

Special Project

Recommended Design Practices for Conceptual Nuclear Fusion Space Propulsion Systems

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Special Project Report

Recommended Design Practices for Conceptual Nuclear Fusion Space Propulsion Systems

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Abstract

This document provides recommended design practices for conceptual engineering studies of nuclear fusion space propulsion systems. Discussion and recommendations are included on key topics including design reference missions, degree of technological extrapolation and concomitant risk, thoroughness in calculating mass properties (nominal mass properties, weight-growth contingency and propellant margins, and specific impulse), and thoroughness in calculating power generation and usage (power-flow, power contingencies, specific power).

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