



Rocket 3.1

Launch
Press Kit



Mission Overview

Launch Window

10 September – 16 September PT
11 September – 17 September UTC

Daily Launch Opportunity

6:00 – 8:30pm Kodiak Time
7:00 – 9:30pm Pacific Time
2:00 – 4:30am UTC

Launch Site

Pad LP-3B, Pacific Spaceport Complex-Alaska; Kodiak, Alaska

Target Orbit

Inclination: 86.3 degrees *Altitude:* 340 kilometers

Payload

There will be no payload on this test flight, except for instrumentation on board for data capture.

Mission Overview and Objective

For this flight, our first orbital attempt, we've defined our primary objective as achieving a nominal first stage burn. If we make it this far, we'll be happy with our progress and well on our way to reaching orbit within 3 flights. The further we get, the more we'll learn. For more information, visit www.astra.com/blog.

Follow the launch live on Twitter!

 @Astra

Mission Timeline

First Stage Flight

+5s	Roll program initiated
+25s	Vehicle clears range
+1min	Max Q
+2min 3s	Begin engine throttle down
+2min 18s	MECO
+2min 20s	Fairing separation
+2min 27s	Stage separation

Upper Stage Flight

+2min 32s	Aether ignition
+8min 48s	SECO
+8min 51s	Payload deployment signal

Rocket 3.1

Astra has developed the world's most responsive and affordable orbital launch system.

Rocket 3.1 is an expendable, vertically-launched two stage LOX/kerosene rocket, designed to fit inside a standard shipping container and built to dramatically lower the cost of access to space.

Eschewing labor-intensive processes such as carbon composite layups, Astra has focused on proven and cost-efficient metallic structures.

Rocket 3.1 consists of a first stage powered by five Delphin electric-pump-fed engines and an upper stage propelled by a single pressure-fed Aether engine.

	First Stage	Upper Stage
Engines	Delphin	Aether
Engine Qty	5	1
Thrust per Engine	6,300 lbf SL	665 lbf vacuum
Total Thrust	31,500 lbf SL	665 lbf vacuum
Propellant	LOX / RP-1	LOX / RP-1
Overall Length	38 feet	
Diameter	52 inches	



Pacific Spaceport Complex – Alaska



For more media, visit astra.com/gallery

 @Astra

 astraspace



Media Contact: Martin Attiq, EVP Business Operations

 martin@astra.com