

# Resource Development Council 5 March 2015



**C. Barkley Lloyd**  
**President/General Manager**



# IN SHORT

Strategic Level: Laws

Operational Level:

- Plans

- Experts

- Roles/Responsibilities

- Spills Sources

Tactical Level:

- Prevention (Inspections)

- Preparedness (Permits & Training)

- Response (Equipment, Tactics & Critters)



# Arctic Oil Spill Response Roles & Responsibilities

OPA 90  
Oil Spills

RP Contracts & Pays

USCG/EPA Activates

Incident Command System  
(FOSC, SOSC, LOSEC, RP)

Minor DOD Role (Supsalv)  
(under DSCA)

National Contingency Plan

Stafford Act  
Hurricanes, Floods, Volcanoes

Fed Contracts & Pays

State Activates

Incident Command System  
(Fed, State, & many others)

Potential Large DOD Role

National Response Framework

# Acronym List

|                |  |
|----------------|--|
| <b>BI-LAT:</b> | <b>Bi-Lateral Agreement</b>  |
| <b>CERCLA:</b> | <b>Comprehensive Environmental Response, Compensation, and Liability Act</b> |
| <b>DSCA:</b>   | <b>Defense Support to Civilian Agencies</b>                                  |
| <b>DOD:</b>    | <b>Department of Defense</b>   |
| <b>FX:</b>     | <b>Field Exercise</b>  |
| <b>FOSC:</b>   | <b>Federal On Scene Coordinator</b>  |
| <b>HAZMAT:</b> | <b>Hazardous Materials</b>   |
| <b>ICS:</b>    | <b>Incident Command System</b>   |
| <b>LOSC:</b>   | <b>Local On Scene Coordinator</b>  |
| <b>MOU:</b>    | <b>Memorandum of Understanding</b>   |
| <b>MAD:</b>    | <b>Mutual Aid Drill</b>  |
| <b>NRT:</b>    | <b>National Response Team</b>  |
| <b>NIC:</b>    | <b>National Incident Commander</b>   |
| <b>OPA 90:</b> | <b>Oil Pollution Act of 1990</b>   |
| <b>OSRO:</b>   | <b>Oil Spill Removal Organization</b>  |
| <b>PRAC:</b>   | <b>Primary Response Action Contractor</b>                                    |
| <b>RMOD:</b>   | <b>Realistic Maximum Probable Discharge</b>                                  |
| <b>RRT:</b>    | <b>Regional Response Team</b>  |
| <b>RP:</b>     | <b>Responsible Party (who owns the oil)</b>                                  |
| <b>SONS:</b>   | <b>Spill of National Significance</b>  |
| <b>SOSC:</b>   | <b>State On Scene Coordinator</b>  |
| <b>TTX:</b>    | <b>Table Top Exercise</b>  |
| <b>UC:</b>     | <b>Unified Command</b>   |
| <b>WCD:</b>    | <b>Worst Case Discharge</b>  |

# Plans

## Unified Plan (“Area Contingency Plan” Outside of Alaska)

- Unique Term to Alaska
- Large Role for State
- Joint Approach to Spill Response

## Sub-Area Contingency Plans

- 10 Plans due to size of Alaska
- Reviewed on 5 Year Cycle
- Input from Communities Strongly Desired
- Lays Out Key Response Issues & Priorities
- Includes Geographic Response Strategies
- Includes 45 day tribal comment period
  - Concurrent stakeholder comment period
  - Followed by 45 day public review period

# And More Plans

## Spill Contingency Plans:

- Part of Permitting Process For Exploration/Production
- Includes Worst Case Discharge (WCD) or Realistic Maximum Oil Discharge (RMOD)
- Tested locally through drills (TTX, FX, MAD)

## Federal Spill of National Significance (SONS)

- Activated by USCG or EPA (actual or exercise)
- National level includes local response
- Includes National Incident Commander (NIC)

# Government Role

Federal & State Response Roles (USCG, EPA, ADEC)

- Regulatory
- Oversees Response
- Limited Equipment
- HAZMAT – State handles the same as oil spills. Fed response under CERCLA - Not OPA 90

