

A CLEANER PORT.
A BRIGHTER
FUTURE.



Partnering with Pacific Rim Ports on Clean Air Strategies

Environmental Management Division
Port of Los Angeles

CMANC Alternative Maritime Power Conference

25 April 2006



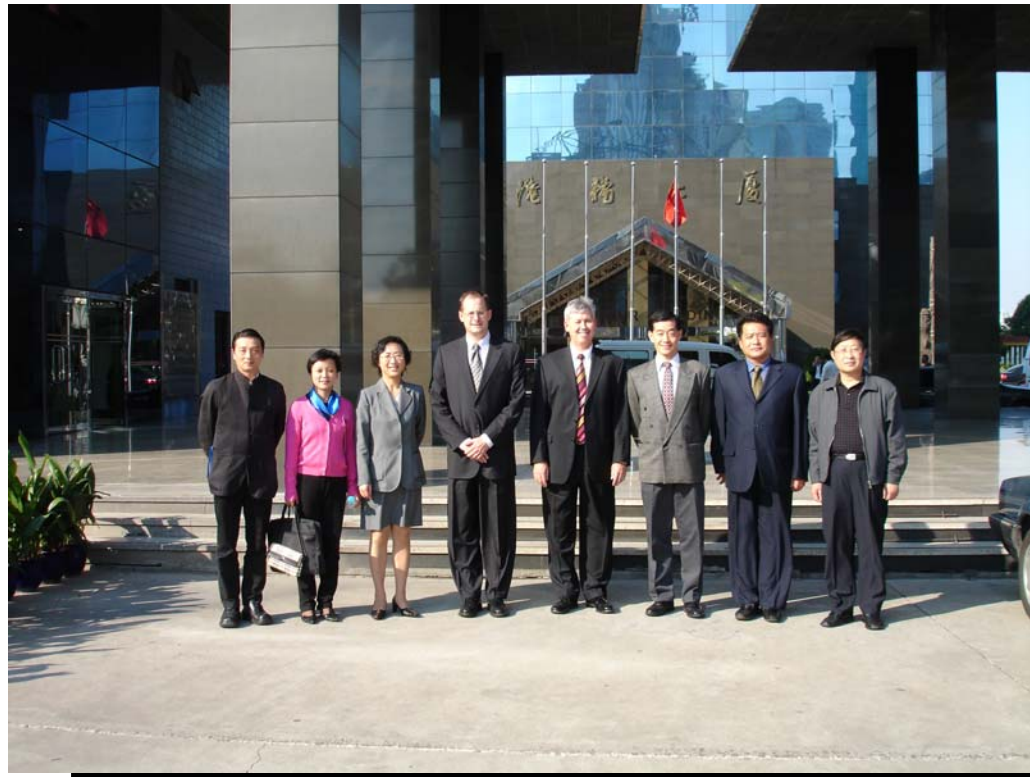
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Partnering w/Pacific Rim Ports

Overview

- The Realization – You Can't Do It Alone
- Working Towards Solutions – Collaboration Initiatives
- Into The Breach – Next Steps





The Realization

You Can't Do It Alone

- City of Los Angeles' NNI Process
 - ❑ One Year Intensive Unconstrained Evaluation
 - ✓ Multi-Participant (Everyone & the Kitchen Sink)
 - ✓ 1,000s of Hours
 - ✓ Based on Unconstrained Cargo Growth
 - ✓ 68 Measures Covering 5 Source Categories
 - ✓ ~16 Billion Dollars Over 20 Years
 - ✓ ~10 Billion Dollars for Ocean-Going Vessels Alone

- Realization
 - ❑ Conclusion: It Takes a Village with a LOT of Money
 - ❑ OGVs Represent ~36% NO_x, ~56% PM (2001 EI)
 - ❑ The Port of Los Angeles Can Not Do It Alone



