How to Better Manage Public Expectations and Information Concerning Oil and Chemical Spill Response

Doug Helton, Vicki Loe| NOAA Office of Response and Restoration | Doug.Helton@noaa.gov, Vicki.Loe@noaa.gov | International Oil Spill Conference 2014, Savannah, GA | May 5 – 8, 2014

Oil Spill Communications

NOAA's Office of Response and Restoration (OR&R) provides scientific expertise to support incident response and initiates natural resource damage assessment both in the U.S. and internationally.

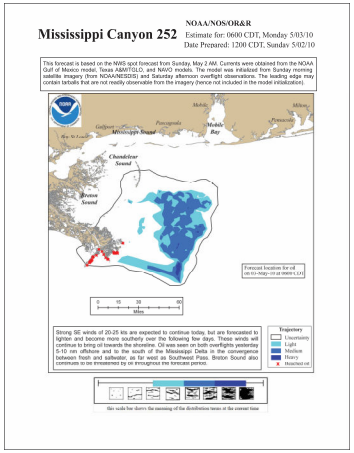
Although OR&R has responded to every major spill in the U.S. over the past 35 years, OR&R continues to face challenges in communicating realistic expectations of response outcomes, in having technical products interpreted correctly by the public, and communicating the degree of uncertainty surrounding such events. Unlike hurricanes, and because large spills are rare and generally man-made, the public expects rapid, complete, and accurate information on the fate and effects, even as the spill event is still unfolding and the response is on-going.

Sources of Confusion

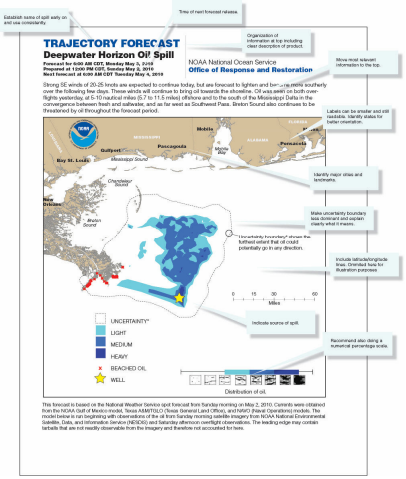
Areas of common public misconception include:

- **Trajectory Forecast Maps**
  - Originally used only by responders, the trajectory forecast map is the modeling tool used to predict the possible route of an oil spill. These maps are frequently misinterpreted as the footprint of the spill as opposed to where the oil might go
- **How Much Oil is Possible to Recover**
  - Another common misconception concerns how much oil can be recovered following a spill. Given the limitations of mechanical recovery, and the rapidity with which oil spreads, evaporates, and disperses at sea, it is **impossible to recover all of the spilled oil.**
- **Removing the Oil from Sensitive Areas**
  - oil may be left in environmentally sensitive areas because the attempt to recover the oil could cause irreparable damage. As a result, mechanical recovery generally accounts for less than 5-20% of the overall oil budget, yet the public has an expectation that the goal of a response is to remove all of the oil from the environment.

Graphics vs. Technical Tools



CURRENT



PROPOSED

Terms and Perceptions

Current	Must communicate
Volume units	The amount of oil in understandable units
Oil budget	Total oil spilled divided by what happened to it
Fate	What will happen to the oil and how it will behave
Trajectory	In what direction the oil is expected to go
Uncertainty	Level of statistical confidence
Anomaly	Outside the norm
Droplet	More specific measurement
Plume	Dispersed underwater cloud of oil
In-situ burning	Burning oil on water
SCAT	Shoreline assessment for oil
Allision	Hitting an unmoving object

Challenges and Recommendations

Technical and science communications can be challenging, especially during spills and disasters.

Miscommunications during spills can increase public anxiety and concerns and make the jobs of responders even more difficult. These challenges are compounded by the small number of communications staff in the Federal and state agencies, pressure from social media and the demands of the 24 hour news cycle. It is important to provide rapid, credible, and complete information, but the available information may be uncertain and may change as the incident evolves.

Given all the uncertainties in an emergency response, it is important that communication products, both written and graphical, are clear and simple to interpret. Unfortunately, products used to communicate among technical experts may also be used to communicate to the public with little consideration on how one might misinterpret those words and images.

RECOMMENDATIONS:

Make information hard to misinterpret .

Use non-technical terms where possible and include explanations for technical terms.

Graphics should inform, not alarm. Use text in addition to graphics to add clarity. Test interpretation of graphics.

Telling a story is helpful and makes the information memorable. Use analogies.

Identify areas of common misconception and explain them often.