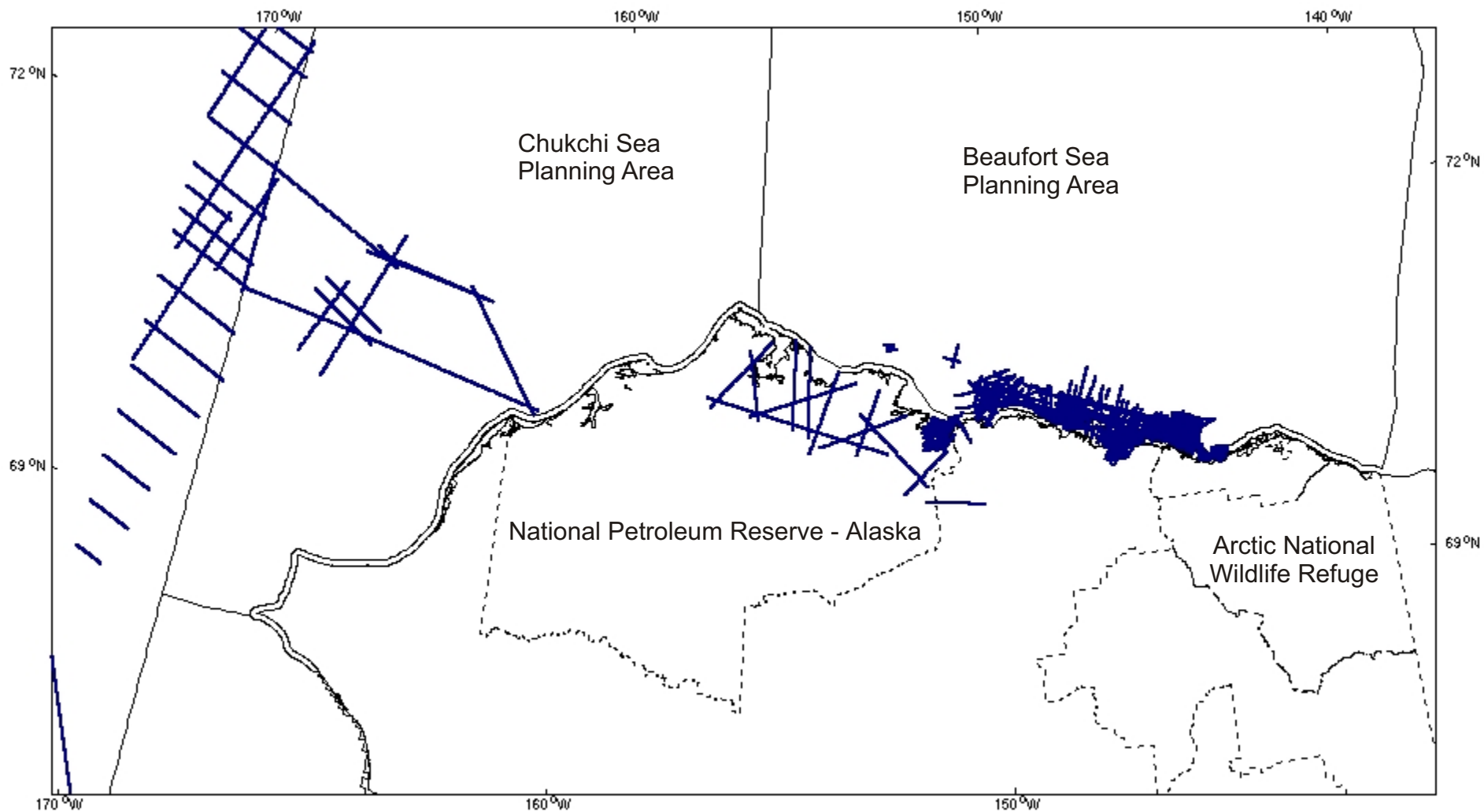
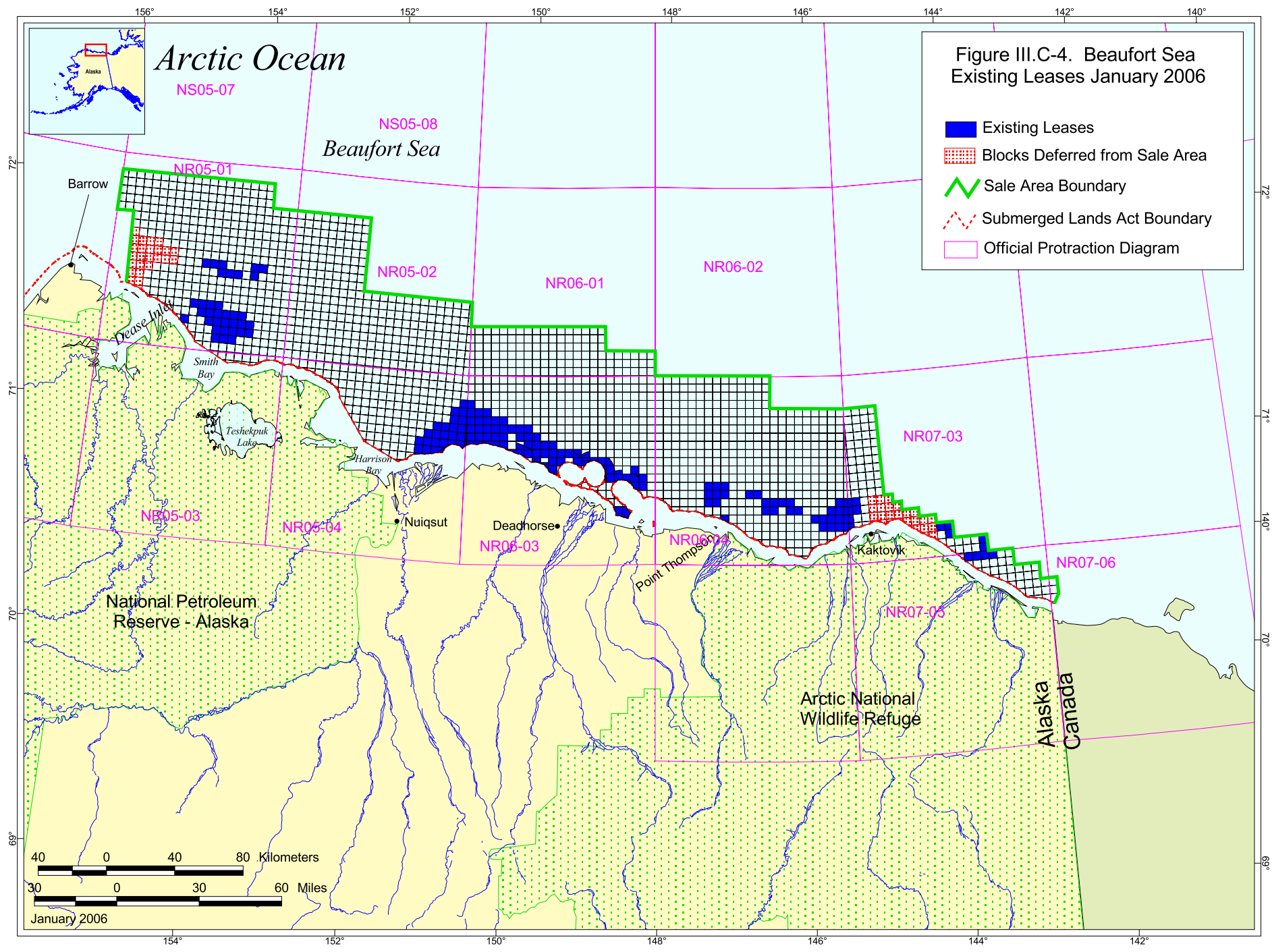
