



STRATEGIC PETROLEUM RESERVE

“Our Hurricane Katrina / Rita Experience”

Rick Shutt, Director

Security and Emergency Operations
U.S. Department of Energy – SPRO
(504) 734-4339

Bob Kahl, Senior Engineer

Maintenance & Operations
U.S. Department of Energy – SPRO
(504) 734-4335



U.S. DEPARTMENT OF ENERGY



STRATEGIC PETROLEUM RESERVE

UNCLASSIFIED

Strategic Petroleum Reserve



- **World's Largest Crude Oil Reserve**
(nation's energy insurance)
 - **Critical "Key" Infrastructure Complex**
 - **Respond to a National Energy Interruption or Emergency within 13 days**
 - **Maintain Inventory of 700 + MMB Crude Oil**
- 

SPR Storage Sites



HQ in New Orleans

UNCLASSIFIED

Gulf Coast Storage

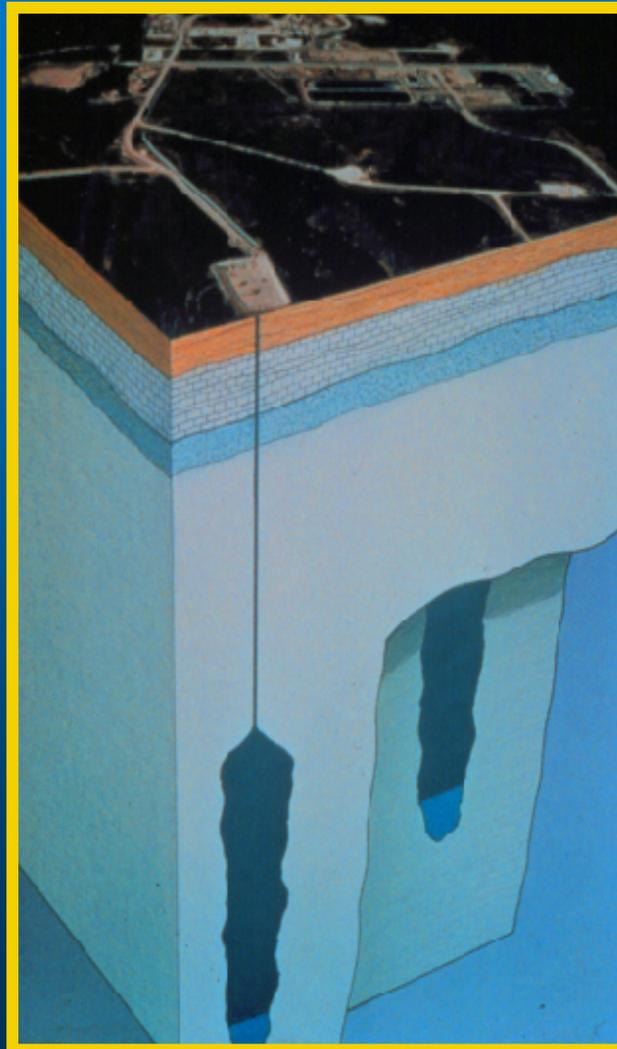


- **Concentration of Salt Domes**
 - **Secure**
 - **Economical**
 - **Low Environmental Risk**
- **Major U.S. Refinery Area**
- **Major Crude Oil Distribution Center**
 - **Tanker Terminals**
 - **Pipelines**
- **Provides Maximum Flexibility for response to a wide range of Interruptions / Emergencies**

