Joint Statement of Intent between the National Aeronautics and Space Administration and the European Space Agency on Mars Sample Return

April 26, 2018

Pursuant to the highest objectives established by the international scientific community for planetary science, the National Aeronautics and Space Administration (NASA), and the European Space Agency (ESA), expressed a mutual interest in pursuing cooperation on Mars sample return activities through the signature of a 2008 Agreement addressing potential cooperation on future space exploration sample return activities that extends through December 31, 2020;

Recognizing that NASA and ESA continue sharing the common objective of together preparing and launching a set of complementary missions by the end of the next decade that would return samples from Mars to Earth for scientific research;

Recognizing that both agencies are implementing missions and conducting preparatory activities which will contribute to the realisation of a Martian sample return mission, including the NASA Mars 2020 mission that will cache samples for return to Earth and the ESA-Roscosmos Trace Gas Orbiter and ExoMars missions that will expand ESA's operational experience at Mars;

Recognizing that the 2016 ESA Council meeting at the Ministerial level mandated that ESA prepare for the next ESA Mars mission, considering European participation in an international Mars Sample Return (MSR) mission as a key objective;

Recognizing that the United States Fiscal Year 2019 President's Budget Request directs NASA to plan a potential MSR mission leveraging international and commercial partnerships; and

Recognizing NASA and ESA's mutual objective to collaborate on a joint MSR endeavor potentially based on a reference architecture under consideration whereby NASA would lead a MSR campaign as the systems architect and lead an MSR Lander (SRL) mission, and ESA would lead a MSR Orbiter mission and provide the Sample Fetch Rover and the Sample Transfer Arm to the SRL mission and NASA would provide the Sample Capture, Handling, and Containment system and the Earth Entry Vehicle to the MSR Orbiter; this endeavor may be in concert with other international or commercial partners;

NASA and ESA intend to develop a joint MSR plan and to complete the studies needed to reach the level of technical and programmatic maturity required to pursue an effective MSR partnership, specifically defining the respective roles and responsibilities sufficient to lead to an international agreement between the two agencies in time to be submitted for approval to their respective authorities at the end of 2019.

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