Outline

- Charter/Mission/Roles
- Organization/People
- Planning Process
- Major Projects
- Vision/Strategy
- Key Takeaways
Partnerships for Strong Industrial Base Capability for the Warfighter

Objectives

- **Reduced Costs** for Acquisition & Sustainment
- **Reduced Time** for Tech Transition / Manufacturing / Maintenance
- **Reduced Risk** when introducing **New or Improved System Capabilities**
- **Increased Availability** of technologies, materials, or components through shaping of industrial base

Manufacturing & Industrial Readiness Core Competencies for the USAF
Strengthening Defense Manufacturing Capabilities!

U.S.C. Title 10, Section 2521: Manufacturing Technology

“…development and application of advanced manufacturing technologies and processes for use to meet manufacturing requirements that are essential to the national defense…”

“…reduce the acquisition and supportability costs of defense weapon systems and reduce manufacturing and repair cycle times across the life cycles…”

Enduring Priorities:

• Manufacturing Assurance: Ensure aerospace industrial and manufacturing readiness for affordable, quality, reliable products to the warfighters

• Affordable Sustainment: Develop manufacturing technologies to increase affordability and performance of sustainment systems; transition S&T

• Affordable Acquisition: Shift manufacturing considerations earlier in the acquisition framework; work pervasive affordability issues; transition S&T

• Manufacturing Innovation: Pursue game-changing manufacturing technologies which transform aerospace industrial base capabilities

• Quality People & Infrastructure: Develop and maintain a right-sized workforce for core competencies; build more efficient business practices
1. **Is it ManTech? (a Go/No-Go Decision)**
   - Enhances Manufacturability / Producibility / Repair of a Process or Component
   - Beyond Reasonable / Normal Industry / Depot Risk
   - Requirement Is Defense-essential or Defense-unique
   - R&D Feasibility Established
   - Current TRL/MRL

2. **Warfighter Impact**
   - Significance to Warfighting Capability (e.g. Svc Core Functions)
   - Magnitude of Impact: Capability, Cost, Cycle Time
   - System Level Impact, Business Case

3. **Stakeholder Support/Customer Motivation**
   - Commitment to Implementation Plan; Cost Share?

4. **Pervasiveness: Multi-PEO / Multi-command / Multi-system**

   By:
   - Improving an Existing Manufacturing Process
   - Establishing a New Manufacturing Process
   - Exploiting Business Practices
   - Expediting Transition of Emerging Tech

**Strategic fit/balance with core ManTech Vision**
Major On-going Programs
AF ManTech & Industrial Base

**AESA Radar**
- Increased affordability for current/next gen AESA and conformal arrays

**Advanced Propulsion**
- Fundamentally changing cost, weight, capability of turbine engines

**Prec Guided Munitions**
- Lowering costs and accelerating availability of advanced IMU & seeker technology to the warfighter

**Mfg Readiness Assessments**
- Common language/standard for assessing manufacturing maturity - enables rapid, affordable production

**Solar Cells**
- Increased affordability and sustainability – new industrial base capability

**Datalinks Components**
- Increased affordability and production capacity of net centric warfare for ISR, weapons, and space

Relationship to Technology Readiness Levels
- Characterize IB for acquisition and technology decisions/investments

Clearance # 88 ABW-2010-3260
Vision & Supporting Strategic Thrusts

Moving Manufacturing Left
- Sponsor early development of game-changing mfg technologies and partner with academia and small business on high risk/high payoff opportunities
- Develop tools and methods that promote early consideration of mfg implications during concept development

Cradle To Cradle Digital Thread
- Increase digital density across life-cycle and ensure wide access to the same computer-based technical data/description of the product
- Enable increased reusability of materials and components, and optimize impact on the environment

Next Generation Agile Manufacturing

Responsive, Integrated Supply Base
- IB capabilities and risks are known, available, and integrated into product development
- 21st century supply chain mgmt principles
- Capability for rapid formation of global partnerships

Factory of the Future
- Next gen mfg technologies developed with process and cost models -- drive the factory and feed the Digital Thread
- Lean & agile, lot size insensitivity
- Green wrt the factory footprint
- Robotics and next gen automation
- Advanced/ wireless factory C2
AF ManTech Vision and Strategy

**Vision**

**Attaining Next Generation Agile Manufacturing**

**Strategic Thrusts**
- Moving Manufacturing Left
- Cradle to Cradle Digital Thread
- A Responsive, Integrated Supply Base
- Factory of the Future

**AF ManTech Mission**

**Strengthening Defense Manufacturing Capabilities**

**Enduring Priorities**
- Manufacturing Assurance
- Manufacturing Innovation
- Affordable Acquisition
- Affordable Sustainment
- Quality People & Infrastructure

**Long-Term Influence on Plans & Execution**

**Manufacturing Roadmaps**
- Advanced Manufacturing Enterprise
- Propulsion Systems
- Aerospace Structures
- C4ISR Hardware
- Armament Systems
- Sustainment / Readiness

**Annual Business Plan**
Key Takeaways

- US industrial base capability at risk -- AF must proactively shape and advance industrial base and efficient manufacturing capability
- ManTech is the only corporate program working strategic issues and opportunities in manufacturing and industrial readiness
- Proven track record of impacts to lab, acquisition, sustainment -- cost, schedule, performance
- Strategic plan in place to promote an agile, next generation manufacturing industrial base

A Multiplier for Capability and Affordability