Headquarters U.S. Air Force

I n t e g r i t y - S e r v i c e - E x c e l l e n c e

BTCC for GMU/AFCEA C4I Symposium
19 May 2016

Lt. Gen. Arnold W. Bunch, Jr.
Military Deputy,
Office of the Assistant Secretary of the Air Force for Acquisition

- **BTCC includes a growing and evolving set of acquisition reform activities**
    - **All activities defined in collaboration with industry**
    - **Activities are focused on promptly achieving tangible actions**
    - **Emphasis on measurable outcomes**
- **BTCC activities identified in 3 categories:**
    - **Improve internal AF acquisition processes**
    - **Enhance interactions with industry throughout acquisition lifecycle**
    - **Expand competition among traditional and non-traditional industry partners**
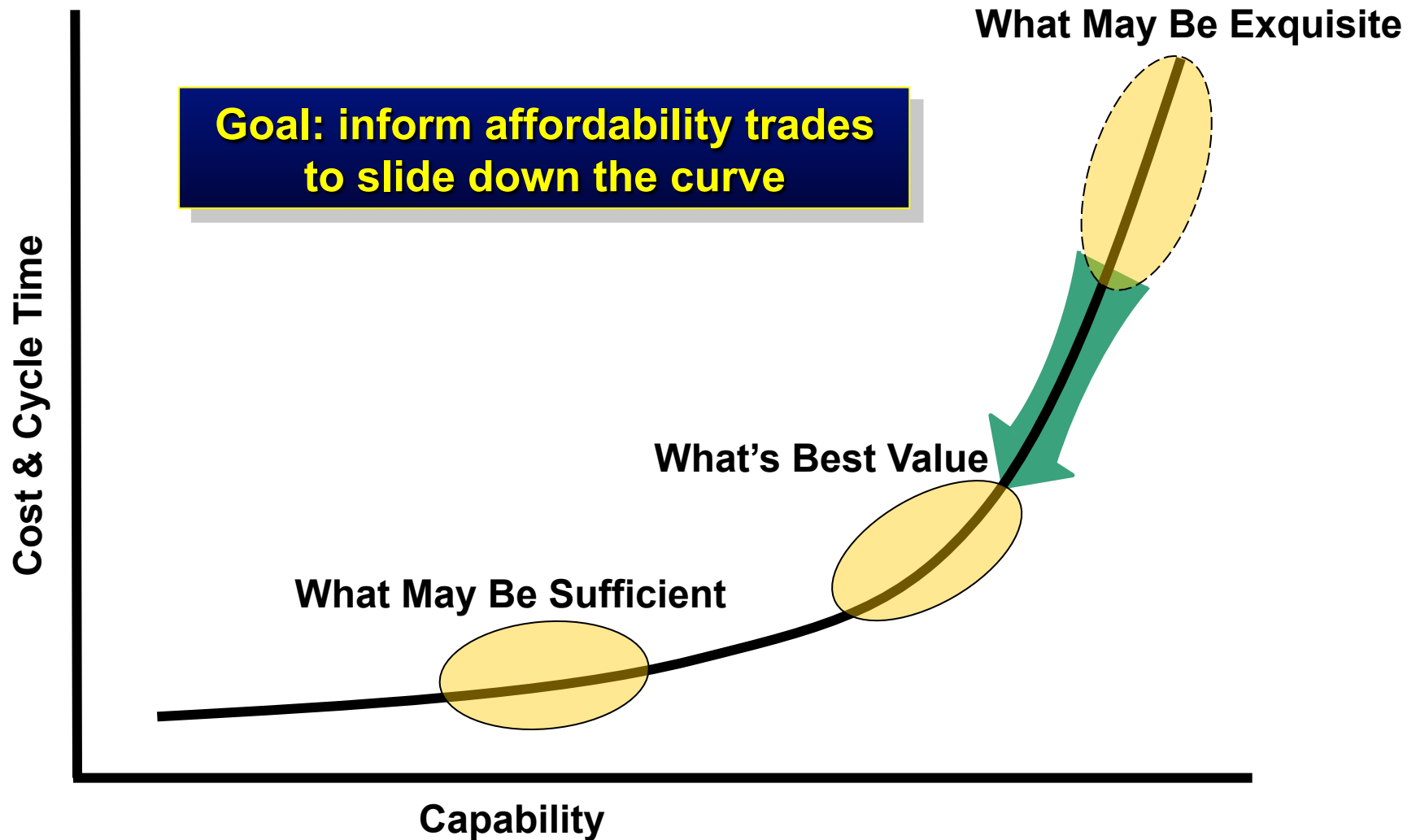- **21 BTCC projects launched to date**

