GAS TURBINE MANUFACTURING IN THE UNITED STATES

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Gas Turbine 101: High Technology Machine
...Fuel to Electricity or Thrust

1. Compress Air
2. Burn Fuel
3. Expand & Extract Power
4. Exhaust Energy for more Power
5. To Generator to produce electricity
Industries

- Key platform technology with various industry applications

Aviation (civil & military)
100% of jet powered vehicles

Power Generation
1/3 of US Electricity

Oil&Gas, Marine transportation, pipelines
Geographically Distributed Industrial Base

Legend
- Engineering/R&D
- Manufacturing
- Repair/Overhaul

Created by:

Georgia Tech Strategic Energy Institute
Gas Turbine Manufacturing Jobs & Payroll, 2012

Legend
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- 10,806
  - $8.65 B annual payroll

- 14,121
  - $1.29 B annual payroll

- 19,483
  - *No payroll info

- 3,284
  - $2.65 B annual payroll

Data compiled from U.S. Census and related NAICS codes

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Threats and opportunities

• Opportunities: 15 year outlook
  – Aviation - >$1Trillion market
  – Power generation >$600B

• Federal R&D investments needed to maintain global leadership!
  – Significant investments in China and Europe
    # of Gas Turbine authors, 2006-2016

Wall Street Journal- August 28, 2016