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Mars 2020 Mission Overview and the Importance of Planetary Protection DR. MOOGEGA STRICKER, CALTECH

The M2020 Mission is designed to investigate key question related to the habitability of Mars and will conduct assessments that will help plan for future human exploration of Mars. Per its Program Level Requirements, the project will also acquire and cache samples of rock, regolith, and procedural blank samples for possible return to Earth by a future mission. The Planetary Protection Categorization letter assigned the M2020 Mission as a Category V Restricted Earth Return due to the possible future return of collected samples. As indicated in NPR8020.12D, Section 5.3.3.2, as the first leg of potential sample return, Mars 2020 would be expected to meet the requirements of a Category IVb mission. The entire flight system is subject to microbial reduction requirements, with additional specific emphasis on the sample acquisition and caching. Mars 2020 has a very unique biological contamination plan to both protect Mars as well as the scientific integrity of the collected sample. A mission overview and Planetary Protection activities will be discussed.