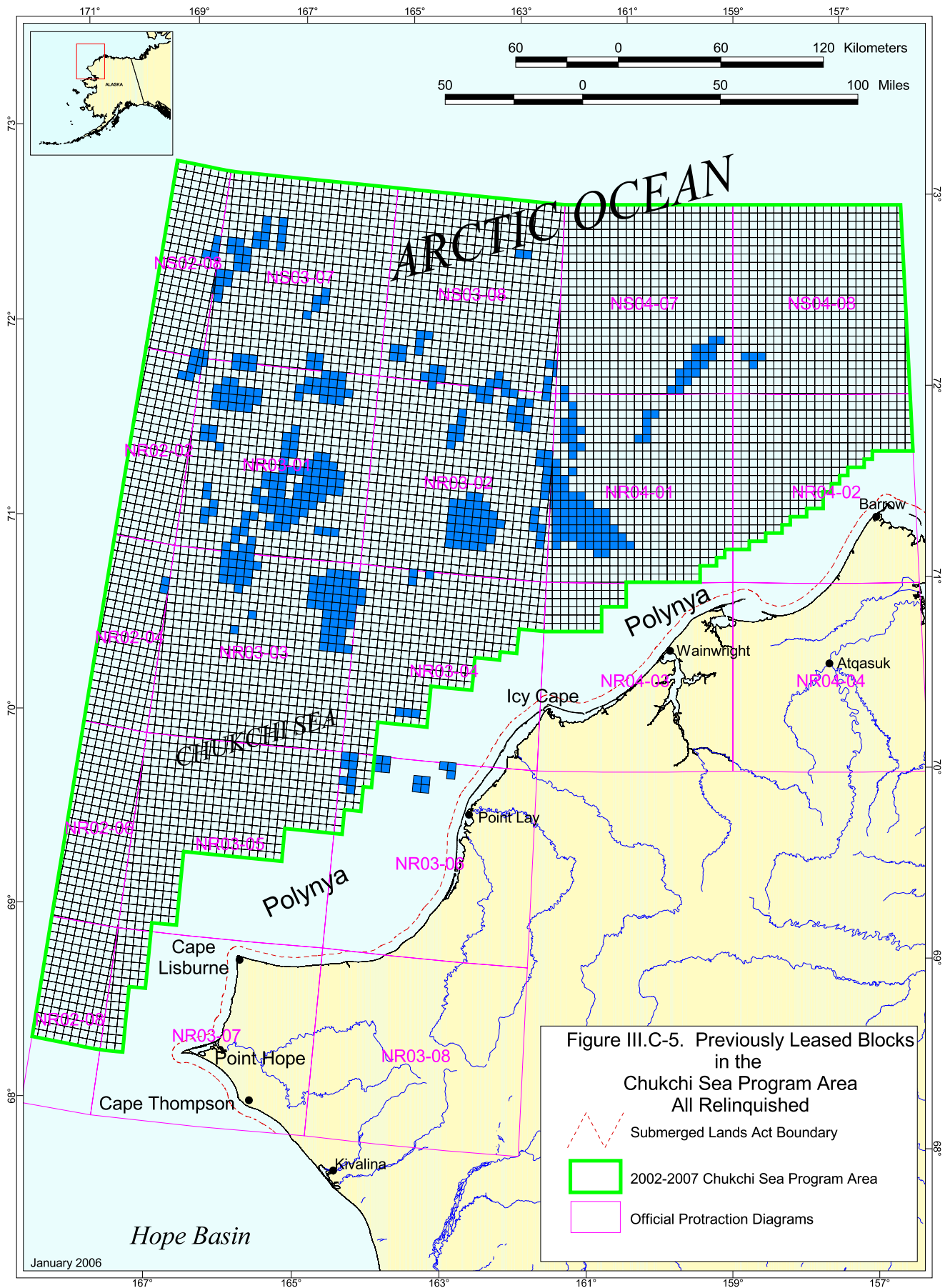





