

# Aeronautics Research in Support of PTP Advancement

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- Investigating how U.S. aeronautics research & development has degraded to its current very low level of priority within NASA and/or Congress
  - To see if there are any opportunities to generate more technology or systems research by the U.S. government to further our FASTFORWARD vision
- We do have a National Aeronautics Research Plan (Feb 2010), is updated every 2 years
  - Last Progress Assessment report was issued in Dec 2011
  - Also a National Aeronautics Research, Develop, Test & Evaluation Plan (Jan 2011) that examines our aeronautics infrastructure (wind tunnels, ranges, etc.)
- Have been several National Research Council reports dealing with aeronautics
  - Aeronautics Innovation (2004, 2005) – notes the sad state of NASA aeronautics research & budgets (esp. >2006)
  - Recapturing NASA Aeronautics Flt Research Capab. (2011) – recommends flight testing (flagship; 2,3,5 vehicles)
  - NASA’s Strategic Direction (Dec 2012) – Congress is contemplating “what to do with NASA” right now
- RAND report: Advancing Aeronautics, A Decision Framework for Selecting Research Agendas (2007 to 2009) – recommends against hypersonics (only \$20 - \$40 per hour saved), suggests prizes; is technically weak and short sighted, but this was their recommendation to NASA for selecting aeronautics projects
- Question: Is civil aeronautics so mature that the U.S. government should no longer sponsor major system developments ? ... *maybe*
  - But there should still be opportunity for some serious technology development (>>2%)
  - I am working to identify what an acceptable PTP research portfolio might be for NASA