Lockheed Martin Horizontal Integration of ESH Data

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Bob McMullen
Director, EESH Operations
Energy, Environment, Safety & Health
Lockheed Martin Corporation

LOCKHEED MARTIN We never forget who we're working for

- 2004 Sales/Backlog \$35.5/\$74 Billion
 - 47th on the Fortune 500 Industrials list
- Employees ~130,000
- Operations
 - 939 facilities in 459 cities and 45 States
 - 56 International business locations in 56 nations
- Headquarters: Bethesda, MD
- www.lockheedmartin.com

Our Customers





- Departments of
 - Defense
 - Homeland Security
 - Commerce
 - Energy
 - Health & Human Services
 - Housing & Urban Development
 - Justice
 - State
 - Transportation
- NASA
- Social Security Administration
- Environmental Protection Agency
- U.S. Postal Service
- Foreign Governments
- Intelligence Communities

Aeronautics



- Combat Aircraft
- Air Mobility
- Special Mission and Reconnaissance Aircraft
- Advanced
 Development

 Programs



Electronic Systems





- Missiles & Fire Control
- Maritime Systems & Sensors
- Platform, Training & Transportation Solutions

Space Systems





- Launch Services
- Satellites
- Strategic & Defensive Missile Systems

Information & Technology Services













- Information Technology
- Aircraft & Logistics Centers
- Systems Management
- Technical Operations
- Space Operations
- Energy

Integrated Systems & Solutions





- Systems Engineering & Integration
- Intelligence Systems
- Transformational Command & Control
- Space C2 & Mission Processing
- Tactical Reconnaissance & Surveillance



LMC ESH Organization

- Corporate Staff
 - Policy, Initiatives, Goals, Audit, Central Data Systems, Remediation
- Business Area Coordinators
 - Business-specific policies, performance tracking and reporting, coordination
- Business Unit Staff
 - Compliance services, implementation of initiatives, data collection/entry, self assessments, regulatory agency relations

LM Strategic Direction for ESH



- Focus On Risk Management
- Drive A Culture Of Excellence
- Optimize/Standardize Programs, Systems And Processes Across The Enterprise
- Leverage Resources And Expertise Across Enterprise
- Enhance Communication, Collaboration And Teamwork

Where We've Been - MIS



- Heritage businesses all had systems
 - Usually stand-alone data collection
 - Chemical inventories, permits, emission inventories, sampling data, etc.
 - Typically driven by need to report data or status to regulators
 - System and content varied with each location
- Corporate systems
 - Historically, aggregation databases to collect information from each business
 - Content similar to individual businesses

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Evolution – 1997 to 2003

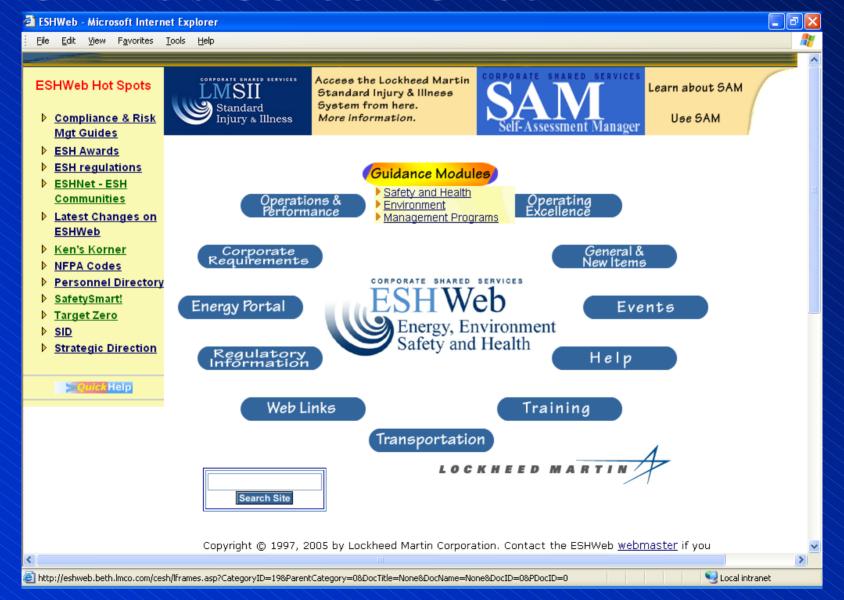
- Transition in data collection methods
 - Some standardization of formats for data collected by corporate staff
 - Common forms, spreadsheet templates
 - Increasing use of internet capability
 - Web-based data entry forms
 - Automated aggregation of entry data
 - "ESHWeb" created to centralize common ESH information and data sources
- Little change in the nature of the data
- Little integration of the data for management purposes



Today – New Direction

- Align our MIS with Strategic Direction
 - Risk Management, Excellence,
 Standardization, Optimization
- Horizontal Integration
 - Align ESH systems with other corporate systems
 - Fosters further standardization (e.g. location names)
 - Enhances ESH functionality (e.g. enables auto-fill of personnel data on injury forms)

ESHWeb Screen Shot



LMPeople Screen Shot



| Welcome to LMPeople Online - Microsoft Internet Explorer | |
|--|--|
| <u>File Edit View Favorites Tools H</u> elp | At the second se |
| Welcome to your world! Website Tour | User Hame: Password: Domain: ACCT04 Log In |

Personal Data

- · My Personal Information
- · My Achievements
- My Career
- Total Value

Learning

- Learning Management System
- The Knowledge Network
- Ethics and Compliance
- Tuition Reimbursement
- Mentoring

Performance Recognition

- Performance Recognition System
- Training and Resources
- Forms for Non-LMPeople Users