Figure III.C-3. Arctic Ocean Outer Continental Shelf 2D Seismic Data Collected from 1990 through 2004 (Source: MMS-AK OCS, Anchorage, Alaska).





January 2006

Figure III.C-5. Previously Leased Blocks in the Chukchi Sea Program Area All Relinquished

-  Submerged Lands Act Boundary
-  2002-2007 Chukchi Sea Program Area
-  Official Protraction Diagrams

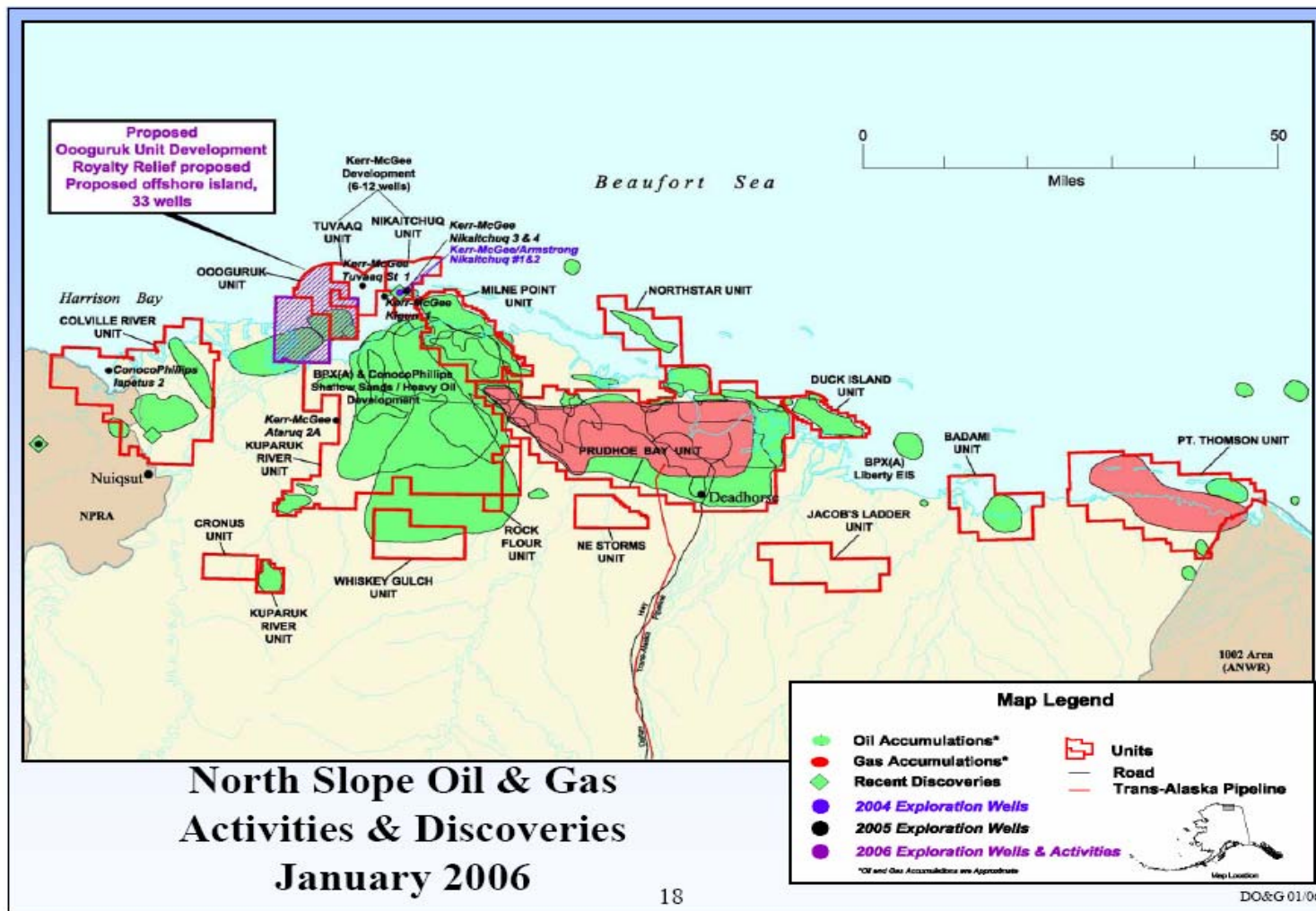


Figure III C-6. North Slope oil and gas activities and discoveries, as of January 2006. (Source: ADNR/Division of Oil and Gas).

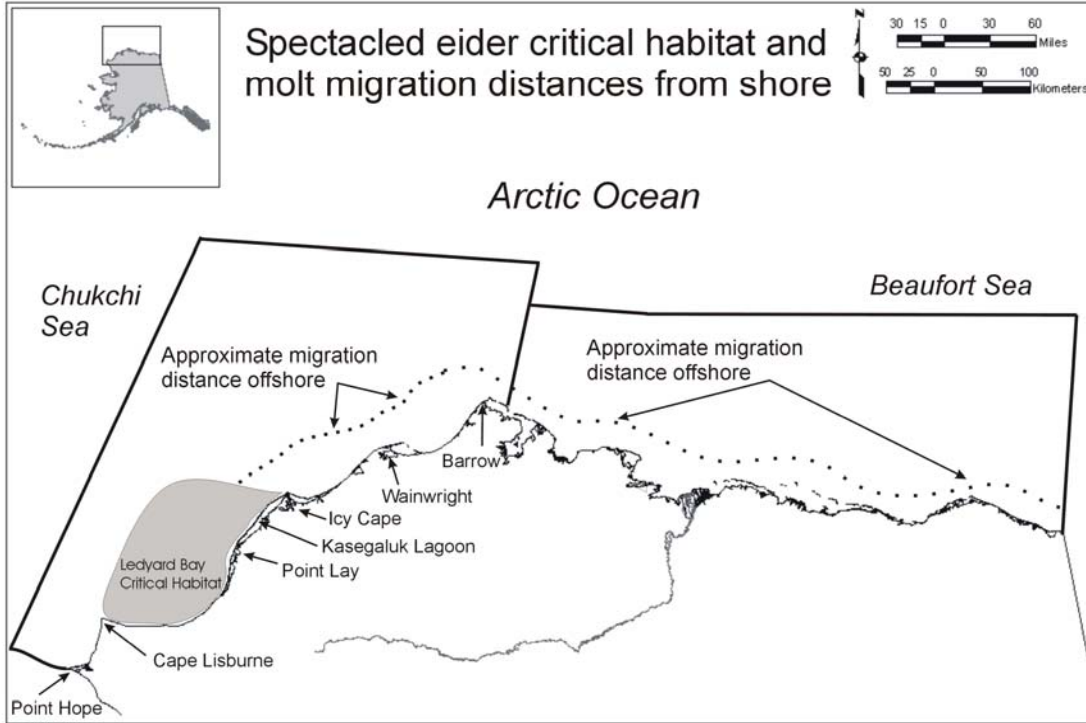


Figure III.F-1. Spectacled eider critical habitat at Ledyard Bay and molt migration distances from shore. Distances are based on female eiders which migrate further from shore than males. Distances depicted are approximate and based on Petersen *et al.*, 1999.