Working Toward Solutions

Local Action

- Proposing a Joint San Pedro Bay Ports Clean Air Action Plan
 - ❑ **Elimination of Public Health Risk Is Top Priority**
 - ✓ Moving Away From Mass Emissions Focus
 - ❑ **New Clean Air Policy**
 - ✓ Elimination of Public Health Risk
 - ✓ Reduction of DPM and Criteria Pollutants – Targeting Reduction In Health Risk
 - ✓ Partnering w/SCAQMD, ARB, EPA
 - ✓ Continue Coordination w/Port of Long Beach
 - ❑ **New Goals to Meet New Policy**
 - ✓ Eliminate Health Risk in 5-Years or Have Programs In Place
 - ✓ Facilitate Growth While Reducing Emissions
 - ✓ Monitor, Document, & Report Performance
 - ✓ Source Specific Goals



Working Toward Solutions

Local Action

- Proposing a Joint San Pedro Bay Ports Clean Air Action Plan (cont.)
 - ❑ **Control Measures**
 - ✓ Shifting Primary Implementation Strategy to Lease Requirements
 - ✓ Focusing Port Incentive Funding To Trucks, OGVs (Targeted), Research & Development/Demonstrations
 - Limited Funding
 - Participation Rate Requirements
 - Gift of Public Funds
 - ✓ New Regulations (ARB – CHE, OGV, HDV?) Since NNI
 - ✓ Partnering w/SCAQMD, ARB, EPA for Funding & Expertise
 - ✓ Revamping Control Measures to Reflect Above Changes
 - Lease Requirements Changes Control Measure Implementation Timelines & Reductions
 - Need Resolution of 24 nm Boundary vs Current Over Water Boundary



Working Toward Solutions

Global Collaboration Initiatives

- Port's Collaboration Strategy
 - Ports
 - Terminal Operators
 - Fuel Providers
 - Engine and Vessel Manufacturers
- Initial Focus On Pacific Rim Ports
 - Find Out What Other Trading Partners Are Doing
 - Determine Willingness to Collaborate on Air/Environmental Issues
 - Learn from Each Other's Programs
 - Work Jointly to Develop/Evaluate Potential Port Policies & Measures (Initially Focusing on OGVs)
 - Avoid Boutique Strategies Between Ports
 - Better Understand Fuel Availability & Limitations
 - Formation of a Pacific Ports Air Quality Collaborative



Working Toward Solutions

Collaboration Initiatives – Pacific Rim Ports

➤ Port Initiatives

❑ Shanghai Initiatives

- ✓ Received MARAD Grant w/Technical Support from EPA
- ✓ Signed Letter of Intent
- ✓ First Successful Delegation Completed November 2005
- ✓ Addn Meetings in February & April 2006
- ✓ Staff Exchanges
- ✓ Mayor's Initiative

❑ Teaming with Marketing Department

- ✓ Leverage Synergies Between Env. and Marketing/International Staff
- ✓ Utilize Established Agents & Contacts
- ✓ Poll Other Pacific Ports to Determine Interest





Working Toward Solutions

Collaboration Initiatives – Pacific Rim Ports

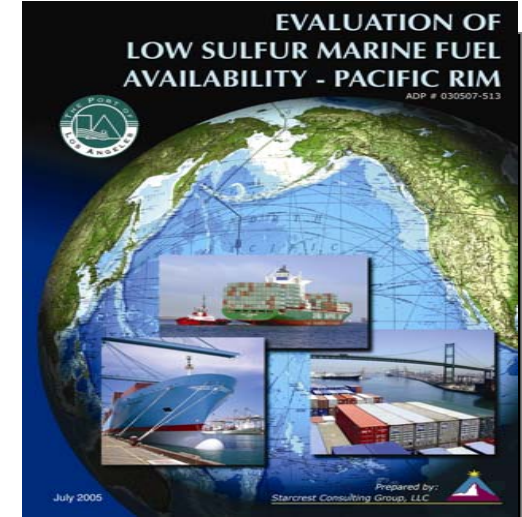
- Port Initiatives (cont'd)
 - ❑ Other Pacific Rim Ports
 - ✓ Tokyo
 - ✓ Nagoya
 - ✓ Busan
 - ✓ Hong Kong
 - ❑ Pacific Ports Air Quality Collaborative
 - ✓ Port Centric Focus
 - ✓ EPA Region IX Grant Through West Coast Diesel Collaborative
 - ✓ Encourage Communications & Collaboration on Air Quality Issues Between Ports Around the Pacific Rim
 - ✓ Provide the Opportunity for Port Staff Exchanges
 - ✓ Where Possible, Provide a Common Voice on Recommendations from the Group on Air Quality Issues, Suggested Control Strategies, & Technical Methods



