


**RPSEA Seafloor
Technologies Forum**



March 9, 2007
Texas A&M University
College Station, Texas

*Seafloor
Technologies
Center - Test Bed
for Deepwater
Research*



MPUR

MMR

Dr. Stuart L. Scott
Associate Professor
Petroleum Engineering Dept.
Texas A&M University

Current Industry Needs

- **University Participation in Ultra-Deepwater Research**
 - **Providing Multi-disciplinary Expertise**
 - **Creating a Subsea Engineering Specialty**
 - **Providing Additional Human Resources to the Industry**
 - **Assisting with Technology Transfer & Training**
- **New U.S.A. Based “Live-Fluid” Test Facility**
 - **Meters, pumps, compressors, separators, etc.**
- **Unique Pressurized Qualification Facility**

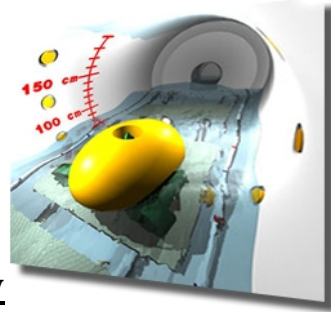
Unique Pressurized Test/Qualification Facility for the World-Wide Subsea Industry

- **Pressurized Component Testing**
- **Testing Using a Pressurized Outer Shell**
- **Submerged Module/Unit Testing**
 -can be undertaken by individual companies
- **Pressurized Module Testing**
 -too large for an individual company

Hyperbaric Chambers - Static

Petrobras

9840 ft water depth
Diameter – 6.6 ft
Length – 19.7 m



U.S. Navy – Ocean Simulation Facility

2,250 ft water depth
55,000 gallon



Capability of Facility

- **Water Depth:**
 - 10000 ft
 - 6000 ft
 - 4000 ft
- **Fluids**
 - Natural gas, N₂, etc.
 - Oil, water, gelled water, diesel, etc.
- **Flowloop Capacity**
 - Spooled pipe upstream/downstream of facility
 - What pressure & flowrates needed



RPSEA Seafloor Technologies Forum




1:00	Seafloor Technologies Center and Test Bed for Deepwater Seafloor Technologies <i>Stuart L. Scott—Texas A&M Univeristy</i>
1:30	BREAKOUT SESSIONS – Priorities for Research & Test Facilities 1) <i>Seafloor Boosting Technologies (Chairs - Stuart L. Scott—TAMU and Mohamed Ali —GE)</i> 2) <i>Seafloor Metering (Chairs - Gioia Falcone—TAMU and Chip Letton--Letton-Hall Group)</i> 3) <i>Seafloor Power Distribution and Control (Chairs - Richard Zhang —GE and Sjur Wie—Framo Eng.)</i> 4) <i>Seafloor Processing (Chairs – Lars Farestvedt—FMC and Rune Stroemquist—GE)</i>
3:00	Coffee Break / Informal Discussions
3:30	Workshop Summary Panel Session – Development of Action Plan
4:15	Closing Remarks & Adjourn
4:30	OPTIONAL TOURS: • <i>Offshore Technology Research Center</i> • <i>Turbo Machinery Laboratory</i>

Breakout Session Goals

- Identify Technology Gaps and Barriers for Ultra-Deepwater
- Develop a Description of the Types of Test Facilities Needed
- Prioritize and Group the Areas in Greatest Need of Research

Deliverables

- Return with a List of 5 Issues/Topics
- Return with a Description of Test Facilities Needed to Move Technology into Field Application in Your Discussion Area

Format

- Chairman will Give a Brief Introduction
- Several Brief Presentations (5-10 minute) may be given
- Session is to be Devoted to Discuss, not Presentations