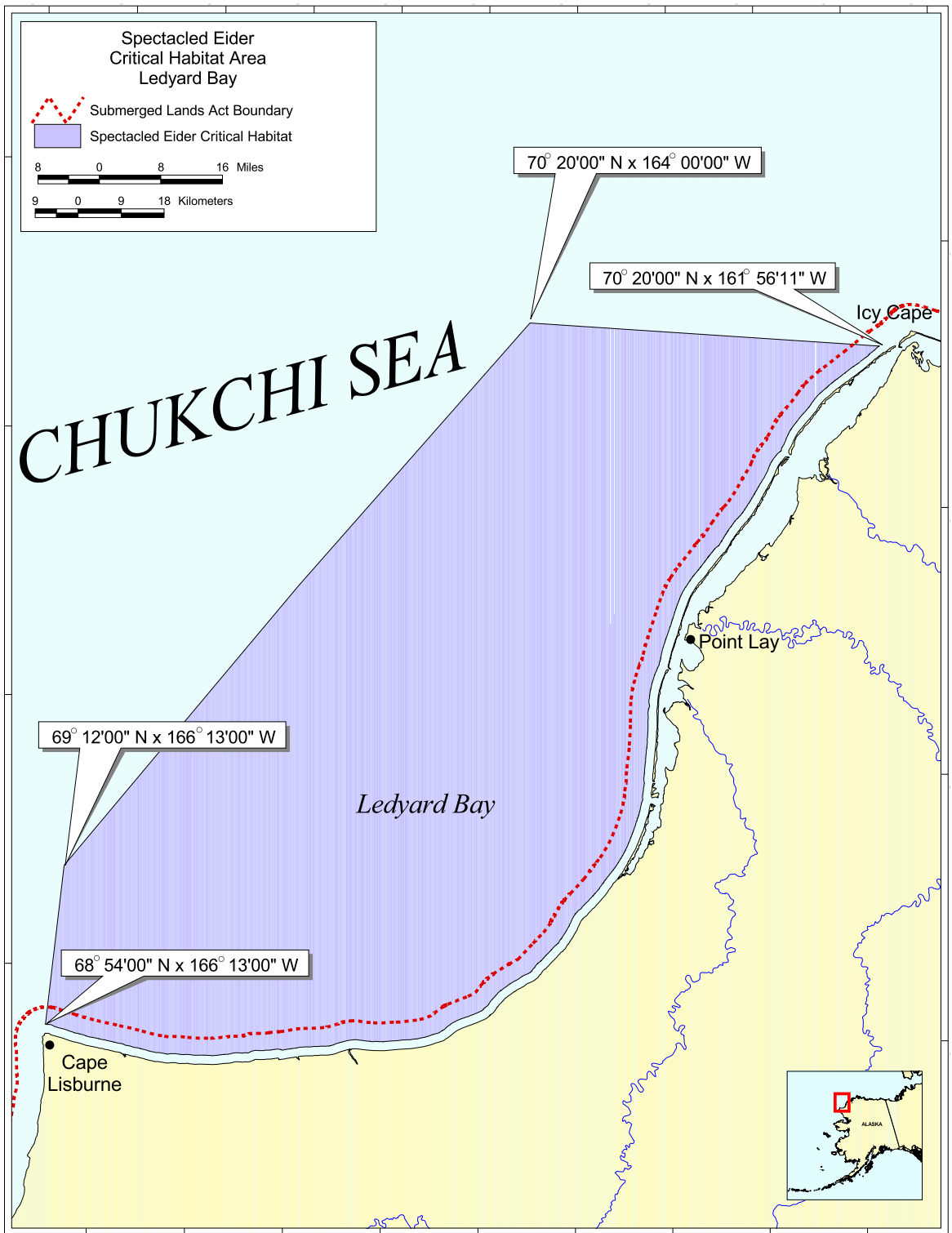


Figure III.F-2. Spectacled Eider Critical Habitat Area. Ledyard Bay is defined as the area bound by the following description: from the point 1 nm true north of Cape Lisburne (68°54'00" N x 166°13'00" W), remaining 1.0 nm offshore of the mean low tide line (maintaining a 1.0 nm buffer from the mean low tide line) of the Alaska coast north and east to 70°20'00" N x 161°56'11" W (1 nm offshore of Icy Cape); thence west along the line of latitude 70°20'00" N to the point 70°20'00" N x 164°00'00" W; thence along a great circle route to 69°12'00" N x 166°13'00" W; thence due south to the point of origin 1 nm true north of Cape Lisburne (68°54'00" N x 166°13'00" W) (USDOI, FWS 2001).

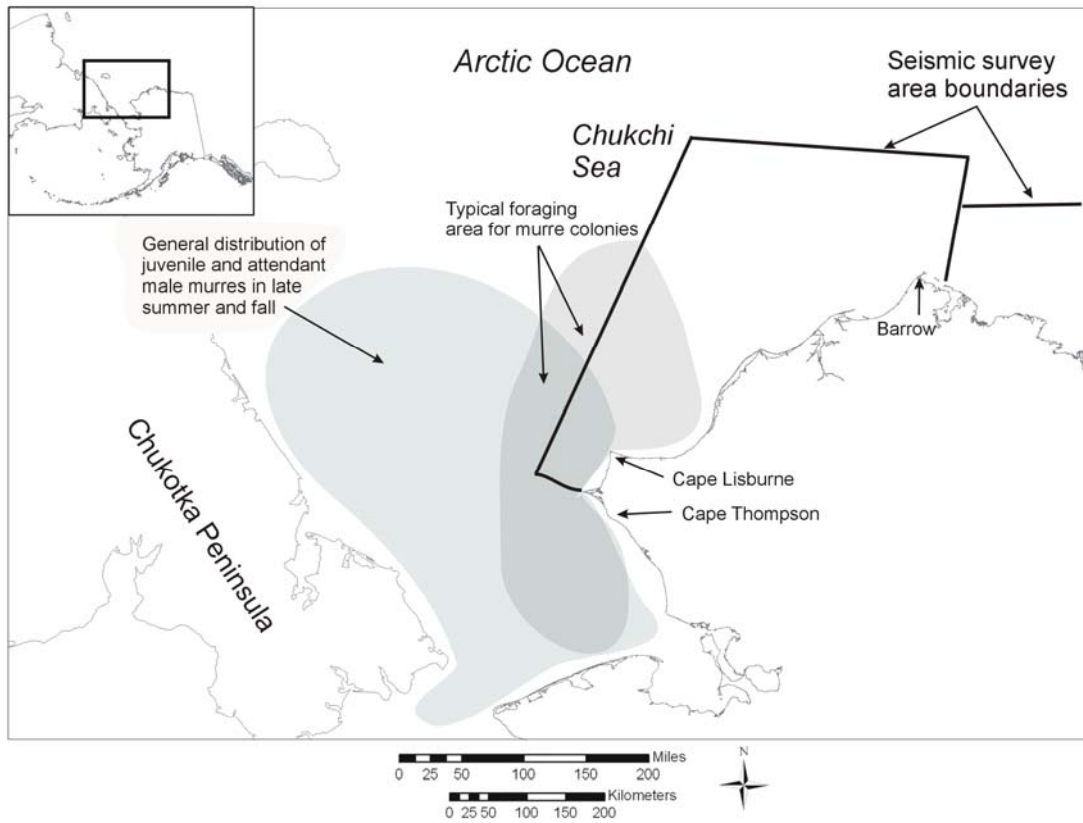


Figure III.F-3. Approximate areas used by murre when foraging from breeding colonies in summer and by juvenile and attendant males during the post-nesting period (late August through mid-November). Areas include common and thick-billed murre from Cape Lisburne and Cape Thompson colonies summarized from Hatch *et al.*, 2000.

