



# ***ESMD Commercial Development Policy (ECDP)***

***Ken Davidian  
Exploration System Mission Directorate***

***October 3, 2007***
















# *Agenda*

- **ESMD Commercial Development Team**
- **ECDP Definition and Overview**
- **ECDP Constructs**
- **ECDP Activities**

# ESMD Commercial Development Team



	JPL	MSFC	LaRC	JSC C3PO	GRC	ARC Space Portal ACES	HQ ESMD, OGC, SOMD		
COTS				  Kelso Stone			 Woodward		
Advisors	 Scherbenski	 Nall			 Huntsman	 Rasky	 Schmidt	 Schier	 Graham
						 Pittman	Jim Grady	 Voigt	 Davidian

# Definition of “Commercial Development”



	Technology Commercialization	Commercial Development
Gov't Role	Supplier of Technological Assets	Customer of Commercial Space Capabilities
Policy	NPD 7500.2	ECDP
TRL	1-6	6-9
Leveraging	None to Low	Medium to High



## ***ECDP - Scope***



- The ECDP provides ESMD with a set of best practices, ideas, and concepts which all ESMD programs, projects, and activities should be cognizant of and work toward with respect to encouraging commercial space capabilities.



## ***ECDP - Objectives***

- To encourage the development of commercial space capability industries.
- To accomplish NASA exploration mission goals at a lower cost and cost risk to NASA.
- Through “fixed price” acquisition of commercial goods and services.

# ***ECDP - Goals***



To Encourage...

- The development of commercial space capabilities and markets.
- “Buy Commercial” instead of “Government Provided” decisions.
- Commercial representation and opportunities in NASA’s exploration architectures.



## ***ECDP - Approach***

- Coordinated set of policy elements that encourage the private-sector to develop, demonstrate, provide, and support commercial space capabilities.
- Fair, open, and non-intrusive execution that allows the private-sector to retain IP rights and market share.
- Emerging space business community identifies viable commercial sectors for NASA encouragement.

