



Logistics Training Course For Public Sector Freight Planners

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The Project Approval

- ❖ Concept Approved on 10/29/2006
Teleconference of MVFC Executive
Committee as One of Three Priority
Initiatives.
- ❖ Duration: 3/1/2007 ~ 6/30/2008
- ❖ Budget: \$36,500.
- ❖ Researchers:
 - Teresa Adams (Principle Investigator)
 - Bruce Wang (Co-Investigator)
 - Ernie Wittwer (Consultant)

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Project Objectives

Product

- A Two Day Short Course on Concepts of Logistics

Audience

- Staff Who Work with Freight Providers or in Freight Planning on Logistics at DOT and MPOs

Expected Outcome

- Better Understanding of the Needs of the Freight Community, Issues and Concepts in Logistics Relevant to Freight Community

Benefits

- Public Sector Decision Makers Making Better Informed Decisions Regarding Freight Investments.

Project Process

- ❖ **Advisory Committee Established**
 - 7 People
- ❖ **Steps**
 - Customer Survey (62 of 140 professionals surveyed responded)
 - Course Outline Development
 - Materials
 - ❖ Lecture notes
 - ❖ Presentations
 - ❖ Interviews
 - Online Publication
 - Offering (dry and final)

Survey

- ❖ **Survey Participants' Background**
 - Private/Public experiences in freight issues
 - Job related (role/organization)
- ❖ **Logistics Knowledge**
 - Basics
 - Procurement/outourcing
 - Logistics network
 - Supply chain strategies
 - Modal transportation
 - IT in logistics
- ❖ **Course Delivery**
 - Means
 - Length

Structuring the Course

- ❖ A Face-to-Face Course with Online Option
- ❖ 12 Hours Long
- ❖ 6 Hours of Basics and 6 Hours of Materials Specially on Logistics
- ❖ Involving Private Sector People
 - Railroads
 - Port/Harbors
 - Trucking firms



Final Deliverables

- ❖ Lecture Notes (Free Distribution)
- ❖ Powerpoint Presentation (with Narration)
- ❖ Experienced Speakers from the Private Sector

- ❖ Two Presentations Delivered in 2007
 - The National Urban Freight Conference in CA
 - Mid-Continent Transportation Symposium in IA

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Quick Briefing of the Course

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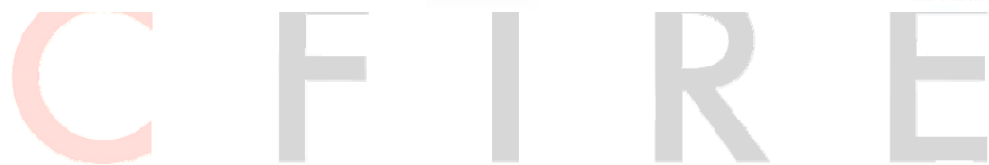
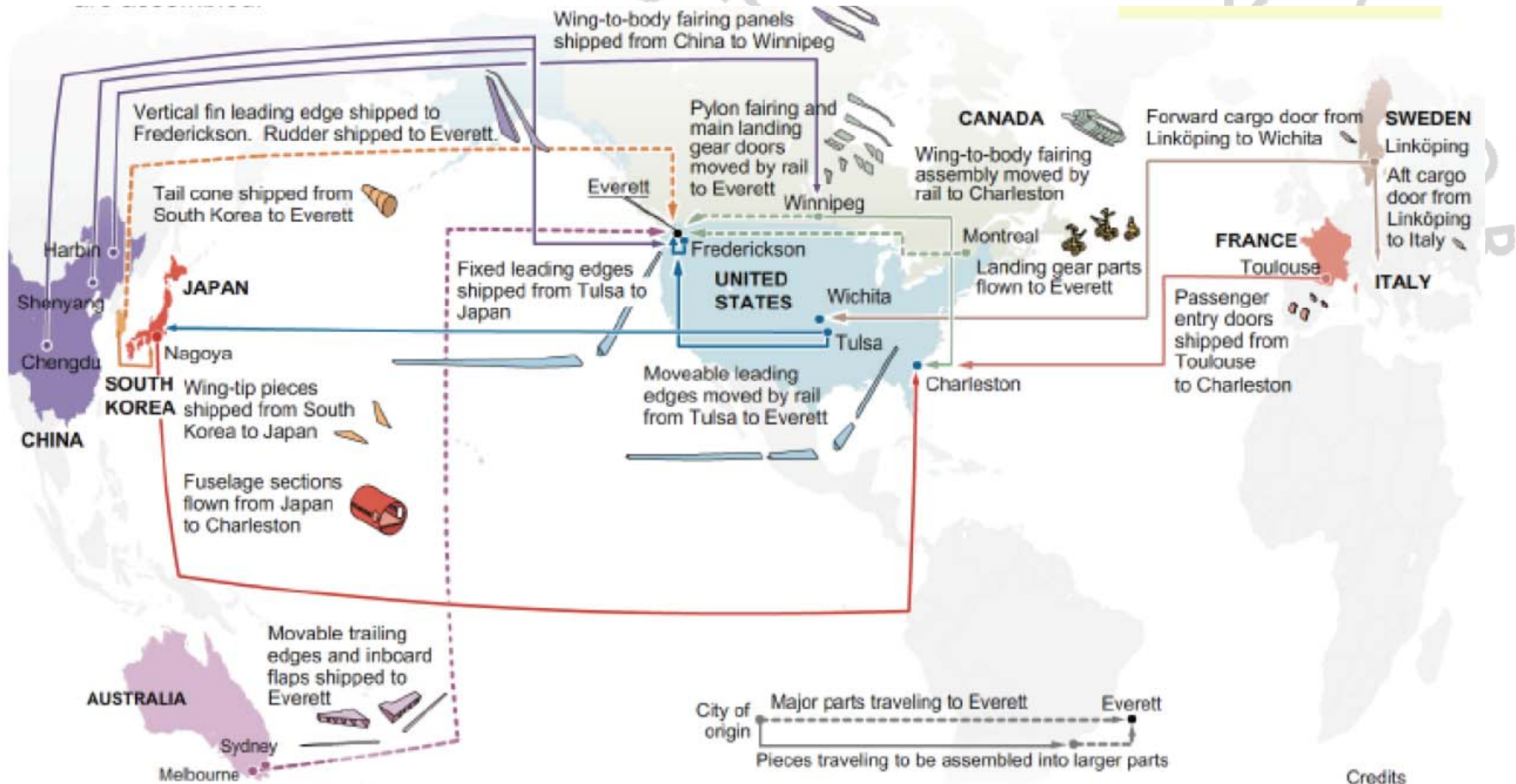
Course Outline

