



WE LOVE THE NIGHTLIFE

PRESS KIT | NET 24 AUGUST 2023

Rocket Lab USA, Inc.
rocketlabusa.com



LAUNCH INFORMATION



LAUNCH SITE

Launch Complex 1 – Pad B
Mahia, New Zealand.



LAUNCH WINDOW

We have back up opportunities through August if we need to adjust the window for any reason.



DAILY LAUNCH OPPORTUNITY

Time Zone	Window Open
NZST	11:30– 15:30, August 24th
UTC	23:30 – 03:30, August 23rd/24th
EDT	19:30 – 23:30, August 23rd
PDT	16:30 – 20:30, August 23rd



ORBIT

640km

Circular Orbit



SATELLITES

1



INCLINATION

53

Degrees

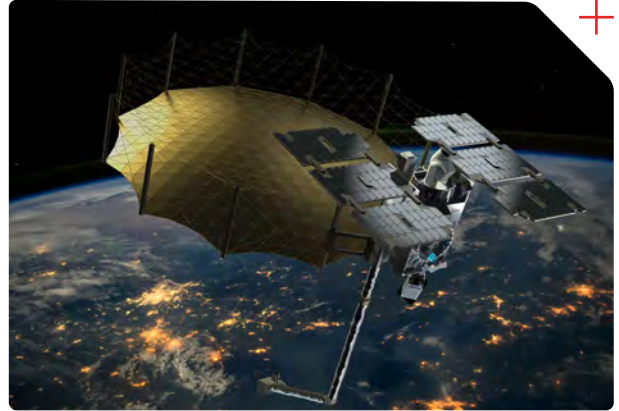


CUSTOMER

Capella Space

MISSION OVERVIEW

About 'We Love The Nightlife'



The mission is the first of four dedicated launches on Electron to deploy Capella Space's next-generation SAR Earth-imaging satellites called Acadia. Capella's satellites deliver high quality, high resolution SAR imagery commercially available with the ability to penetrate all weather conditions and capture clear imagery 24-7, day and night, anywhere on Earth. The next-generation Acadia satellites include several new features that will enable faster downlink speeds and even higher-quality images for fast, reliable insights that are easily accessible through Capella's fully-automated ordering and delivery platform.

"Synthetic Aperture Radar (SAR) has the unique ability to collect imagery at night. When close to half of the world is covered by darkness at any given time, Capella illuminates the Earth so users never lose sight of what's happening on the ground. At night, we're the ones throwing the party!"

'We Love the Nightlife' is scheduled to launch from Rocket Lab Launch Complex 1 (LC-1) on the Mahia Peninsula for American space tech company Capella Space, a leading provider of commercial Synthetic Aperture Radar (SAR) imagery.

All four missions will launch from Launch Complex 1 to deploy a single Acadia satellite to a 640 km mid-inclination orbit, expanding the existing Capella Space SAR constellation and providing more rapid revisit across diverse regions around the Earth.

