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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
Mr. Jeff Berner
National Aeronautics and Space Administration (NASA), Jet Propulsion Laboratory, United States,
jeff.berner@jpl.nasa.gov
Dr. Mark Johnston
Jet Propulsion Laboratory - California Institute of Technology, United States,
mark.d.johnston@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
Dr. Stephen Lichten
Jet Propulsion Laboratory - California Institute of Technology, United States,
stephen.m.lichten@jpl.nasa.gov
Mr. David Berry
Jet Propulsion Laboratory - California Institute of Technology, United States, david.s.berry@jpl.nasa.gov

NASA DEEP SPACE NETWORK SUPPORT DURING ARTEMIS I MISSION OPERATIONS

Abstract

NASA's Deep Space Network (DSN) supports a wide range of mission customers, from robotic scientific missions, to technology demonstrations, to human spaceflight (HSF) endeavors, including NASA's flagship Artemis missions to the Moon. With the successful completion of the Artemis I mission in 2022, DSN has gained valuable experience in working with human spaceflight operational teams, facilities, and processes.

This paper describes DSN experiences supporting the Artemis I operational mission. Topics covered include DSN performance and reliability, interface management, collaboration with partners, and network loading. Lessons learned and future areas of focus will be detailed. Experiences from Artemis I will be applied to future missions, including Artemis II and beyond.