

60th International Astronautical Congress
12 - 16 Oct 2009, Daejeon, Korea

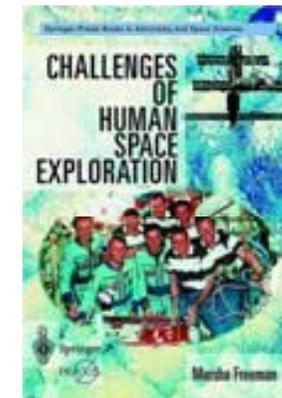
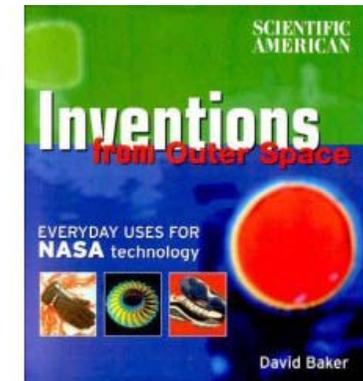
Space Expectations: Latest Survey Results



Dr David Raitt, European Space Agency, The Netherlands
Dr Cathy Swan, SouthWest Analytic Network, Paradise Valley, AZ, USA
Dr Peter Swan, SouthWest Analytic Network, Paradise Valley, AZ, USA
Arthur Woods, spaceOp sàrl, Yverdon-les-Bains, Switzerland

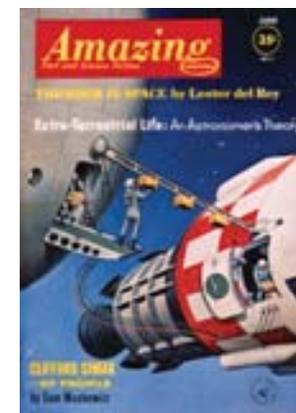
Impact of Space on Society

- Both governments and the general public are today increasingly realizing the enormous potential of space and just how it is being integrated into everyday life.
- Impact of space activities upon society has largely been measured in quantifiable terms and value to humanity is not considered.
- As space endeavours are mostly funded through taxes from the general public, then it is inevitable that the value and benefits of such space activities must eventually be justified.
- IAA believed that it would be of interest and serve a real purpose if the reasons for and results of space exploration could be presented to both the general public and non-space sector.
- Enormous progress over past 50 years - but what are society's expectations from all these space activities?



Space Expectations Study

- IAA study initiated in 2006 to determine the depth of public understanding and backing for space activities, describe society's expectations from space programmes, and ascertain how society could become more involved in space exploration.
- These three thrusts merged so that space projects could be positioned to fulfill public expectations, maintain their interest and excitement, and be supported (both financially and intellectually) by the public.
- General public (especially youth) around the world were surveyed by questionnaire available on dedicated Web site (www.space-expectations.org)
- Questionnaire initially in six Unesco languages, with Italian, German and Hungarian added later



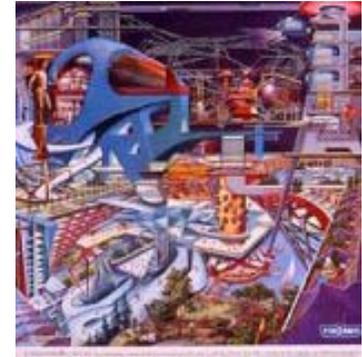
Space Expectations - Results

- Survey went live in Oct 2007 - but it has proved very difficult to reach youth through official channels.
- To date the various questionnaires have been completed by some 3100 people:
 - English - 1883
 - Hungarian - 291
 - Traditional Chinese - 242
 - Russian - 206
 - Spanish - 124
 - Arabic - 116
 - French - 111
 - German - 60
 - Simplified Chinese - 32
 - Italian - 31
- Surveys returned by people of over 100 different nationalities.
- Americans returned over half English language questionnaires.
- 220 Taiwanese completed Traditional Chinese questionnaire.



The Demographics

- Regarding ages, 46-71% of English, French, Russian, German, Italian and Simplified Chinese respondents were aged 26-45.
- However, 65-71% of Arabic, Spanish and Traditional Chinese respondents were aged 18-25.
- Over two thirds of all respondents were male, but some 50% of Italian, Arabic and Taiwanese respondents were female.
- Many Simplified Chinese (66%), English (46%), German (36%) and French (35%) respondents had higher degrees (PhD/Masters).
- One third had either not (yet) finished or else had completed secondary/high school (no degree)
- Over 30% completing English survey said they worked in aerospace, 26% Arabic worked in education, 19% Russian in telecoms, 19% German in media and 16% Italian in public administration.
- No less than 61% Spanish, 63% Taiwanese and 34% Chinese and 22% Hungarian said they were students compared to 19% for English.