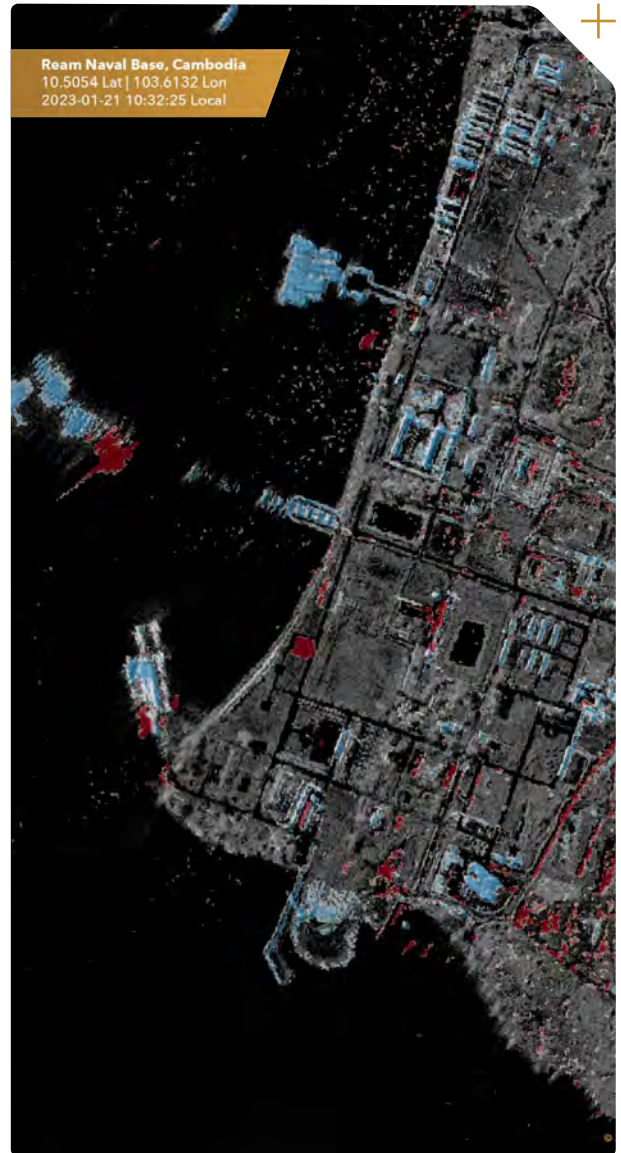
Each Capella Space satellite will also be supported by a Rocket Lab-manufactured Advanced Lightband; separation systems for each satellite to attach to and deploy from Electron once launched to orbit.



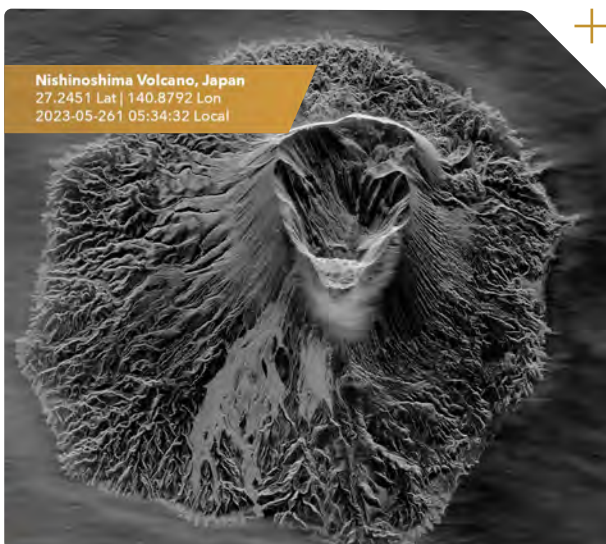
CAPELLA SPACE OVERVIEW



Leaders in Synthetic Aperture Radar



Capella's advanced radar technology penetrates all weather conditions – clouds, fog, smoke, rain – and captures clear imagery day and night, providing unparalleled insight into what is happening anywhere on the globe at any given moment.



Capella's strength lies in agile aerospace — the rapid design, deployment, testing and iteration of the industry's most sophisticated SAR satellites. With each new generation of satellites, customers benefit from faster delivery speeds and assured access to high-quality imagery where and when it's needed most.

Capella is the only commercial SAR provider that deploys its satellites in a variety of orbits, enabling rapid and frequent revisit over critically important areas of interest. This enables persistent imaging, even in regions where Earth observation data is limited.

LAUNCH SITE OVERVIEW

Rocket Lab Launch Complex-1
Mahia, New Zealand



We Love The Nightlife will lift off from Launch Complex 1 Pad B on New Zealand's Mahia Peninsula and will be Rocket Lab's 40th Electron launch.

An FAA-licensed spaceport, Launch Complex 1 can provide up to 120 launch opportunities every year. From the site it is possible to reach orbital inclinations from sun-synchronous through to 30 degrees, enabling a wide spectrum of inclinations to service the majority of the satellite industry's missions to low Earth orbit.