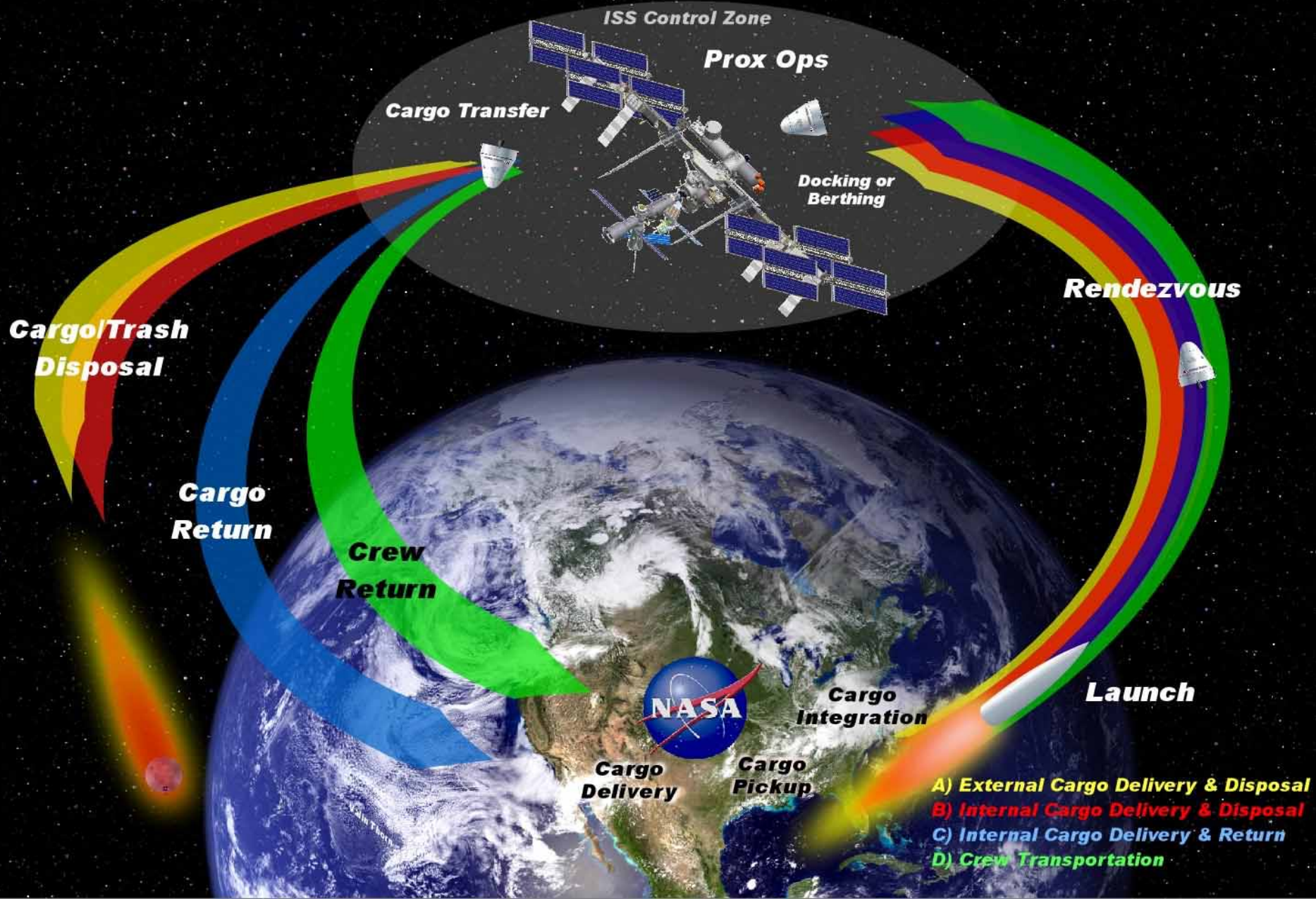


# ECDP Barriers of Entry and Policy Elements



↓	Policy Elements	Targeted Barriers of Entry →	Encourage Investment	Encourage Production	Encourage Demand
	• Multi-Phased Programs		✓	✓	✓
	• Being a Reliable Customer		✓	✓	✓
	• “Encourage Commercial Space” Evaluation Criteria			✓	✓
	• Parallel Government-Commercial Efforts		✓	✓	
	• Community Presence, Involvement, Dialogue, Support		✓	✓	✓
	• ESMD Use of Commercial Space Capabilities		✓		✓

# NASA Commercial Crew/Cargo Project Commercial Orbital Transportation Service





EXPLORATION

MINING

BIOTECH

DEMAND  
AGGREGATOR

TOURISM

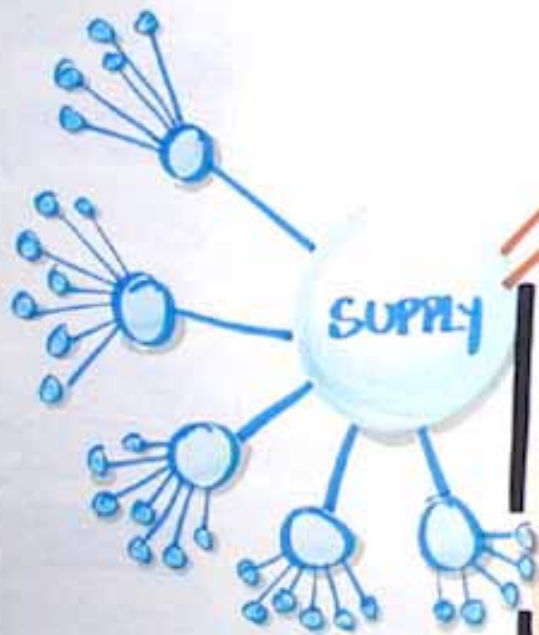
TRANSPORT

RESEARCH



A NEW ROLE  
FOR NASA!

