

Case Study: Evolution of Environmental Compliance Management

Presented to AWMA by: Jeff Nobles, Delta Air Lines, Inc, August 8, 2007



DELTA AIR LINES

Who We Are

Delta Air Lines is one of the world's largest providers of air transportation service

1. Revenue of \$18 Billion in 2006 (third highest domestically, fifth highest globally)
2. Carried almost 107 million passengers worldwide in 2006
3. World's largest airline in terms of destinations served – more than 300 destinations in 52 countries

ENVIRONMENTAL ASPECTS - Focus on Stationary Sources

Examples of Environmental Aspects:

Operation	Water Quality	Solid and Hazardous Waste	Air Quality
Aircraft Maintenance (TechOps)	<ul style="list-style-type: none"> • Depainting • Metals from machining • Oil and Grease • Stormwater runoff 	<ul style="list-style-type: none"> • Blast Media • Plating tank change-outs • Used oil & petroleum product 	<ul style="list-style-type: none"> • Aircraft painting • Engine testing • Chrome plating
Airport Operations (ACS)	<ul style="list-style-type: none"> • Deicing • Aircraft fueling • Potable 	<ul style="list-style-type: none"> • Used oil • Absorbent materials • Fluorescent bulbs • Lead acid batteries • TSA confiscated items 	<ul style="list-style-type: none"> • Emergency Generators • GSE Maintenance (painting) • Fuel Storage

THE NATURE OF THE BEAST

Compliance Challenges

- Operations are Geographically Dispersed
- Scope of Operations Varies Significantly
- Skill Set of Environmental Personnel Varies Significantly
- Small Group of Subject Matter Experts Concentrated in Atlanta

The Good News...

- Little Regulatory Complexity at Any One Station
- Each Type of Activity is Uniform Across Stations
- Senior Leadership Buy-in
- Good Working Relationship between Corporate and Operating Divisions

EVOLUTION OF A COMPLIANCE SYSTEM

“In the Beginning”