Part I: Transportation and Logistics

- ❖ Overview of a Procurement and Distribution System Elements
 - Examples (Suppliers, Manufacturing points, Assembly points, Distribution centers, Retailers)
 - Total cost concept and cost breakdown
 - ❖ Transportation
 - ❖ Transit times
 - ❖ Transit reliability
 - ❖ Inventory



An Example



Slide 10

EW1

Should have a header that provides the location or the firm for which this is an example.

Ernie Wittwer, 3/14/2008

Course Outline

Part I: Transportation and Logistics

- ❖ **Modal and Intermodal Transportation**
 - Modal operational characteristics
 - Costing/pricing in private transportation
 - Public planning practices
 - International comparison of transportation practices [e.g. EU vs US]
 - Mix of commodities commonly shipped by each mode, the trend of modal shift, and shipping practices of regional importance (egg, grain, dairy, manufacturing products)
 - Intermodal transportation

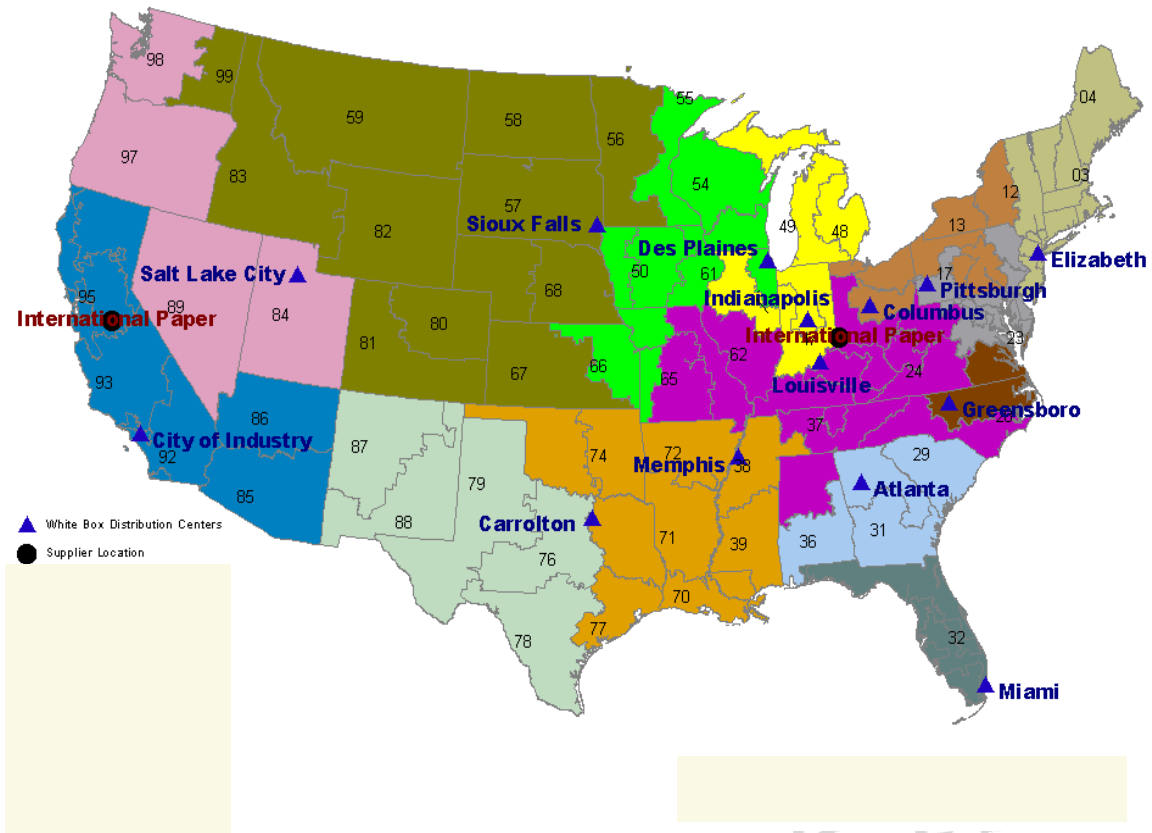
Course Outline

Part II: More on Logistics Management

- ❖ **Procurement and Outsourcing**
 - 3rd/4th party logistics providers
 - Off-shoring
- ❖ **Logistics Network Design**
 - A system of production/distribution (transportation)
 - Facility location decision
 - ❖ Risk pooling and warehouse location



An Example



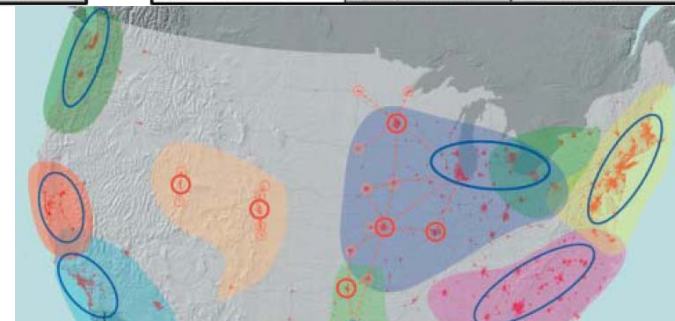
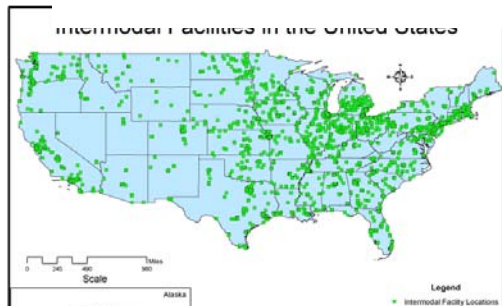
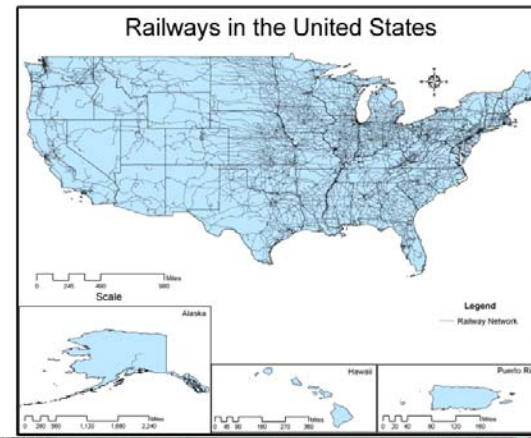
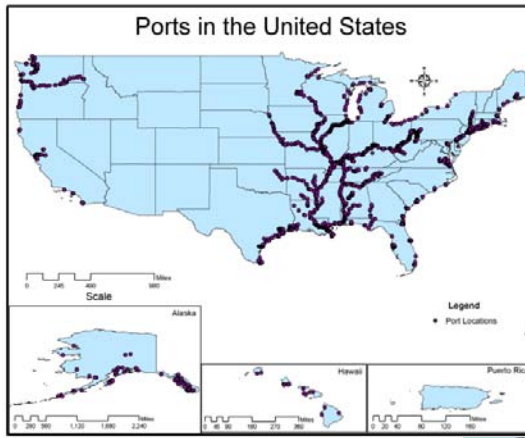
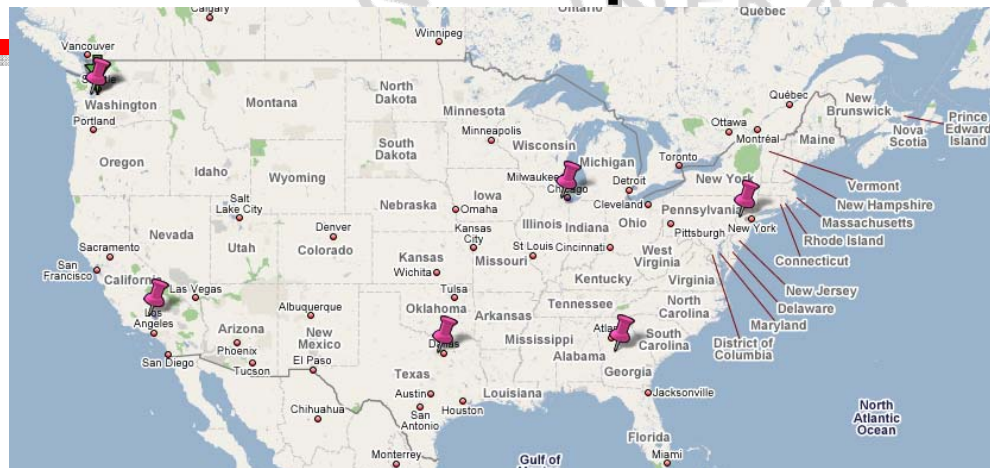
Slide 13