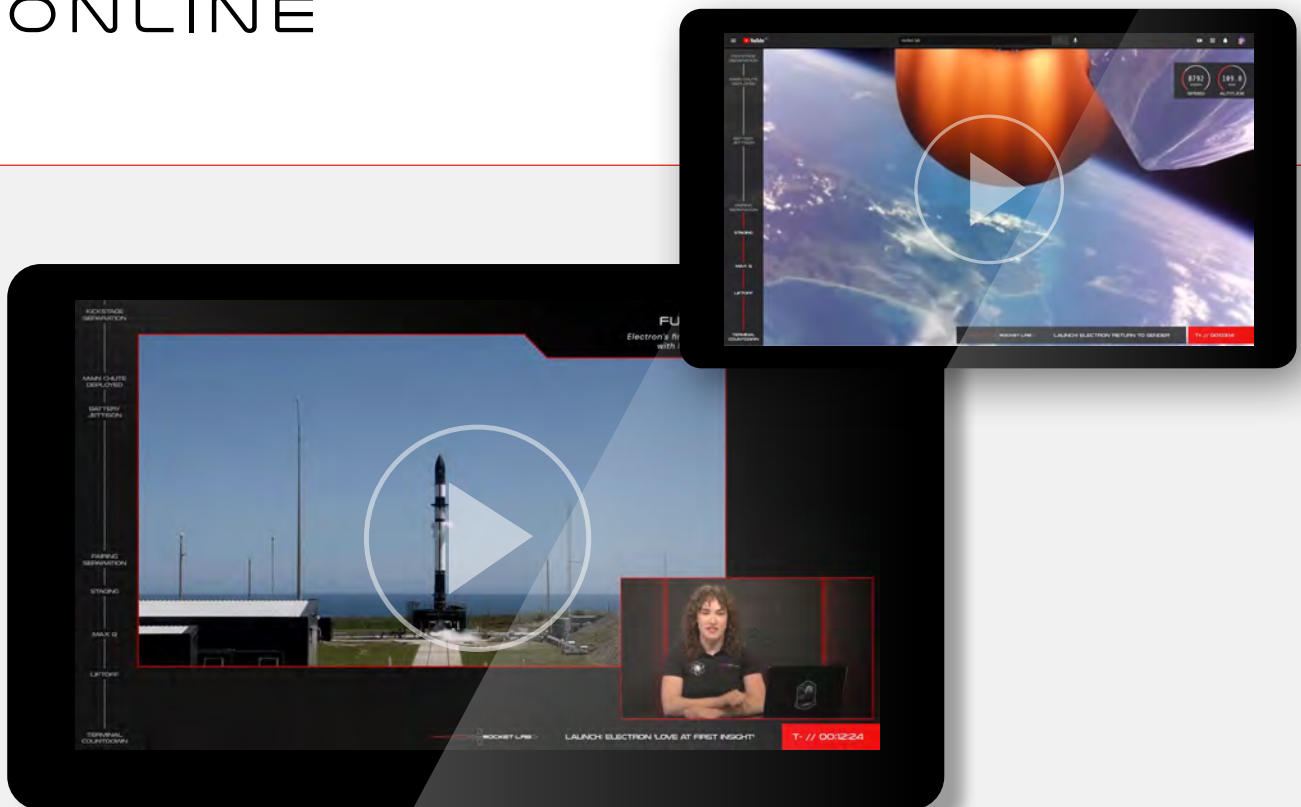
Located within Launch Complex 1 are Rocket Lab's private range control facilities, two 100K satellite cleanrooms, a launch vehicle assembly facility which can process multiple Electrons at once, and administrative offices.

Operating a private orbital launch site alongside its own range and mission control centres allows Rocket Lab to reduce the overhead costs per mission, resulting in a cost-effective launch service for satellite operators.

In addition to Launch Complex 1, Rocket Lab operates an additional launch site, Launch Complex 2, at the Mid-Atlantic Regional Spaceport within NASA's Wallops Flight Facility on Virginia's Eastern Shore. Launch Complex 2 can support up to 12 missions per year.

By operating two launch complexes in two hemispheres, Rocket Lab provides customers with flexible, responsive launch opportunities.