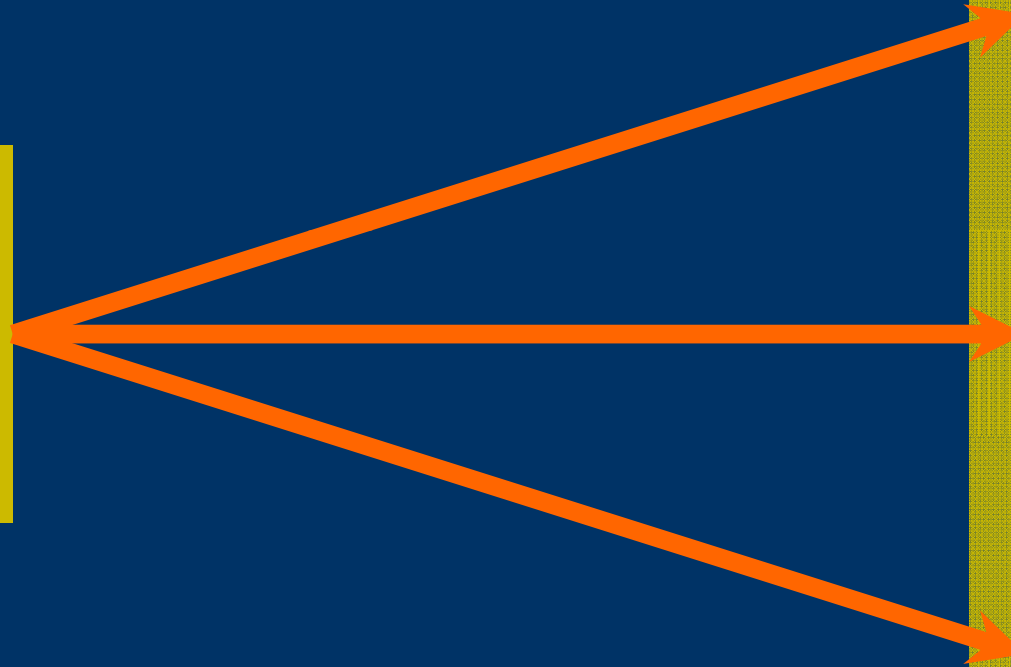
**Environmental
Regulations**

Delta

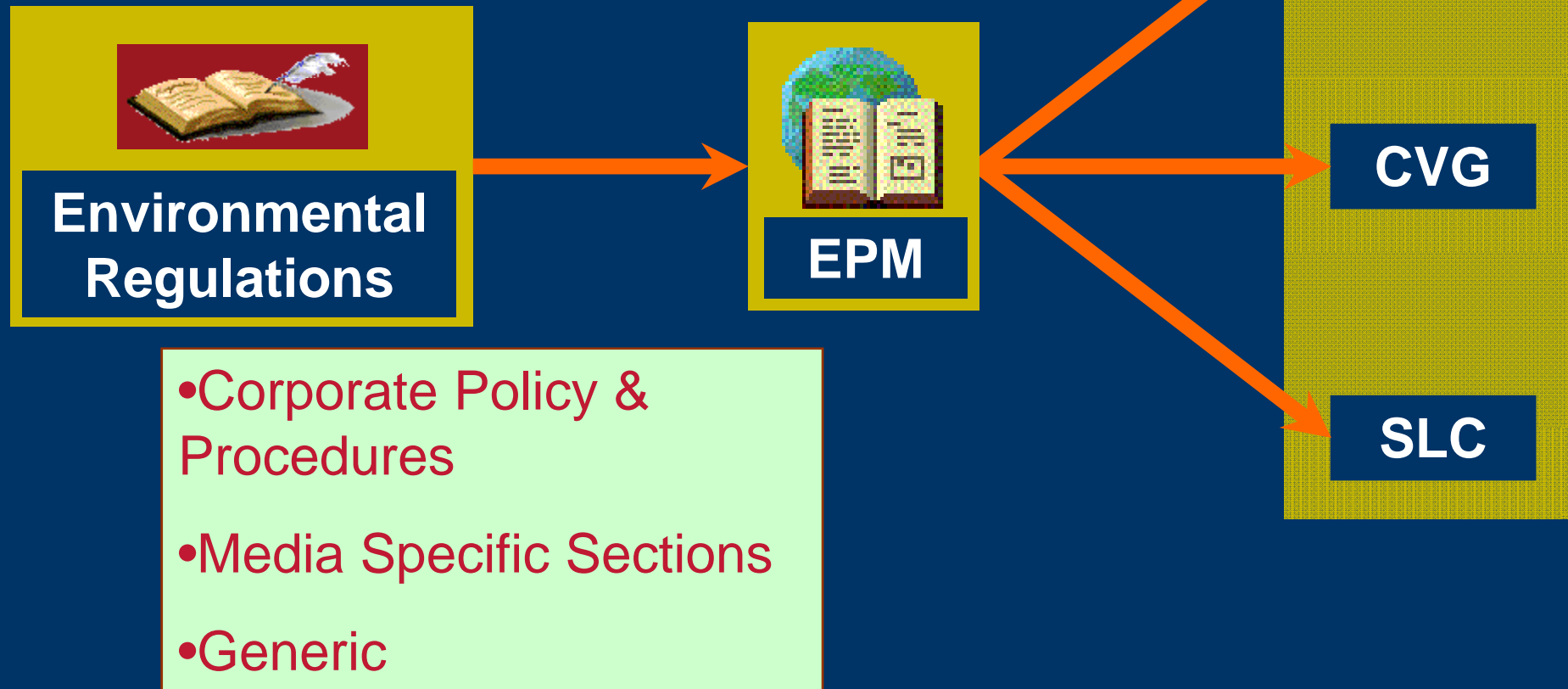
ATL

CVG

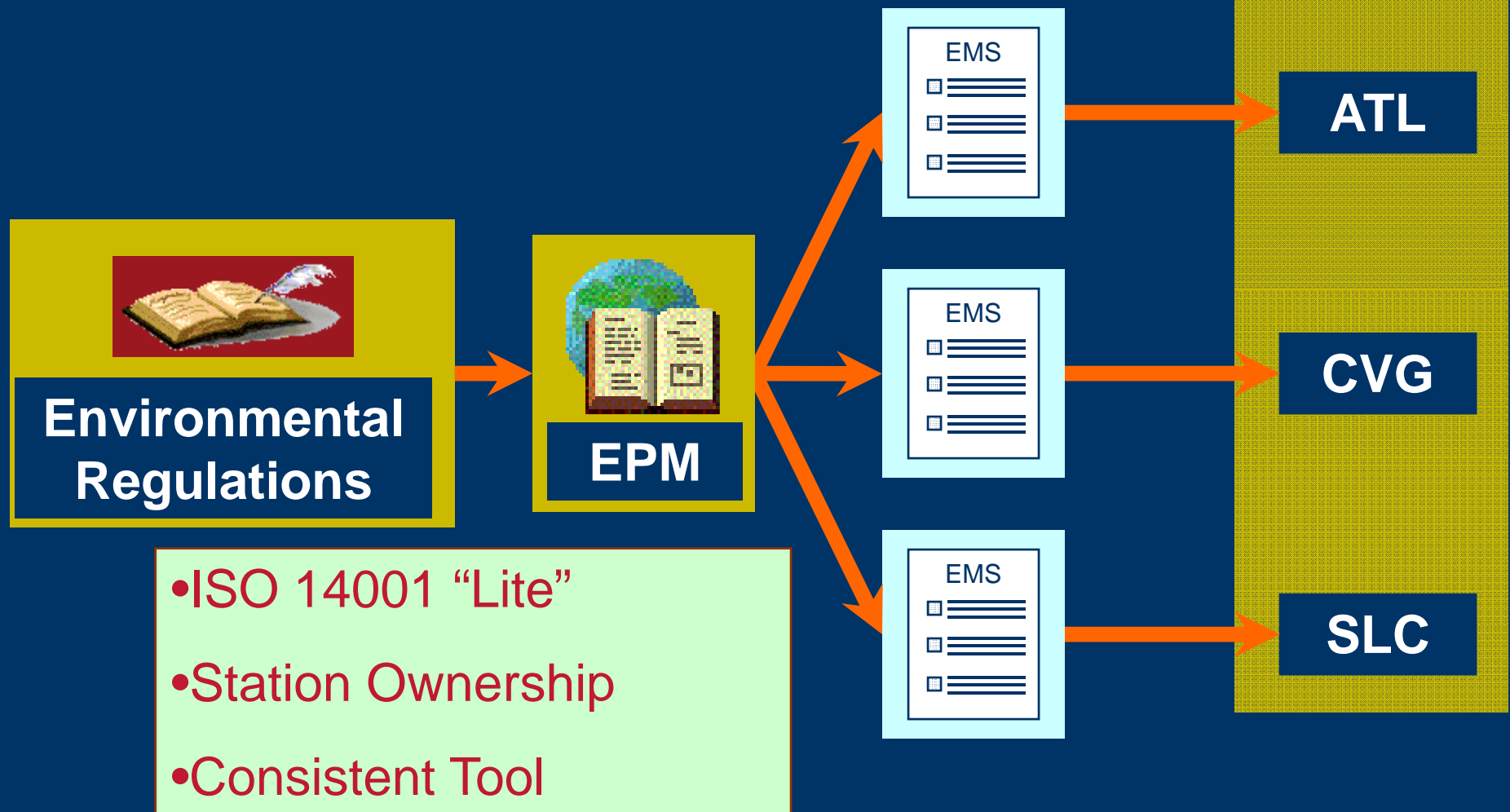
SLC



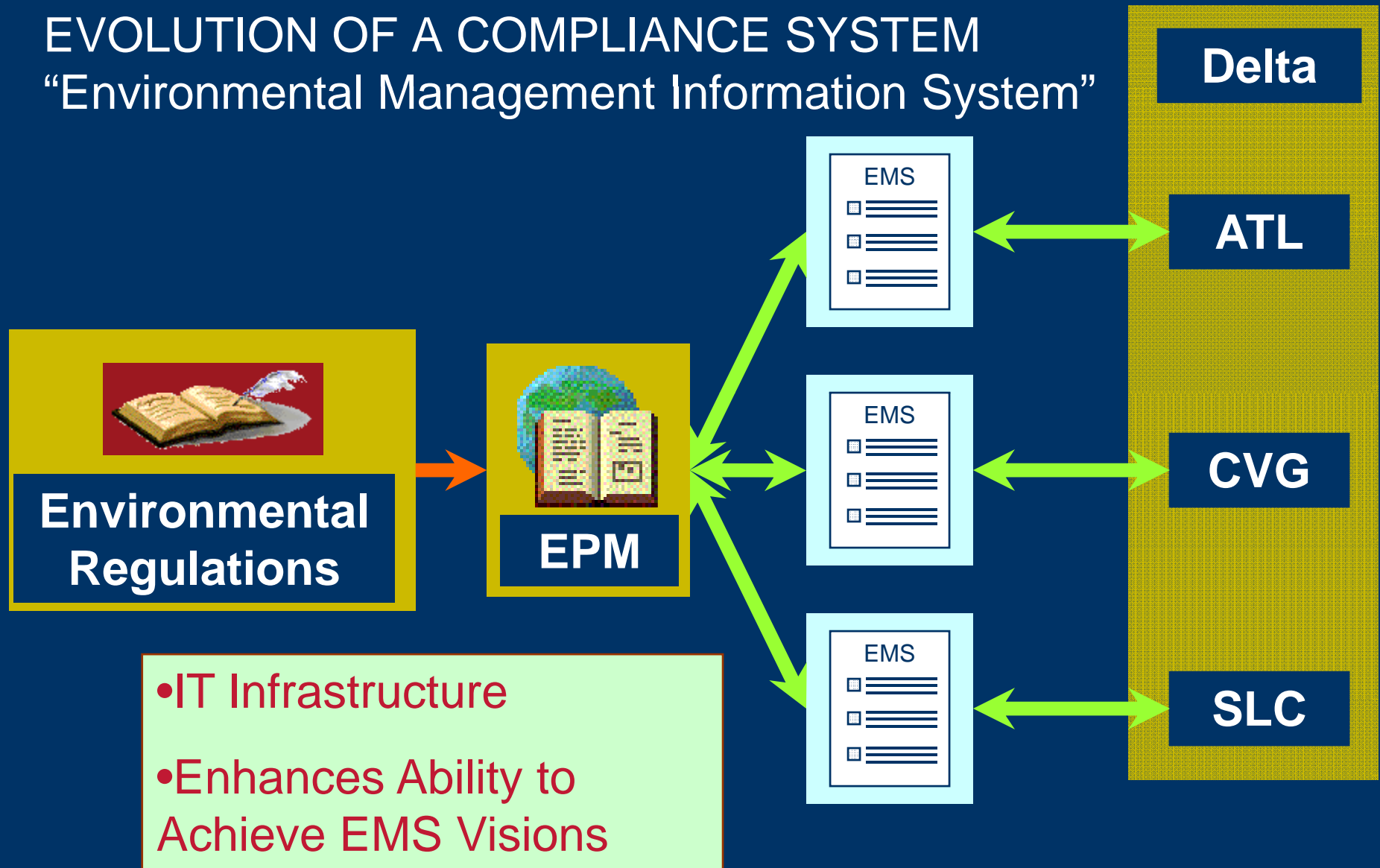
EVOLUTION OF A COMPLIANCE SYSTEM “Environmental Programs Manual”



EVOLUTION OF A COMPLIANCE SYSTEM “Environmental Management System”



EVOLUTION OF A COMPLIANCE SYSTEM “Environmental Management Information System”



COMPLIANCE MANAGER – TASK LIST

Essential EH&S 6.3 SP4 - Microsoft Internet Explorer provided by Delta Air Lines/Delta Technology

Address: <http://essential.delta.com/essential-ehs/webformlogin.aspx>

ESS Essential Suite™ Help

Welcome: [Nobles, Jeff](#)

- Administration
- Emissions Management
- Compliance Management
 - Compliance Manager