# Government Experts

## Regional Response Team (RRT)

- Meets Three Times a Year
- Stand-by Team of Federal Experts For Spills
- USCG & EPA Co-Chairs
- Members: ADEC, U.S. Forest Service, DOC, DOD (ALCOM J5), DOE, DHHS, DHS (FEMA), DOI, DOJ, DOL (OSHA), DOS, DOT (FAA), and GSA
- Federally Recognized Tribes are eligible/encouraged for membership. Currently no tribal representation.
- Links back to NRT



# Pointy End of the Spear

## Oil Spill Removal Organization (OSRO)

- Certified/Inspected by USCG
- 5 Not-for-Profit in Alaska (MOU), 2 For-Profit
- Primary Response Action Contractor (AK Term)
- 24 X 7 X 365 Response
- Primarily Geographically Focused
- Works for RP, FOSC or SOSC (if no RP)
- Personnel are trained, certified, insured, complete physicals, etc.

# Alaska Oil Spill Removal Organizations

## -5 Alaska Not for Profit OSROs

- Alaska Clean Seas (North Slope)
- CISPRI (Cook Inlet)
- SEAPRO (Southeast)
- Alaska Chadux Corporation (Western Alaska/  
Inland)
- SERVS (Prince William Sound)

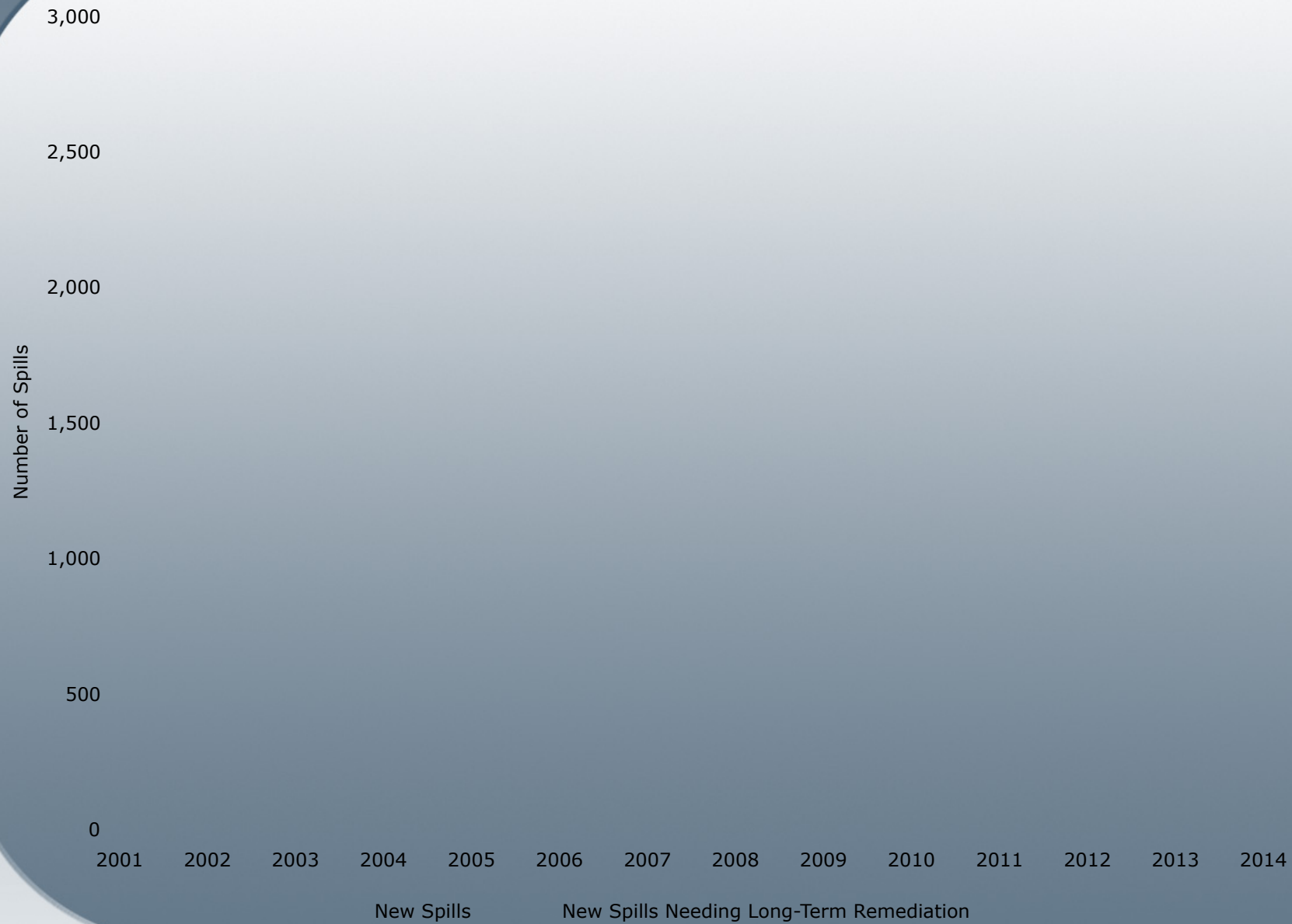


# PRAC vice OSRO

- Primary Response Action Contractor
  - State of Alaska Program
  - Able to provide services per contingency plans
  - Voluntary Participation, performance based, no minimum standards, out to 3 nm
- Oil Spill Removal Organization
  - Certified by USCG
  - Standards for Training, Maintenance, Equipment
  - Voluntary Participation
  - Classifications: Open Ocean, Offshore, Nearshore, Inland, Rivers/Canals, Great Lakes