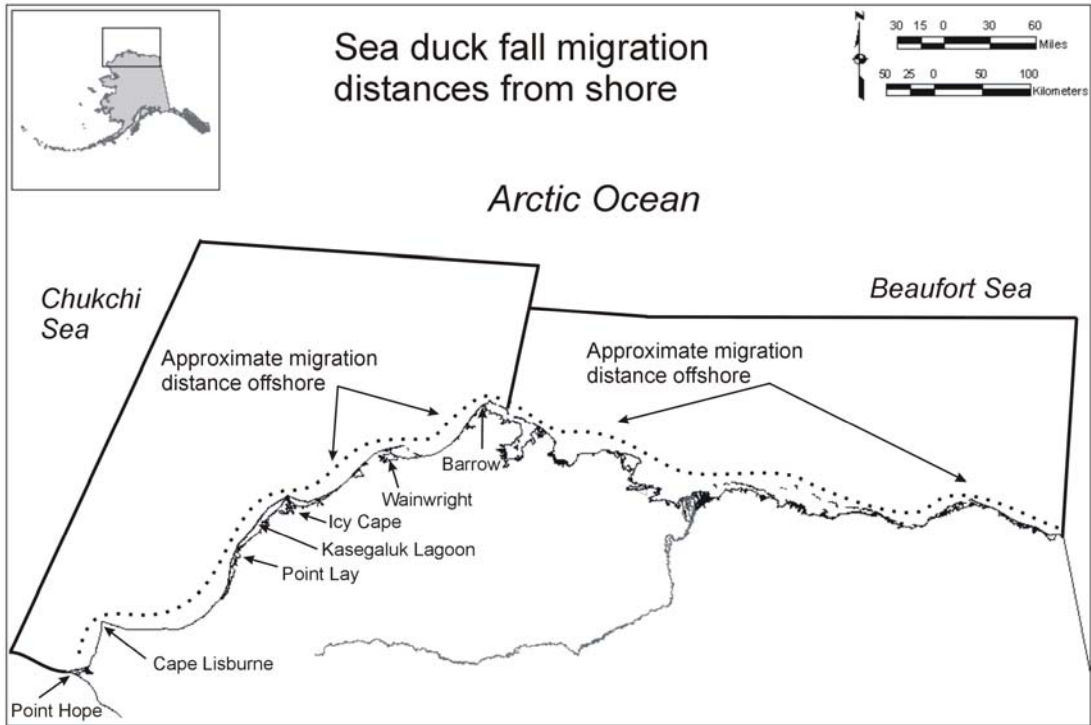


Figure III.F-4. Sea duck fall migration distances from shore. Distances depicted are approximate for king eiders, common eiders and long-tailed ducks. In fall, these three species tend to migrate along the 20-meter isobath.



Figure III.F-5. Approximate distribution of the Western Arctic stock bowhead whales (shaded dark area). Winter, summer, and spring/fall distributions are depicted (see text). Reproduced from Figure 43 of Angliss and Outlaw, 2005-rev. 12/23/05.

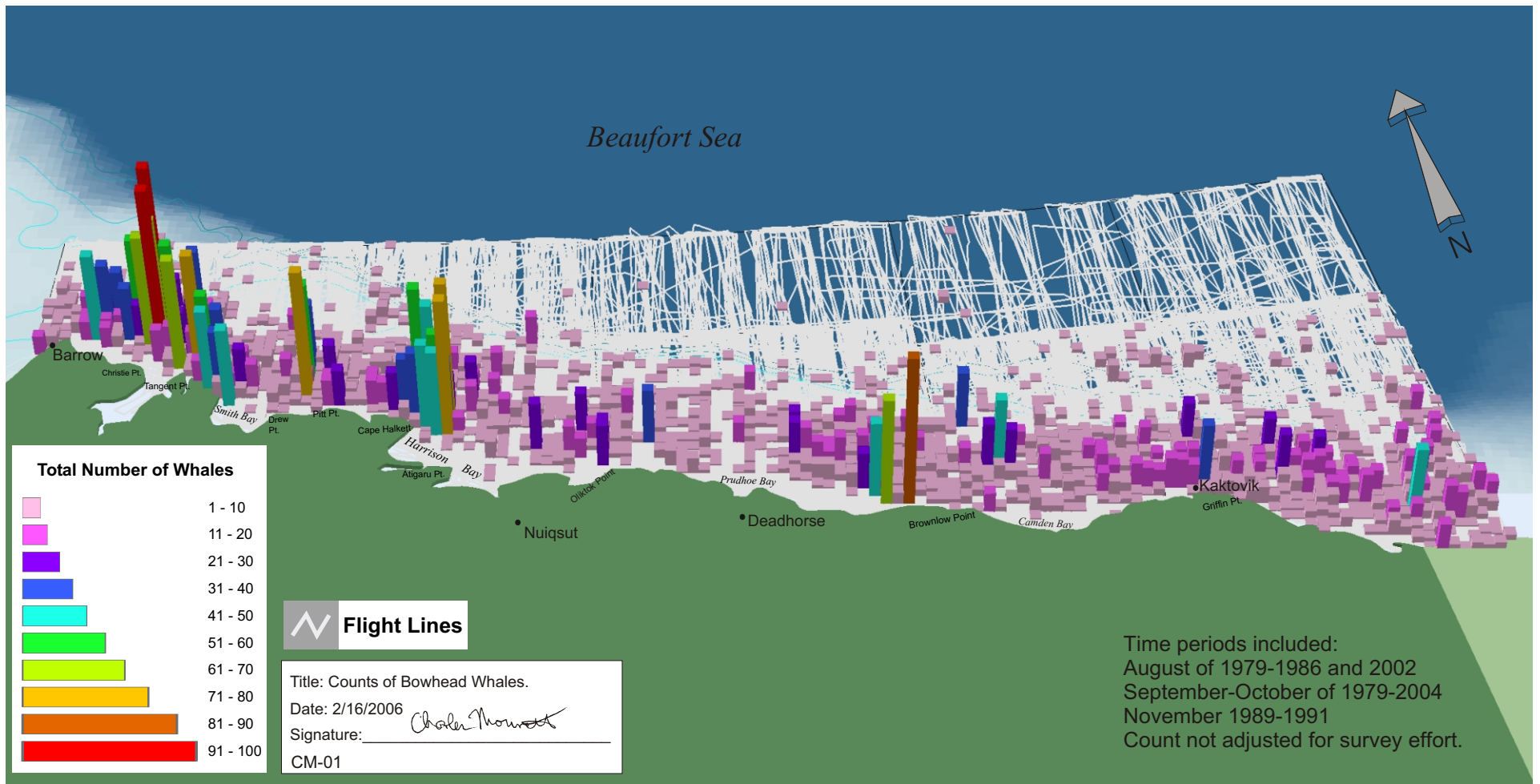


Figure III.F-6. Counts of Bowhead Whales in the Beaufort Sea taken by the Bowhead Whale Aerial Survey Project (Counts are aggregated on a 5-km grid).

