

Lean Aircraft Initiative Plenary Workshop

Organizational Change



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Presented by:
Dave Driscoll
Sikorsky

- ▶ **Background**
- ▶ **Research Methodology**
- ▶ **LAC Case Study**
 - **Technical Support Team**
 - **Self-Directed Work Team**
- ▶ **Questions/Answer**

- ▶ **Aerospace technical organizations typically organized in “functional” organizations or “stovepipes” which are characterized by:**
 - Organizational overlap
 - Redundant activities
 - Poor communication
 - Multiple “pass-offs”
 - Lack of responsiveness to production
- ▶ **Industry has adopted various team structures for new product development**
 - Despite clear advantages, most of industry has been slow to adopt similar organizational structures to sustain existing products or to support the development of manufacturing systems

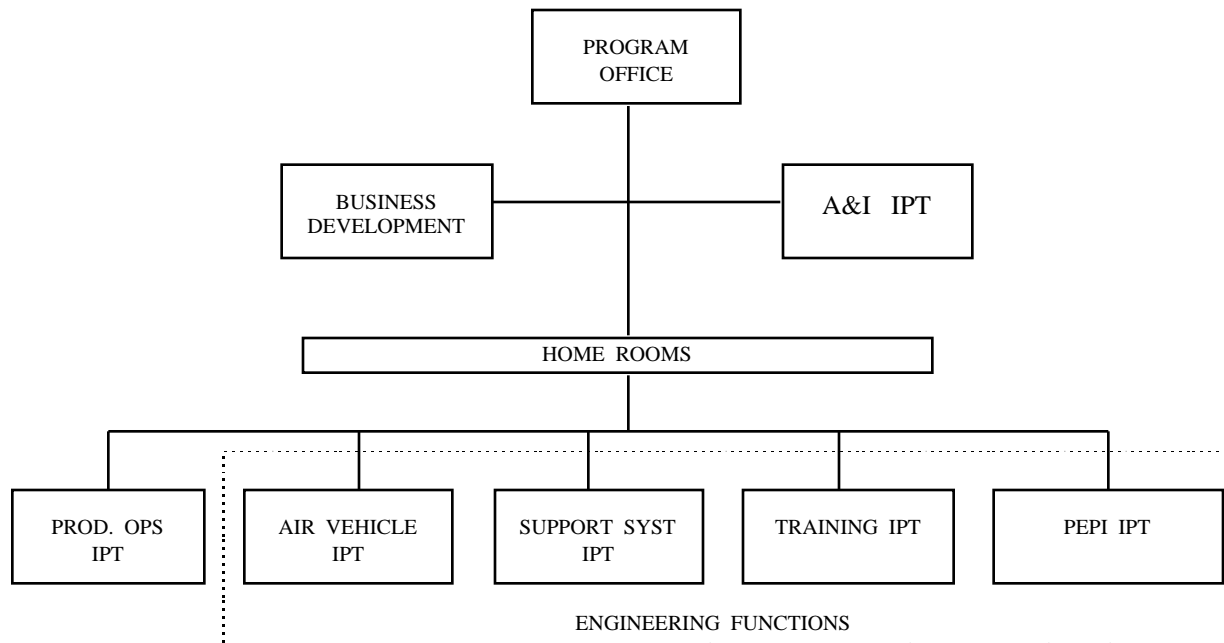
- ▶ **Literature research to understand current theories**
- ▶ **Two site visits to establish industry norms or practices**
 - Confirm existence of problem
 - Determine initiatives underway in other firms
- ▶ **Eight day site visit and case study at division of a major US Aerospace Company**
 - 21 individual interviews
 - 2 focus group interviews with 13 people
 - Attendance at a representative meeting for each type of team

