

Building and Maintaining the Constituency for Space Exploration

Space Generation Working Group

August 3, 2006

Agenda

- Introduction / Scope
- Why NASA should care
- Young people today
- Key messages
- Life stages
- Strategies
- Tactics
- Cheap quick hits
- Recommendations

Introduction and Scope

- 22 Young Professionals and Students
 - 3 non-US participants
- Representing government, academia, private sector, advocacy/non-profit
- Mission: To determine how to build and maintain support for space exploration in the long-term
 - Recommendations not just for NASA, but other international agencies
- Scope: The group decided to focus discussion on its area of expertise - People less than 35

Why NASA Should Care

- The younger generation will be the taxpayers, voters and employees who will determine NASA's long-term future
- Recent Dittmar Associates survey of youth attitudes to space revealed that Vision for Space Exploration is generally not relevant to 18-24 age group
 - ◆ Neutral" on return to the Moon
 - 49% "neutral", 29% "interested", 23% "disinterested"
 - ◆ Opposed to human mission to Mars 3:1
 - "Don't know why we're going there when we're so messed up here"
 - ◆ Perception that NASA is best at science, not human space flight
 - ◆ 27% expressed doubts that NASA went to the Moon
 - ◆ 39% think nothing useful has come out of NASA
 - ◆ 72% think NASA money would be better spent elsewhere

Distinguishing Characteristics of Young People Today

- Idealistically pragmatic
- Empowered / in control of their media experiences
- Wired, multitasking, gaming
- Group-centered
- Globalized
- Attracted to large social movements
- Entrepreneurial
- Straight-talkers
- Accustomed to rapid progress
- Voted for Kerry, not Bush
- Instant gratification (easy, fast)
- Info-overloaded
- Listen to authority
- Ego-centric
- Apathetic
- Coddled

Key Messages about Space

Pragmatic

- Benefits life on earth
- Tech development / spinoffs
- Jobs / \$ / Resources
- Achievable and affordable
- International
- National security
- Encourages competition
- Encourages collaboration

Inspirational

- Space calls us forward
- Sustainable humanity
- A chance to start fresh
- Benefits life on earth
- Discovery / pioneering
- Creativity
- Cutting edge, rad tech
- Pretty / majestic
- New achievements await

Negative messages to address: Risky, expensive, environmentally dangerous, not sustainable, been there done that, overly nationalistic

Framework of Life Stages

- Preparation Stage: Under 16
 - Themes: Inspiration, Wonder, STEM-literacy
- Building Stage: 16-24
 - Themes: Curiosity, Learning, Direction, Participation
- Maintaining Stage: 24-35
 - Themes: Pragmatism, Dialogue, Trust

Preparation Stage



Preparation Stage: Strategies

- Age 0-8
 - TV, toys, trading cards, etc are still the main media
 - Young kids not as involved in new media
 - Leverage intrinsic enthusiasm
 - Influence of parents and teachers
- Age 9-16
 - Communicate that space is for everyone
 - Keep space sexy for tweens
 - More involved w/New media: Gaming, texting...
 - Prefer interactivity
 - Influence of parents, teachers and career counselors
 - Space is a career option
 - Focus on people/heroes not jobs

Preparation Stage: Tactics

■ Age 0-8

- Collaboration with Nick Jr., Disney, Elmo
- Viral marketing via toys: eg, Space Tamaguchi, cell phone ring tones

■ Age 9-16

- Astronaut Training Corps
 - Open to everyone
 - Similar to junior ROTC
- Space careers package / brochure
- Publicize existing programs
 - Outreach Challenges: Quest Program
 - Space Camps
 - LEGO Rovers
 - etc

Building Stage



Building Stage: Strategies

- Be interactive
- Be personal
- Be instant
- Be multilingual
- Use guerilla marketing
- Leverage existing messengers and routes
- Bring it to them directly, don't expect them to come to us
- Use mass media and new media (effectively!)
- Be cool, sexy & hip

Building Stage: Tactics

Attraction and Awareness Building

- New media
 - Well-placed podcasts
 - Ringtones
 - MySpace
 - YouTube
 - TiVo/DirectTV for NASA TV
- Mass media
 - Reality TV w/SMS voting
 - Movies (e.g. Apollo 13)
 - Magazines
 - ESPN / X-Games, SpaceSports
 - Discovery Channel “Space Week”
- Guerilla marketing
- Video games
- Music (Virgin Records + Virgin Galactic)
- Large community events (Central Park screening of Shuttle Launch)
- Celebrity promotion

***BE MORE LIKE
VIRGIN
GALACTIC!***

Building Stage: Tactics (cont.)

Retention of Audience/Participants

- Webcams & data feeds
- Zero-g flights to Geography Bee winners, HS World Series champs, lottery, movie ticket raffle
- Student satellite programs
- Student “Ambassadors of Cool”
- SecondLife moon/Mars sim world
- “Oregon Trail” for space
- Google Moon/Mars/Celestia fly throughs
- Kids space magazine/e-zine
- NASA-sponsored sci-fi contest

Maintain Stage



Maintain Stage: Strategies

- Openness
- Flow of Information
- Interaction
- Opportunity
- Vertical Mobility (not linked to who you know)
- More information from Media outlets (Newspapers, TV, CNN)

Maintain Stage: Tactics

- People who work in space industry already
- Invest in programs that foster, procure or develop leading edge technology within NASA (eg, 20% Google time)
- Give younger employees hands-on experience – give them a project (at the very minimum low risk, high reward projects)
- Provide upward mobility opportunities for younger generation
- Build off-center community centers where NASA civil servants and contractors can engage with the public
- Support civil servant and contractor participation in conferences and workshops

Maintain Stage: Tactics

- People who work in related industries
- Leverage the open source software movement to involve NASA – create a link between the two communities (two way street).
- Support and promote successful programs like NASA Means Business. Use the results from the work of winning entries.
- Hold citywide information and hiring career fairs.

Maintain Stage: Tactics

- People who are not involved in space
- Use viral/guerilla marketing such as YouTube to effectively communicate what's happening in space.
- Allow Astronauts to show individuality in public to foster interest in them personally rather than as a homogeneous group. Allow Astronauts to blog.
- Create a mission with the public. Make public participation a level 1 requirement!
- Allow public engagement for naming programs/technology
- Design a mission focused entirely on public participation!
- Select the Astronauts now who will be going to moon so we can get to know them and make them heroes
- Ask "Myth busters" to bust Apollo skeptics

Conclusions

- Although messages change from generation to generation, the framework of preparing, building and maintaining is sustainable
- Space exploration must be bigger than NASA; NASA should catalyze this paradigm shift
- Current outreach and education programs need to be made more effective (minimal budgetary impact)
 - NASA TV
 - Educational programs
- Space is for everyone
- Entrepreneurial culture
 - Embrace risk
 - Enable public to empathize with NASA, no one empathizes with a bureaucracy that is not transparent

Inexpensive Quick Hits

- Make Astronauts Celebrities and Characters
 - Increase NASA human story
- Viral videos / guerilla marketing
- Engage open-source community
- Public naming / selection
- Student sats
- Community centers in targeted locations

Recommendations

- Next Gen will not be interested unless they can Participate and Interact with Exploration
 - Personalize Virtual Exploration
- NASA must tell its stories better, which begins with Personalities
 - Personalities can be people or robots
 - Stories should be People-centric, not mission-centric
- Take NASA to the people: Push versus Pull
- Action: The best way to engage the public is to have a frequent series of fresh exploration mission successes
 - That sets a better Risk vs. Reward
- Openness and Transparency must permeate NASA