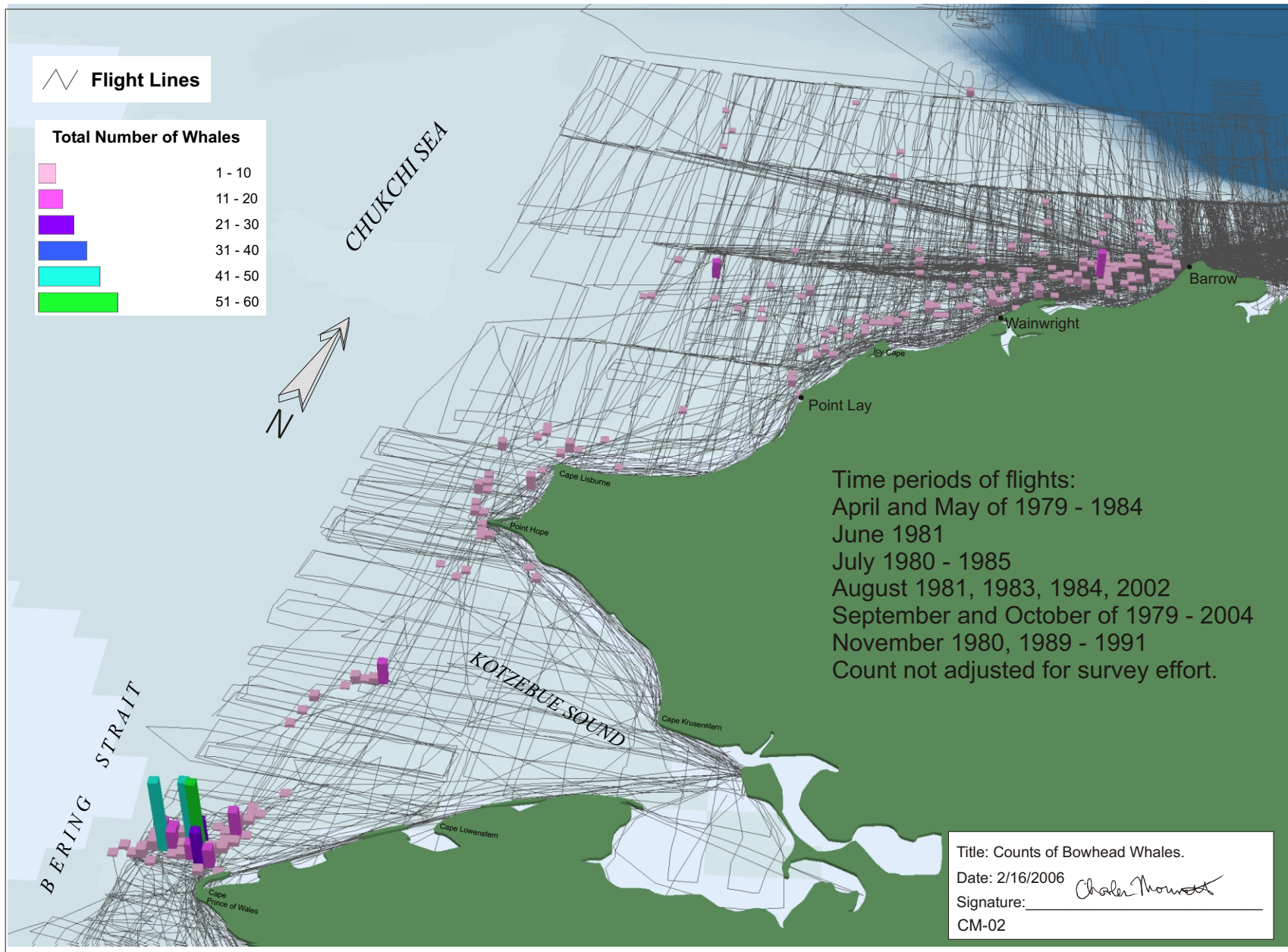


Figure III.F-7. Counts of Bowhead Whales in the Chukchi Sea taken by the Bowhead Whale Aerial Survey Project (Counts are aggregated on a 5-km grid).

