

FINANCING A PLANETARY DEFENSE SYSTEM

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If officials from the Spaceguard Survey announced tomorrow that the three kilometer long asteroid 4179 Toutatis had encountered an unexplained course change and there was a 99.9 percent chance of an impact with our planet on Sept 28, 2008 and the estimated impact zone would be somewhere off the eastern sea coast of the United States.... financing a planetary defense system would not be a problem. World governments would essentially stop what they were doing and make prevention of this imminent catastrophic event their most important priority. Budgetary constraints would no longer be an issue.

Virtually overnight a multi-trillion dollar world defense industry would turn its attention to diverting or eliminating this threat. NASA, ESA and all the other world space organizations would focus their capabilities on a defense plan. Massive worldwide efforts, resources and commitments would be dedicated to saving the Planet. Defensive commitments from countries approaching those in both World Wars would not be surprising.

Many political issues important today would vanish:

- Using money from every area of the Federal Budget would be tolerated.
- There would be no sacred cows, not even Social Security.
- Emergency tax increases to fund the defense effort would be accepted by the public.
- Use of nuclear power and explosives to mitigate the threat would be automatically considered a plausible option.
- Great loss of life in manned space flight efforts would be considered a justifiable sacrifice if necessary.
- Unproven manned and unmanned space vehicles would be rushed into service.

All of the most important world issues of the day - world hunger, poverty, genocides, curing cancer, and heart disease - would abruptly pale in comparison to this fortuitous threat of world annihilation. Even the multi-billion dollar war on terror would take a back seat to this event.

Money most certainly would not be in short supply for the project. There is little doubt that money to finance the planetary defense system would be available. Therefore,

The limiting factor would be time, not money.

Because there would not be enough time to test the proposed defensive measures and devices, the world would have to take a gamble on success or failure. As it was in movies like “Deep Impact” and “Armageddon”, the world would be depending on the actions of a few brave heroes using untried and untested methods and equipment to save the planet. But, unlike in the Hollywood movies, using such tactics in the real world seldom ends in “Happily Ever After”.

Enough of the “what if” scenario. How do you finance a planetary defense system under today’s circumstances?

The most current impact predictions from the Spaceguard Survey have not identified a 99 percent certain impact threat. This fact has resulted in creating the opposite problem of the above scenario for developing and testing a planetary defense system. Even though many scientists believe it is not a question of “if” but rather “when” a positive impact object will be discovered, there is an apparent feeling that there is time to devote to the problem and there is no sense of urgency. Therefore,

The limiting factor is money, not time.

Traditional sources of space development funding are not available:

NASA has a new presidential Vision to return to the Moon and on to Mars. It does not have a mandate to develop a planetary defense system. Even though an Open Letter to Congress¹ in 2003 from Dr. Harrison Schmitt, Dr. Carolyn Shoemaker, David Levy and 10 other prominent authorities warned of the need for a NEO defense system, the President did not include anything about asteroid defense in his Vision. Furthermore, NASA’s budget is so critical that many in the media and congress doubt that the New Vision for Space can be accomplished.² The Democratically controlled US Congress has slashed the NASA 2007 budget by \$545 million³. No mandate and no place in the budget. End of discussion.

The Military is mired in a war on terror and is grossly over budget in that war. President Bush is asking for another \$100 Billion for the war effort. Again, there is no mandate for space development and no money.

Commercial Space interest like satellite companies will not invest by themselves in a defense system. The budding space tourism companies are privately funded and don’t have excess funds to even think about building a defense system.

Internationally, Japan has demonstrated their capability to visit asteroids with the Itokawa mission. China, India and Russia are talking about asteroids but are probably years away from real missions. No one nation is capable of adequately protecting the planet. The problem belongs to the whole world and the solution is in world wide participation. The

¹ Open Letter to Congress on Near Earth Objects, July 8, 2003 www.CongressNEOaction.org

² The Future of NASA, BY David H. Freedman, Discover, September 2006

³ “A free-for-all”, Orlando Sentinel Editorial, March 02, 2007

leader in this effort should be the United States but China and or Russia may soon take the lead role if the U.S. doesn't.

The only plausible option to finance a defensive system is an international public grassroots outreach effort on an unprecedented scale.

The public outreach must:

EDUCATE AND MOTIVATE

Educate and convince the vast majority of the people that the threat is real and should be their concern. They must believe that their lives and the lives of their children and grandchildren are at stake. The message should be made to the public in no uncertain terms. The danger is deadly, the impact event is certain and the false security of thinking that we have more than ample time to prepare for the threat must be eliminated. The time to build a planetary defense is now. Efforts should start without delay. Everyone must be motivated to participate.

DEMONSTRATE AND TEST

Demonstrate that the technology and knowledge are available to build a successful defense system against NEO impacts. Emphasize the importance of the NASA efforts to return to the Moon. Show that the same technology can be used to develop the first demonstration interceptors and that new ideas can be developed and tested as needed to build an effective defensive system.

ILLUSTRATE AFFORDABILITY

Illustrate to the public how little the defensive system will cost if everyone participates. Ask the public to insist that their congress fully fund the NASA moon effort and increase the budget to accommodate the coordination needed to incorporate the privately funded planetary defense effort. Only one half of one penny of every tax dollar goes to fund NASA. Matching tax deductible donated funds will build a formidable planetary defense.

INVITE PUBLIC PARTICIPATION

Invite everyone to actively participate in some way to build the system. Public events, contests, games, space visits, rides on aircraft like Zero Gravity, and a host of other public participation activities will be a key to success. Every organization of any kind will be asked to contribute to the effort especially schools, colleges, and universities. Even charities will find it to their benefit to help in the effort to insure their long term health and well being.

ASSURE PLANETARY DEFENSE

Assure the public that a planetary defense system can be developed and will protect them from the devastation of impact from Near Earth Objects. This is the ultimate key to successfully financing a planetary defense system. People must be convinced and have confidence that the defensive system can and will save their lives and guarantee their future safety.

It is not really money that is preventing us from building a planetary defense system. It is the will of the people. It is up to you and me, the people who know the true nature of the problem, to give them the knowledge, tools and motivation to help them make the right decisions. If a large majority of the people around the world decides they want a system, one will be built.