

# 2022 SPACE CONTRIBUTIONS

## Supporting 2022's Major Space Advancements

Space has caught the public's attention like no time since the days of Apollo largely due to the remarkable year the US had for spaceflight and space exploration. 2022 marked a year of significant milestones with several major events that advanced scientific knowledge and human presence beyond Earth. Peraton was there, working tirelessly to apply our experience and expertise in support of these missions of consequence.

### FIRST ALL-PRIVATE CREW TO ISS

On April 8, 2022, SpaceX launched the first all-private crew to the International Space Station (ISS) on board its Crew Dragon capsule. The mission, called Axiom-1, was operated by Axiom Space and included one professional astronaut and three tourists. Peraton received a request to support our NASA customer by making Tracking and Data Relay Satellite (TDRS) assets available. TDRS provided additional command and control, telemetry and communications to ensure mission assurance and crew safety for a successful mission to and from the International Space Station. TDRS is part of the Near Space Network (NSN), part of the Space Communications and Navigation (SCaN) program office. Peraton operates, maintains and sustains TDRS assets for NASA.

### NASA'S DART MISSION

On September 26, NASA's Double Asteroid Redirection Test (DART) spacecraft successfully completed its mission by impacting the asteroid Dimorphos, a small moon of the larger asteroid Didymos. Again, Peraton's operated and managed Deep Space Network (DSN) provided the command and control, precision navigation, and mission data, including the stunning video of the moment of impact, to begin substantiation of a planet defense capability.

### NASA'S JUNO FLYBY OF EUROPA

On September 29, NASA's Juno spacecraft performed a close flyby of Jupiter's icy moon Europa, capturing stunning images and data of its surface as well as data on the sub-surface characteristics of the moon's ice shell. Juno is the first spacecraft to visit Europa since Galileo in 1997. Peraton's operated Deep Space Network again provide the uplinks for command and control, precision navigation and the down links for mission data as well as the stunning images for planning of future visits to Europa.

### NASA'S ARTEMIS I

On November 16, NASA launched its Orion spacecraft on an uncrewed test flight around the Moon using the Space Launch System (SLS) rocket. The mission, called Artemis I, was a critical step toward sending humans back to the lunar surface. Peraton, with its market-leading OS/COMET TT&C platform, supplied NASA with the telemetry, tracking and command for both the Kennedy Space Center Launch Control System and the Orion capsule. Through the support of NASA's communications networks (NSN, DSN), Peraton provided launch tracking and also provided communications services while the spacecraft was in orbit and returning to Earth.