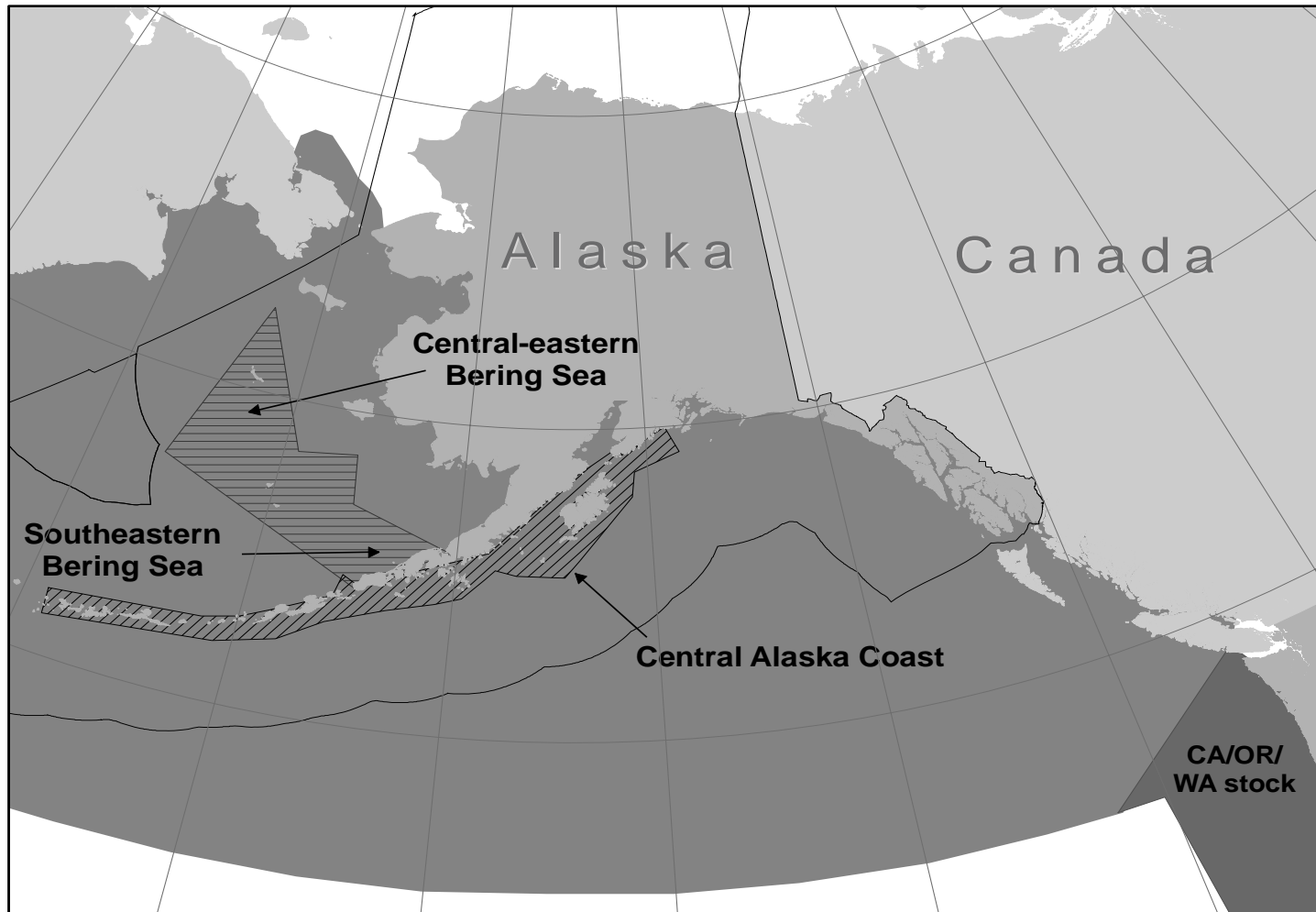


Figure III.F-8. Approximate distribution of fin whales in the eastern North Pacific (shaded area). Enclosed area indicates general location of the pollock surveys from which regional estimates of the fin whale population was made. Figure reproduced from Figure 40 of Angliss and Outlaw, 2005-draft:revision date 10/21/04.

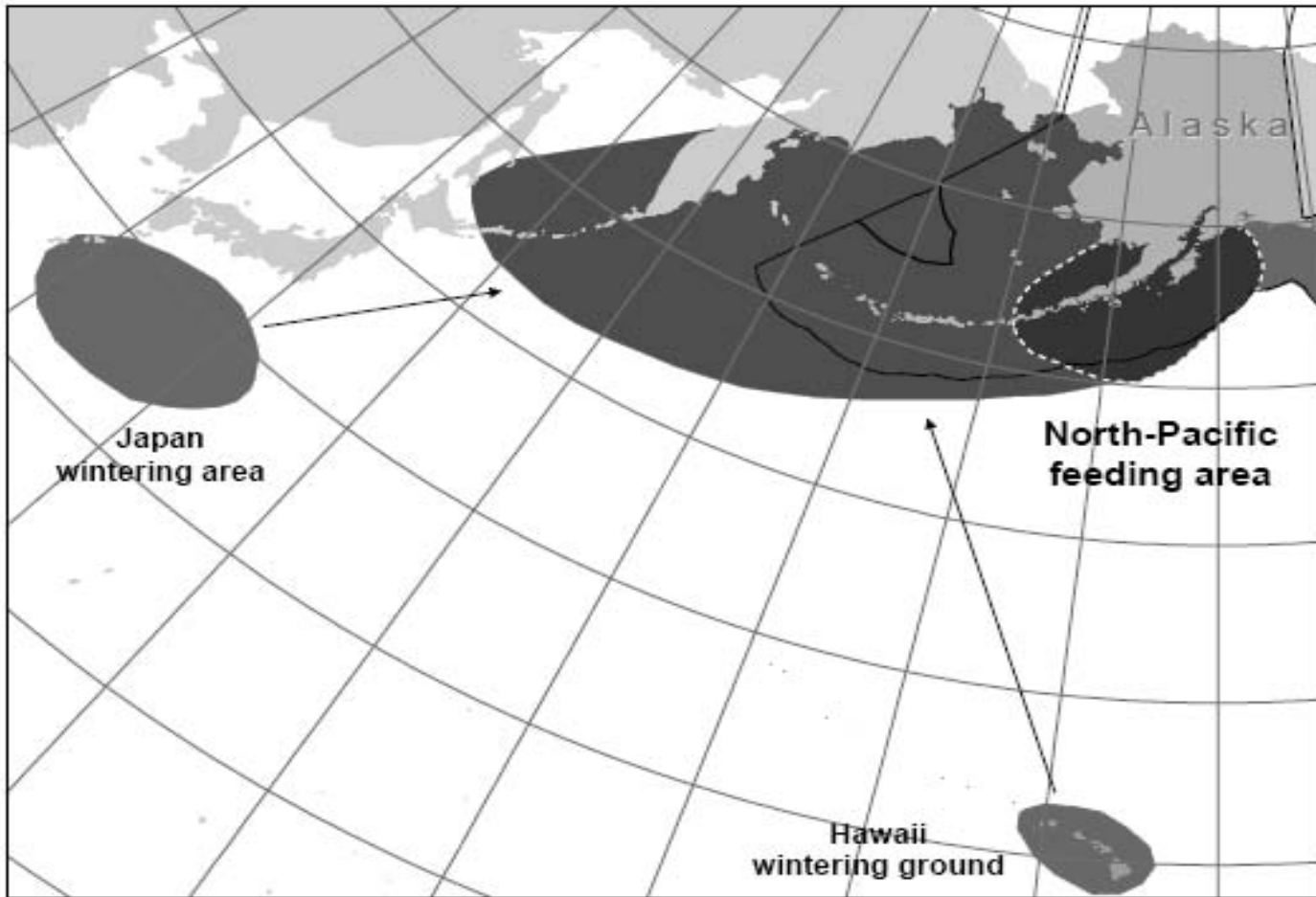


Figure III.F-9. Approximate distribution of humpback whales in the western North Pacific (shaded area). Feeding and wintering grounds are presented above (see text). Area within the dotted line is known to be an area of overlap with the Central North Pacific stock. See Figure 39 in Angliss and Outlaw (2005) for humpback whale distribution in the eastern North Pacific. Reproduced from Figure 38 of Angliss and Outlaw, 2005-draft:revision date 1/12/06.

