



Centennial Challenges Program Space Technology Mission Directorate

Prizes, Contracts & Grants What Should I Do?



Contracts and Grants and Prizes—Oh, my!



This is not something to be afraid of.

There are no flying monkeys

Or green witches



But there are no ruby slippers either



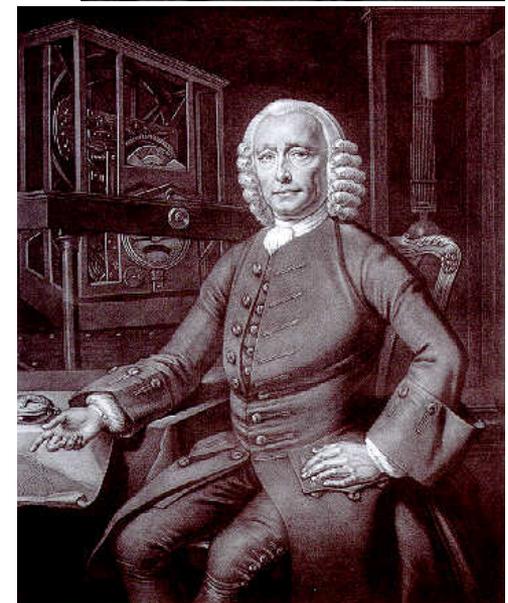
Due diligence has to be conducted and decisions must be made to formulate a good Challenge



What Would You Do?



- Would you have contracted \$350,000 to a 25 year old mail carrier to revolutionize the Airline industry?
- Would you have given a \$5,000,000 grant to an uneducated clock maker to build a navigational device?
- Would NASA have given a contract to make a better Astronaut Glove to the person who makes the wings for the Victoria Secret Lingerie show?





If it is so great...



So, if prizes are so great and cool why don't we use them for everything?



For the same reason you don't use a saw to cut a pizza.

It's the wrong tool for the job.

But how do you decide?



Decision Factor Comparison

Let's look at the differences first

ITEM	CONTRACTS & GRANTS	PRIZES
Target Technologies	Available in market or via contract/grant.	Not available in market or by contract/grant.
Selection Process	“Crystal Ball” - Prejudges which competitor has best chance of success.	“Darwinism” – All competitors compete until end of contest.
Results	One possible.	Many possible.
Delivery	Depends on ability to select best competitor.	Depends on ability to formulate achievable rules.
Open to...	Companies able to navigate contracting regulations.	All US citizens, non-Federal employees.
Cost to Execute	Rarely less, and often more than 100% of costs.	A fraction of the total cost.
Payment of Funds	Most funding paid out before delivery of hardware or service.	Payment ONLY after successful demonstration of hardware or service.



Other Reasons to do a Prize



Returns Outweigh Investment

Reach New Communities

Motivate, Inspire & Educate

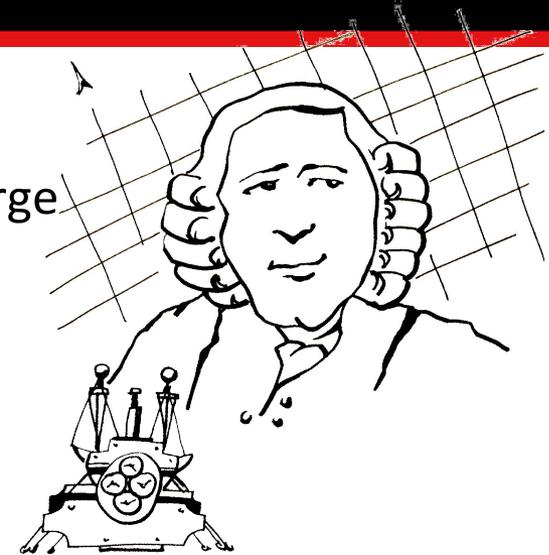
Address Technology Hurdles

Reaching New Communities



- New Sources of Innovation

- Innovative Start-up Companies Too Small for Large Gov't Contracts
- Hackerspace, Maker, Tech Shop Communities
- Universities Not Receiving Gov't Grants
- Amateurs and Enthusiasts
- Risk-Takers



- Popular With General Public

- Prizes Have “PR” Built-In
- Social Media Interest is huge, traditional media follows the money





