

# **Diminishing Manufacturing Sources and Material Shortages**

A view from Raytheon

Dr. Thomas A Gardner

July 11, 2006

# Commercial Off The Shelf

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- More fielded military systems are relying on COTS
- New set of issues for DMSMS
  - No longer a component issue, now a device issue
  - Commercial world lives in very,very short product lifetimes
    - Computing devices of all kinds live in a 6 month cycles between products
  - Myriads of part numbers with little functional differences
    - Configuration management nightmare using traditional DoD CM processes
  - Some commercial standards, but innovation reigns over standards
  - It may look military on the outside, but inside it's COTS
  - COTS items force planned obsolescence
    - Must plan for failures to cause an upgrade of equipment
    - This may cause other problems – upgrades may function differently
    - Users will not be comfortable with this problem's solutions

Life cycle management of COTS items - paradigm shift

# Integrating logistics elements

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- Obsolescence management in the past has been event driven
  - Obsolescence issue arises and requires a response
    - Redesign, cannibalize, alternate part, emulation, lifetime buy
  - Prognostics were available, but limited.
- As our data systems become more robust we have new choices
  - Do nothing about an obsolescence issue
    - Manage inventory to cover needs
    - Manage capability to cover needs
    - Manage supply chain to cover needs
  - Upgrade entire systems at a lower cost than the current maintenance
    - Use COTS based solutions (with the problems on the previous page)
  - Use Predictive Obsolescence (Leading Indicators, Multiple Variables)

Integrating logistics element data gives us new solutions