Strategic Petroleum Reserve Complexes and Associated Pipelines and Terminals

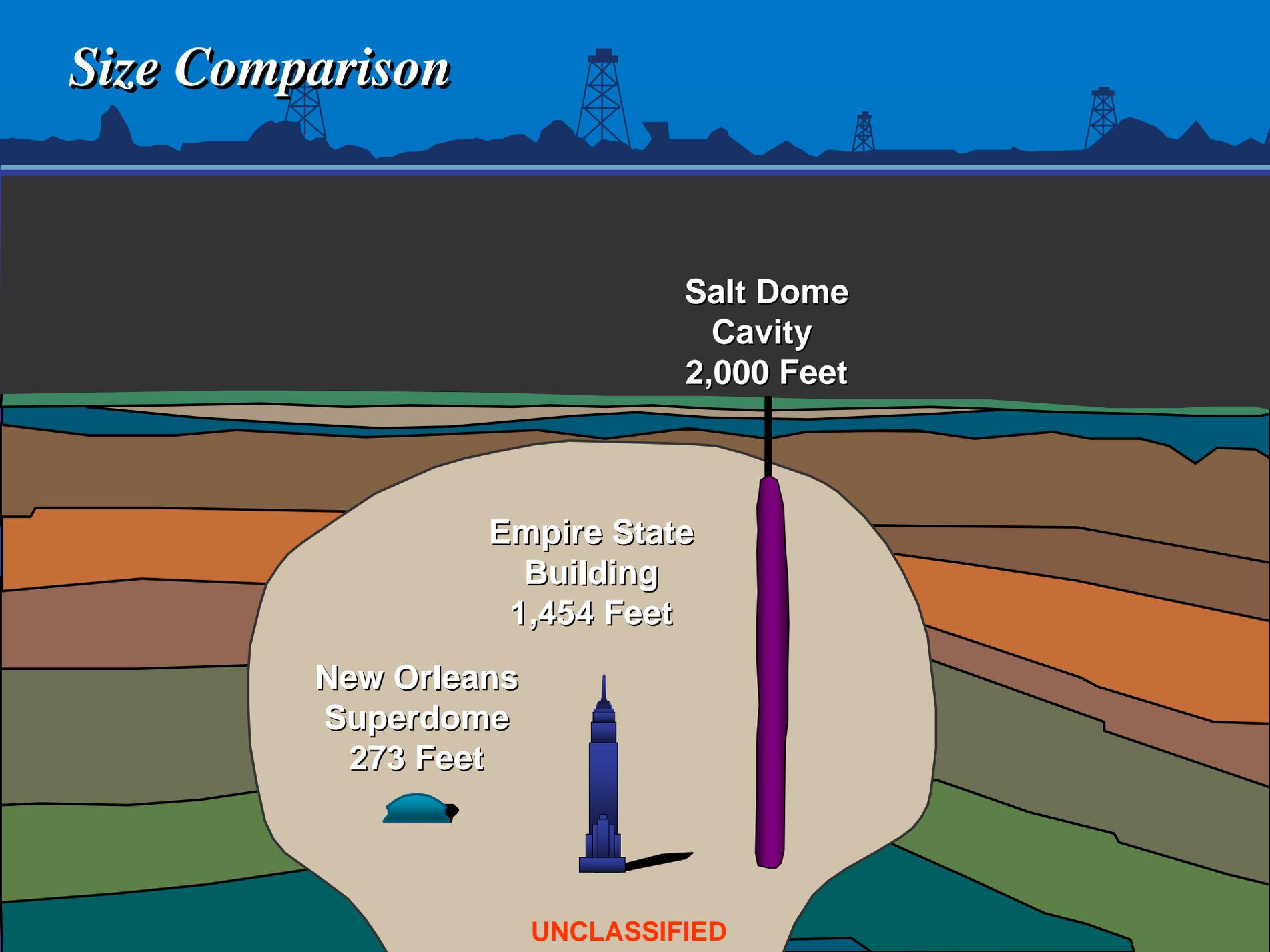


Typical SPR Cavern



UNCLASSIFIED

Size Comparison



Salt Dome
Cavity
2,000 Feet

Empire State
Building
1,454 Feet

New Orleans
Superdome
273 Feet

UNCLASSIFIED