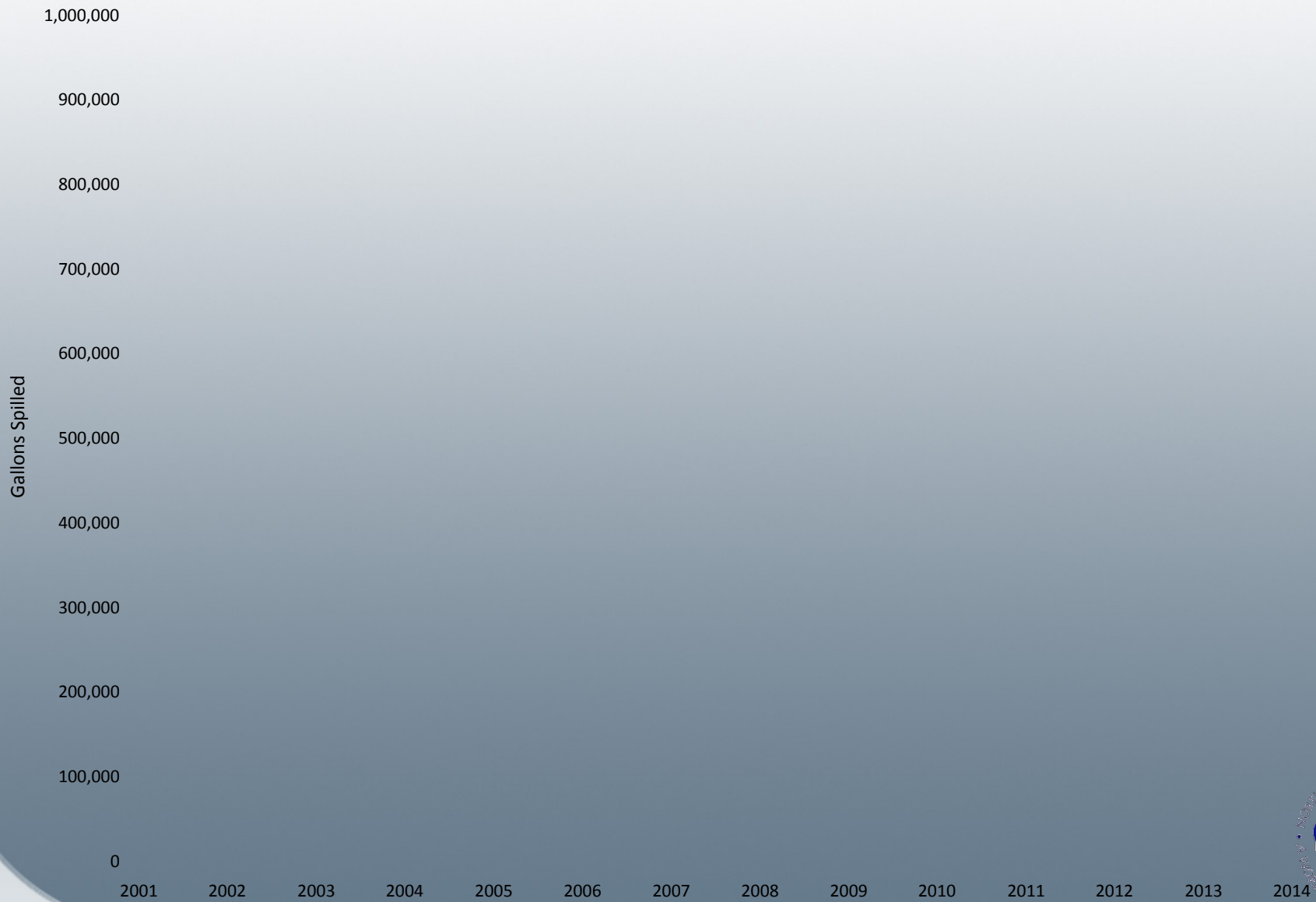
## Total Number of Spills per Year



Source: Alaska Department of Environmental Conservation



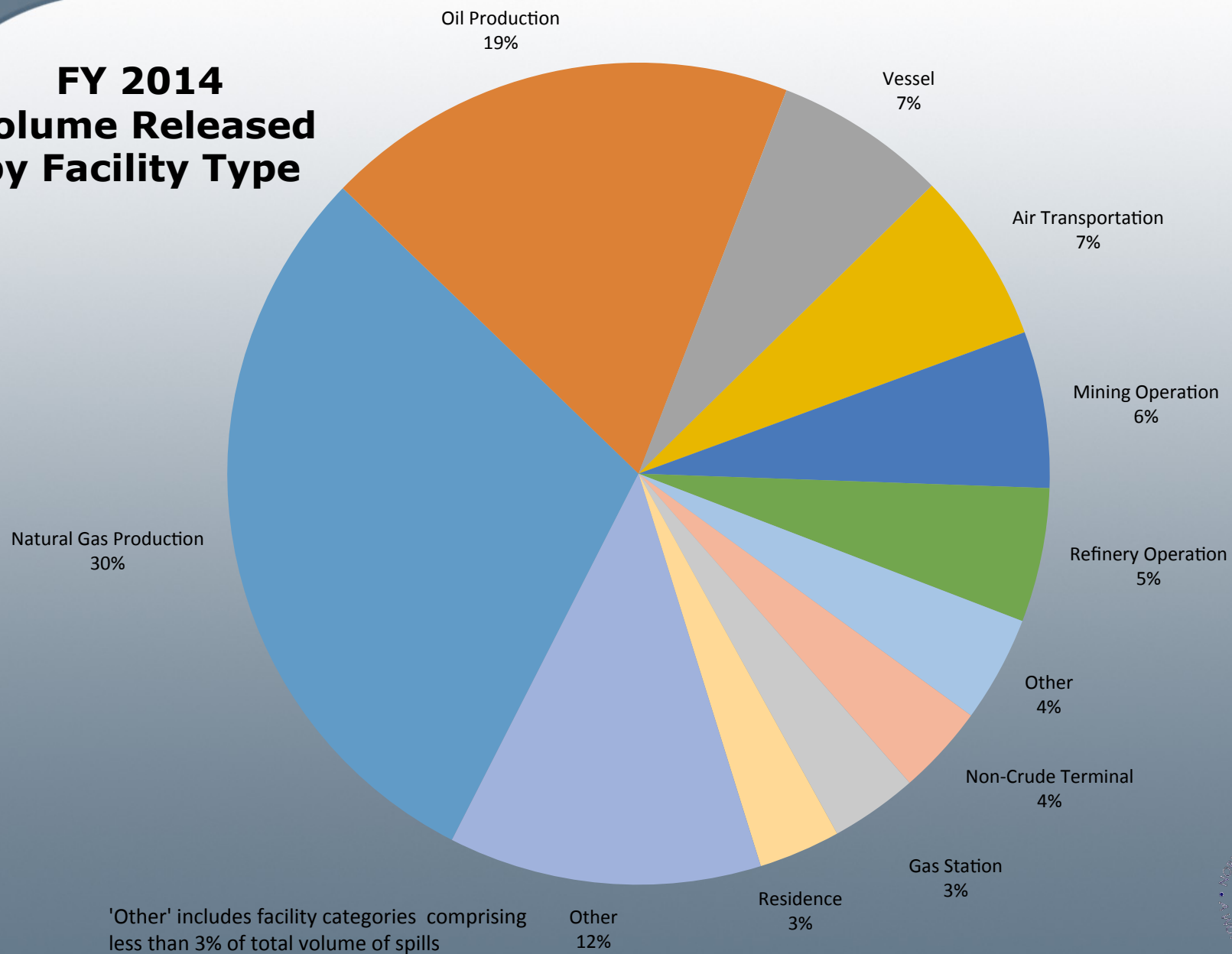
## Total Volume Spilled per Year



Source: Alaska Department of Environmental Conservation

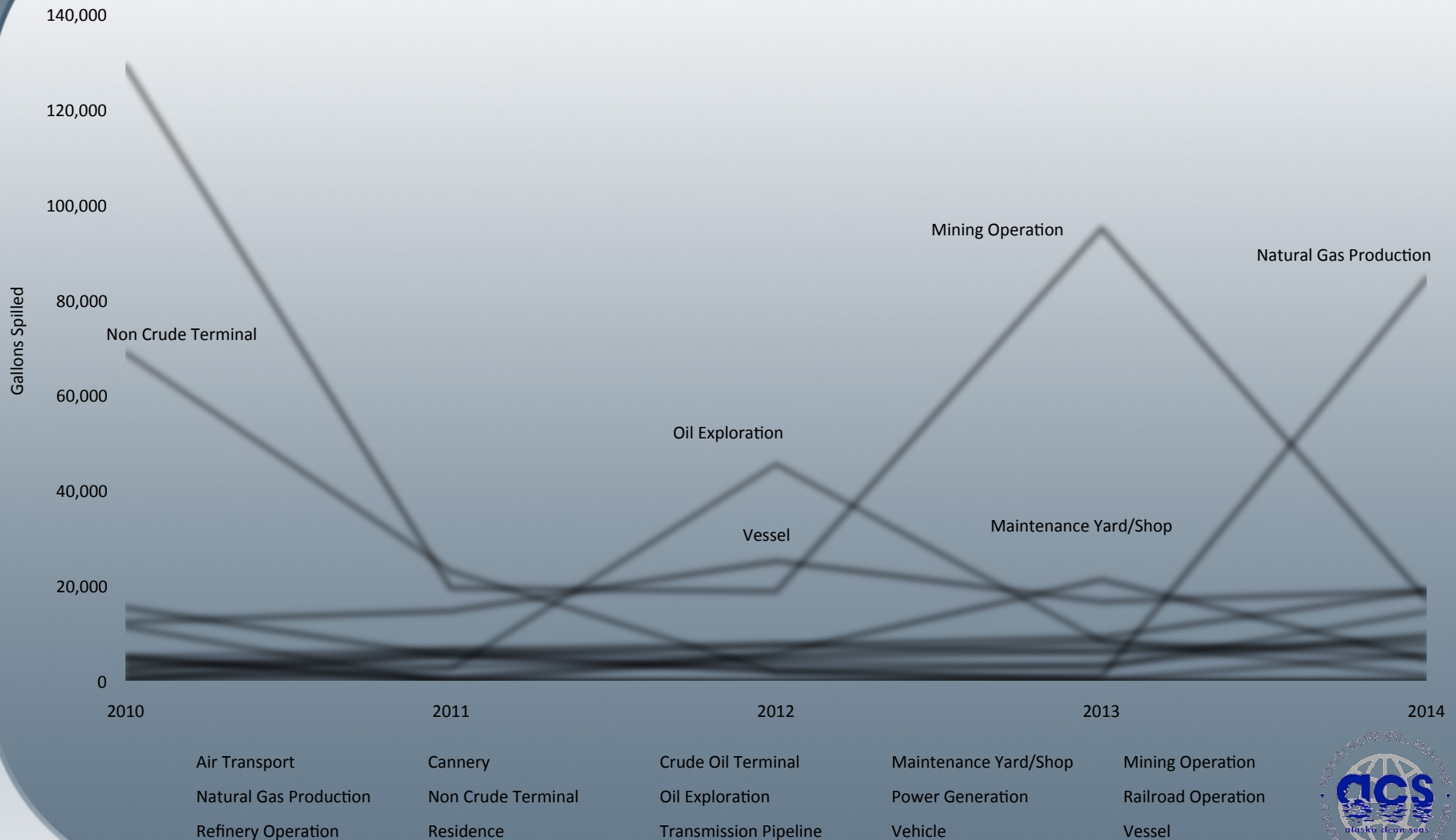


## FY 2014 Volume Released by Facility Type



Source: Alaska Department of Environmental Conservation

## Gallons Spilled by Facility Type FY10 - FY14



Source: Alaska Department of Environmental Conservation



# ACS Co-Op Membership

**Alyeska pipeline**  
SERVICE COMPANY

**Anadarko**  
Petroleum Corporation

  
Brooks Range Petroleum Corporation

