Alaska Department of Environmental Conservation Division of Environmental Health

Safety of Alaska's food sources following the 2011 radiation release by the Fukushima nuclear facility disaster.

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Radioisotopes of concern:

- Cesium 134, with a half life of 2 years
- Cesium 137, with a half life of 30 years
- Iodine 131, with a half life of 8 days

"Half life" means the level of radiation drops by half in that time frame.

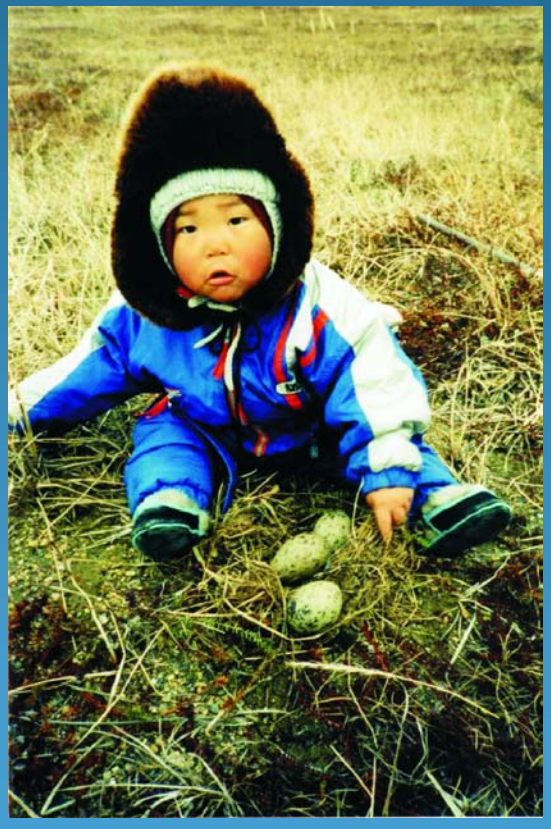
Risk characterization

Does radiation release from the Fukushima nuclear accident pose a risk to Alaska's fisheries, wild foods or human health?

And the answer is …… NO.

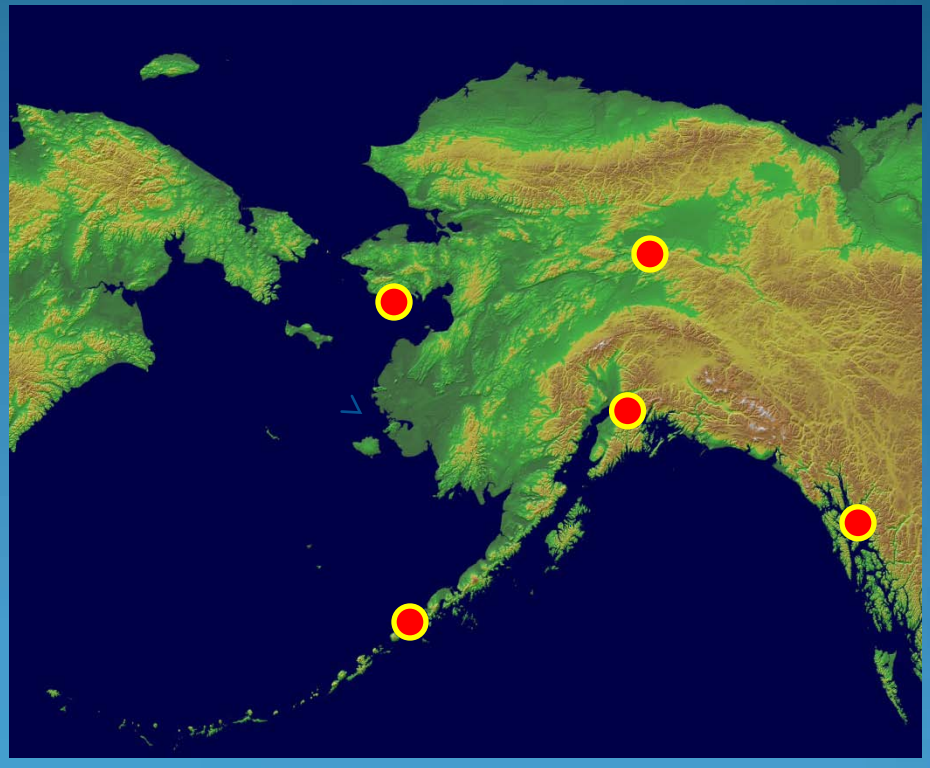
Exposure Assessment

- Air monitoring
- Water monitoring
- Modeling
- Sampling



Air Monitoring

- EPA RadNet Monitors
  - Nome
  - Dutch Harbor
  - Fairbanks
  - Anchorage
  - Juneau
- All results thousands of times below conservative levels of concern….

