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Author: Mrs. Kathleen Harmon

Jet Propulsion Laboratory - California Institute of Technology, United States,
kathleen.a.harmon@jpl.nasa.gov

Mr. Brad Arnold

Jet Propulsion Laboratory - California Institute of Technology, United States,
bradford.w.arnold@jpl.nasa.gov

Mr. Michael Levesque

Jet Propulsion Laboratory - California Institute of Technology, United States, levesque@jpl.nasa.gov

Dr. Mark Johnston

Jet Propulsion Laboratory - California Institute of Technology, United States,
mark.d.johnston@jpl.nasa.gov

Dr. Stephen Lichten

Jet Propulsion Laboratory - California Institute of Technology, United States,
stephen.m.lichten@jpl.nasa.gov

Ms. Patricia Lock

Jet Propulsion Laboratory - California Institute of Technology, United States, patricia.d.lock@jpl.nasa.gov

Mr. David Berry

Jet Propulsion Laboratory - California Institute of Technology, United States, david.s.berry@jpl.nasa.gov

Mr. Sami Asmar

Jet Propulsion Laboratory - California Institute of Technology, United States, sami.asmar@jpl.nasa.gov

Mr. Timothy Pham

Jet Propulsion Laboratory - California Institute of Technology, United States,
timothy.t.pham@jpl.nasa.gov

LESSONS LEARNED FROM NASA'S DEEP SPACE NETWORK SUPPORT FOR THE ARTEMIS I
MISSION TO THE MOON

Abstract

NASA's Deep Space Network (DSN) serves as a critical element in the exploration of deep space, providing telecommunication services such as tracking, telemetry, command, and delivery of science data to its customers around the globe. In addition to supporting robotic spacecraft for scientific missions, the DSN also supports human spaceflight (HSF) endeavors, including NASA's flagship Artemis missions to the Moon. This paper describes DSN lessons learned from the first Artemis mission, Artemis I. Topics covered include DSN performance and reliability, interface management, international collaboration and the role of international partners, and network loading. Lessons learned will be applied to future missions, including Artemis II and beyond.