**CAELUS**  
Energy Alaska

  
**ConocoPhillips**

 **Eni Petroleum**

**ExxonMobil**

 **NORDAQ ENERGY**

**SAVANT**  
ALASKA

  
**Hilcorp**

**REPSOL**  


**bp**  




  
Great Bear  
Petroleum Operating LLC

- Alyeska Pipeline Service Company
- Anadarko Petroleum Corporation
- BP Exploration (Alaska) Inc.
- Brooks Range Petroleum Corporation
- Caelus Energy, Alaska
- ConocoPhillips Alaska Inc.
- Eni U.S. Operating Company Inc.
- ExxonMobil Production Company
- Great Bear
- Hilcorp
- NordAq Energy, Inc.
- Savant Alaska
- Shell Exploration & Production Company
- Repsol



# Manpower

- 94 full-time staff (plus additional contractors), all of whom are available for response operations.
- Average of 170 qualified responders are available on any day through member companies as part of the North Slope Spill Response Team (NSSRT).
- Additional fully trained personnel are available from contract organizations:
  - Auxiliary Contract Response Teams (ACRT)
  - North Slope Village Response Teams (VRT)



# Equipment Overview

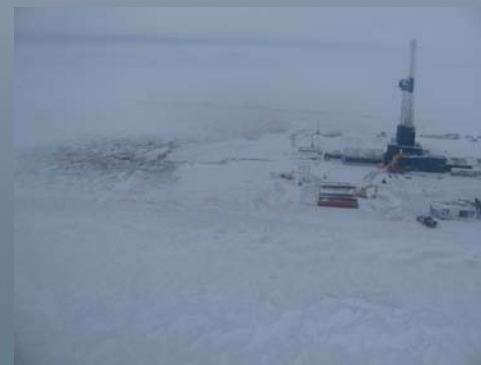
Equipment is owned and/or by the Co-Op and maintained on the North Slope.

- 311,303 feet of boom (58.9 miles),  
21,000 ft of which is Fire Boom (4 miles)
- 158 Skimmers (Over 33,000 bbls/hr of derated recovery capacity)
- Eight helitorch aerial ignition systems
- 93 vessels, two 128 barrel & twelve 249 barrel mini-barges
- One 650 barrel barge and over 250 bladders and folding portable tanks



# Potential Spill Sources

- Marine Transportation/Operations
- Pipeline & Storage Facilities
- Drilling - Exploratory & Production
- Field Operations
- Miscellaneous Sources



# Training and Response Permits

- ADNR Land Use
- ADNR Title 16 Fish Habitat
- ADNR Bird Hazing
- ADNR Mammal Hazing and Mammal Stabilization, Transport & Disposal
- USF&W Capture, Salvage and Rehabilitation of Migratory Birds & Raptures
- BLM Oil Spill Response Training in NPR-A
- Partnership with USF&W for ANWR