VIEWING A LAUNCH ONLINE



LIVE STREAM

The live stream is viewable at:

[rocketlabusa.com/
live-stream](https://rocketlabusa.com/live-stream)

LAUNCH FOOTAGE & IMAGES

Images and footage of "We Love The Nightlife" launch will be available shortly after a successful mission at:

www.flickr.com/photos/rocketlab

UPDATES

For information on launch day visit:

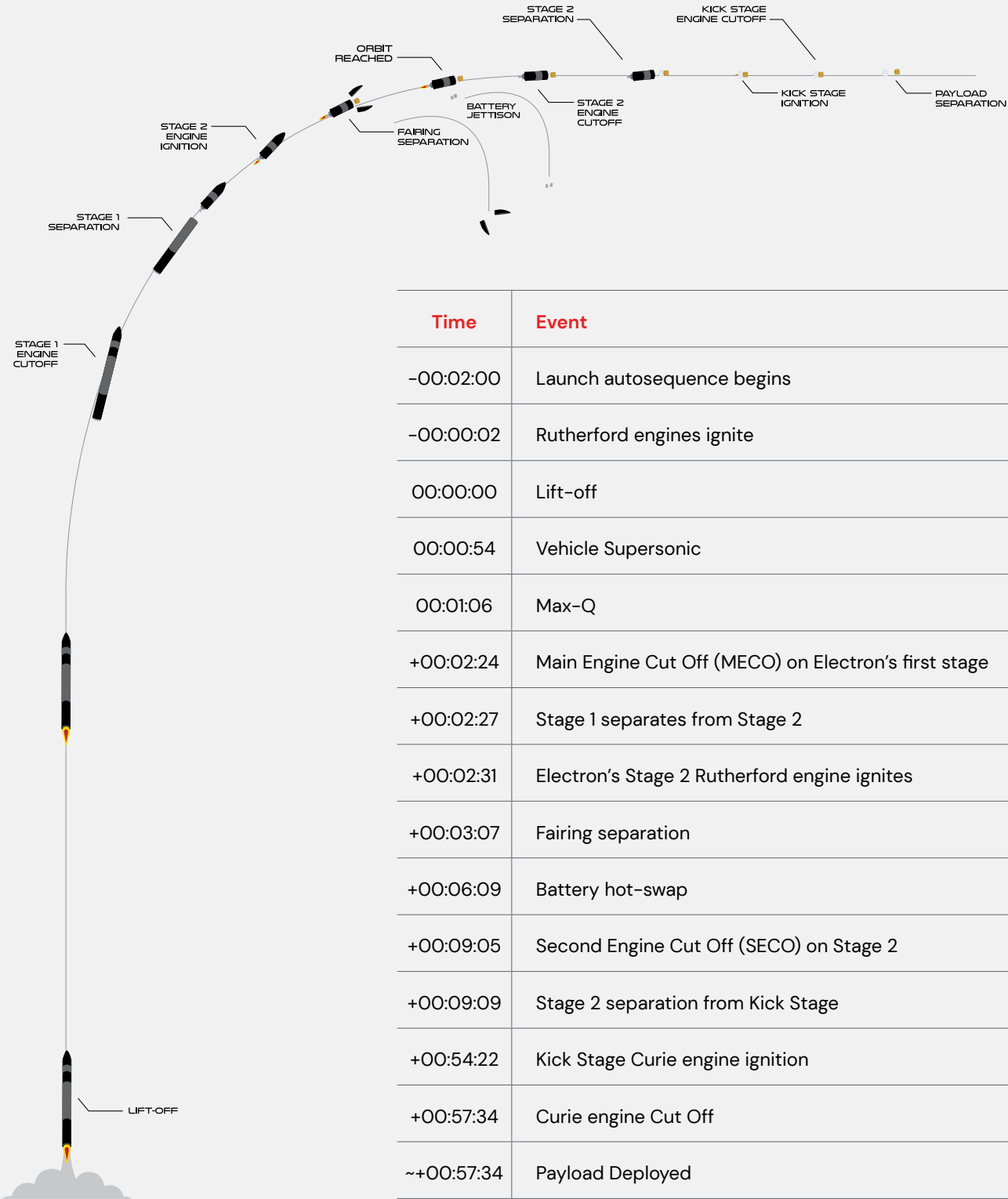
rocketlabusa.com/next-mission

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TIMELINE OF LAUNCH EVENTS



ELECTRON LAUNCH VEHICLE

OVERALL

LENGTH

18m

DIAMETER (MAX)

1.2m

STAGES

2 + Kick Stage

VEHICLE MASS (LIFT-OFF)