 - Data Entry
 - Site Information
 - Material Information
 - Process Unit Compliance
 - Facility Type Compliance
 - Permit Information
 - Rule Information
 - Task Management
 - Task List**
 - Task List Query Builder
 - Power User Task Search
 - New Task Assignment
 - Scenario Requirement Task View
 - Rule Requirement Task View
 - Task Calendar

Task List Options

Group By: Ascending Descending [Query Builder](#) [Power Search](#)

Filter To: Tracked Untracked [Display Task Calendar](#)

 Search By ID:

Task List

- Flynn, Kevin

	State	Status	Task ID	Task Statement	Due Date	Completion Date	Comments and Findings
<input type="checkbox"/>	Open	In Progress	11482	Perform Annual Stage II static pressure decay test/leak decay test.	6/30/2007	<input type="text"/>	Grau is scheduled
<input type="checkbox"/>	Open		11879	Submit CVG Monthly DMR	8/28/2007	<input type="text"/>	
<input type="checkbox"/>	Open		11872	Perform Monthly SPCC Inspections	8/31/2007	<input type="text"/>	
<input type="checkbox"/>	Open		11873	Perform Monthly B Concourse Building Maintenance Environmental Inspections	8/31/2007	<input type="text"/>	
<input type="checkbox"/>	Open		11550	Schedule Station's Quarterly EMS Management Review	8/31/2007	<input type="text"/>	

Discussions not available on <http://essential.delta.com/>

Local intranet

OBSERVATIONS & LESSONS LEARNED

- Thank God for the EMS!
- People are not as afraid of change as “they” say.
- Be ready for success.
- Have something to sell before seeking buy-in.
- Baby steps!
- Learn how to be a good IT customer and be patient

THANK YOU

