CubeSat Launch Initiative ELaNa 25B

Mission Name	Launch Date	Deployment Status	Rocket	Mission Description	SC Envelope	Payload(s)	Organization(s)	Orbit
Mini-Carb (CNGB, CubeSat Next Generation Bus)	12/5/19	02/01/2020 07:15:00 GMT	Falcon 9	A 6U CubeSat mission to fly a smaller, more ruggedized version of a patented mini-Laser Heterodyne Radiometer, or mini-LHR, on an LLNL-built CubeSat platform to potentially detect and measure amounts of greenhouse gases in the atmosphere. Although no on-orbit science atmospheric measurements was collected, the miniaturization and ruggedization of the instrument compatible with a small satellite platform is improving the credibility of the approach for NASA's upcoming earth venture proposals.	6U	Laser heterodyne radiometer	Lawrence Livermore National Laboratory (LLNL) and NASA GSFC	~500 km
AzTechSat-1	12/5/19	02/19/2020 12:55:01 GMT	Falcon 9	The first collaboration between NASA and the Mexican Space Agency on a 1U spaceflight mission that will demonstrate satellite-to-satellite communications for applications in space and on Earth. Specifically, it will "talk to" a network of telecommunications satellites already orbiting the Earth and contribute new data about this transmission strategy to developers of CubeSats. This could help deliver more data overall and potentially even reduce the costs associated with staffing ground stations to communicate with small satellite missions.	1U	Globalstar Satellite transmitter Integrated Global Positioning System (GPS) Receiver (STINGR) modem and an ultra high frequency/very high frequency (UHF/VHF) amateur band radio	Mexican Space Agency and NASA ARC	400 km × 400 km, 51.6°
SORTIE (Scintillation Observations and Response of The Ionosphere to Electrodynamics)	12/5/19	02/19/2020 17:40:00 GMT	Falcon 9	A 6U CubeSat mission with an overall mission goal to study the complex challenges in discovering the wave-like plasma perturbations in the ionosphere with an ion velocity meter to measure the direction of ionospheric flows and a micro planar langmuir probe to measure ionospheric densities. This project was funded by a NASA Heliophysics Technology and Instrument Development (H-TIDeS) program grant.	6U	Ion velocity meter	ASTRA (Atmospheric and Space Technology Research Associates), AFRL (Air Force Research Laboratory), UTD (University of Texas, Dallas), COSMIAC (Configurable Space Microsystems Innovations & Applications Center), and Boston College.	400 km × 400 km, 51.6°
CryoCube-1	12/5/19	02/19/2020 12:55:01 GMT	Falcon 9	3U CubeSat mission to perform on-orbit cryogenic fluid management experiments: fluid location sensing, slosh characteriation, cyrogenic fluid transfer. The payload is a pressure system instrumented with pressure sensor and 12 temperature sensors.	3U	Pressure system instrumented with pressure sensor and 12 temperature sensors	NASA KSC and Sierra Lobo, Inc.	400 km × 400 km, 51.6°