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THE ASTEROID MINING BUSINESS AND POLICY: FUNDAMENTAL GOALS AND CHOICES

Abstract

Asteroids present unique features compared to other space mining sites - (1) remoteness, (2) motions and moveability, (3) small size, and (4) huge numbers. This combination presents challenges to the making of policy for asteroid-based activities, including mining. Any sound approach to policymaking for asteroid mining must be based on an explicit and considered set of long-term, fundamental objectives for asteroid-based space activities, rather than an ad hoc response to particular commercial initiatives. Three possible strategic-level objectives could guide the development of policy in this area - scientific research, commerce and settlement. While these goals are not necessarily competing, they are respectively best served by policy measures that are not straightforwardly compatible. Trade-offs between measures that best serve these different goals arise. This paper discusses these three visions and their related policy ramifications, proposing a framework to guide further debate.