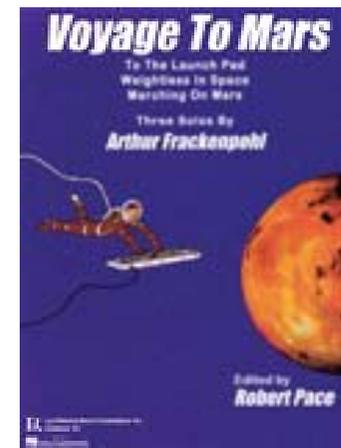
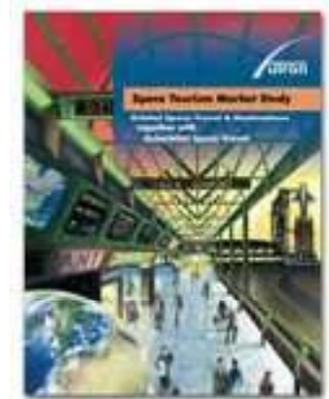
Involvement in Space

- 75% wanted their country to be involved and spend money in various space activities (81% for EO, 76% for navigation, 72% for space exploration) - partly because space helped create new jobs and encouraged young people to become scientists and engineers.
- Over 60% strongly believed money spent on space activities benefits society and over 60% also said that space funding should be increased.
- 75% believed space should be used for peaceful purposes and that WMD in space should be banned.
- Two thirds believed exploration could lead to discovery of new resources, and the majority were in favour of exploiting these resources.
- Respondents were divided on whether humans or robots should be used for space exploration.
- However, 75% thought humans should return to the Moon and establish a base there - the same number thought humans should do the same on Mars.



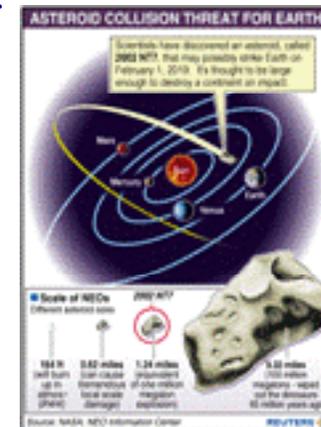
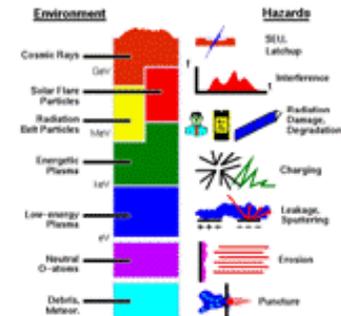
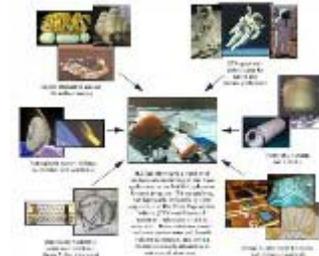
Going into Space

- Two thirds agreed that the general public should be able to fly into space.
- Respondents were split when it came to deciding whether human space travel would be common in their life-times - though only 28% didn't think it likely.
- Around 80% said they would like to go into space themselves - mainly for personal reasons: to view the Earth from space and have new experiences.
- Two thirds wanted to explore other worlds or experience weightlessness.
- Half wanted to gain knowledge about themselves and the world - half also wanted to make contributions to science.
- 69% Traditional Chinese and 64% Arabic wanted to go into space to be among the elite.
- Many replied they would participate in a planned one-way human mission to space: 59% Hungarian, 46% French, 42% Russian, Arabic and English



My Space Expectations

- Most English language respondents expected space systems to:
 - increase our general scientific and technical knowledge (84%)
 - allow us to gain a better understanding of the universe (79%)
 - contribute to monitoring environmental change (77%)
 - enable us to have greater understanding of our own planet (74%)
 - contribute to disaster and pollution prevention (65%)
 - improve every day life through space spin-offs (56%)
- Other language respondents were in general agreement except:
 - space activities and systems should provide solutions for waste disposal (56% Spanish, 54% Arabic, 42% Traditional Chinese agreeing strongly)
 - Arabic respondents were also strongly hopeful (62%) that space efforts could protect the Earth against asteroid impacts.



Conclusions

- Intention of the IAA Space Expectation study was to ascertain how young people thought about space programmes and activities and their costs and what they considered the future might hold for them.
- In general respondents understand and accept that, despite the high costs of space activities, there is a tremendous return to the community in terms of jobs, technological know-how and scientific knowledge.
- The very positive Space Expectations study results should encourage space agencies, governments and private companies to continue their space programmes because, though expensive, they appear to have the backing and support of the public.
- More public awareness is, however, still needed of the benefits to society that space activities can have .

