“Military Aerospace & Armor Demand”

25th Annual ITA Conference & Exhibition
September 13-16, 2009
Safe Harbor

The information in this presentation, including oral comments, includes “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, and are subject to the safe harbor created by that Act. Because such forward-looking statements involve risks and uncertainties, there are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These include, but are not limited to, the impact of global events on the commercial aerospace industry, ultimate titanium content per copy and actual aircraft build rates for the 787 program, global economic conditions, the competitive nature of the markets for specialty metals, the ability of the Company to obtain an adequate supply of raw materials, the successful completion of our capital expansion projects, and other risks and uncertainties included in the Company’s filings with the Securities and Exchange Commission. Actual results can differ materially from those forecasted or expected. Additional information concerning such factors is contained from time to time in the Company’s Securities and Exchange Commission filings, copies of which can be obtained from the Company or the SEC.
Contents

Fighting Tomorrow’s Wars

Military Program Winners & Losers

Trends in Titanium R&D

Titanium Demand for Defense Applications
Current Military Hot Spots & Threats
Deadly blasts test Iraq’s grip—WSJ (8/20)

Taliban besiege Kabul—WSJ (8/19)
Iran’s protestors’ death spark fury—WSJ (7/29)

North Korea raises tensions with two missile launches—
Defense News (5/26)
Barack, Dmitry—and (offstage) Vladimir: A meeting of pragmatism, not warmth, with potential trouble still ahead—*The Economist* (7/9)
• …but simultaneously, we are beginning to see the effects of the recent defense realignment proposals by the DoD…
Historical U.S. Defense Outlays

Source: The U.S. Budget for FY09, Historical Tables
Realigned Defense Spending

“...the budget reflects the need to balance current and future capabilities and the president’s priorities” — Robert Gates (2/24 WSJ)

U.S. Defense Budget

<table>
<thead>
<tr>
<th>Year</th>
<th>Dollars in Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY08</td>
<td>$480</td>
</tr>
<tr>
<td>FY09</td>
<td>$513</td>
</tr>
<tr>
<td>FY10</td>
<td>$534</td>
</tr>
<tr>
<td>FY11</td>
<td>$530</td>
</tr>
<tr>
<td>FY12</td>
<td>$539</td>
</tr>
<tr>
<td>FY13</td>
<td>$549</td>
</tr>
</tbody>
</table>

Grey and light blue shadings represent Iraq/Afghanistan supplemental fundings.

Source: White House FY10 Defense Budget Overview
U.S. DOD FY09 Budget Request
Defense News, Aviation Week, Wall Street Journal
Highlights of Gates’ Proposed Procurement Overhaul

Increased Funding

- F-35 JSF
- Unmanned Aerial Vehicles
- THAAD (Thermal High Altitude Area Defense) Missiles
- Special Forces
- C130J transport
- Littoral Combat Ships

Canceled Programs

- DDG-1000 Destroyer
- KC-X aerial tanker
- Airborne Laser
- Ballistic Missile Interceptors
- C-17
- NLOS Cannon
- Multiple Kill Vehicle
- 2018 Bomber
- FCS Manned Ground Combat Vehicle
- CSAR-X search and rescue helicopter
- VH-71 presidential helicopter
- F-22

Source: Defense Industry Daily, Edgeview Partners, RTI
Increased Funding

- Joint Strike Fighter (F-35)
  - Projected to be the largest program in history
  - Current estimate 3,100 planes
  - About 40,000 – 50,000 lbs. of titanium per plane
Decreased Funding / Terminated Programs

- **F-22 Raptor**
  - Expensive program to be replaced with the JSF
  - Halt production at the 187 already requested
  - About 125,000 lbs. of titanium per plane

- **C-17**
  - Scheduled to terminate the end of 2010
  - Halt production at the 205 planes already funded by Congress
  - However, the Senate Appropriations Committee has recently approved 10 more
  - Over 200,000 lbs. of titanium per plane
Shifted / Uncertain Priorities

“…there is nothing more related to the war than tankers”—John D. Murtha PA (D) (3/12 WSJ)

- Refueling Tanker
  - Program is in limbo
  - Lawmakers pushing for dual procurement
  - Secretary Gates is opposed to splitting the contract
  - Northrop Grumman/Airbus, KC 45A
  - Boeing’s competitive version TBD
  - Current estimate 500 planes
  - Approximately 40,000 lbs of titanium per plane
Where Titanium Fits in the Defense Budget

Military aerospace and armor expenditures are part of the “procurement” category of the annual defense budget.

