

## A Path and Definition to Sustainable Man's Habitation of Space

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We need a long range plan to provide a structured process for the development of Man's capability for the habitation of Space. Our first step is that we will need transportation systems. Like all new transportation systems, we will need an infrastructure. We must provide a definition of the infrastructure that is required to provide this capability. Members of the Space Propulsion Synergy Team will start by defining the functional requirements, along with listing them in the order of importance for provision. We will list this capability in phases. We will first define twenty one infrastructure functions needed in a list by priority of provision importance. This list only records the top level of detail needed to define the functions. The second phase will again list these twenty one functions, along we more detail of the function for a much better understanding of these functions. The third phase will list the benefits to mankind by function, in order to provide a better understanding of the justification for these functions being provided by government funding. After all, the government provided the funding for the infrastructures that were required for their functional capability here on earth; e.g., airports, railroad right-a-ways, sea ports, sports stadiums, and others. We will develop the fourth phase of this path be defining some of the legal action that will be required to provide these function in space for all mankind of the world that will have use of this infrastructure and get involved in building these functional capabilities. This is intended to be an international effort, as no one nation can afford to build this entire capability, including both government and the commercial industry.

The order of importance does not mean that these functional capabilities must follow this order for building and many of them can be worked during the same time period by different organizations. One of these functions is to provide much greater reliability than we have today in the space efforts. This technology maturation must be accomplished be the government, much like was accomplished for the airline industry. This requirement for much increased reliability is required to provide the operability productivity and lower the risk of failure for mankind's involvement.

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