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- **Cost Capability Analysis (CCA) – Industry Engagement**
  - **Establishing guidelines for AF programs to gather meaningful data from industry to perform quantitative affordability tradeoffs**
  - **Engages industry in the requirements development process <u>before</u> requirements are finalized**
  - **Industry Engagement Guidebook can be found at <u>www.transform.af.mil</u>**

Cost Capability Analysis: The Concept

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What May Be Exquisite

Goal: inform affordability trades to slide down the curve

Cost & Cycle Time

What's Best Value

What May Be Sufficient

Capability

Integrity - Service - Excellence

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Step 1 – Identify the Problem

Step 2 – Create Value Hierarchy

Step 3 – Develop the Measures

Step 4 – Develop Value "Functions"

Step 5 – Prioritize Measures (prioritize the things of Value)

Step 6 – Identify Alternatives

Step 7 – Estimate Costs of Alternatives

Step 8 – Compute the Capability of Alternatives

Step 9 – Display Cost vs. Capability

Step 10 – Analyze Sensitivity

Step 11 – Recommendations and Conclusions

Detection Range (nautical miles)
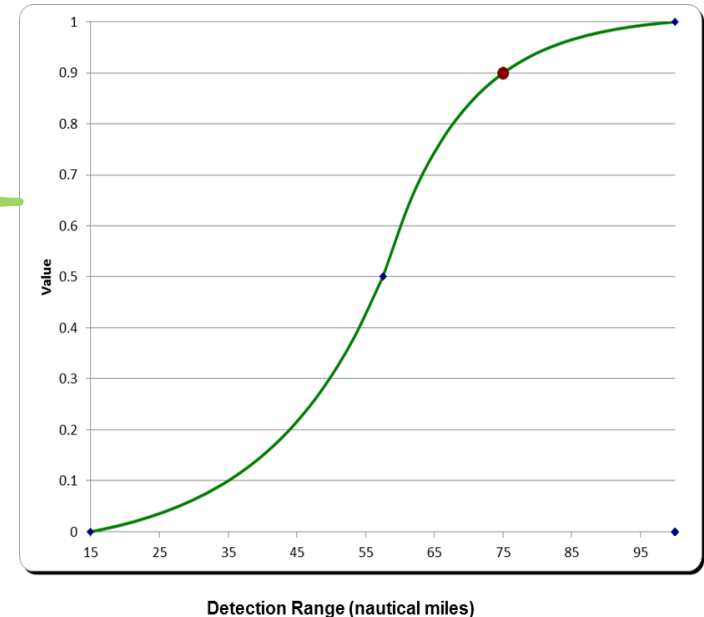
Blue highlights indicate where industry data is used
- Identify various design configurations
- Identify performance characteristics for the design configurations
- Identify top cost drivers
- Provide cost estimates

- *User defines what is valued - what the warfighter cares about*
- *Defines tradespace*
- *Forces conversation for what matters*

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- **Open System Acquisition (OSA)**
  - **Established a new acquisition process to build capabilities for open architecture systems**
  - **Emphasizes accelerated time to acquire (~3 weeks from RFP response to award) and expanded competition among traditional and non-traditional defense contractors**
  - **Utilizes "Other Transaction Consortium" model for acquisitions**
 - **More information can be found at www.transform.af.mil**

Open System Architectures

- **Transitioning Air Force systems to open architectures is a cost, schedule, and capability imperative. But why aren't we there yet?**

  - **Agreement on standards…or even basic principles of open architectures**

  - **Requires PMs to challenge and disrupt current acquisition processes**

  - **Requires enterprise-wide flexibility to embrace changes to the status-quo technical planning and supporting business/contracting strategies**
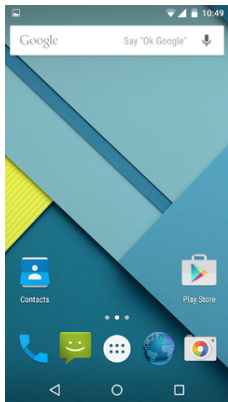
Download an App using the Defense Acquisition System
- 2+ years to procure
- ~2 years for A&A

Would you buy the app…or the phone?

Open System Acquisition Goals

- **Develop and institutionalize an acquisition process that captures the full value of open system architectures:**
    - *Achieve technology refresh cycles aligned with global innovation*
    - *Enable iterative system development and fielding*
    - *Broaden pool of technologies available to meet mission requirements*
    - *Reduce costs to develop and sustain Air Force systems*

- **Acquisition process is only one barrier to timely fielding of new technologies**
    - *Process must also minimally incorporate expedited DT&E and A&A*

- **Reducing costs and expanding technology options requires significant expansion in pool of companies willing and able to do business with the Air Force**
    - *Traditional FAR-based contracting is unlikely to achieve these results to the extent necessary*
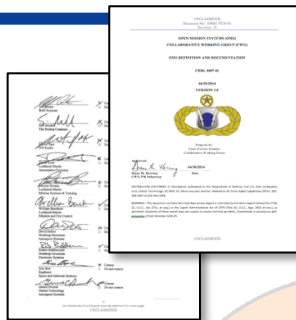
Acquisition Efficiency