Address Technology Hurdles



- Fills Mid-TRL Gap
 - NASA excels at low and high TRL levels.
 - Prize methodologies can address the mid-TRL gaps.
- Addresses Future Technology Paths, Architectures
 - NASA focuses challenges on our future technology roadmaps
- Promotes Synergies
 - Unmanned Aircraft Systems Aircraft Operations Challenge
 - Partnership between NASA, FAA and Air Force
 - NOAA/NASA Challenge in formulation
 - NASA/DARPA Challenge in formulation
 - NASA/America Makes in development



Returns Outweigh Investment



- Competitors' Investments Exceed Purse Value
 - Historically, Winning Competitors Spent Up To 1.2x Purse Value
 - Historically, All Competitors Spent Up To 2x to 4x Purse Value
- Successful “Allied Organization” Operating Model
 - Collaboration Through a Non-Reimbursable Space Act Agreement
 - NASA Guarantees Purse Payment
 - Allied Organization Agrees to Administer and Execute Competition
 - No Cost To Centennial Challenges
- Low Program Overhead
 - At Least 85% of CC Budgets Going to Prize Purses
 - Lower Overhead = More Competitions



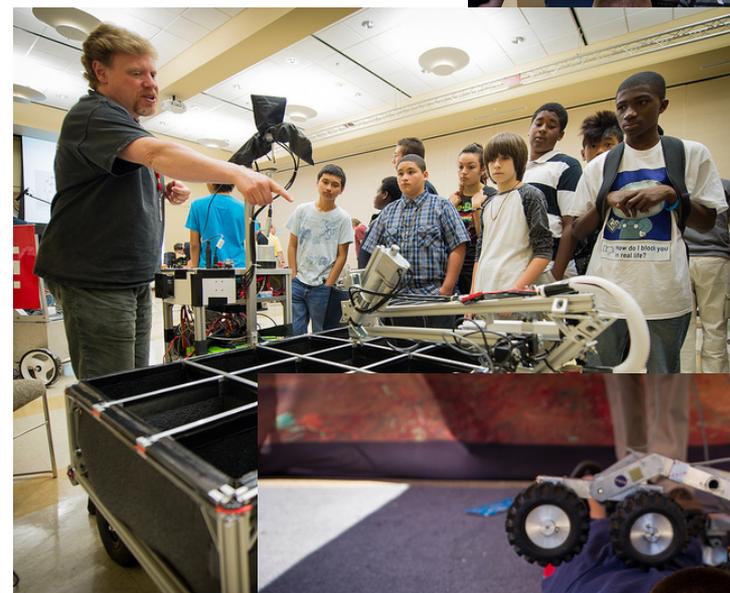
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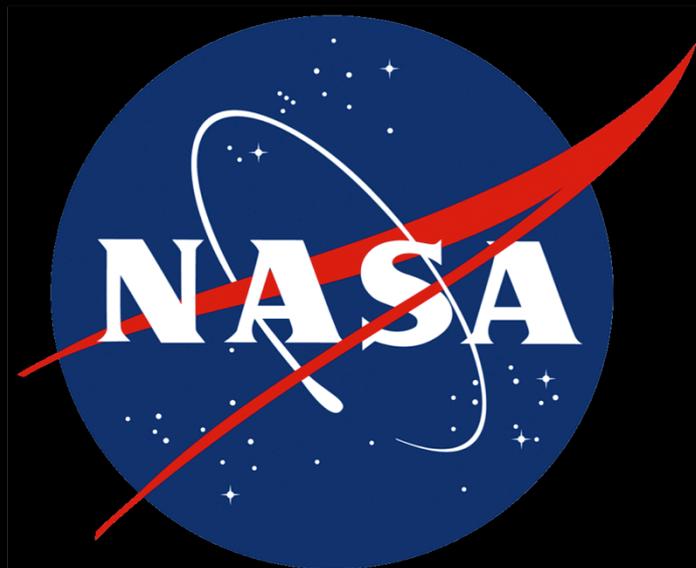


- Four Primary Motivators
 1. The Challenge
 2. Notoriety
 3. Prize Money
 3. Post-Prize Market
- Inspiration
 - “If They Can Do It, So Can I!”
- Outreach Component
 - The Allied Org Opportunity



Motivate, Inspire & Educate





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