Lockheed Martin Horizontal Integration of ESH Data

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LOCKHEED MARTIN

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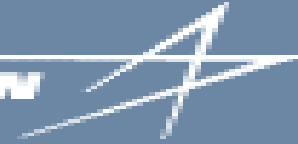
- *2004 Sales/Backlog - $35.5/$74 Billion*
  - 47th on the Fortune 500 Industrials list
- *Employees - ~130,000*
- *Operations*
  - *939 facilities in 459 cities and 45 States*
  - *56 International business locations in 56 nations*
- *Headquarters: Bethesda, MD*
- *www.lockheedmartin.com*

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*

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

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_**

New Direction Examples

- *Injury/Illness Reporting*
  - *Features*
    - *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

SAM
CORPORATE SHARED SERVICES
Self-Assessment Manager

- *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

New Direction Examples

- ***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*

Future Development

- *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"
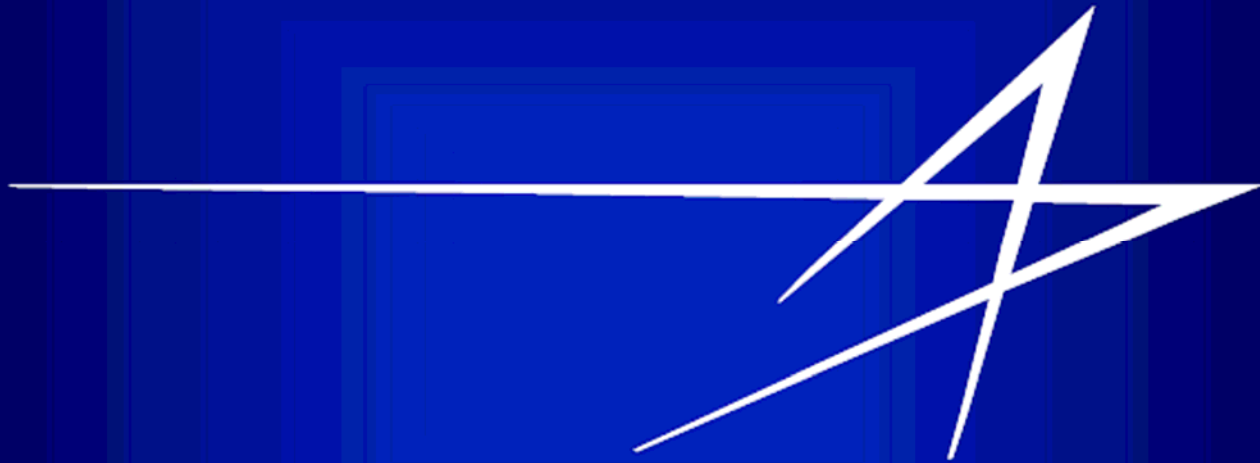
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