# Spill Response Techniques: Mechanical Recovery

- Skimmers & Pumps
- Heavy Equipment
- Vacuum Trucks
- Manual Removal of Oiled Snow
- Snow Melting



# Spill Response Techniques: In-Situ Burning

- On Water
  - Fireboom
  - Helitorches
  - Handheld Ignitors
- On Land
  - Weed Burners





# Spill Response Techniques: Dispersants

- Shell maintains capability for their offshore projects
- Alyeska SERVS has dispersants and aircraft on contract in Anchorage
- Additional capability available through Global Response Network Members
- ACS does not maintain dispersant response capability



Photo's from Alan A Allen



# Training

ACS provides all aspects of spill response training to its member companies, contractors, village response teams and government agencies, including:

- Winter & Summer Response Operations
- Marine Response
- Airboat and small boat operations
- Wildlife Hazing, Capture & Stabilization
- Incident Command System - NIMS
- HSE Training
- Waste Handling & Characterization





# Specialty Training

Advanced Ice Safety and Response Course  
CRREL Facility (ACOE)



Advanced Oil Spill Responder Course  
OHMSETT Facility (BSEE)



# Drills & Exercises

- Tundra Response Exercises
- Shallow Water Exercises
- Near Shore/Offshore Drills
- Annual Mutual Aid Drills
- Winter Response Drills
- IMT Exercises





# Research and Development

- Acts as facilitator for R &D related to spill response in arctic conditions.
- ACS has maintained an active oil spill R&D program since the early 1980s
- The R&D program focuses on areas such as:
  - oil spill recovery techniques in, on, and under ice, during various broken ice conditions,
  - detection and tracking of oil under ice
  - in-situ burning techniques





Ground Penetrating Radar



Viscous Oil Pumping



In-Situ Burning



Oil Weathering



Mechanical Recovery of Oil in Ice



Remote Sensing



Dispersants in Cold Water



# R&D 2014 Projects

- Marine Mammal Response
  - Mobile Treatment Rehabilitation Enclosure Design and Construction
- Arctic Joint Industry Project
  - Feasibility Report on Mechanical Recovery in Ice Covered Waters
- Detection of Oil Under Ice
  - Autonomous Underwater Vehicles
  - Shallow water under-ice acoustic communications and navigation testing



# Wildlife Response Preparedness

- Equipment
  - Bird Stabilization Center
  - Bear Capture and Stabilization Kit including cage
  - Wildlife (Bird) Kits (Capture 10, Hazing 15)
  - Net Launchers (4)
  - Bird Scare Devices (67) (Propane Cannons and Breco Scare Buoys)
  - Shotguns for hazing and protection (19)
- Training
  - Bird Capture and Stabilization by International Bird Rescue
  - Bird Hazing by Dept of Agriculture
  - Bear Hazing by ACS approved by USF&W
  - Oiled Pinniped Stabilization Training by Alaska SeaLife Center





# Wildlife Encounters



# Marine Mammal Response Workgroup

- Informal Working Group formed in 2010 and facilitated by ACS
- Mission is to enhance communications, identify and improve capabilities, and develop/improve procedures with organizations responsible for marine mammal response on the North Slope of Alaska
- Participants include: U.S. Fish and Wildlife, NOAA National Marine Fisheries, Alaska Department of Environmental Conservation, North Slope Borough, Alaska Sealife Center, Alaska Zoo, Pet Stop, Alaska Clean Seas, Alaska Chadux, and ACS member company representatives





## Oiled Pinniped Training



## Polar Bear Hide Oiling Experiment



## Polar Bear Activity at Alaska Zoo





# Polar Bear Cub Incident



# Musk Ox Capture



# ACS Blizzard Rescues

- 28 Feb 2015: Fast moving blizzard caused white out conditions across the slope. Temp: -10, Winds: 52 mph, Wind Chill: -46.
- Over 100 personnel stranded in vehicles and unable to travel due to visibility and drifts.
- ACS team members operated Tuckers working with other Slope organizations to rescue/recover/guide personnel to safety.
- In some cases, Tuckers operated in convoy with snow blower and loader due to extreme and life threatening conditions.





# Questions



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