13,000kg

MATERIAL/STRUCTURE

Carbon Fiber Composite/Monocoque

PROPELLANT

LOX/Kerosene

PAYLOAD

NOMINAL PAYLOAD

320kg / 440lbm To 500km

FAIRING DIAMETER

1.2m

FAIRING HEIGHT

2.5m

FAIRING SEP SYSTEM

Pneumatic Unlocking, Springs

STAGE 2

PROPULSION

1x Rutherford Vacuum Engine

THRUST

5800 LBF Vacuum

ISP

343 Sec

INTERSTAGE

SEPARATION SYSTEM

Pneumatic Pusher

STAGE 1

PROPULSION

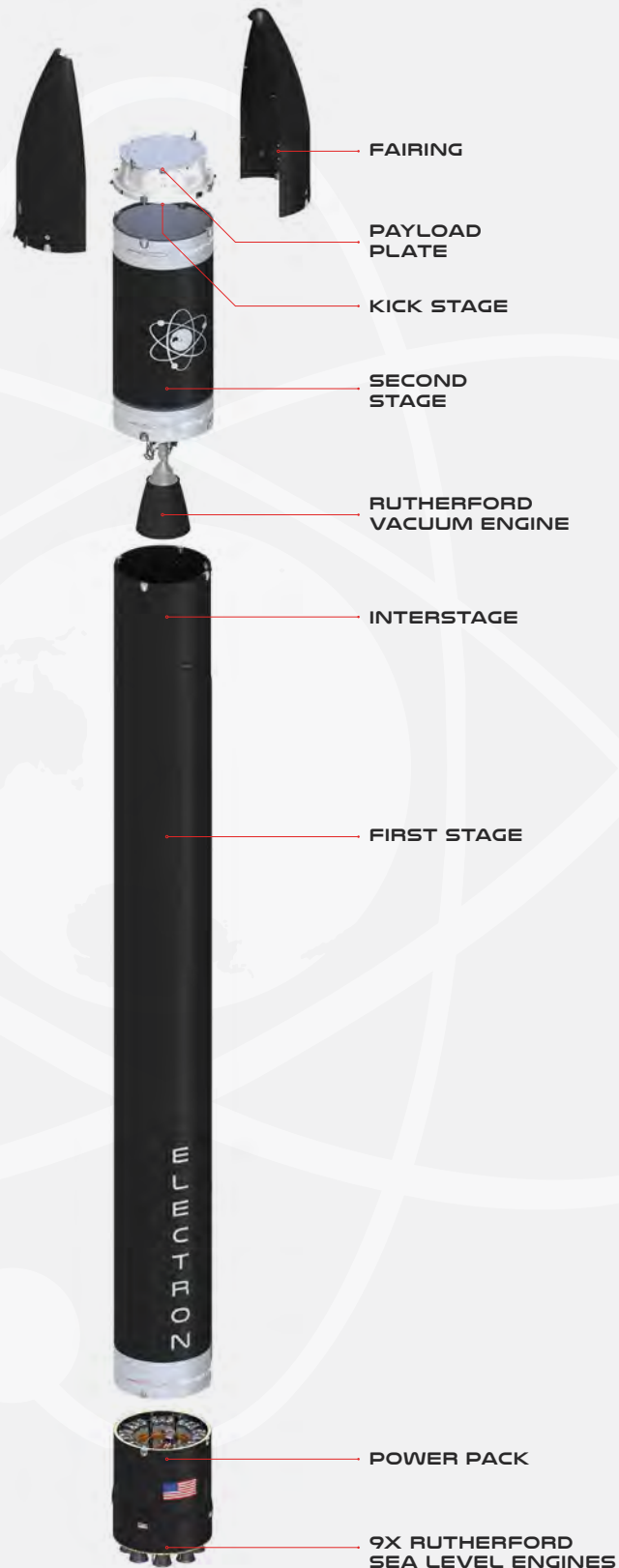
9x Rutherford Sea Level Engines

