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Strategies for Rapid Implementation of Interstellar Missions: Precursors and Beyond (4)

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MODULAR STARSHIPS WITH GASEOUS CORE REACTORS FOR UNMANNED PRECURSOR  
INTERSTELLAR MISSIONS

**Abstract**

There are many exciting developments in the 21st century and it seems that in a decade or so, mankind will conquer both Moon and Mars with manned missions. However, the real target remains to be the stars since the time of the first human civilization in Gobekli-tepe as people have looked at the twinkling lights in the heavens and have wanted to be there. In a way, the urge to reach the stars have been the dynamo of mankind. This paper discusses modular starships that use gaseous core nuclear reactors for high specific impulse missions as precursor interstellar missions. For example, rapid transportation to the Heliopause is the first step as a precursor mission, since reaching there will enable many other missions. However, its also important to create modular missions so that each stage of the mission can be achieved even if the other stages are not reached. While there are many methods proposed for interstellar missions, using the methods depicted in this paper can pave the way for low cost precursor interstellar missions with the existing technology of the 21st century.