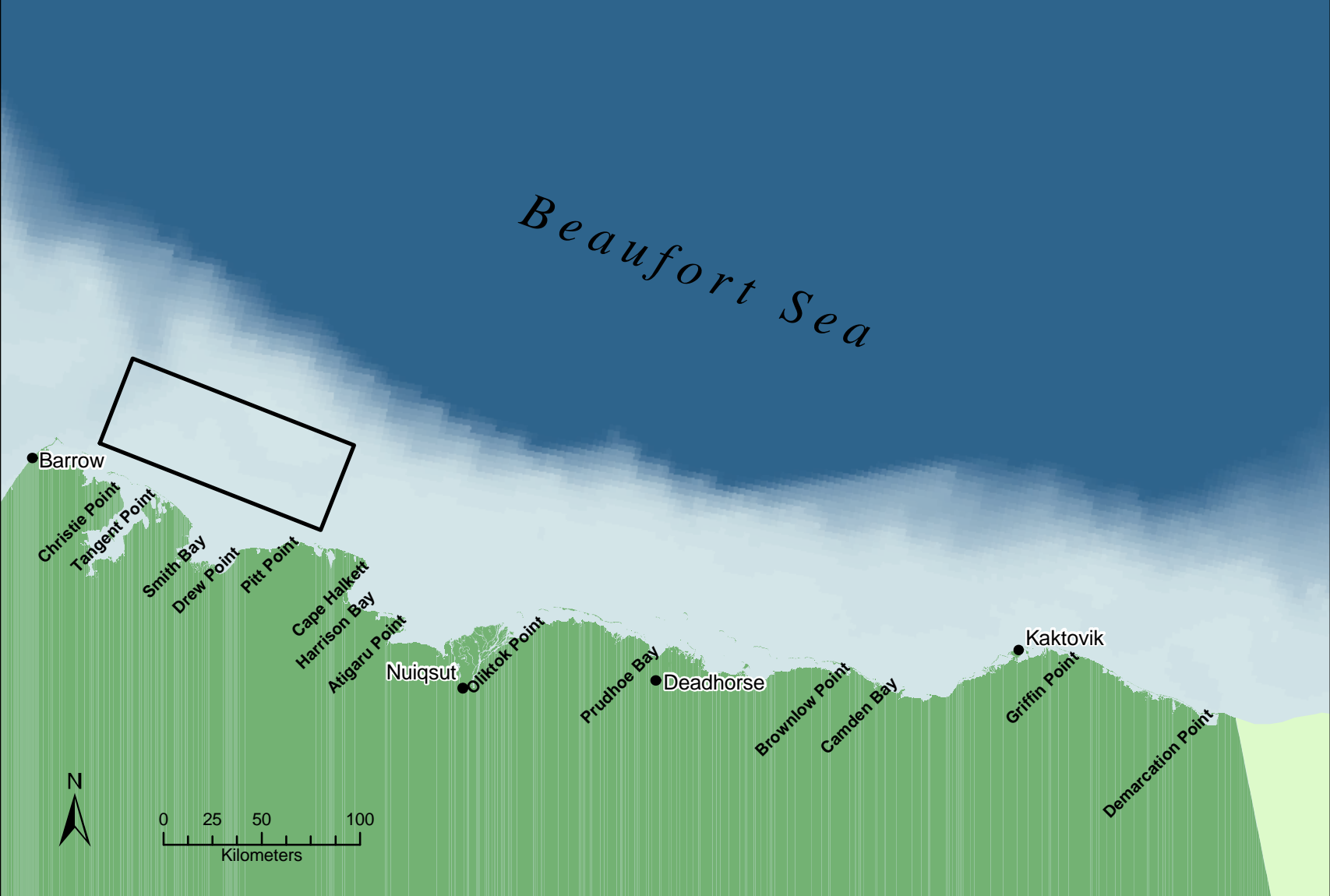


Figure III.F-10 Estimated zone of avoidance by bowhead whales if four deep seismic surveys operated simultaneously, assuming 20 km avoidance by bowhead whales, and 15 miles (24 km) between vessels. This box is placed near Barrow for illustrative purposes. In analysis we moved the box along the coast.

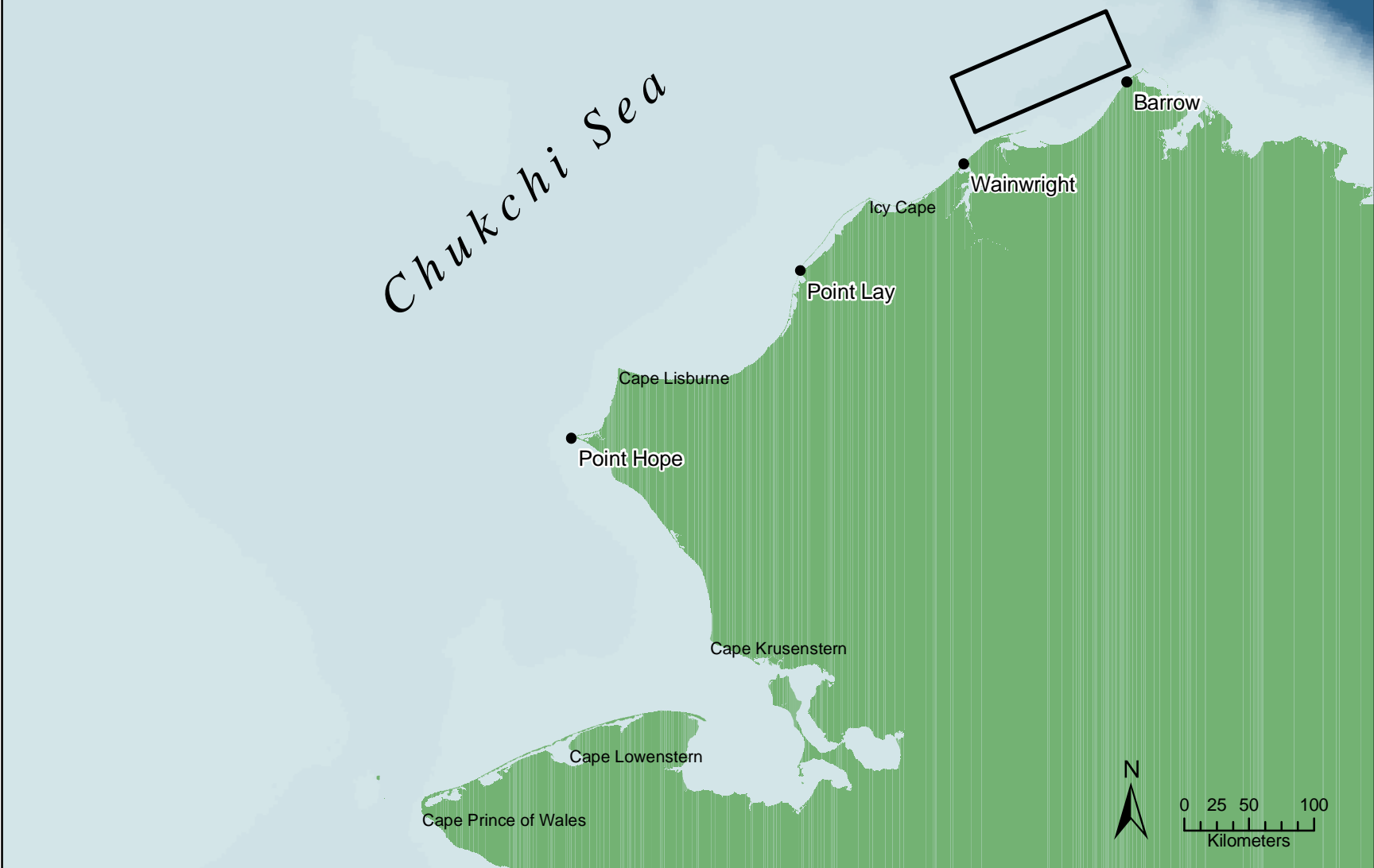


Figure III.F-11 Estimated zone of avoidance by bowhead whales if four deep seismic surveys operated simultaneously, assuming 20 km avoidance by bowhead whales, and 15 miles (24 km) between vessels. This box is placed near Barrow for illustrative purposes. In analysis we moved the box along the coast.