

19th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FUTURE (D4)  
Strategies for Rapid Implementation of Interstellar Missions: Precursors and Beyond (4)

Author: Mr. Pauli Laine  
Finland, pauli.e.laine@jyu.fi

EXOPLANETS AND A BACKUP PLAN FOR LIFE ON EARTH

**Abstract**

Manned interstellar space flight is not conceivable in the foreseeable future. Unless we make some breakthrough in physics that enables us to e.g. manipulate spacetime fabric directly, the only imaginable reason to plan such a mammoth task as a human interstellar space flight is for survival reasons. In this paper I will review four important questions for interstellar flight from the current viewpoint: Why, How, When and Where? What are the reasons for developing interstellar flight? How could it be done with the current technology? When could it be done? Where should we go then? After reviewing these questions I conclude that we should make a backup plan for the life on Earth. If we want that life and humanity continues after known or unexpected destruction, we cannot afford to wait. That's why we need a feasible plan based on our current technology. Now it seems that in the near future it is possible to e.g. build a fission fragment propulsion ship, perhaps use hibernation for human preservation and launch it to e.g. Gliese 832 c. But what life forms should be preserved in a case of inevitable catastrophe? Can human hibernation really overcome unavoidable flight duration problems with the current propulsion systems? When should we start building and how? And where can we really find the right suitable habitable planet for the new start? Many questions remain to be solved.