<table>
<thead>
<tr>
<th>Major Function</th>
<th>FY 2009 Budget</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations &amp; maintenance</td>
<td>$241.4</td>
<td>36.9%</td>
</tr>
<tr>
<td>Military personnel</td>
<td>129.1</td>
<td>19.7%</td>
</tr>
<tr>
<td><strong>Procurement</strong></td>
<td><strong>142.8</strong></td>
<td><strong>21.8%</strong></td>
</tr>
<tr>
<td>Research, development, test &amp; evaluation</td>
<td>78.6</td>
<td>12.0%</td>
</tr>
<tr>
<td>Military construction</td>
<td>15.1</td>
<td>2.3%</td>
</tr>
<tr>
<td>Family housing</td>
<td>3.4</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>44.6</td>
<td>6.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$655.0</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: U.S. Budget FY2009, Historical Tables
## Top Military Aero Platforms (2009-2018)

<table>
<thead>
<tr>
<th>Aircraft:</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lockheed/Northrop/BAE F-35</td>
<td>$54.3</td>
</tr>
<tr>
<td>Eurofighter Typhoon</td>
<td>31.8</td>
</tr>
<tr>
<td>Sikorsky UH-60/MH-60</td>
<td>25.1</td>
</tr>
<tr>
<td>Boeing V-22</td>
<td>21.5</td>
</tr>
<tr>
<td>Airbus A400M</td>
<td>19.3</td>
</tr>
<tr>
<td>Boeing C-17</td>
<td>18.3</td>
</tr>
<tr>
<td>Lockheed Martin C130J</td>
<td>14.3</td>
</tr>
<tr>
<td>Boeing F/A-18 E/F</td>
<td>11.1</td>
</tr>
<tr>
<td>NH Industries NH90</td>
<td>9.5</td>
</tr>
<tr>
<td>Lockheed/Boeing F-22</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Source: Forecast International, July 2009

*Unit cost times estimated number of production units.*
Titanium demand within the defense sector will also rely on the steady replacement and spares on legacy programs that are expected to be used for years to come.

**Key Legacy Aero Defense Programs**

**Fighter Jets**
- F/A-18
- A-10
- F-15

**Transport**
- C-130
- KC-135
- C-17

**Rotorcraft**
- AH-64
- UH-60
- V-22
Land and Amphibious Combat Systems

- MRAP
- EFV
- Stryker
- Abrams A1M2
Land and Amphibious Combat Systems

Titanium Cupola

Stryker
Artillery Systems

BAE M777 155MM Light-Weight Howitzer

- 7,000 lbs of titanium per gun
- 1,000+ anticipated production units
Titanium R&D Trends

The DoD and primes continue to push suppliers on improving buy-to-fly weights and the value proposition.

• Net shape processes
  – Welding
  – Extrusions/Net shape forgings
  – SPF
  – Castings
• Process technologies
  – Powder metallurgy
  – High speed machining and drilling
  – Alloys
    • Better machinability
    • Higher strength and toughness
  – Single melt (land-based military system applications)
• Titanium alloy: higher strength and toughness
Ti Trends for New Programs: F-35 Joint Strike Fighter
Near Net-Shape Water-Jet-Cut Bulkheads
Ti Demand for Defense Applications

Defense titanium

3.5% CAGR 08-15

Worldwide demand for titanium products totaled approximately 238 million lbs. in 2008. Historical strong demand has been driven by the rapid growth in aerospace applications and industrial applications in emerging markets. 

Source: RTI estimates, August 2009
“Military Aerospace & Armor Demand”

25th Annual ITA Conference & Exhibition
September 13-16, 2009