

DARPA wants your ideas for a 100-year starship

May 23 2011, By Nancy Atkinson



Will humanity one day boldly go... somewhere? Credit: Paramount.

The idea for a 100-year starship has been tossed around recently, and now DARPA the Defense Advanced Research Projects Agency, has put out a Request for Information (RFI) looking for ideas about how a long-term human mission to boldly go out to the stars could possibly happen. It's been estimated that such a mission would cost over \$10 billion, and the idea has gotten \$100,000 from NASA and \$ 1 million from DARPA – which means that as of now it is just that, an idea.

Pete Worden, the Director of NASA's Ames Research Center announced the idea last fall, and it received plenty of coverage, but not much publicized research on how the idea could possibly come to fruition. Worden optimistically said he expected to see the first prototype of a new propulsion system within the next few years, but that seem unlikely given NASA's frozen budget and a Congress that doesn't seem very forward-looking in their vision for what NASA should be doing. But perhaps DARPA's input could have some leverage.

There would be several technological obstacles to overcome, such as how to create an artificial gravity so that those aboard the ship wouldn't experience the muscle and bone loss that astronauts on the ISS have after just six months in space. Then there's how to manufacture food, and create other things the crew might need while they are out in the middle of nowhere. Those are just a few examples of what would need to be dealt with.

But anyway, a journey starts with a single step, and so if you've got any ideas, here's DARPA's RFI (hurry, you've only got until June 3, 2011!):

DARPA is seeking ideas for an organization, business model and approach appropriate for a self-sustaining investment vehicle in support of the 100 Year Starship™ Study. The 100 Year Starship™ Study is a project seeded by DARPA to develop a viable and sustainable model for persistent, long-term, private-sector investment into the myriad of disciplines needed to make long-distance space travel practicable and feasible. The genesis of this study is to foster a rebirth of a sense of wonder among students, academia, industry, researchers and the general population to consider "why not" and to encourage them to tackle whole new classes of research and development related to all the issues surrounding long duration, long distance spaceflight. DARPA contends that the useful, unanticipated consequences of such research will have benefit to the Department of Defense and to NASA, and well as the

private and commercial sector. The information obtained will be used for planning and acquisition strategy development. DARPA will use the information obtained as a result of this RFI on a non-attribution basis. Providing data and information that is limited or restricted for use by the Government for that purpose would be of very little value and the inclusion of such restricted/limited data/information is discouraged. Responses as a single file in Adobe PDF electronic format can be submitted to 100YSS@darpa.mil by 12:00 pm (noon) Eastern Time, Friday, June 3, 2011. For complete details of this notice, please refer to the attachment, "[RFI – 100 Year Starship Study](#)".

Source: [Universe Today](#)

Citation: DARPA wants your ideas for a 100-year starship (2011, May 23) retrieved 26 April 2024 from <https://phys.org/news/2011-05-darpa-ideas-year-starship.html>

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