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By

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**Institute for National Strategic Studies  
Symposium**

**Perspective on the US  
Aerospace Industry Sector**

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# US aerospace industry profile

- Total sales of the US industry:
  - 2008 - \$205.7 billion
  - 2009 - \$214.1 billion
  - 2010 (est.) - \$214.4 billion
- 2009 sales by US aerospace industry component :
  - Missiles - \$14.8 billion
  - Related products - \$16.8 billion
  - Space - \$40.4 billion
  - Military Aircraft - \$61.7 billion
  - Civil - \$82.5 billion
- US aerospace employment:
  - 1998 - 741,100
  - 2003 - 587,100
  - 2009 - 641,100

Source : Aerospace Industries Association

# US aerospace industry profile

*DoD remains the industry's largest customer.*

- 2009 industry sales by customer
  - DoD - \$97.2 billion
  - NASA and other agencies - \$18.1 billion
  - Other customers - \$84.1 billion

*US Aerospace is part of a global industry and has the largest export surplus of any manufacturing sector in the US economy.*

- 2009 aerospace international trade
  - US imports - \$25.0 billion
  - US exports - \$78.9 billion (Civil A/C - \$68.9B , Military A/C - \$10B)
  - US surplus - \$53.9 billion

*R&D investment in the industry in constant dollars is declining as is the relative share of R&D provided by the US government.*

- 1991
  - Government - \$13.1 billion
  - Industry - \$6.6 billion
- 2005
  - Government - \$3.6 billion
  - Industry - \$9.7 billion

Source: Aerospace Industries Association

# Industry importance to the US

- **National security.**
  - Aircraft, missiles, and associated equipment are critical components in the full spectrum of US military power.
  - Satellite and airborne communications are fundamental to effective network-centric warfare.
- **Commercial economy.**
  - Space-based communications and navigation systems drive commerce in the 21st century.
  - In 2007, 600 million passengers relied on US commercial aviation.
  - 40 percent of the value of US freight is shipped by air.
- **General.**
  - Aerospace sales were approximately 1.5 percent of GDP in 2007 and indirectly supported 10 million jobs in the US economy.
  - Each dollar spent on aerospace generates \$1.50 to \$3.00 in further economic activity.

# Characteristics of the US aerospace industry

- Small number of large integrators atop a complex, multi-layered supply chain.
  - Aerospace is dependent on electronics, IT, materials sectors.
  - Lower tiers merge into a global supply chain shared with other equipment manufacturers.
  - One exception is the emerging unmanned aerial vehicle sector.
- Reliance to a significant degree on private capital markets.
  - New product starts are extremely costly and carry significant risks .
- High barriers to market entry and exit.
  - Government-unique acquisition requirements.
  - Export license process.
- Government policies and budget decisions drive the health of the industry.
  - R&D and procurement spending.
  - Trade and export control policies.
  - Acquisition policy.
  - Standards.
  - Infrastructure (NASA, FAA).

# Current challenges

- **Military aircraft, missile and related products.**
  - Flattening R&D and procurement budgets.
  - Possible impact of DoD efficiency and acquisition reform initiatives on industry program risk and margins.
  - Impact of export license process on ability to sell in the international market.
  - Supply chain consolidation and globalization.
- **Civil aviation.**
  - Aggressive competition from foreign firms with state support.
  - Impact of uncertain economy on air travel and carrier demand.
  - Declining R&D spending by US government and industry.
  - Pressures to globalize production and development.
- **Space.**
  - Ageing government infrastructure.
  - Export license process impact on satellite component suppliers.
  - Flat NASA budgets.
  - Lack of detailed national strategy
- **General.**
  - Ageing workforce.
  - Lack of a national, multi-agency government aerospace strategy.