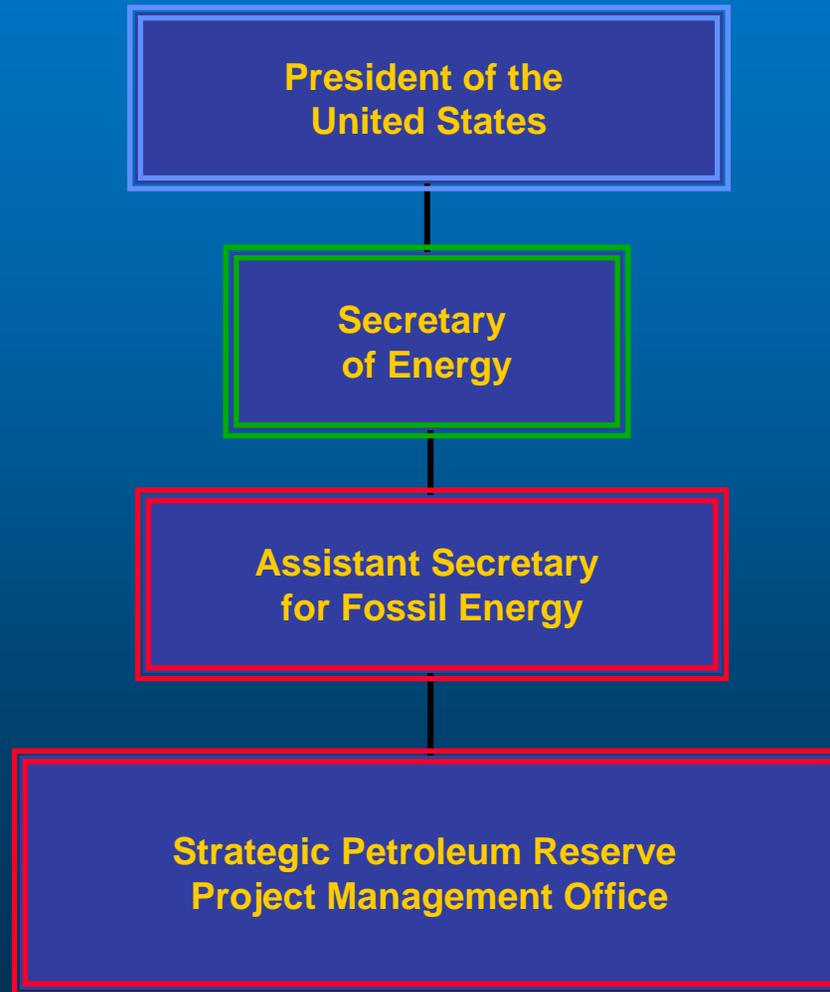
Authority & Conditions for Use

- **US Presidential Authority
DRAWDOWN**
 - Response to a “Severe Energy Supply Disruption”
 - IEA Obligations

- **Secretary of Energy Authority**
 - To acquire oil for reserve
 - To alter crude mix
 - To test Reserve capabilities