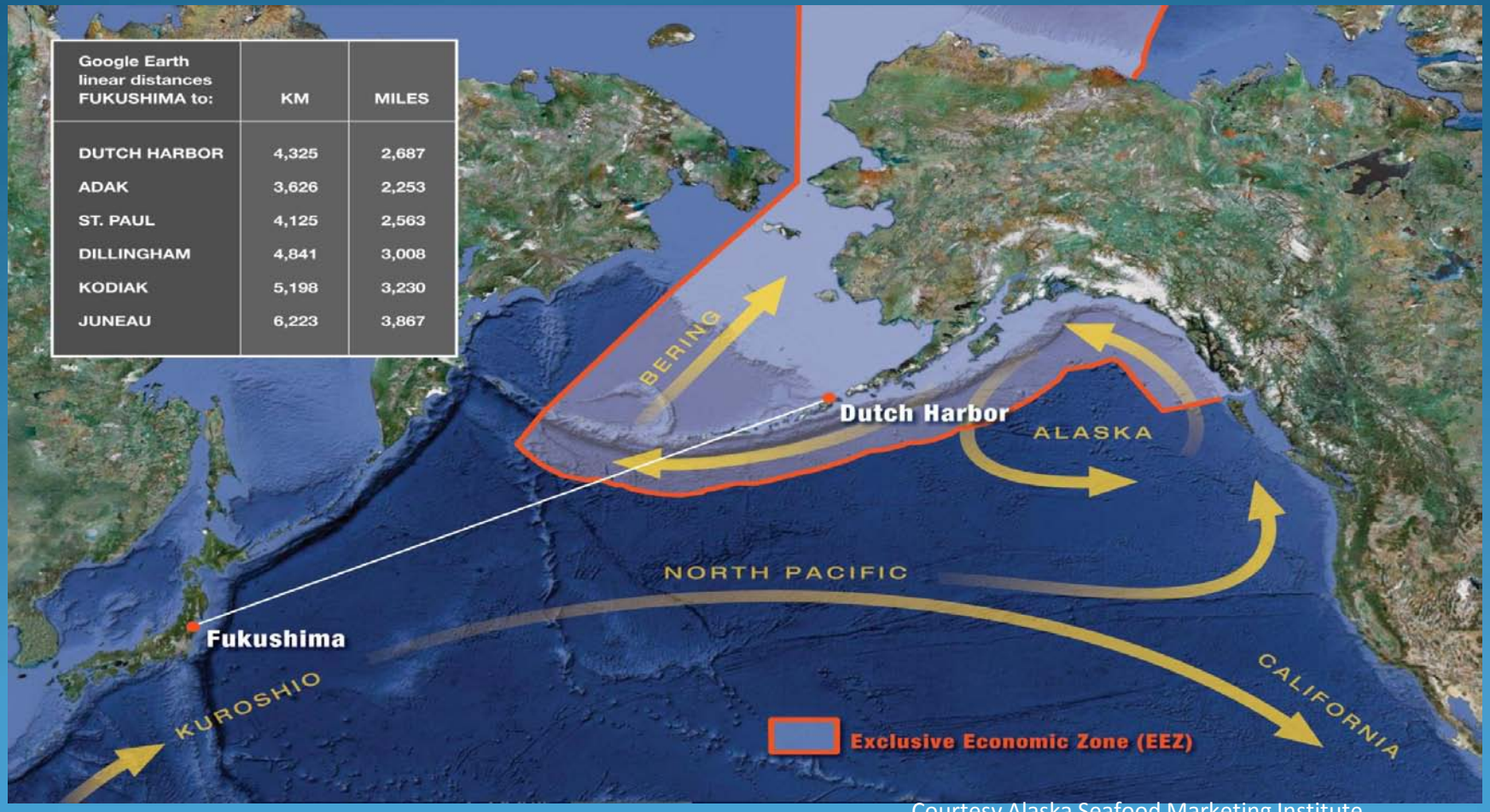


NOAA National Geophysical Data Center

Water Monitoring

- Japan – marine waters tested & found to meet drinking water standards 30km from shore
- Alaska
  - ocean current modeling would preclude potential contamination reaching Alaska
  - AWWU tested Anchorage's drinking water resource
  - RadNet testing of Fairbanks drinking water source
  - DOE Amchitka surface water sampling

