Affordable Titanium Solutions for Today’s Warfighter

Daniel Murphy – Sr. VP Business Development, Alcoa Defense

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Transforming the business – Advancing each generation

- Invented Aluminum Process
- Aluminum Applications & Globalization
- Multi-Material Solutions

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DoD Spending is Cyclical*

*Includes actual and estimated war-time supplemental funding
**FY2015 Budget Request

SOURCE: SIPRI NATO MilEx Data, DoD Fiscal Year 2015 Budget Request, OMB Deflator Index

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Three key drivers – top line budget pressure, process reform, and international security.

*Includes actual and estimated war time supplemental funding

**SOURCE:** DoD Fiscal Year 2015 Budget Request, OMB Deflator Index

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F-35 Joint Strike Fighter: Alcoa’s Innovative Monolithic Forged Titanium Structures

Alcoa proprietary alloy & forging technology introduced Titanium & Aluminum monolithic bulkheads, saving cost and shaving off hundreds of lbs per jet.

*Photos provided courtesy of Lockheed Martin Corp

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Alcoa advanced titanium castings allowed for >40% weight reduction over the M777’s predecessor, meaning easier transport in the field.

Delivered significant cost savings for the project through consolidation of multiple parts into a single titanium casting.
M119A3 Howitzer: Alcoa Leveraging Manufacturing and Supply Chain Management to Deliver a **Machined Titanium** Firing Platform

Alcoa managed the third-party finishing and assembly of the platform, reducing supply chain complexity and manufacturing cost.

Monolithic **Titanium** firing platform saved >40% weight over incumbent steel.