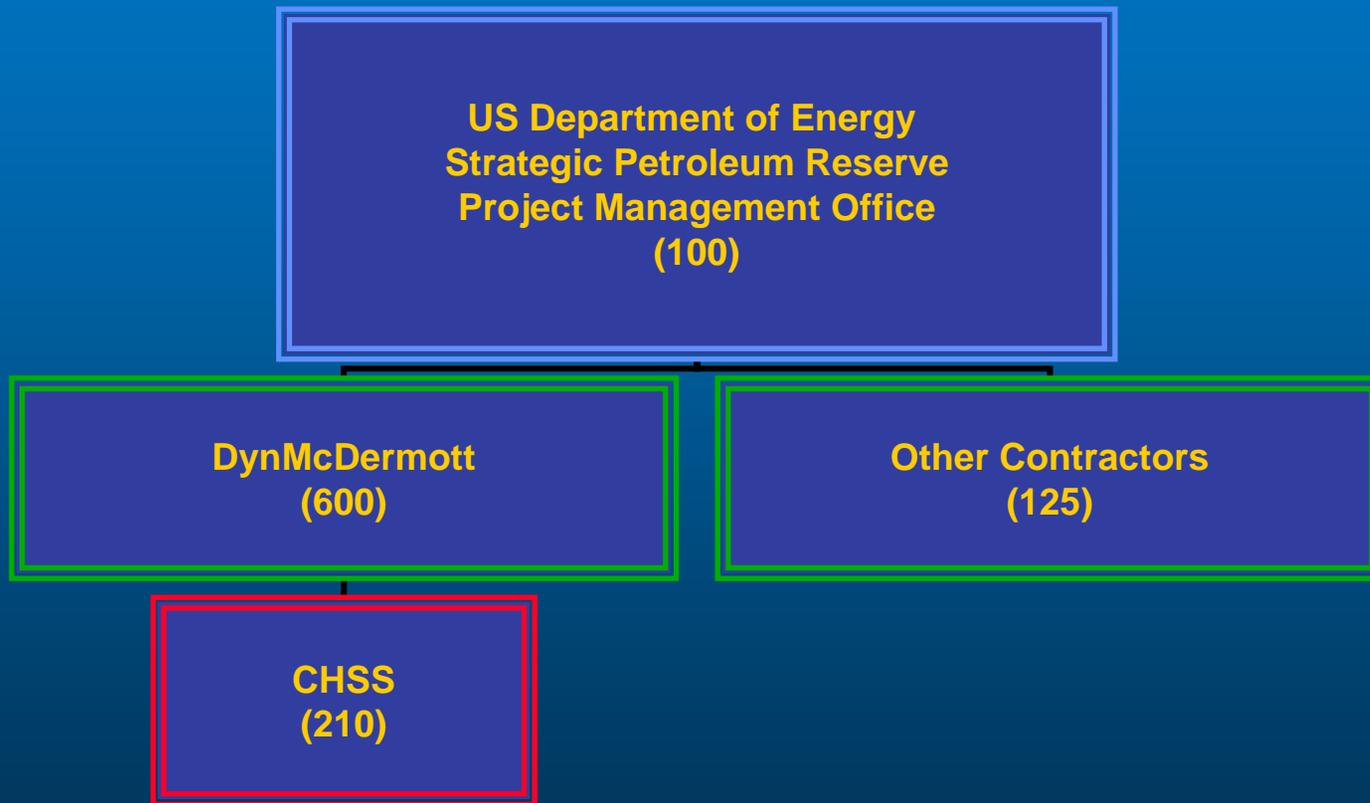


Organizational Chart



UNCLASSIFIED

SPR Personnel



Security and Emergency Operations

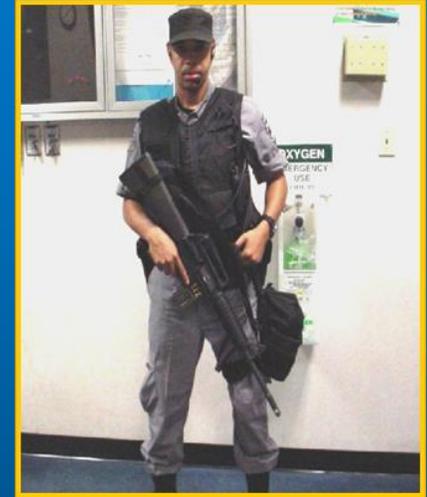
September 2003 - Security and Emergency Management Merged

- **Plans/Directives**
- **Physical Security**
- **Access Authorization**
- **Information Security**
- **Classified Communications**
- **Intelligence/
Counterintelligence**
- **Emergency Management**
- **Spill Response**
- **Fire Protection**
- **Emergency Medical**
- **Emergency
Communications**
- **Technical Assessments /
Surveys**
- **Dignitary Protection**
- **Continuity of Operations
(COOP)**

