Opening Remarks

The Honorable Dr. Jane Lubchenco

Under Secretary of Commerce for Oceans and Atmosphere and

Administrator of NOAA

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Afternoon Plenary Panel: Lessons from the Gulf

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3:30-4:45 PM Ballroom, University Center

As Delivered

[SLIDE 1]

- Thank you, Mark. I'm pleased to be here today and to offer some insights and reflections on the DWH disaster, specifically on NOAA's roles and responsibilities. I do so both as Administrator of NOAA and as a scientist who cares deeply about bring the best scientific information to bear on decisions, especially during a crisis.
- Lessons learned serve a vital purpose.
    - They are the tools that inform our actions in future situations.
    - Although one can begin to capture lessons learned during a crisis, additional time is often needed, where distance from the heat of the moment allows more time for serious reflection and analysis. We are only at the early stages of this reflection for DWH.

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- However, part of our analysis of DWH needs to begin with *Exxon Valdez*, because that set part of the stage for the DWH response. The EVOS experience led to new legislation – the **Oil Pollution Act of 1990** – that enabled, guided and constrained the response to DWH: for example, OPA specified a new relationship with the Responsible Party, and set up a trust fund that provided scientific independence for the Natural Resource Damage Assessment process and funds for third party claims.
- And, EVOS provided many lessons learned about dealing with a spill. So, when Deepwater Horizon reared its ugly head, one of the first things I asked for as NOAA Administrator was a recap of lessons learned from the *Exxon Valdez* Oil Spill.

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- Fortunately for NOAA, we had a number of people with deep experience in EVOS. I tapped Dave Kennedy, who served as Scientific Support Coordinator for EVOS to head up NOAA's Deepwater Horizon team.
- And our team dusted off the Lessons Learned documents from that spill – lessons learned by NOAA and those recommended by others.

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- As a result, we were able to incorporate knowledge gained into our response. For example, we knew to be wary of clean-up techniques that might cause more harm than good – power washing the shore in EVOS, and in DWH, walking around in oil-drenched wetlands trying to remove oil, when doing so

would likely just bury oil deep into the sediment. And we knew to pay close attention to impacts of hydrocarbons on juvenile and larval fish, not just adults who metabolize hydrocarbons quickly.

- So, my first point is that we benefitted immensely from lessons learned from EVOS – where there were parallels.
- However, in many ways, DWH was completely unlike EVOS.
- *Exxon Valdez* involved a known quantity of oil; it happened in shallow, cold water, involved a very different kind of oil and washed up on mostly rocky shores and gravel beaches.

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- The *Exxon Valdez* experience could *not* tell us how oil would behave when gushing continuously for 3 months from more than a mile under the surface.
- It could *not* tell us how sweet Louisiana crude from Mississippi Canyon 252 would behave in the warm Gulf waters at the beginning of hurricane season with a fickle loop current as its sidekick.
- It could *not* tell us what technologies might be effective in stopping the flow of oil from a mobile offshore drilling unit of this type more than 5000' below the surface.
- In other words: DWH was unlike any other spill to date. In fact, just the word 'spill' is a gross misnomer.
- I can tell you from personal experience that this disaster was simply outside the envelope of anyone's expectations about a spill. 'Omnidirectional' and 'indeterminate' were ADM Allen's words. 'Unprecedented' is also apt, but all

of those fail to capture the reality of dealing with 5 m barrels gushing forth for 3 months.

- That's one EVOS every 4 ½ days, with a total oil exceeding 18 EVOSs.
- And it was coming from a mile deep and behaving very differently.
- Yes, in hindsight, a disaster of this magnitude and from this depth should have been anticipated. And you can be sure there are lots of discussions underway about why it wasn't and what changes should be put in place for the future.
- Nonetheless, I am proud and immensely impressed with the response effort. It was aggressive, science-based and adaptive. The sheer magnitude of the effort is astounding ~ 6,000 vessels, ~43,000 people, ~10 million feet of boom. And all of that needed to be coordinated, focused on the most important tasks, communicated, and adaptively managed continuously as new information came to the fore or new problems surfaced.
- As the lead science agency for the science of oil spills in marine and coastal environments, NOAA had its hands full. NOAA is responsible for five things.

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- We conduct and share science. We keep seafood safe. We protect wildlife and habitats. We assess damage. And we restore the natural resources injured as a result of a spill. Science underpins all five.

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- Conducting science meant that we had maps showing where the oil likely would go. We produced those oil trajectory forecasts within hours of the explosion and every day for nearly 4 months thereafter.

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- Keeping seafood safe meant closing fisheries, yet leaving safe areas open, so that Gulf fishermen had a life line. And we re-opened fisheries only if three criteria were met: (1) No sheen had been observed for 30 days; (2) the area must not be likely to become contaminated in the future; and (3) seafood from the area must pass multiple, rigorous laboratory tests to ensure it is free from oil or dispersant contaminants. If all criteria were met, an area was reopened. In addition, NOAA and the FDA are conducting dockside and market-based sampling as extra measures of safety. Under the watchful eyes of science, we have gone from 37% of federal waters in the Gulf closed to, with the latest opening today, 7% now re-opened.

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- The Gulf is home to 5 of the 7 endangered sea turtle species worldwide. 593 sea turtles were found dead. But an aggressive effort was launched to rescue and rehabilitate 537 sea turtles. Protecting wildlife also meant that we would relocate loggerhead turtle nests full of eggs because our scientists determined this would be the best way to keep nests out of harm's way.

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- Assessing damage meant identifying species and investigating wetlands, marshes, open waters and sea bottom communities from day 3 of the spill using a workforce of over 40 NOAA damage assessment teams in the field every day. And assessment also means using the best possible science while also ensuring that legal obligations are met.

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- As we look to restoring the Gulf, NOAA fully understands that restoration includes the lives and livelihoods of Gulf residents.

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- In this way, NOAA's mission goes well beyond data and numbers. It is about the people of the Gulf region.
- We are only now beginning to examine the response to Deepwater Horizon for lessons learned.

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- In realizing the limits of what lessons *Exxon Valdez* could teach us, we need to ask the hard questions about how well the reforms that came out of *Exxon Valdez* served us in Deepwater Horizon. And what else needs to be done to prevent future spills and deal with them should they happen.

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- One major challenge that is glaringly obvious in the DWH experience is the lack of funds for immediate response as well as sustained engagement by the academic community who have so much to offer. Our commitment to partnering with them on the subsurface monitoring is a good step, but far from the sustained participation we need from them.
- And finally, we all need to be responsible in communicating science.
    - For us – the Federal family – it means articulating our messages and intents clearly.

    - For you – the environmental reporters – it means understanding the scientific enterprise as the context for response, recovery and ***now*** for restoration.
- Though the oil has stopped flowing, NOAA is still at work. And as we go about the hard work of rebuilding the Gulf, NOAA's message is simple:

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- Eat, fish swim
- Enable people to eat Gulf seafood safely, fish from Gulf waters safely, and swim safely in the Gulf once again.
- As we move forward with closing the chapter on response and opening the chapter on restoration, I look forward to working with you to communicate science in a way that upholds the values of science and journalism at its best: objectively and with transparency.
- Thank you.