# "Understanding Today's Defense Industry"

#### NDIA Integrated Program Management Division Meeting April 27, 2017

**M.** Thomas Davis

Senior Fellow, NDIA Industry Chair, DAU

## **Today's Discussion**

The Industry

The Partnership

Final Thoughts



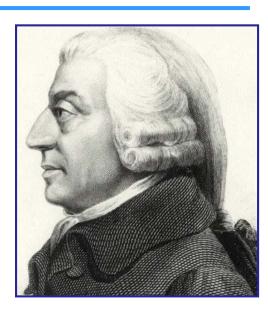
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## **Today's Industry Is Different**

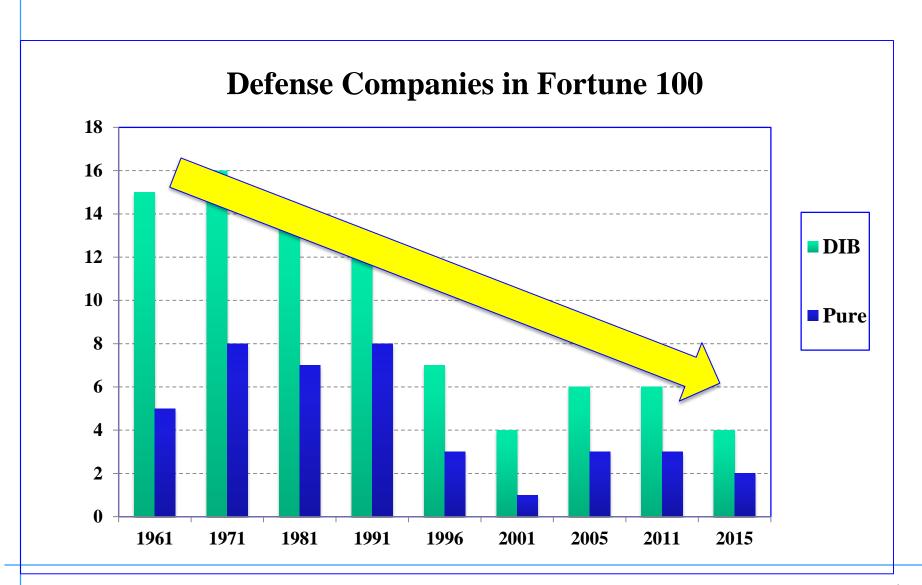


#### The Distorted Defense Market

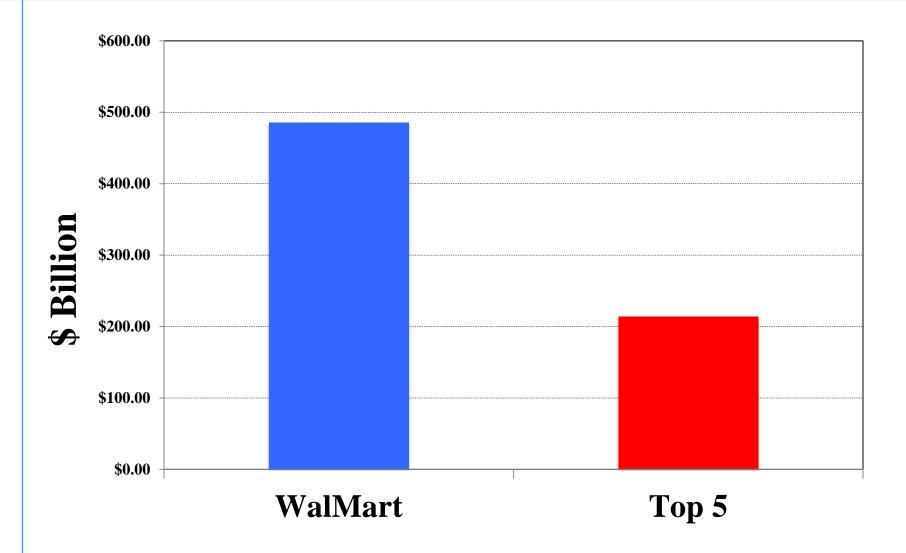
- Monopsonistic:
  - One buyer DoD
  - Handful of sellers
- Buyer is also the regulator
- Buyer is a very intrusive auditor
- Significant barriers to entry
- Fragmented information
- And... then there's the Congress



