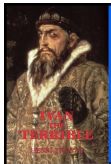


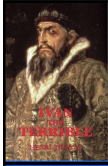
# Pipeline Breakout Session

July 27, 2005



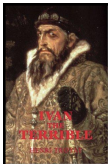
# Pipeline Breakout Session Introduction

Michael Gordon  
ExxonMobil Production Co.



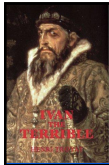
## Pipeline Impacts from Ivan

- 33,000 miles of pipeline in GOM; most pipelines performed satisfactorily
- Multiple failure modes
  - Unprecedented pipeline movement
  - Anchor line/chain damage
  - Reefed or sunken vessels
  - Rubbing of pipelines at crossings
  - Tension



## Purpose of Breakout Session

- Review efforts of industry pipeline workgroup
- Address pipeline-specific hurricane issues
- Identify opportunities to improve on technology, design practices, operating practices, regulations and standards
- Share experiences and lessons learned – Participate!!!



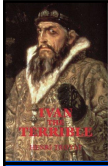
## Objectives

1. **Summarize Observations**  
(Successes and Failures)
2. **Summarize What Was Learned**
3. **Identify Needs for Improvements**
  - Operating Practices
  - Design Practices
  - Regulations/Standards
  - Technology



## Today's Schedule

- |  |                 |
|--|-----------------|
| – Introduction                                     | – 8:00 – 8:15   |
| ■ Facilities & Geotechnical Storm Impact           | ■ 8:15 – 9:15   |
| ■ Response Management – Industry Perspective       | ■ 9:15 – 10:00  |
| – Break  | – 10:00 – 10:20 |
| ■ Recovery (Operations, Assessment, Mitigation)    | ■ 10:20 – 11:30 |
| ■ Data Gathering                                   | ■ 11:30 – 12:00 |
| – Lunch  | – 12:00 – 1:00  |
| ■ Open Forum and Panel Discussion                  | ■ 1:00 – 2:30   |
| – Break  | – 2:30 – 2:50   |
| – Plenary Discussion – Air & Marine Vessel Support | – 2:50 – 3:20   |
| – Discussion on Breakout Sessions                  | – 3:20 – 4:30   |



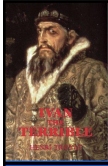
## Facilities & Geotechnical Storm Impact

- Pipeline damage locations



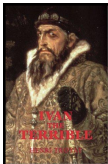
## Response Management

- Preparations and evacuations
- Hurricane tracking
- Reconnaissance flights
- Operational response
- Head office response
- Incident Command System



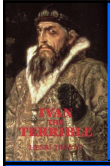
## Recovery

- Three phases of recovery:
  - Assessment of pipelines
  - Mitigation of pipeline damage
  - Return to operations
- Regulatory approvals
- What went well? What needs improvement?



## Data Gathering

- Pipeline Team's efforts
- JIP planning
  - Pre-storm vs. post-storm mapping of seafloor
  - Storm-related pipeline damage inventory
  - Analysis of pipeline failure causes
- Request for data or participation in JIP



## Presenters and Panel Members

- Tom Wicklund, BP
- Kevin Gaudet, Chevron
- Michael Gordon, ExxonMobil
- Jim Hooper, Fugro-McClellan
- Alex Alvarado, MMS
- Mark Wrzyszczyński, Shell
- Aaron Demo, USCG