Short Sea Logistics

M-10 Marine Highway
• **Subsidiary of Mohawk Industries**
  - World’s Largest Flooring Manufacturer, HQ in Calhoun, GA
  - Dal-Tile Division HQ in Dallas, TX

• **Dal-Tile Division Has Nine NA Manufacturing Locations**
  - Olean, NY
  - Gettysburg, PA
  - Lewisport, KY
  - Muskogee, OK
  - Fayette, AL
  - El Paso, TX
  - Chihuahua, CI
  - Monterrey, NL
  - Salamanca, GJ
Product Transit
Monterrey - OTR

65-75#/cuft

< 30% Cube Utilization

53’ VAN, 57k#, 26 MT
Product Transit
Monterrey - Boxcar

60’ STD CF BOXCAR, 200k#, 90 MT
Pre Trans-Gulf Freight Lanes

Legend

- **OTR**
- **IM**
- **OCN**
- **BOX**

Baltimore

Monterrey

Miami
Pre-TransGulf (2008)
Inventory Deployment

• **Monterrey – Florida (28 day deployment)**
  - Ocean (20’') (68%) - 35 days
  - Truck (21%) - 10 days
  - Intermodal (11%) - 20 days

• **Monterrey – Baltimore (27 day deployment)**
  - Boxcar (40%) - 27 days
  - Intermodal (37%) - 17 days
  - Ocean (20’’) (19%) - 50 days
  - Truck (4%) - 10 days

• **All Modes Cross/Count/Clear Customs at Laredo, TX**
Post Trans-Gulf Freight Lanes

Legend

- OTR
- IM
- OCN
- BOX
Post -TransGulf (2009-10) Inventory Deployment

• **Monterrey – Florida** (Reduction of 13 days)
  – Truck (30%) - 10 days
  – Truck-Barge-Truck (70%) - 17 days

• **Monterrey – Baltimore** (Reduction of 9 days)
  – Truck (25%) - 10 days
  – Intermodal (20%) - 17 days
  – Truck-Barge-IM/Truck (55%) - 22 days

• **Trans-Gulf Loads Cross at Brownsville, TX**
Operational Benefits

- Heavyweight Ground Transportation – Mexico
- Avoidance of Tolls - Mexico
- Heavyweight Crossings – Customs Brokerage
- Heavyweight Ocean Service
- Heavyweight Ground Transportation - Florida
- Reduced Inventory Deployment Cycle Time & Variability
Operational Challenges

- **M-10 - a “Link” in the Supply Chain**
  - As a Shipper, Use Depended on Internal Agility
  - Required Integration with other Modes/Services

- **Shippers Who are “Leveraged” w/TMS can Adapt Easily to Multi-Leg Movements**

- **Service Providers May Need Inland Partners**
  - 3PL/IMC
  - Regional OTR Carriers
  - *Goal: Seamless Integration*
    - Remove Complications
    - Create Broader Appeal to the Logistics Community
Can we maintain a trouble free operation?
Qualifying the Marine Highway Opportunity

• What Drives the Decision Maker to Engage?
  – Service?
    • Transit time
    • Equipment availability
  – Landed Cost?
  – Environmental/Social Factors?
  – Simplicity/Complexity?

• Value ------ Blend of Several Factors, Weighted Differently by Each Decision Maker
Marine Highway “Appeal” Matrix

Transportation Spend

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Origin/Destination Pairing

Non-repetitive

Repetitive

Good Likelihood of MH Usage

Excellent Likelihood of MH Usage

Poor Likelihood of MH Usage

Some Likelihood of MH Usage
Facility Considerations

- **Port Security Requirements**
  - TWIC requirement – not much impact on local operators
  - Linehaul operators aren’t as likely to have TWIC
    - Need to think thru internal port logistics
    - Secured & unsecured trailer/container storage

- **Container Operations – New or Additional Biz?**

- **Crossdock Activity – Need Dock Doors**

- **Facility Gate Operation Should be Studied**
  - Can current gate operation support increased activity?
  - Delays impact carrier availability & viability of supply chain solution
The Capacity “Shortfall”

• Logistics Community Recognizes the Issues
  – Capacity and Driver Availability Plague the OTR Industry
    • Aging workforce
    • Lack of industry appeal to the “new” workforce
    • Regulatory Issues
      – CSA 2010
      – Hours of Service
  – Impact of Fuel Cost
  – Infrastructure Wear & Tear, Congestion

------Time is Right for this Multi-Modal Option------
General Understanding of the Importance of “Efficient” Non-OTR Transportation Options

US Lacks a “Systematic” Approach to IM/MM

- 80,000 lb GVW Doesn’t Sync Well w/IM/MM Service
  - “Neighbors” (CN & MX) offer higher weight limits
  - “Heavyweight Commercial Zones” at US/MEX POEs
- Permitted Heavyweight “First & Last Mile” Legs
  - Creates “capacity” thru improved utilization of assets
  - Eliminates cost of “rehandling” & associated delays

Incentives Will Change Behavior

- Integrates IM/MM Services
- Social Benefits (fuel/carbon footprint, public sector impact)
Furthering the Cause

• **Creating Broader Appeal**
  - M-10 has Formidable Appeal to “HD/HW” Cargo
    • Heavyweight crossing implemented by POB
    • 40/45’ containers favor weight, not cube
  - “Consolidation” of HD/LD Cargo Creates Opportunity
    • Low density cargo fills cubic capacity made available by HD cargo
    • Creates “incentive” for low density cargo
    • Secures volume for service operator
  - Have started several “shared capacity” lanes/operations
    • Demonstrates the effectiveness of collaboration
    • Believe shipper partners will follow us to M-10 when available
Furthering the Cause

Tile Only

Tile Combined w/Appliances
Furthering the Cause

Tile Only

Tile Combined w/Ladders
Furthering the Cause

Connectivity of Services

[Map showing connectivity of services between Brownsville, Manatee, and Baltimore.]
• **Logistics is Dynamic by Nature**
  – Capacity has Been Tight Since 2007
  – Being “Nimble” is an Advantage…..Likely a Necessity

• **Can’t Afford “Unleveraged” Opportunities**
  – Dal-Tile Chose to Get Engaged with Service Design
  – Had to Question Paradigms, Accept Some Risks

• **M-10 Service Created a Positive Force**
  – Provided Fresh Alternative to Conventional Modes & Weight Restrictions
  – Resulted in a Well Synchronized, Trouble Free Operation