

## Dropping in on Mars in High-Res

[voices, chatter]

EDL Ops: Thrusters have been re-enabled. We will control our attitude on chute. We are decelerating.

EDL Dynamics: Wrist mode under parachute is approximately twenty to thirty degrees per second, nominal.

EDL Ops: We are at ten kilometers and descending. We are at 150 meters per second.

[voices, chatter]

EDL Phase: Dynamics, Phase come back again with wrist mode dynamics.

EDL Dynamics: Wrist mode is nominal.

Propulsion: EDL Ops, Prop, MLEs active.

EDL Ops: We are at 9 kilometers and descending.

EDL Dynamics: Downrange. Nav filter converged with a velocity correction of 0.7 meters a second.

[cheering]

EDL Ops: We have acquired the ground with the radar.

EDL Dynamics: Altitude of 8 kilometers.

EDL Ops: Heat shield has separated, we have found the ground.

Telecom: We have lost X-band tones due to Earth occultation, as expected.

EDL Ops: We're standing by to prime the MLE engines in preparation for powered flight.

We're down to 90 meters per second at an altitude of 6.5 kilometers and descending.

[voices, chatter]

EDL Systems: Flight, EDL, we've got some TWTA warnings. But it's in battleshort mode so it should power through.

EDL Ops: We expect to lose direct to Earth communications at this time. We may have lost it already.

[voices, chatter]

EDL Ops: We're down to 86 meters per second at an altitude of 4 kilometers and descending.

We've lost tones from Earth at this time. This is expected. We are continuing on Odyssey telemetry.

[voices, chatter]

EDL Dynamics: Ground solution equals minus 10.8 meters. Vertical velocity of minus 81.8 meters per second.

EDL Ops: We priming the powered descent engines, standing by for backshield separation.

[voices, chatter]

Telecom: Signal to Odyssey is still strong.

[voices, chatter]

EDL Ops: We are in powered flight.

[cheering]

EDL Ops: We are at an altitude of 1 kilometer and descending about 70 meters per second.

Telecom: Signal to Odyssey remains strong.

EDL Dynamics: Control errors are nominal.

EDL Ops: Down to 50 meters per second. 500 meters in altitude.

Standing by for Sky Crane.

EDL Dynamics: Constant velocity accordion nominal. Altitude error 5.9 meters.

EDL Ops: We found a nice flat place. We're coming in ready for Sky Crane.

Down to 10 meters per second. 40 meters altitude.

[voices, chatter]

Sky Crane has started.

[cheering]

Descending at about 0.75 meters per second, as expected.

Expecting bridle cut shortly.

Telecom: Signal to Odyssey remains strong.

EDL Dynamics: Tango Delta nominal.

Telecom: EDL comm configured for UHF telemetry.

EDL Dynamics: RIMU stable.

Telecom: UHF is good.

EDL Ops: Touchdown confirmed! We are safe on Mars.

[loud cheering]