

The background of the slide is a deep blue space scene. On the left, a large portion of the Earth is visible, showing blue oceans and white clouds. In the upper center, a bright sun or star is partially obscured by a red lens flare. The overall atmosphere is futuristic and high-tech.

NORTHROP GRUMMAN

DEFINING THE FUTURE

Incumbent Workforce Training

John Lotshaw

Director
Incumbent Workforce Training
Northrop Grumman Shipbuilding (GC)

- Extensive study/survey as to inhibitors in increasing level of performance
- Several issues highlighted—
 - Material
 - Planning
 - Craft Training issue
- Followup on Craft Expertise
 - Every first line supervisor surveyed regarding training needs
 - Craft focus (e.g. each craft had it's own survey)

- Each front line supervisor asked to assess his journeymen personnel
- Scale of 1 to 5 depending on perceived expertise
- Issues—
 - Supervision reluctant to identify personnel in their crews
 - Fear that identified weak performers would be transferred from their crews
 - What I know is better than what I don't know
- Initial results were 'vanilla'
 - Survey performed second time with clearer direction

What we found

- A lot of what was identified as weaknesses in the survey were not training or skill set issues
 - Motivation
 - Absenteeism

- A couple of clear themes—
 - Blueprint reading
 - Math skill sets

- Subjective analysis
 - Are the foremen assessing their personnel the same way?
 - Performance or Knowledge issue?
- Retention of skills
 - Will they use new skill sets when they return to craft
 - Tendency to fall back into previous workarounds for skill gaps
 - If you don't use them....
- Math skill sets of particular interest

- Objective assessment of ability
 - Craft prepared assessment
 - Scored by Training dept
 - ~50% of personnel passed those assessments
- Personnel who scored below predetermined cutoff score were scheduled for training
- Theory to practice approach
 - Reinforcement of course work
 - Training crews set up
 - Work in areas where focus matched training
 - Additional training help assigned to crews

Implementation Barriers

- \$\$\$\$\$\$\$\$
 - OJT paid 'direct'
 - Areas that had training crews perceived that they were paying a penalty for training personnel
 - Craft centric—saw benefit
 - Program centric – PM's reluctant to sponsor these crews
- Communication
 - Needed to do a better job of explaining to rank and file what was happening
 - Who was assessed
 - Who was trained

How did we get there?

- Uneven assessment of new hires
- Failure to enforce skill requirements for non-apprentice employees in training pipelines
- 'Use or Lose' skill sets
- English as second language issues

- Typical assessments increased by about 30-40% from baseline scores
- 'Practice' portion of evolution pointed out weaknesses in training curricula
 - Field prints/diagrams were different than those in the classroom
 - Classroom learning did not enable all personnel to be successful in the field
- Identification of knowledge deficiencies
 - Training still identified as one of the missing ingredients for our personnel
 - Specifics lacking
 - Who
 - what

- Value of training program driven by commitment of craft senior management
 - GC Hull Department
- Basic skill sets not necessarily the issue
 - Door crews
 - Specialty training
- 'Periodic' skill sets
 - 5 inch gun installation
 - Shaft alignment
 - JIT training schedule as part of production

A space-themed background featuring a view of Earth from space on the left, a bright sun with a lens flare in the upper left, and a field of stars in the dark blue void of space.

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BACKUP

- 'Subsidized' crews performing direct work in the field.
- Each crew is led by 'expert' foreman and has ~3-4 leadmen assigned
 - Foremen in these roles could/should be indicative of high performing personnel
 - Step in progression to next promotion
 - Train and assess assigned personnel
 - Input is skill deficient personnel; output is 'certified' trained personnel
 - Dual reporting track to Craft Director and OJT Director
 - Craft Director owns work
 - OJT Director owns training budget/standards & program
- Farm team is responsible for intensive OJT training to get craft proficiency up to desired level
 - Or indicate that other options need to be pursued

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