EW2

Again, a reference
Ernie Wittwer, 3/14/2008



Example



Slide 14

EW3

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Ernie Wittwer, 3/14/2008

Course Outline

Part II: More On Logistics Management

- ❖ **Supply Chain Strategies**
 - Economic order quantity (EOQ) model
 - Vendor management inventory system
 - Assemble to order system
 - JIT system
 - Pull (or demand driven) vs. push system
 - Multi-echelon systems
 - Strategic alliance
 - Supply chain integration
- ❖ **Information Technology (IT) in Logistics**
 - Structure and Role
 - Example Technologies (RFID, GPS, EDI, Enterprise resource planning system, Other IT)
- ❖ **Private Sector Planning and Implementation Issues**
 - Timeframes
 - Profit and risk
 - System fragmentation
 - Control

Slide 15

EW4

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Ernie Wittwer, 3/14/2008



Logistics Course Online

(http://wistrans.org/cfire/Research/current_projects.htm)

❖ Section I Transportation and Logistics ([Lecture Notes](#))

- [Module 1](#) Course Introduction and Total Cost Competition (20 minutes)
- [Module 2](#) Managing Inventory (20 minutes)
- [Module 3](#) Managing Transportation (18 minutes)
- [Module 4](#) European Experiences and Conclusion (15 minutes)

[Video 1](#): Brian Nutter, Port Director of Indiana – Jeffersonville. (15 minutes)

[Video 2](#): Mark Wegner, President of Twin Cities and Western Railroad, MN.
(18 minutes)

Video 3: Adolph N. Ojard, Director of the Duluth Seaway Port Authority, MN.

- ❖ [Operations at Duluth Seaway Port](#) (12 minutes)
- ❖ [Challenges](#) (15 minutes)
- ❖ [Concluding Remarks](#) (2 minutes)
- ❖ [Miscellaneous \(the Great Lakes Seaway System\)](#) (10 minutes)

❖ Section II More on Logistics Management ([Lecture Notes](#))

- [Module 1](#) Logistics Strategies (20 minutes)
 - [Module 2](#) Logistics Network Design (25 minutes)
 - [Module 3](#) Outsourcing and Third Party Logistics (20 minutes)
 - [Module 4](#) Information Technology in Logistics (20 minutes)
- Concluding Remarks and terminologies [see lecture notes from pg. 45]
- [Video 4](#): Bob Gremley, Senior Engineer at Schneider, talks about trucking (Issues, Technology, Remarks). (37 minutes)

Slide 16

EW5

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Ernie Wittwer, 3/14/2008



Announcement

- ❖ Miniature Version On April 2, 2008
 - 8:30~11:30AM
 - An Opportunity to Learn and Discuss
- ❖ Thank you!

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