



# Marine Mammal Oil Spill Response Guidelines and Best Practices

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29 March, 2018

# Toxic Effects of Oil in Mammals

- External Exposure
  - Physical impairment
  - Altered energetics/efficiency
  - Irritant
- Internal Exposure
  - Inhalation/Aspiration
  - Ingestion
    - Function abnormalities
    - Organ damage
    - Reproductive failures



# Wildlife and Oil Spill Planning

- OPA90 Wildlife Provisions
  - ACP Requirement: “... provide for a specific fish and wildlife response plan ... to minimize disruptions to fish and wildlife and their habitat.”
  - NCP Requirement: “...immediate and effective protection, rescue, and rehabilitation of, and minimization of risk of damage to, fish and wildlife and their habitat that are harmed or may be jeopardized by a discharge.”
- Most wildlife response plans and preparedness efforts have been bird-centric

# Planning for Wildlife Operations

- Organizational Structure
- Necessary resources
- Funding mechanism
- Necessary permitting/approvals
- Response procedures
  - Primary
  - Secondary
  - Tertiary



# Wildlife Response

- Primary Response
  - Oil recovery/countermeasures
  - Carcass recovery
  - Disturbance minimization
- Secondary Response
  - Deterrence
  - Pre-emptive capture
- Tertiary Response
  - Recovery & rehabilitation



# Southeast Stranding Network



# Guidelines

- First Version Document
  - Draft in '05, “Final” in '07
- Regional Trainings
  - Stranding Networks: '05
  - Safe Seas drill: '06
  - NE SONS Drill: Apr '10
- National Meetings
  - '05, Apr '10



Deepwater Horizon: 20 April 2010

Cetacea: 13 live, 178 dead during active response





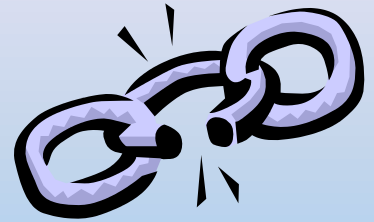
# Guidelines: Good to have, but...

- Based on previous experience/knowledge – emphasis on:
  - Sea otters
  - Some pinnipeds
  - Minimal cetacea
  - No manatee
- Revised during response
  - Draft 6 May
  - Final 12 Jun



# DWH Recommendations

- More refined wildlife protocols
  - Reality-based CoC & sampling
  - Better integration of field procedures
  - Better inclusion of ALL marine mammals
  - Clear personnel policies
- Better comms between and among RSNs
  - Cross-training and building of depth
  - Inclusion into drills and non-regional responses
- Increase supply caches & facility readiness
  - Resources need to be available when needed



# Plan

- ~~Conduct “Hot Wash”~~ November 1-3, 2011
- Review/update National Guidelines
- Develop Regional Annexes
  - Based on Regional needs/deadlines (ACP)
- Establish Training Calendar
- Develop Drill/Exercise Plan

Respond to  
additional spill  
(Texas City Y, March  
2014)



# What the Guidelines are:

- Foundation for coordination and communication between:
  - Local, State, and Federal response agencies
  - Federal resource agencies
  - Marine mammal conservation, research, and welfare communities
    - Marine mammal stranding networks
    - Researcher scientists



# The Guidelines Standardize:

- Organizational/reporting structures
- Data collection techniques
  - For response, but inform NRDA
- Chain of custody protocols
- Training requirements
  - Human and animal health & knowledge
- Thus, promote best achievable care for oiled marine mammals

# The Guidelines are a Resource For:

- Marine mammal stranding responders and rehabilitators
- Other wildlife responders and rehabilitators
- Resource management agencies (FWS, NMFS, State agencies)
- On Scene Coordinators/response personnel
- Broader spill response community
  - OSROs
  - Potentially Responsible Parties

# The Guidelines are a Resource To:

- Understand complexities of mammal response
- Help modify wildlife sections of RCPs and ACPs
- Improve communication between spill response planners and NMFS
- Design appropriate spill readiness activities
  - Training programs, equipment caches
- Streamline decision-making following the establishment of an IC
- Collect relevant and ephemeral data/evidence for response and subsequent impact assessment

# The Guidelines are NOT:

- “Final,” but are intended to act as as a living document to evolve with lessons learned from each response
- A detailed protocol on non-oiled marine mammal stranding response or rehab
- A stand-alone training manual



