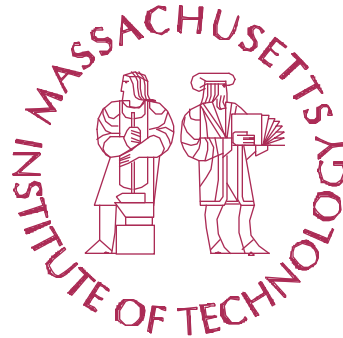


Lean Aerospace Initiative Plenary Workshop

Bringing Down Barriers: Communicating a Vision

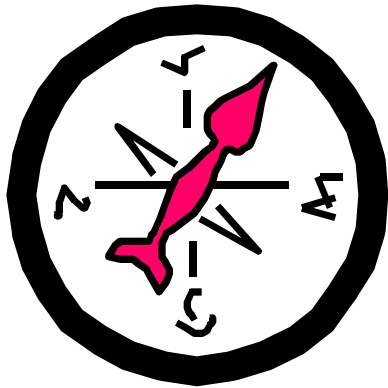


March 24, 1999

Presented By:
Deneen Silviano
MIT



Navigating the River and Canyon



“Create the vision, communicate the vision . . . let the organization know this is where we’re headed.”

– Dick Kleine, Retired Vice President for Quality, John Deere
LAI Implementation Workshop, San Diego, Feb. 1999

“In a knowledge-driven work system, communication . . . Is the process by which variation is surfaced . . . it is also the mechanism by which new ideas are standardized . . . investment in communication is not just a nice thing to do; it is an essential requirement of the system.”

– page 123 *Knowledge Driven Work* , Joel Cutcher-Gershenfeld, MIT,
et al



Barrier Breaking: Ensuring Consistency of Messages



An article in the newsletter above represents a first pass at broad communication - delivered in print and through the company intranet.

Raytheon's Six Sigma Communications Team focuses on content and deployment to level-out understanding and acceptance of lean principles.

“We are embarking on a huge transformation of our culture. Part of my job as a result of my involvement with LAI will be to ensure that our Six Sigma communication is consistent with lean as LAI defines it.”

– Phil McDonald, Raytheon Systems Company and LAI Communications IPT Member



Barrier Breaking: Spotlight on Lean in Employee Communication



LAI Comm IPT Member Lance
Lamberton champions special
edition newsletter on lean.

Lockheed Martin Tactical Aircraft Systems delivers a primer in lean

- Publication sets
visions and goals, and
educates workforce

“With this special edition, we
hope to give . . . A better
understanding of lean, how it
works, and the results of
activities . . .”



Barrier Breaking: Sharing Facts and Successes

Lean Manufacturing: Early Successes

"High Performance Work Organizations, Accelerated Improvement Workshops, and the Advanced Craftsmanship Learning Center are some of our most powerful tools for capturing dramatic improvements."

High Performer

BCAG Key Initiative
1994-1999
Lean Manufacturing
Milestone

Light Helicopter
Production Team
- 100% Issue Cycle
- 100% LFLH 100



Single Point Lean Manufacturing

Introduction

Lean Manufacturing is an initiative designed to improve the Boeing production system. Its principles and practices focus on eliminating waste in our manufacturing and support processes. Lean Manufacturing involves changing work areas to improve flow and efficiency, applying techniques such as "pull" production and just-in-time delivery systems.



Lean Manufacturing builds on the concepts we learned in World-Class. Competiveness training and applies them to BCAG manufacturing and support processes.

The key principles of Lean Manufacturing are described below.

Description of Lean Manufacturing

Identify the "value stream." Know where and how value is added to your product. The "value stream" is made up of the actions that bring a product from design and production to delivery—the process of taking raw materials and transforming them into a finished product delivered into the hands of the customer. Understanding the value stream of airplane production requires knowing the upstream processes of our design engineers and suppliers to the downstream processes in our final assembly areas. Knowing every step in the process will help determine which steps are necessary and which may be unnecessary to complete the process.

Make value flow rapidly. This is accomplished by removing the unnecessary steps in the process—the waste—so that

The Boeing communications team produces a range of knowledge deployment products including newsletters and video to facilitate lean implementation.

Publications such as "Single Point" have the potential to reach Boeing's 220,000 plus workforce.



LAI “On The Road”: Eliminating Geographic Boundaries



LAI at DMC 1998

A team effort to extend outreach by taking LAI research and lean information to where our audiences are

- Opportunities to engage in face-to-face dialogue and to publicly acknowledge our working partnerships



Engaging the Media: Removing Access Barriers

The New York Times



March 1, 1999

Aerospaciers, Following Toyota's Example, Get Lean

By MICHAEL H. KATZ

CHELLA MEDIA, Calif. — The average 800-employee U.S. aerospace manufacturer has had to be forced to make productivity gains by Boeing's 1997 "Lean Six Sigma" initiative. The initiative is the result of a program to improve the quality of its products and reduce waste. The program is based on the principles of the Japanese company Toyota, which pioneered the concept of "lean manufacturing" in the 1950s. The program is based on the principles of the Japanese company Toyota, which pioneered the concept of "lean manufacturing" in the 1950s. The program is based on the principles of the Japanese company Toyota, which pioneered the concept of "lean manufacturing" in the 1950s.

Business

The Dallas Morning News

JETTISONING THE FAT

Aerospaciers find 'lean' leads to more productivity, less cost

By MICHAEL H. KATZ

The U.S. aerospace industry is embracing a new philosophy of manufacturing. It is a philosophy that is based on the principles of the Japanese company Toyota, which pioneered the concept of "lean manufacturing" in the 1950s. The program is based on the principles of the Japanese company Toyota, which pioneered the concept of "lean manufacturing" in the 1950s. The program is based on the principles of the Japanese company Toyota, which pioneered the concept of "lean manufacturing" in the 1950s.

A collaborative effort to share lean success and linkages to LAI research

- Conveys new knowledge to the general public
- Reinforces the internal communication systems of LAI member organizations



Navigating with Knowledge

“The Learning Culture must be built on the assumption that communication and information are central to organizational well being and must therefore create a multi-channel communication system that allows everyone to connect to everyone else.”

— Ed Schein, MIT Sloan School of Management, in “Organizational Culture and Leadership”



Navigating Your Future

Where and how are you connecting next?