### US Defense Industry, 1961-2016

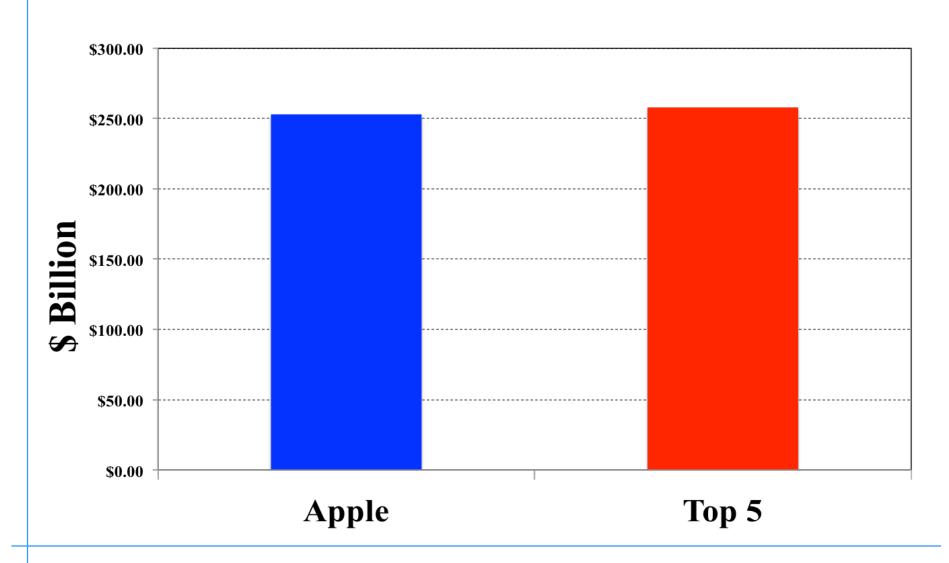


# Annual Revenue 2016 Wal-Mart vs. Defense Top 5



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## **Apple On-Hand Assets vs. Top 5 Market Cap**