Technical Support Team

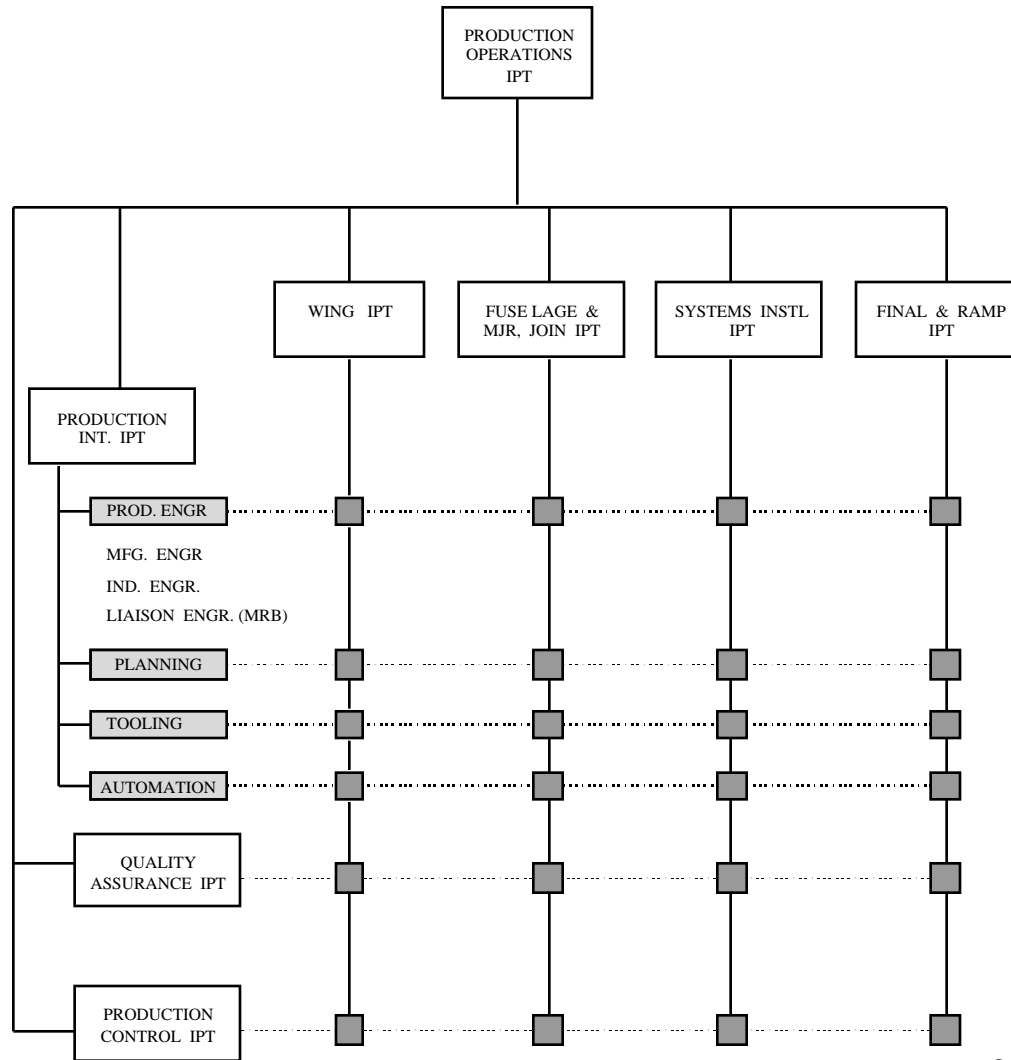
- ▶ **Philosophy was to support production with team of multi-functional technical personnel**
- ▶ **Goal was to create self-sufficient businesses within the business**
- ▶ **Approach driven by division executive and customer SPO**

Organizational Overview

IPT Organization - Phase II (March 1995)

