SYMPOSIUM ON STEPPING STONES TO THE FUTURE: STRATEGIES, ARCHITECTURES, CONCEPTS AND TECHNOLOGIES (D3)
Infrastructures and Systems to Enable Ambitious Future Exploration and Utilization of Space (3)

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ASTEROID EXPLORATION.

Abstract

An exploration programme based on minirobotic techniques is described. A mother spaceship would transport a load of "minilanders" close to the asteroid belt and direct them to asteroids. Close to 100 such minilanders with miniprobes and minirobots could be transported by a single spaceship. Each would have its own propulsion and guidance system, as well as radio contact with the mother ship. They would anchor on the asteroids and measure physical and composition data. Asteroids often consist of a single valuable element and could be transported, using solar sails, towards the earth's orbit or to a lunar location for utilization.