National Defense Industrial Association
Trusted Microelectronics Workshop
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Mission:

- Develops export control policies
- Issues export licenses
- Prosecutes violators to heighten national security
- Develops and implements programs that ensure a technologically superior defense industrial base

Source: U.S. Department of Commerce, Bureau of Industry and Security. UNCLASSIFIED
BIS/OTE Industry Surveys & Assessments

Background

• Under Section 705 of the Defense Production Act of 1950 and Executive Order 13603, ability to survey and assess:
  • Economic health and competitiveness
  • Defense capabilities and readiness

• Enable industry and government agencies to:
  • Share data and collaborate in order to ensure a healthy and competitive industrial base
  • Monitor trends and benchmark industry performance
  • Raise awareness of diminishing manufacturing and technological capabilities

Source: U.S. Department of Commerce, Bureau of Industry and Security. UNCLASSIFIED
BIS/OTE Industry Surveys & Assessments

Issues Examined

• Economic health, competitiveness, and financial performance
• Production capabilities and constraints
• Supply chain network, customers and suppliers
• Foreign competition, sourcing, and dependencies
• Sales, exports, market share
• Investment and R&D
• Employment and core competencies
• Export controls and licensing
• Cyber security
• Other topics as needed

Source: U.S. Department of Commerce, Bureau of Industry and Security. UNCLASSIFIED
OTE Industry Surveys & Assessments

- Over 55 U.S. industry studies and 150+ surveys since 1986, including:
- Critical Facilities – Cleared/Unclassified Operations (in progress)
- Bare Printed Circuit Boards (in progress)
- Titanium, Magnesium, and REEs (in progress)
- U.S. Rocket Propulsion Industry (in progress)
- U.S. Strategic Material Supply Chain Assessment: Carbon Fiber Composites
- U.S. Space Industrial Base “Deep Dive” Assessment
- U.S. Underwater Acoustics Transducer Industry
- Consumers of Electro-Optical Satellite Imagery
- Cartridge and Propellant Actuated Devices (CAD/PADs) – 4th Review
- Telecommunications Industry Infrastructure
- NASA Industrial Base – Post-Space Shuttle/Constellation Program
- Healthcare and Public Health Sector – Foreign Sourcing
- Cost-Metric Assessment of Diminishing Manufacturing Sources and Material Shortages
- Counterfeit Electronics
- Imaging and Sensors Industry
- U.S. Shipbuilding and Repair Industry
- U.S. Integrated Circuit Design and Fabrication Capability (update in progress)
- C-17 Aircraft Supplier Impact Assessment (update in progress)
- Textiles, Apparel, and Footwear (update in progress)

www.bis.doc.gov/dib

Source: U.S. Department of Commerce, Bureau of Industry and Security. UNCLASSIFIED

- Focused on future ability of U.S. industrial base to meet Defense Department and other critical USG needs.
- Concern, based on anecdotal data, that U.S. industry had migrated offshore.

In 2007, BIS/OTE and DOD initiated an industrial base assessment to better characterize the initial findings of the DSB Task Force.

- BIS/OTE reviewed the following:
  - U.S. conventional and radiation-resistant capabilities
  - Outsourcing of capabilities
  - Financial health
  - Outlook for maintaining those activities thru 2011

- BIS/OTE reported broad U.S. capability to design and fabricate conventional and radiation-resistant IC’s across almost all technology nodes, materials, wafer sizes, and device types
  - Despite some increase in outsourcing, this capability will remain in the United States
  - Recommended that USG report every two years on changes in health, competitiveness, and global operations of industry which could have significant repercussions for U.S. IC industry and national security
BIS/OTE U.S. Integrated Circuit Design and Fabrication Capability Assessment - 2016

• As part of multifaceted effort to mitigate Chinese government semiconductor strategy, BIS/OTE asked to update and expand the 2009 assessment

• Resulting BIS/OTE dataset and analysis will provide USG with a baseline understanding of the capabilities, health, and competitiveness of the U.S. industry

• To be initiated in fall 2016, survey will cover a broad range of topics such as:
  • Packaging, Assembly, and Test
  • Workforce
  • Business Environment
  • Erosion of Market Position
  • Customers and Critical Suppliers
  • Counterfeits and Cyber Security
  • Unfair Trade Practices
  • Challenges for Trusted Suppliers
  • Opportunities for USG Assistance
  • Concepts to Strengthen U.S. Industry

Source: U.S. Department of Commerce, Bureau of Industry and Security. UNCLASSIFIED
BIS/OTE U.S. Integrated Circuit Design and Fabrication Capability Assessment - 2016

• Next steps:
  
  • OTE in early phase of survey instrument design and development
  
  • Planning and conducting site visits to select fabrication and design companies and other entities across the United States
  
  • Opportunity for industry, organizations, and other agencies to have direct input into the issues covered in BIS/OTE survey and related assessment activities
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