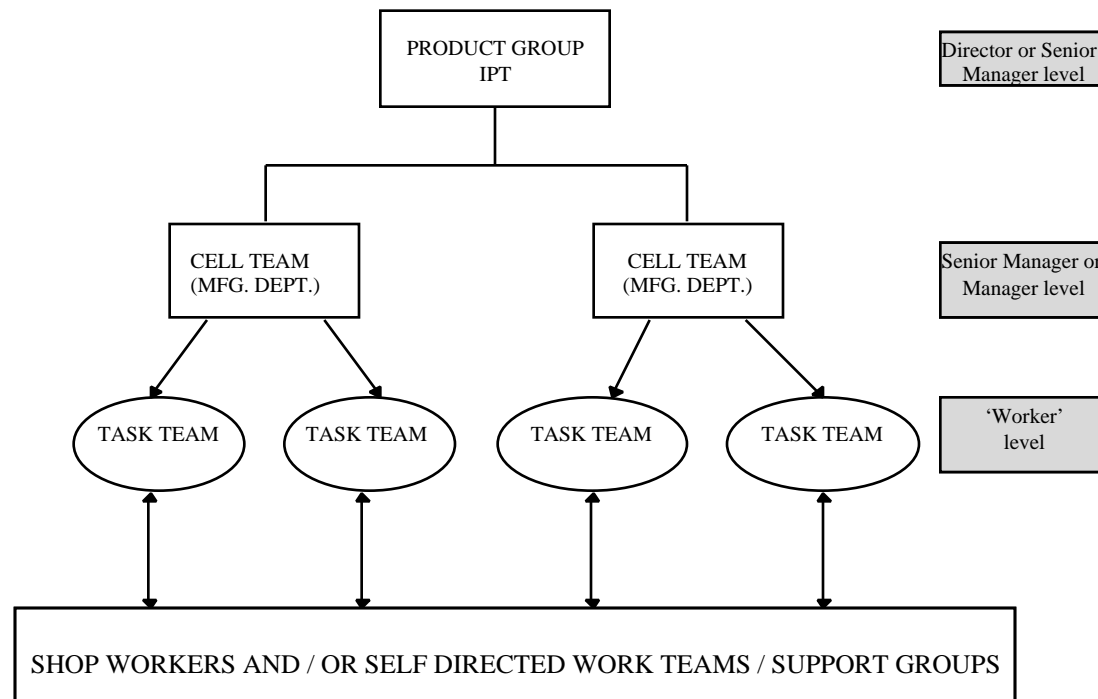


Organizational Overview



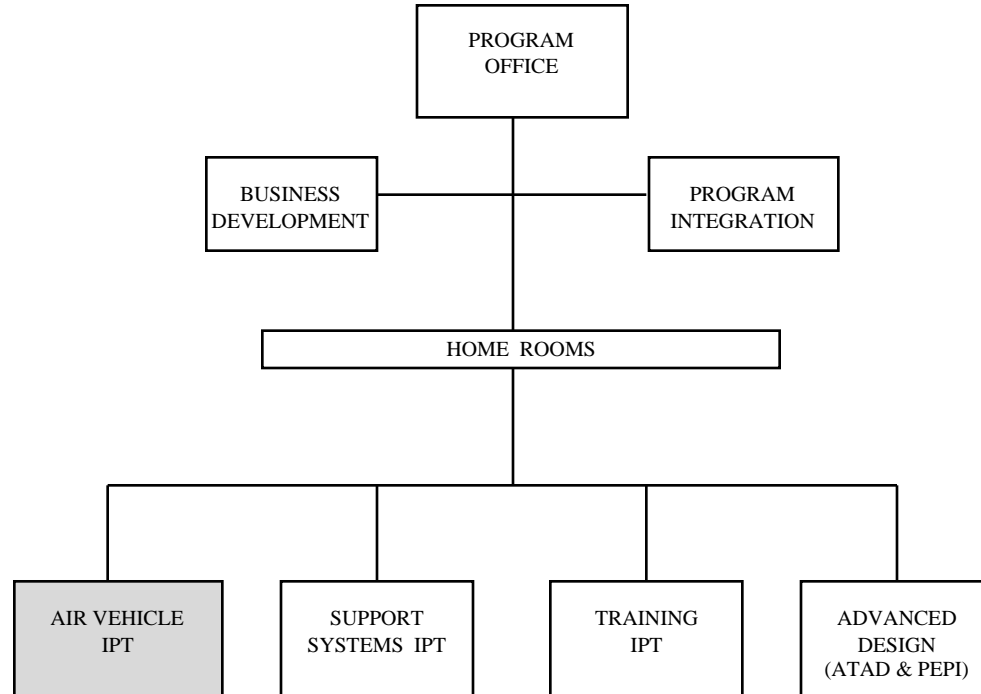
Organizational Overview

Product Group IPT Organization



Organizational Overview

PHASE III (PLANNED)



► Strengths

- Very strong champion
- People at every level like change and feel that it has improved focus and improved program performance
- Little concern over “career impact”
- Significant improvement in communication
- Moving toward total enterprise concurrency
- People at every level are more involved
- Automation Team Linked to IPT to develop technology with users

► Weaknesses

- Early resistance
- Lack of incentive systems
- Additional training would help
- Co-location very slow

- ▶ **Best People MUST be selected to lead teams**
- ▶ **Training is essential**
- ▶ **Powerful “champion” is essential**
- ▶ **Changes on sound theoretical foundation**
- ▶ **Pace of transformation seems right**
- ▶ **Cultural transformation beginning**
- ▶ **Performance improvements reflect change in structure**

Self-Directed Work Team

► Paint Shop History

- **Previous experience with SDT not effective**
- **Team developed by accident but also by necessity**
 - High rework cost
 - Customer unhappy with quality of product
 - High manager turnover
 - “Circus Like” atmosphere
 - Paint shop on verge of being closed
 - Cyclical nature of process worked against improvement

Evolution of SDWT

- ▶ **New director recognized need to get workers involved**
- ▶ **Painters understood their jeopardy**
- ▶ **Process began with series of daily meetings - Initial participation was low**
 - Director became champion of the employees
 - Tremendous effort expended to satisfy needs of painters
 - Demonstrate Commitment
- ▶ **Initially, little encouragement or support from first line supervision**
- ▶ **Participation grew as management credibility increased**
 - Elimination of TLO

- ▶ **People had to learn to work together and trust each other**
 - “Head Bashing” meetings
 - “Very Painful,” “Weird Experiences”
 - Started to jell team
- ▶ **Team improved painting process**
- ▶ **November 1995 commendation for:**
 - 30% decrease in hours
 - Reduction in defects from 420 to 50
 - Significant reduction in rework and repair
 - Total savings of about \$500,000 for aircraft
- ▶ **Team established work assignments - Best people in most critical roles**

Self-Directed Work Team

► Critical Success Factors

- High level management champion
- Strong desire from both management and labor to make it work
 - Mutual Benefit
- Demonstrated managerial credibility
 - “Walk the Talk”

- ▶ **Resistance from management and workers not committed to change**
 - Failure to adapt to changing roles
- ▶ **Lack of training**
 - Failure to understand changing roles
- ▶ **Inability to develop trust within the organization**

- ▶ **Organizational structure and capability is a source of uniqueness that can lead to competitive advantage**
- ▶ **The lean enterprise should cultivate interdisciplinary capability**
- ▶ **Organizations that will excel are those that discover how to tap people's commitment and capacity to learn**
- ▶ **Technology and organizations must be developed that collaborate with peoples skills**
- ▶ **Structure of jobs will include a dual responsibility - performing current function and learning new disciplines**