

Preface

This is not a typical project. I take here a great departure even from my previous, prize-winning projects. I even take a small departure from some of the recommendations made on the web pages of the contest. I introduce new topics, that are not explicitly recommended in the “Suggested Areas”; among others, I deal with the population design, a topic that I consider of primordial importance. Also, I deal with the project management, because I believe that no successful project can succeed without a proper management. Finally, I deal in extensive details with the radiation shield design. I believe that I have been able, after intensive study and after an extremely thorough analysis of the literature, to show some new and useful facts and an optimization method in my analysis.

But, I think such departures from the recommended topics are allowed after all, because creativity is allowed in this contest.

In this project, my first concern has been on topics not clarified in the literature, rather on synthesizing data from the literature. The focus has been on novelty, thoroughness in the scientific analysis, accuracy and completeness of the mathematical analysis, and depth of insight.

I do hope the project will be useful to those involved in settlement designs and in other space-related applications.