Testimony to the President's Commission on Moon, Mars, and Beyond

by

John B. Higginbotham Chairman & CEO, SpaceVest Chairman, Space Foundation

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The economic benefits of the commercial applications and technology spin-offs justify the public investment.

Infrastructure Exploration
Defense Space Industry Research
Operations

Commercial Technology
Applications
Platforms

Satellite Broadcasting Telecommunications Information Technologies Electronics Integrated Networks Geographical Information BioMedicine and many other mainstream economic sectors are benefited

Crystallizing the nature of the benefits and communicating them clearly will assist in securing support for the initiative.

To do this successfully, we need ...

- ... a comprehensive industry model
- ... assessments consistent with the model
- ... reliable data and statistics
- ... sophisticated messages
- ... professional communications

Address misperceptions and misconceptions.

Contrary to popular belief

Space is more than government programs and launch vehicles.

The industry contributes value to every person now.

Kids (and adults) like space.

Capital markets do support the industry.

Money has been made in many space-related businesses.

Investors invest in businesses, not projects and stunts.

Organize for sustainable success.

Realign national assets and agencies for focus.

Redirect roles and responsibilities for efficiency.

Recognize and institutionalize the private sector role.

Dispel "not-invented-here" industry culture.

Prioritize outcomes, not processes.

Make the hard decisions.

Find and motivate the leaders to access knowhow.

Broaden the scope Streamline the processes Reward performance

Change the game ...

- ... target and develop the workforce
- ... incentivize the system integrators
- ... attract (and empower) the innovators
- ... integrate non-traditional skill centers

Foster and use commercial capabilities.

Privatize or outsource non-core functions and capabilities.

Focus internal activities on core missions.

Embrace the "80 % + is good enough performance" design objective for non-critical capabilities.

Buy that which does (or will) exist.

Develop only that which doesn't (or won't) exist.

This will ...

- ... expand the market for commercial solutions
- ... reduce barriers for adopting innovation
- ... help reduce costs

Create and capture the technology value.

Mission Planning
Program Management
Mission Operations
Basic Research

Technology Development

National Agencies
National Labs
University Research
System Integrators
Corporate Labs

Licensing Rights
Property Rights
Contracts

Cost Savings
Royalties

Tax Revenues

Organizational Planning
Business Management
Product Development
Market Development

Business Development

University Foundations
Private Foundations
Incubators
Venture Capitalists
Corporate Operations

On a personal note

Our parents faced a world war, a cold war, and a moon race. They accepted the risks, paid what it cost, and accomplished the impossible. In short, they did their duty and in so doing ensured the very freedom that allows us the privilege of gathering today.

Our children face new threats, a challenging world, and a complex future. They will need the knowledge, protection, and inspiration that this initiative will create for them.

It is now our time to do our duty and proceed with this initiative.

Go launch and ... Godspeed.