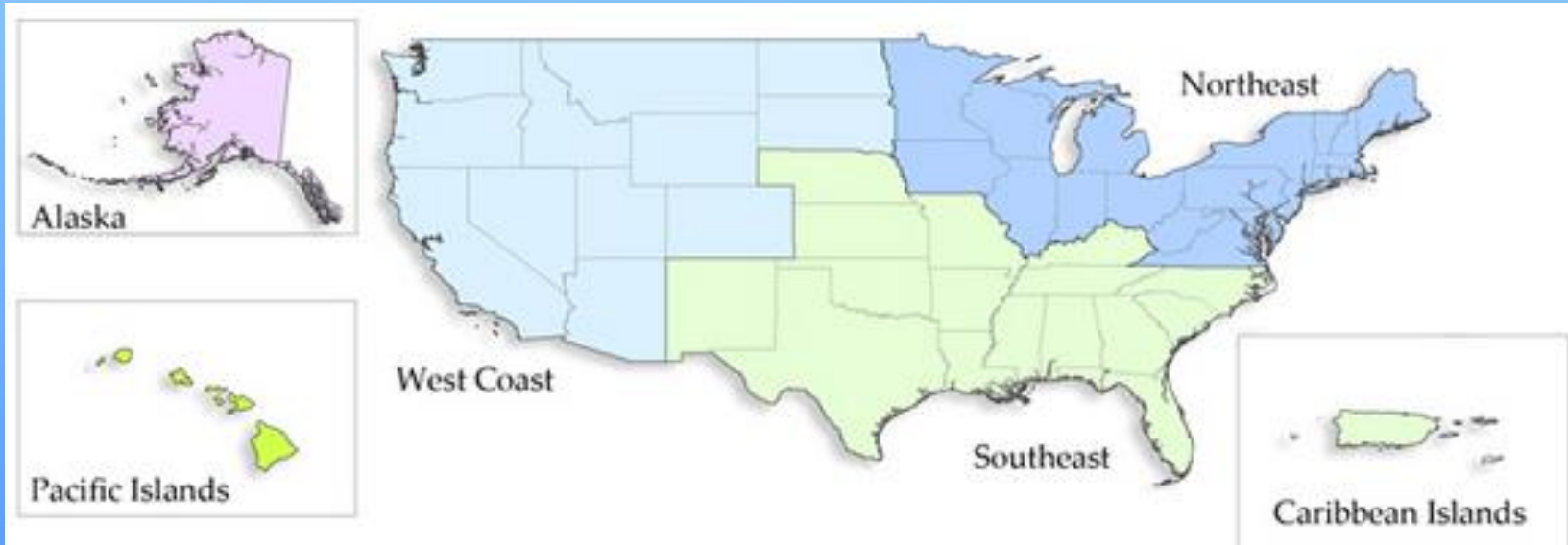


# Current Format

- Overview
  - Purpose & Use
  - Effects
  - Legal/Structural Framework
- Readiness
  - Network Structure
  - Org Categories
  - Safety
  - General Personnel
  - General Training
  - General Equipment
- Response
  - Reporting & Activation
    - Initial Notification
    - ICS Overview
    - WB Overview
    - MM “Group” Overview
  - Data Management
  - Group Activities
    - Intro & Goals
    - Personnel
    - Safety
    - Documentation
    - Procedures

# Organization Types

- Primary Care
  - Receive live/dead oiled
- Secondary Care
  - Receive live de-oiled
- Processing
  - Receive/respond to dead oiled
- Recovery
  - Respond to live/dead oiled
- Personnel
  - Provide staff/volunteers



# Readiness Questions

- Facility Readiness
  - Zoned?
  - Able to separate spill from non-spill?
- Personnel Readiness
  - Pre-identify people for positions
  - Keep training current
  - Fold volunteers into response
- Org Readiness
  - Willing to work under and within UC?
  - Willing to work on readiness activities?

# Effective Oiled Wildlife Response

(IPIECA)

- Cooperative and collaborative inclusion of wildlife and environmental stakeholders
- Utilization of widely accepted practices
- Minimization of impact of wildlife response
- Adherence to legal permitting requirements
- Integration of wildlife response into wider effort



# **Oil Spill Guidelines can be found at:**

<https://www.fisheries.noaa.gov/resource/document/pinniped-and-cetacean-oil-spill-response-guidelines>