SpaceX president Gwynne Shotwell discussed ambitious timelines for the Starship vehicle at the International Astronautical Congress, aiming for orbit within a year and a Moon landing by 2022. These "aspirational" goals aim to stage cargo for a 2024 human Moon landing. SpaceX has tested the "Starhopper" and is building Mk1 and Mk2 Starship test vehicles for high-altitude testing. SpaceX has contracts with Intuitive Machines and ispace to deliver payloads to the Moon using Falcon 9, ahead of NASA's 2024 Artemis program.