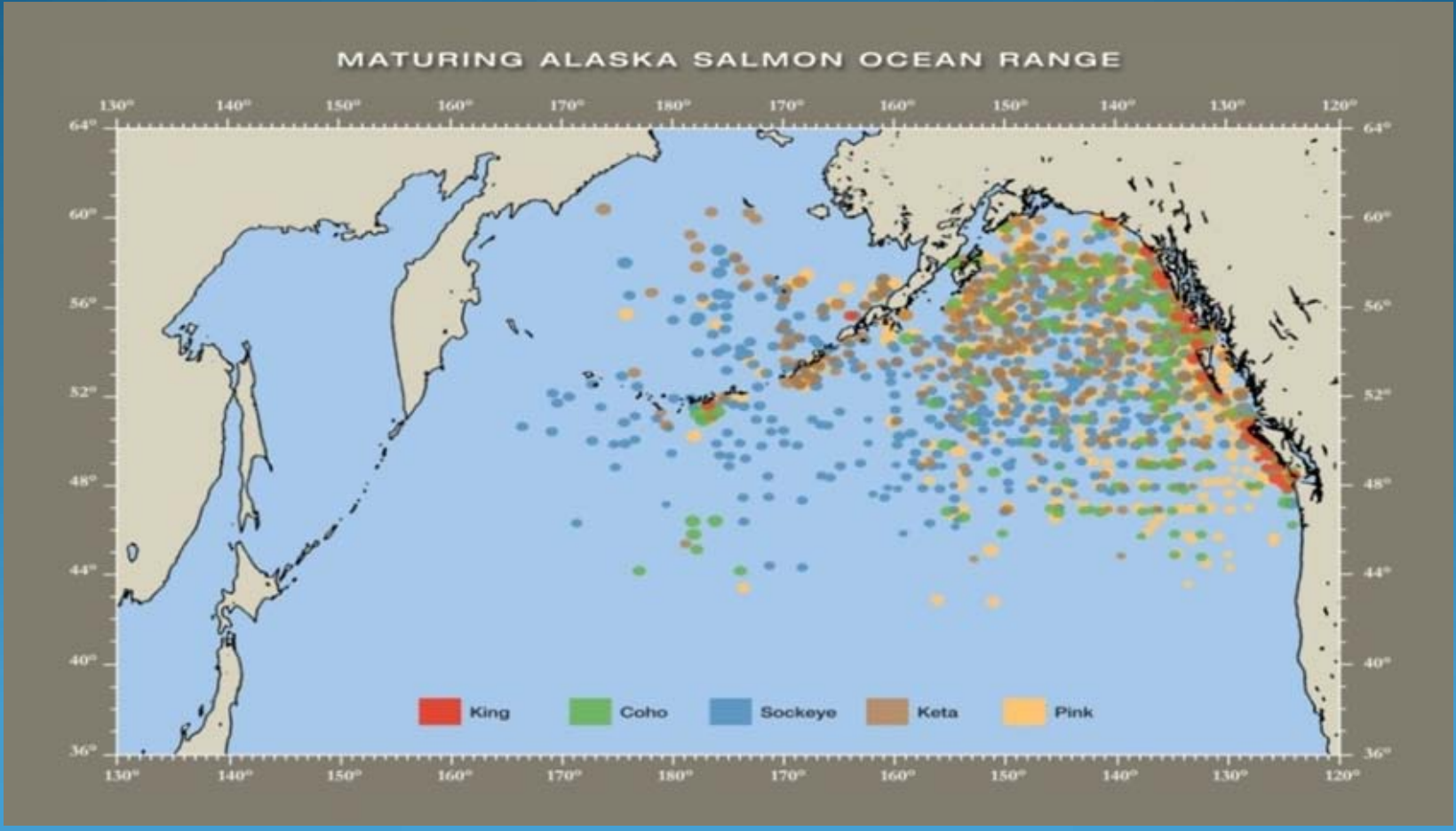
Distance from Fukushima and North Pacific Currents



Google Earth linear distances FUKUSHIMA to:	KM	MILES
DUTCH HARBOR	4,325	2,687
ADAK	3,626	2,253
ST. PAUL	4,125	2,563
DILLINGHAM	4,841	3,008
KODIAK	5,198	3,230
JUNEAU	6,223	3,867

Courtesy Alaska Seafood Marketing Institute

Distribution of Alaska Salmon



Courtesy ASMI

Fish Monitoring

- FDA has not detected levels of concern in fish & continues to monitor
- FDA's latest data as of January 10, 2011 is available at:
- http://www.fda.gov/newsevents/publichealthfocus/ucm247403.htm#sofar
- EPA, FDA, and NOAA maintain that seafood is safe & World Health Organization reinforces this
- European Commission monitoring fish in the Food and Agriculture (FAO) Major Fishing Area 61 (Northwest Pacific) for Cesium-134 and Cesium-137.

Other Sampling Efforts

- North Slope Borough – caribou, lichen & marine mammals (seals, bowhead whale)
- Aleutian Pribilof Island Association – lichen
- DOE Amchitka Island – fish, shellfish, sediment, and numerous marine species

Potential Data Gaps

Although available resources for DEC suggest that the risk of radionuclide impacts to Alaska is low, there may be potential data gaps that warrant our consideration.

- Long-term deposition of contamination
  - Air
  - Water
  - Land
  - Food chain