Open Standards, e. g.:

Unmanned Aerial System Command and Control Initiative (UCI)
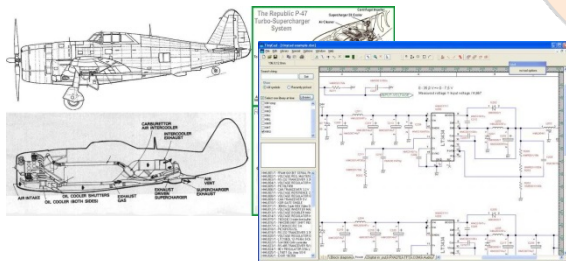**Open Mission Systems (OMS)**

Open Architecture & Standards

Technical Data:

Data Rights Strategy to support sustainment

Data Rights & Deliverables

Acquisition Efficiency

Acquisition Strategies

Acquisition Strategies:

Future competition of subsystems
Demonstration of new capabilities

Open Systems Standards Update

- **OMS and UCI standards:**
  - **Industry consensus, non-proprietary architectural standard and language for mission systems and software integration**
  - **OMS V1.1 (Dec 15) and UCI v71 (Apr 15)**

- **OMS and UCI were demonstrated on B-2, U-2, B-52, F-22 and F-35**
  - **Software integration cost reduced by <u>60%-90%</u>**
  - **Software integration schedule reduced by <u>30%-80%</u>**
  - **Continue to collect metrics**

- **Major adopters: F-22, JSTARS Recap**
  - **OMS and UCI reduces risk for future adopters**

Defining the Cost Curve

- **How do we know when we're successfully "bending the cost curve" with a given BTCC activity or as an organization?**

- **The Air Force lacks a useful definition of the "cost curve," as related to enterprise-level acquisition system performance**
  - **Lack of meaningful "cost curve" baselines**
  - **The means to measure are not often evident or available**
  - **Timescales for a meaningful assessment can be very long**
  - **Practical limitations to performing controlled experiments within the acquisition system**
  - **The Innovator's Dilemma**

- **SAF/AQ-OTI is developing multiple strategies to assess enterprise-level acquisition performance, including an Acquisition Value Assurance Initiative.**
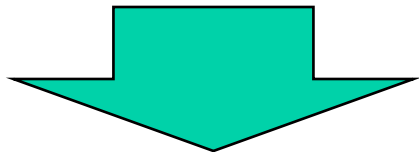
Measuring Acquisition Performance

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> **"We have got to stop spending more and more in order to get less and less."**
> *Secretary Deborah Lee James on USAF BTCC Initiative*

> **"Price is what you pay. Value is what you get."**
> *Warren Buffett*

Is Bending the Cost Curve really about cost, or is it actually about value?

- **Relevant timescales to evaluate acquisition performance span decades**

- **Evaluation of acquisition performance should compare utility, cost, and time to deliver capabilities to the warfighter**

- **BTCC aims to establish a value metric related to historical baselines**

The Value of Value

- **Review of documented industrial success cases for enterprise requirement processing, project management, engineering, manufacturing, and marketing suggest the following**
    - **Creation of wealth in an economy requires delivery of value**
    - <u>**Value is the consumers' perception that utility of the delivered article is, at minimum, worth the cost**</u>
    - **Various successful, standard, disciplined practices for optimizing value chains have evolved**

- **OTI is building a framework to apply industry-derived value measures to AF acquisition processes**
    - **Project scope to be defined NLT 30 SEP**

Efficiency = $\dfrac{\text{Output}}{\text{Input}}$ **Effectiveness =** $\dfrac{\text{Outcome}}{\text{Input}}$

Other Acquisition Enterprise Agility Driven Initiatives

- **Speeding Smaller Acquisition Programs**

- **Should Cost Management**

- **Should Schedule**

- **Experimentation and Prototyping**

- **Development Planning**

- **Competition**

These agility driven acquisition initiatives challenge the Air Force to think critically about our business practices to ensure that critical technologies are available for our warfighters now and in the future.

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- **The Air Force is committed to fundamentally improving its acquisition processes to deliver better capabilities to our Airmen, faster and cheaper (i.e. delivering greater value)**

- **Under the Better Buying Power, the Acquisition Priorities and BTCC Initiative, progress has been made toward implementing meaningful reforms and establishing meaningful measures of performance**

- **CCA, OSA, and the Acquisition Value Assurance Initiative are examples of how BTCC aims to provide a clearer picture of enterprise-level acquisition performance and support quantitative value-based decision making**

- **We need your help! Please share your ideas during today's panel discussion, and join our community of government and industry game changers if you haven't already.**