THRUST

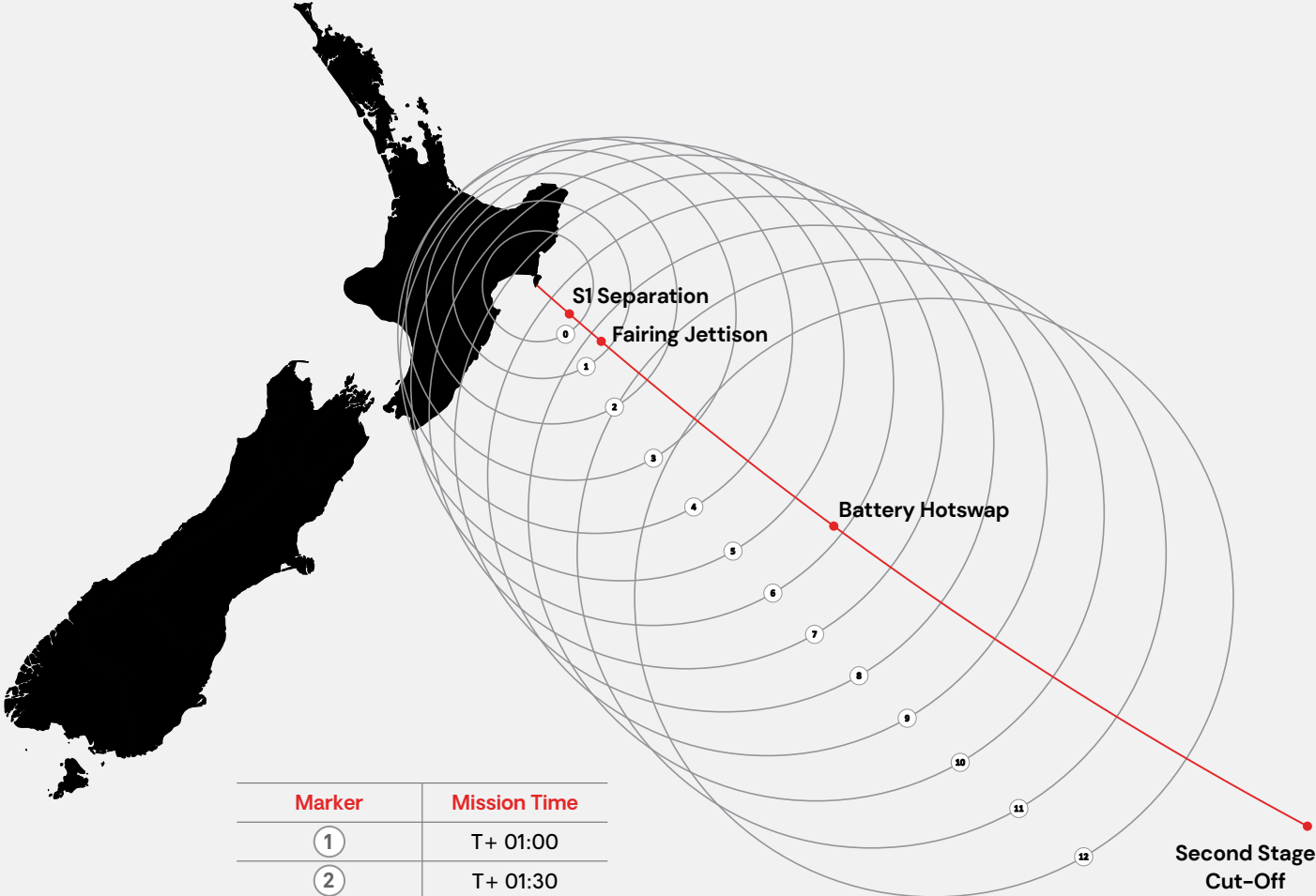
5600 LBF Sea Level (Per Engine)

ISP

311 Sec




VIEWING A LAUNCH IN PERSON




Marker	Mission Time
①	T+ 01:00
②	T+ 01:30
③	T+ 02:00
④	T+ 02:30
⑤	T+ 03:00
⑥	T+ 03:30
⑦	T+ 04:00
⑧	T+ 04:30
⑨	T+ 05:00
⑩	T+ 05:30
⑪	T+ 06:00
⑫	T+ 06:30
⑬	T+ 07:00
⑭	T+ 07:30
⑮	T+ 08:00
⑯	T+ 08:30
⑰	T+ 09:00


Note:
Numbers apply
to the centre
of the circle.

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