New Employees

- · New Employee Orientation
- New Employee Enrollment

Pay

- · My Current Pay Statement
- My Money/Payroll Data
- · Compensation Overview

Benefits

- · General Benefits Information
- · My Health and Life Coverage
- My Savings Plan
- · My Pension Estimator

Jobs

- · Apply for a Job
- Transfer to a new Business Unit
- Employee Referral Program
- · Regional Recruiting Centers

Security and Safety

- · Clearances and Visits
- · General Security Information
- Safety

News and Information

- New! Lockheed Martin Ranks First With Women Engineers
- New! Need to Verify Your Income or Employment? Here's How
- eLife
- PAGEone

Rewards and Recognition

- NOVA Awards
- Cash Awards
- · Service Awards

Help and Guidance

- Employee Guides
- Employee Service Center
- Desktop Support
- Frequently Used Phone Numbers
- International Assignments
- Policies

New Direction Examples



- Illness/Injury Reporting System
 - Multi-purpose Injury Prevention Tool
 - Report injuries
 - Notify all parties
 - Cause and support an investigation
 - Identify "root cause"
 - Identify corrective action
 - Track investigation and corrective action to closure
 - Create and store the appropriate records (medical, OSHA)
 - Enable analysis of risk, cause and correction





- Injury/Illness Reporting
 - Features

- LMSII

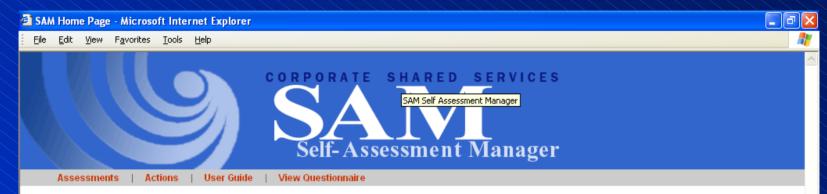
 Standard
 Injury & Illness
- Integrated with "LMPeople"
 - Supports auto-fill, notifications, downstream relationships among injuries, departments, supervisors, businesses, locations, etc.
- Generates email notifications to all involved parties (Manager, ESH, Workers Comp, etc.)
- Drives an investigation of root cause and implementation of corrective action
- Creates and maintains the OSHA Log
- Creates and maintains the medical records
- Stores every injury in common database

New Direction Examples SAI



- Self Assessment Manager (SAM)
 - Purpose Risk Management
 - Identify applicable compliance requirements at each location
 - Provide a standardized question set to assess compliance status for each requirement
 - Provide a tool to facilitate assignment and scheduling of compliance assessments and results
 - Enable analysis of results and identification of risk
 - Integrated with ESH Profile database

SAM Screen Shot



Self-Assessment Manager

This system is the property of this Corporation/organization, and is intended for the use of authorized users only. All activities of individuals using this computing system with or without authority, or in excess of their authority, may be monitored and recorded by system personnel. If any such monitoring reveals evidence of criminal activity or is in violation of state and federal law, such evidence may be provided to law enforcement officials and/or used for further legal action by this Corporation's/organization's Information Protection group. Unauthorized use of this system is prohibited and may result in revocation of access, disciplinary action and/or legal action. The company reserves the right to monitor and review user activity, files and electronic messages.

View Questionnaire

Allows you to view a selected questionnaire for a given state.

2005 SAM Questionnaire Changes

Allows you to view the changes in content from the 2004 questionnaires.

Login

Log In

Reminder: Information transmitted to a foreign person on this network may be subject to US Export Control laws. Contact your Export Coordinator for assistance.







Other Integrated Systems

- Site Information Database
 - Profiles ESH-significant topics and conditions (UST's, chemicals, working at elevation, etc.)
 - Delivers information to SAM, Risk Assessor and TBD applications
 - Enables cross-enterprise identification of risk extent and scope

Learning Management System

- An enterprise system with ESH applications
- Delivers on-demand web-enabled ESH training to end user
- Allows standardization of content and single source maintenance
- Allows site-specific customization of certain content
- Integrated with LMPeople; TBD integration with LMSII



New Direction Examples

TBD Integrated Systems

- Risk Assessor
 - Currently under construction; will take inputs from SID, SAM,
 LMSII, Audit and other data sources to categorize and quantify
 ESH risks

Other Approaches

- Chemical Management System
 - Utilizes 3rd party expertise to order, acquire, warehouse, package, distribute, track chemicals to ultimate disposition
 - Utilizes service provider's databases to generate regulatory reports, inventory information, chemical location, etc.
 - TBD integration with LM SID, SAM, LMSII, LMS systems to identify and manage risk



Basic Design Principles

- Integrate with existing databases whenever possible; no new stove pipes
- Enter new data only one place; retrieve and auto fill for other applications
- Mistake-proof entry conditions (drop down lists, error checking, little or no text entry)
- Use answers to drive next questions
- Design for the user; simple and compelling
- User feedback mechanisms
 - Status requests, query capability, access to previous entries and submittals
 - Data summaries and report systems

Issues



- Culture Changes
 - E.g. "I have a system, I don't need this"
- Standardization vs. Customization
- Mandatory vs. Optional
 - "Service" for users vs. "governance" by corporation
- When are Variances appropriate
- User Access, User Training





- Continuing Focus on Strategic Direction
 - What is needed to identify and manage risk?
 - Driving more standardization (carefully)
- More Integration
 - Injury data with risk assessments
 - Training courses with injury analysis
 - Site profile data and community profile data
- More data sources
 - International locations, personnel, conditions
 - "Near Miss" and other "leading" indicators
 - Industrial Hygiene records, emerging chemicals, etc.
- More automation
 - Take the "drudgery" out of ESH management

"Enhance the Capability of ESH Professionals to Analyze and Manage ESH Risk"