SPR Protective Force

Covenant Homeland Security Solutions

- **Approximately 200 armed federal officers**
- **Support six SPR sites**
- **Trained / Qualified SPO II**
- **Qualified “Support Emergency Responder”**



UNCLASSIFIED

Partnerships



- **FBI**
- **US Coast Guard**
- **BATFE**
- **Department of Homeland Security**
- **Louisiana State Agencies**
- **Texas State Agencies**
- **Mississippi State Agencies**
- **US Army Explosive Ordnance Disposal Units**
- **LA, TX, MS National Guard**
- **LLEA, Fire and EMT (City, County, Parish)**



TEXAS

LOUISIANA

MISSISSIPPI

HOUSTON
TEXAS CITY
BRYAN MOUND

BEAUMONT
PORT ARTHUR
BIG HILL

LAKE CHARLES
WEST HACKBERRY

BAYOU CHOCTAW
BATON ROUGE

SPR WAREHOUSE (Stennis)
SPR NEW ORLEANS

Gulf of Mexico

- SPR STORAGE FACILITY
- SPR WAREHOUSE (Stennis)
- CITIES

UNCLASSIFIED

Continuity of Operations (COOP)



- **August 2004** **Alternate EOC / Work Site (Stennis)**
- **December 2004** **Developed SPR COOP Plan**
- **January 2005** **Initial COOP Training / Exercise**
- **August 2005** **Eagle III “Drawdown” Exercise**

The “Wrath” Begins ... August 2005



- **Tuesday – August 23** **Katrina enters Gulf of Mexico**
- **Friday – August 26** **EMT meets / Alerts increase**
- **Saturday – August 27** **Advance Comm / EOC deploys
*SPRPMO-Stennis-Bayou
Choctaw shut down***
- **Sunday – August 28** **EMT convenes in Beaumont, TX
*ICS established***
- **Monday – August 29** **Katrina makes landfall**

Immediate Considerations



- **Safety and Security**
- **Personnel Accountability**
- **Damage Assessments**
- **Operational Status**
- **Notifications**
- **Path Forward**

After The Storm ...

Gulf Coast Infrastructure Destroyed

- **Landlines Out**
- **Cell Phones Out**
- **Network Down**
- **All Utilities Out**
- **Roadways Impassible**
- **Fuel Unavailable**
- **Personnel Location Unsure**

Immediate Actions / Response

Establish Command, Control & Communications

- **Personnel Accountability**
- **Notifications**
- **Verify Mission Readiness**
- **Assemble Essential Personnel**
- **Deploy Appropriate Assets**
- **Prepare for Operations**

Operations Begin ...



- **Tuesday – August 30**
Re-entry Team reaches SPRPMO
Damage Assessment Conducted
Bayou Choctaw Re-entry complete
- **Wednesday – August 31**
Sec DOE directs “Emergency Exchange”
- **Thursday – September 1**
SPR network set up @ BC
- **Friday – September 2**
SPRO @ Fed/State EOC
ECN set up @ BH
- **Saturday – September 3**
ECN set up @ BC
- **Sunday – September 4**
Emergency oil flows
- **Wednesday – September 7**
ECN set up @ BR

Operations Continue ...



- **Thursday – September 8** **President orders Drawdown**
- **Tuesday – September 13** **Sec DOE and Sec INT visit “Gold Award” received**
- **Monday – September 19** **Rita enters Gulf**
- **Wednesday – September 21** **SPR EOC moved to BC**
- **Thursday – September 22** **WH / BH / BM evacuated**
- **Friday – September 23** **Rita makes landfall**

Operations Continue ...



- **Saturday – September 24** **BM re-entry**
- **Sunday – September 25** **BH re-entry**
 WH assessed by air
- **Monday – September 26** **WH re-entry**
- **Tuesday – September 27** **SPRO @ Fed / State EOC**
- **Wednesday – September 28** **Pantex ERV @ WH**

Operations Continue ...