#### A Tale of the Two Jacks

#### The Industry Is Managed Differently Today

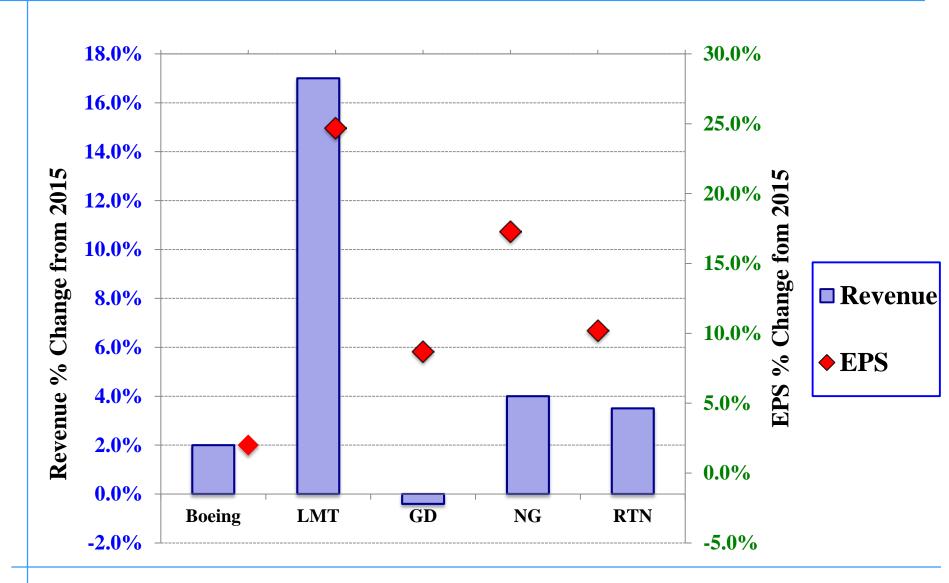


Jack Northrop
Founder and CEO
Northrop Corp

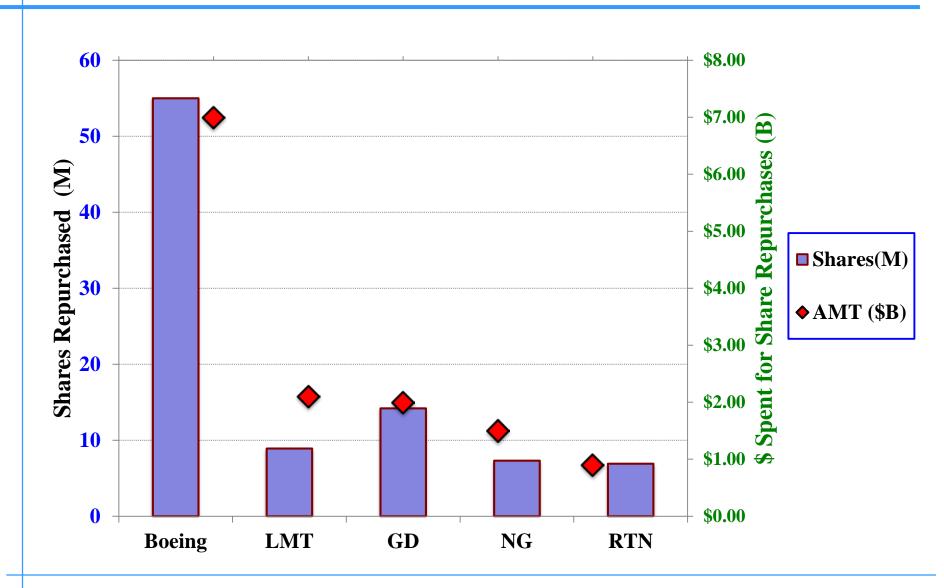


Jack Welch
Former Chairman & CEO
General Electric

## **Big Five Performance 2016**



## Share Buybacks in 2016



## A Coming CSIS Report

"We are in an environment which needs quickness; but we have a slow process. We need risk-taking, but we are risk averse. We need more people and companies in the defense industrial base, but more are leaving."

"The US is not getting a sufficient national return on our investment in the traditional defense and aerospace private sector."

#### **The Current Disconnect**

"Defense Acquisition, Meet Moore's Law"

M. Thomas Davis
Signal Magazine
July 2014

"What we have is a system designed to ensure nothing bad happens quickly. Of course, that means nothing good happens quickly either!"

**USAF** Acquisition Leader

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## As Heidi Shyu Has Put It

	Government	Industry
Test	Operational tests can be added without consideration of program impacts	Testing plan coordinated with PM
Financial Incentive	Limited ability to provide financial incentives	Can incentivize employees via overtime pay, stock options & bonuses
Hiring	Long laborious process to hire needed staff	Ability to hire rapidly
Tenure	PM tenure is typically 3 years	PM tenure is flexible
Expertise	PM selected for leadership, not necessarily technical domain expertise	PM typically has technical domain expertise
Milestone Process	PM gives dozens of briefings to stakeholders to get to a milestone	Functional staff <u>help</u> to meet milestone

## As Heidi Shyu Has Put It (Cont.)

	Government	Industry
Budget	PM does <u>not</u> control the budget – annual budget perturbations without regard to program impacts	PM controls budget
Requirement	Requirements derived or changed without full knowledge of cost, schedule, or technical risks	Requirement tradeoffs for performance, cost, schedule & risk
Stakeholders	Numerous stakeholders with different interests directly impact program – but <i>none</i> responsible for program performance, cost & schedule	Functional staff incentivized to help PM achieve performance, cost & schedule
Reserve	Unable to hold reserve \$ - seen as "early to need"	Ability to hold reserve \$ at PM level to mitigate unanticipated risks

### The Challenges We Must Face

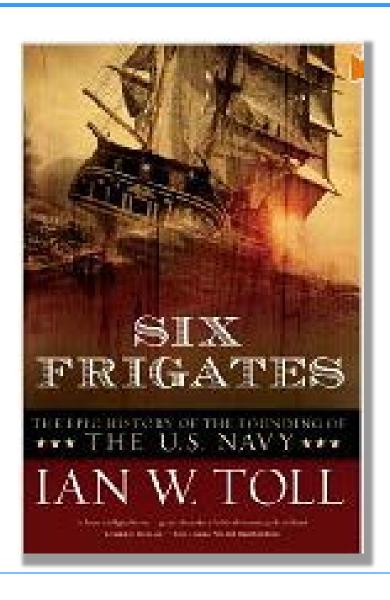
- We need a strategic acquisition plan derived from a defense <u>strategy</u>
- DoD needs to recognize that it is in a new industrial environment
- Risk aversion is the "natural enemy" of technological innovation

### So... In Conclusion

#### Keep talking:

- About requirements
- About technological risk
- About John <u>Wooden</u> "Be quick; but do not hurry."
- Use the NDIA forum for that purpose:
  - Old people NDIA "Provides"
  - Young People NDIA "Convenes"
- Use the "IBR" technique to get there

## I Suggest You Read...



- About the Navy's first six ships authorized in 1794
- Some items debated:
  - Do we really need them?
  - What type do we need?
  - Who should design them?
  - Where should we build them?
  - What should they cost?
- Some outcomes:
  - Design arguments
  - Built in six different places
  - Cost over runs
  - Basing arguments
- Some things never change
- Old Ironsides is still with us!

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## The "Mad Bomber"





## The "Wizard of Westwood"



