2013 Goddard Symposium

The Future of Space Exploration
Pioneering: Sustaining U.S. Leadership in Space

March 21, 2013
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Recent Trends

Positive Signs

- More pervasive
- Good political support
- Budget stability

Reasons for Concern

- Flat budgets
- Hard to grow support
- Instability
- Mission creep

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What is a space program’s purpose?

- Not to develop a specific device
- Not to ship people to a destination
- Not to produce ancillary benefits
Pioneering

• Pioneering: being among those who first enter a region to open it for use and development by others
Pioneering Doctrine

• **Access**
  – Developing the ability to get to and operate at a destination

• **Exploration**
  – Learning about risks and opportunities at a destination

• **Utilization**
  – Turning theoretical potential into usable technology

• **Transition**
  – Handing off capabilities to other government or private actors
Pioneering as a Purpose

• Pioneering *IS NOT*
  – Human spaceflight only
  – Exploration only
  – Hostile to basic research
  – A call to cancel anything

• Pioneering *IS*
  – A mandate and mechanism for carrying that out
  – A common reference framework to better compare efforts
The Pioneering Report

- Four strategic recommendations
  - Amend the Space Act
  - Streamline civil space enterprise
  - Stabilize leadership and planning
  - Stabilize funding streams
The Pioneering Report

• Ten tactical recommendations
  – To change things, change rules
  – Leverage a clear, singular mandate
  – Knowledge management
  – Personnel issues
  – Acquisitions

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Conclusion

Download the report at
www.spacefoundation.org/research/pioneering

Contact us at research@spacefoundation.org