Working Toward Solutions

Collaboration Initiatives – Fuels/Manufacturers

- Focus on Fuel Providers
 - ❑ Pacific Fuels Availability & Distribution
 - ❑ Barriers to Market
- Focus on Engine Manufacturers
 - ❑ Meetings with MAN & Wartsila
 - ❑ “Green Engines”
 - ❑ Main & Auxiliary Engine Operations
 - ❑ Fuels & Lube Oils
 - ❑ Current & Future Engine Technologies
 - ❑ Verification
 - ❑ Collaboration Opportunities





Working Toward Solutions

Collaboration Initiatives – Fuels/Manufacturers (cont.)

- Focus on Vessel Manufacturers
 - ❑ Meeting with Hyundai Heavy Industries
 - ❑ Accommodations for AMP
 - ❑ Accommodations for Main Engine after-treatment devices
 - ❑ Accommodations for Additional Tankage flexibility
 - ❑ Current & Future Engine Technologies
- IAPH Resolution
 - ❑ MARPOL Annex VI not good enough
 - ✓ Treaty Should be Modified
 - ❑ International Standard for Shore-side Power to Ships
 - ✓ ISO/IMO Meetings?





Perspectives

Issues for Adoption of Clean Air Measures

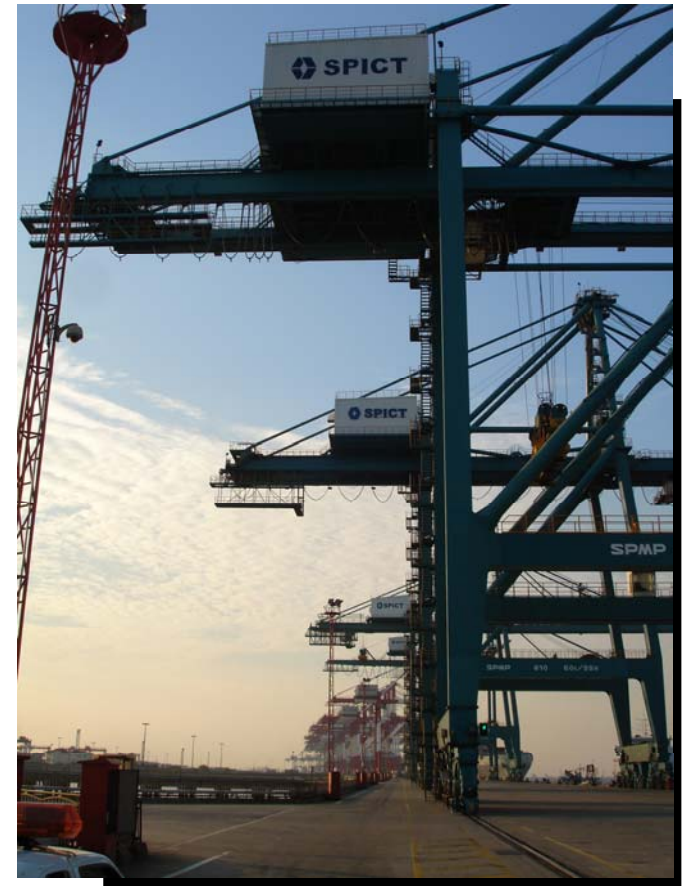
- Regulatory Authority Over OGVs
 - ❑ What is the limit of authority over international flags?
 - ✓ Wharf face or out to sea?
 - ❑ Within a country, who regulates OGV?
- Costs
 - ❑ What can be borne by local jurisdiction?
 - ❑ What can be passed to terminal operator?
- Competitiveness
 - ❑ Will it cost me business?
- Standards and Local Conditions
 - ❑ Does the standard recognize international variability?
- Political Realities
 - ❑ Local vs National Port Authorities
 - ❑ Local Issue Drivers



Into the Breach

Next Steps

- Complete POLA Clean Air Plan
- Form Pacific Ports Air Quality Collaborative
- Planning for First Meeting of Pacific Ports Air Quality Meeting
- Meetings w/Additional Ports
- Meetings w/Additional Manufacturers
- Meetings w/International Standards Bodies





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