



Responding to Emergencies in the Arctic 2015 – A Focus Session

Transportation Research Board's (TRB)
Marine Board of the National Academies
of Sciences, Engineering, and Medicine

Todd Busch
Sr. Vice President & General Manager
Technical Services
Crowley Maritime Corporation

November 12, 2015



- 1953: Began barge transportation of rail cars
- 1957: Began annual Distant Early Warning (DEW) line deliveries of fuel and supplies
- 1968: First Sealift to arctic
- 1977: Docked first crude oil tanker in Valdez
- 1981: Opened first of 28 tank farms, for storage & distribution
- 1998-2004: Multiple beach landings to Sakhalin, Russia
- Over 340 barges and 1.4 million tons of cargo safely delivered



- Ice Surveillance and Vessel Routing
- Ice Breaking and Ice Management
- Logistics and Resupply Services
- Portable Man Camps
- Fuel Supply & Delivery
- Religion & Hovercraft Operations
- Vessel Operations
- Salvage & Wreck Removal
- Oil Recovery
- Oil Spill Response



- Lack of Response equipment
- Lack of special purpose assets
- Short operating seasons
- Weather constraints
- Coordination difficulties
- Limited SAR capabilities
- Limited medical support
- Limited communications
- Difficulties in handling oil in ice



- Distances involved
- Lack of infrastructure
- Limited support service providers
- Ice conditions
- Shallow water restrictions
- Infrastructure will take time to develop and put in place



- Collaboration between industry & government (s)
- Uniform Standards & Codes
- Better charting and Weather/Ice forecasting
- Scenario planning & drills
- Training for arctic operations
- SAR agreements and mutual cooperation
- Establish of a presence in the region with assets designed to operate in the arctic
- Logistics infrastructure needs to be established

