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HUMAN EXPLORATION OF THE SOLAR SYSTEM SYMPOSIUM (A5)
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LIST OF POTENTIAL TARGET NEOS FOR HUMAN MISSIONS

Abstract

During the last decade the interest in exploration missions towards Near Earth Objects (NEOs) has grown and many studies have been published. This paper précises appropriate constraints for the selection of potential target asteroids, i.e. Earth close approach distance under 0.2 AU between 2015 and 2050, 180 days mission duration, residence time, asteroid characteristics (size, rotation rate) and re-entry velocity. On that basis and using the actual ephemeris data of the JPL HORIZONS system, a list of NEOs has been calculated for exploration missions requiring a total delta-v of between 5 and 10 km/s.