- **Sunday – October 2** **SPRPMO power up**
Network restored
- **Monday – October 3** **SPRPMO operational**
Stennis alternate worksite
BC alternate worksite
- **Monday – October 10** **WH operational**
- **Wednesday – October 12** **ICS stood down**

The Good News ...



- **Integration**
 - **Security / Emergency (Force X)**
 - **Incident Command Structure (ICS) Training**

- **COOP**
 - **Plan in place**
 - **Training conducted**
 - **Drill / Exercise completed**

More Good News ...



- **Hurricane Preparedness**
 - **Established procedures**
 - **Prearranged / contracted lodging**
 - **Several actual deployments**

- **Communications**
 - **SAT phones**
 - **Cell phones**
 - **Blackberries**
 - **Text pagers**
 - **Warm Site**

More Good News ...



- **Liaison**

- **MOU / MOA**
- **On-Site training**
- **Networking (*this led to our seat on Joint Fed / State EOC*)**
- **Professional meetings (LEPC, RRT, ATAC, FEB)**
- **Relationships / networking**

- **Management Support**

- **Educate**
- **Involvement**
- **Show results**

For The Future



- **Telephone rosters with two alternate numbers**
- **Enhance notification abilities (more tools)**
- **Communications capability menu more robust**
- **Update Emergency and COOP Plans with Lessons Learned**
- **Cross train – establish more backup**
- **Increase leadership flexibilities**
- **More fly-away / deployments kits**
- **Increase Pro Force / EM / FP joint exercises**
- **Expect the unexpected (use your imagination)**

Train / Exercise / Drill



IMPROVISE

ADAPT

OVERCOME

SUCCEED



*Strategic Petroleum Reserve
Hurricanes Katrina and Rita*

**Headquarters Communications
and
Coordination with Field**

UNCLASSIFIED

Program Office Communications



- **Displaced PMO Staff Called Headquarters**
- **Daily Conference Call-Headquarters, SPR EOC and Sites**
- **EOC Contact for Queries**
- **Situation Reports Forwarded to M. Matarrese and J. Fairobent**

PMO Administrative and Emergency Management Functions at PO

- **Time and Attendance**
- **Closing End of Year Books**
- **Borrowed Communications Trailer from PANTEX**

Public Information Flow



- **DOE Public Affairs-Drew Malcomb (primary media contact)**
- **FE Public Affairs-John Grasser**
- **SPR HQ-Diana Greenhalgh**
- **SPR Field-Jo Ann Rochon (displaced by hurricane)**
- **SPR Contractor- Dave Stoltz (HQ could not reach after storm due to e-mail & cell phone system disruptions. Workaround was check-in with HQ initiated by him when signals permitted.)**

Industry Status Reporting



- **SPR Program Office maintained consistent contact with refiners concerning:**
 - **Facilities conditions**
 - **Petroleum supply situation**
- **Passed information on to Office of Electricity Delivery and Energy Reliability for inclusion in Energy Assurance Daily Reports for wider distribution**

Support Crude Oil Business Transactions



- **Acted as central coordinating point for displaced Contracting Officer in negotiation of crude oil loans:**
 - **Received original requests and obtained Secretarial permission to enter negotiations**
 - **Prepared and distributed contract documents for review and signature**
 - **Provided three-way phone conference capability**
 - **Received original Letters of Credit**
 - **Served as repository of original and electronic copies until transfer could be made to PMO**

Support Crude Oil Business Transactions (cont)



- **Installed sales offer receipt and evaluation software on HQ servers as backup in event of field system failures**
- **PMO sales and IT support personnel to be transported to DC if required to conduct sale – not needed**
- **Converted various sales documents and reports for web posting to compensate for limited field abilities**

SPR Security Contingency Plan



UNCLASSIFIED