OUTPUT



ENTERTAINMENT

ASSOCIATIONS

PHILANTHROPY

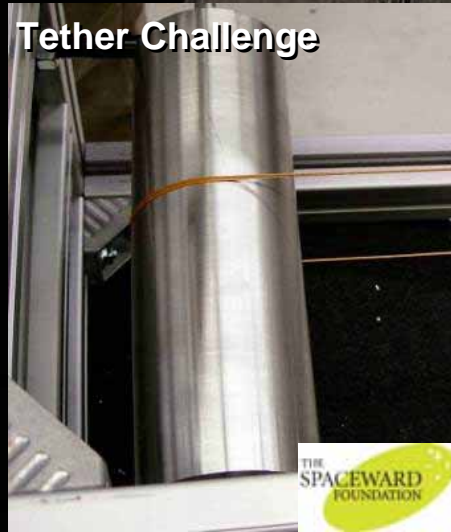
VENTURE  
CAPITAL

# A SPACE MARKETPLACE

# Centennial Challenges



Beam Power Challenge



Tether Challenge



Astronaut Glove Challenge



Regolith Excavation Challenge



MoonROx Challenge



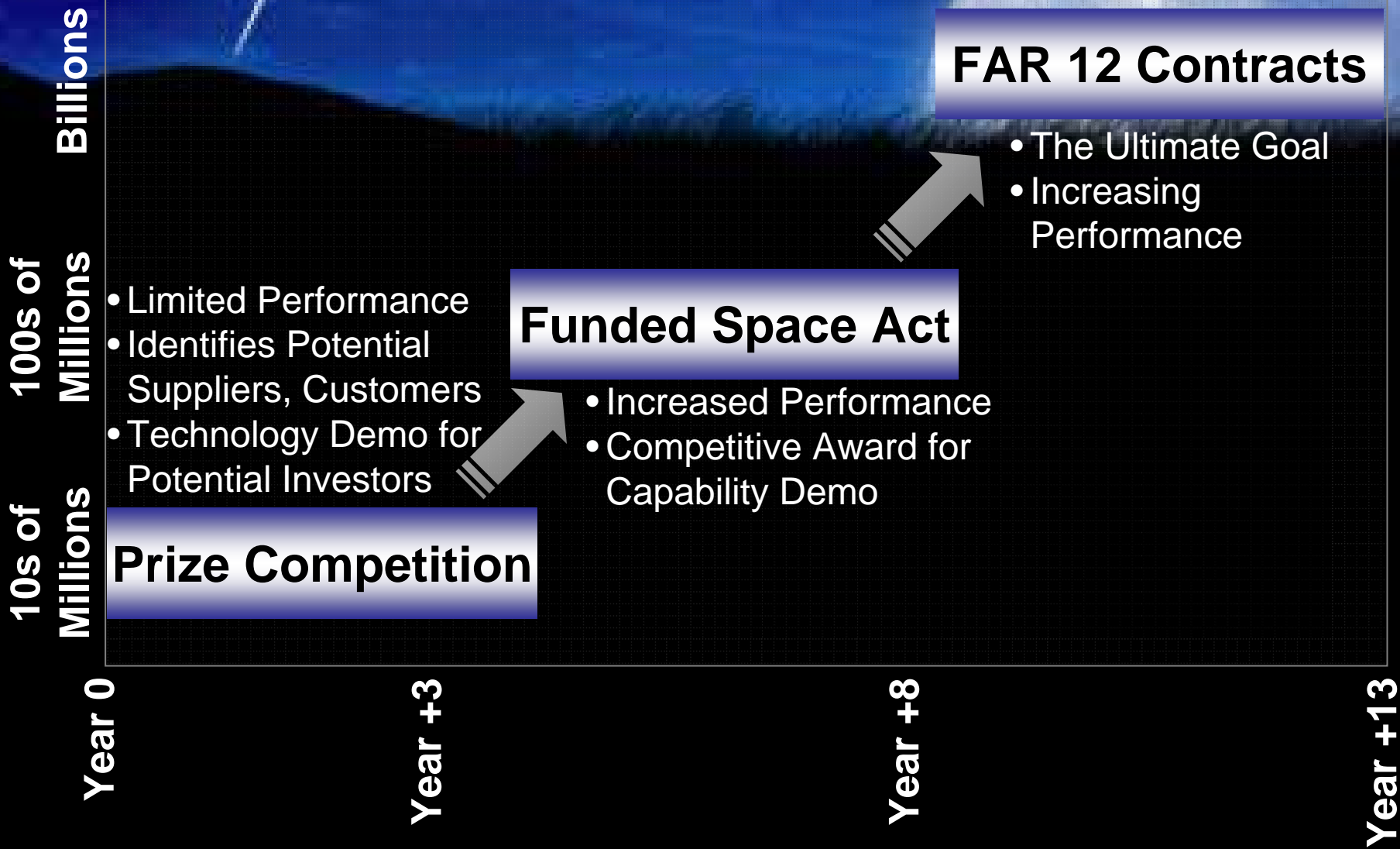
Lunar Lander Challenge





# Potential New Directions: Multi-Phase Programs

## Google LUNAR X PRIZE



# ***ECDP Next Steps in 2008***



- **Elevate ECDP to Agency-Level Policy**
- **Continue Internal Communication Efforts**
- **Solicit External Comments, Feedback, and Input at the Upcoming Events**

# ***ECDP Feedback Solicitation***



- **Any and All Feedback on ECDP is Welcome**
- **Please Give or Send Comments to**
  - Ken Davidian
  - Tel: 202-358-0748
  - Email: [kdavidian@nasa.gov](mailto:kdavidian@nasa.gov)