



# THE LIGHTNING GOD REIGNS

PRESS KIT | NET MARCH 10 2025

Rocket Lab USA, Inc.  
[rocketlabusa.com](http://rocketlabusa.com)



# LAUNCH INFORMATION

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## MISSION

Rocket Lab will launch a dedicated mission for the Institute for Q-shu Pioneers of Space, Inc. (iQPS), a Japan-based Earth imaging company.

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## LAUNCH SITE

Launch Complex 1 – Pad B  
Mahia, New Zealand.

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## LAUNCH WINDOW

The launch window opens from March 10, 2025, and is open for two weeks. Back up opportunities are available throughout March should the launch date change for any reason.

Time Zone	Window Open
NZT	1:00 - 3:00 PM
UTC	00:00 - 02:00
EST	8:00 - 10:00 PM
PST	5:00 - 7:00 PM

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## ORBIT

# 575 km

Circular Earth orbit

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## SATELLITES

# 1

QPS-SAR-9

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## INCLINATION

# 42

Degrees

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## CUSTOMER

# iQPS



# MISSION OVERVIEW

About 'The Lightning God Reigns'

The 'Lightning God Reigns' is scheduled to launch from Rocket Lab Launch Complex 1 for Japan-based Earth imaging company, the Institute for Q-shu Pioneers of Space, Inc. (iQPS).



The 'Lightning God Reigns' is the first of eight upcoming launches for iQPS across 2025 and 2026 to build out iQPS's constellation. Each mission will utilize a Rocket Lab Motorized Lightband: separation systems for the satellite to attach to and deploy from Electron once in space.



Electron will deploy a single synthetic aperture radar (SAR) satellite called SUSANOO-1 to a 575km circular Earth orbit, where it will join iQPS's growing Earth-imaging constellation that delivers high-resolution monitoring from specific locations every 10 minutes.



# iQPS OVERVIEW

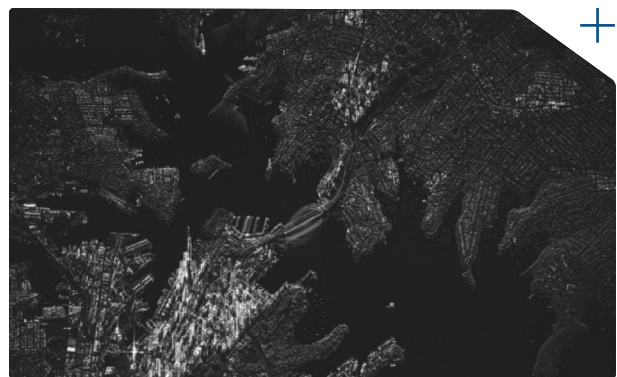


## About iQPS

Institute for Q-shu Pioneers of Space, Inc. (iQPS) is a pioneering space startup founded in 2005 by two Emeritus Professors from Kyushu University and a rocket developer with the mission of establishing a space industry in Japan's Kyushu region.

Building on more than 20 years of small satellite development expertise at Kyushu University, iQPS now brings together a dynamic team of young engineers, industry leaders, and visionary professors emeritus. The company's growth is further strengthened by the support of over 25 partner companies throughout Japan, primarily based in northern Kyushu.

QPS-SAR is an advanced small SAR satellite developed by iQPS. The company has engineered a patented large deployable antenna that is both lightweight and highly compact, enabling the satellite to emit strong radio waves. This breakthrough led to the successful development of QPS-SAR, a high-resolution small SAR satellite that is just 1/20th the weight and 1/100th the cost of traditional SAR satellites.



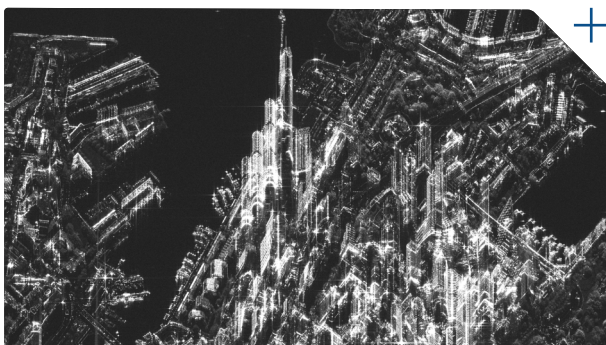
**Sydney City**

Images captured from QPS-SAR-5



**Sydney Harbour Bridge**

Images captured from QPS-SAR-5



**Sydney Central**

Images captured from QPS-SAR-5

To date, eight QPS-SAR satellites have been launched and iQPS aims to establish a constellation of 36 satellites. This will enable the delivery of a "Near-Real-Time Data Provisioning Service," allowing for the observation of specific regions worldwide at an average interval of 10 minutes. This will make it possible to collect continuous images as data, and to accumulate data not only on "Stationary Objects" such as land and buildings, but also on "Moving Objects" such as vehicles, ships, and cattle and livestock.

The data gathered by QPS-SAR constellation has the potential to revolutionize industries and reshape the future. By leveraging insights from moving object data, iQPS can unlock new economic value, enhance urban safety and security, and provide predictive analytics for agriculture, national economies, and regional markets when integrated with weather, market, and economic data. The possibilities are limitless. QPS-SAR also enables swift situational awareness in emergencies. With multiple satellites in orbit, capable of penetrating clouds and plumes, it provides 24/7 monitoring, ensuring rapid assessment and effective countermeasure planning—regardless of weather conditions.

# MISSION PATCH ANATOMY

## 'The Lightning God Reigns'

This patch, named 'The Lightning God Reigns', was inspired by the Japanese lightning god Susanoo. The 'I' in the satellite name SUSANOO-I, signifies IQPS's first entry into a new orbit. For their constellation SUSANOO-I will soon join its 'brothers', TSUKUYOMI-I, the moon god, and AMATERU-I and -II, the sun god, in space.



Mission merchandise can be found on the Rocket Lab Store after launch day.

[rocketlabusa.com/shop](https://rocketlabusa.com/shop)



# LAUNCH SITE OVERVIEW

**Rocket Lab Launch Complex-1**  
Mahia, New Zealand



'The Lightning God Reigns' will lift off from Launch Complex 1 on New Zealand's Mahia Peninsula.

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.

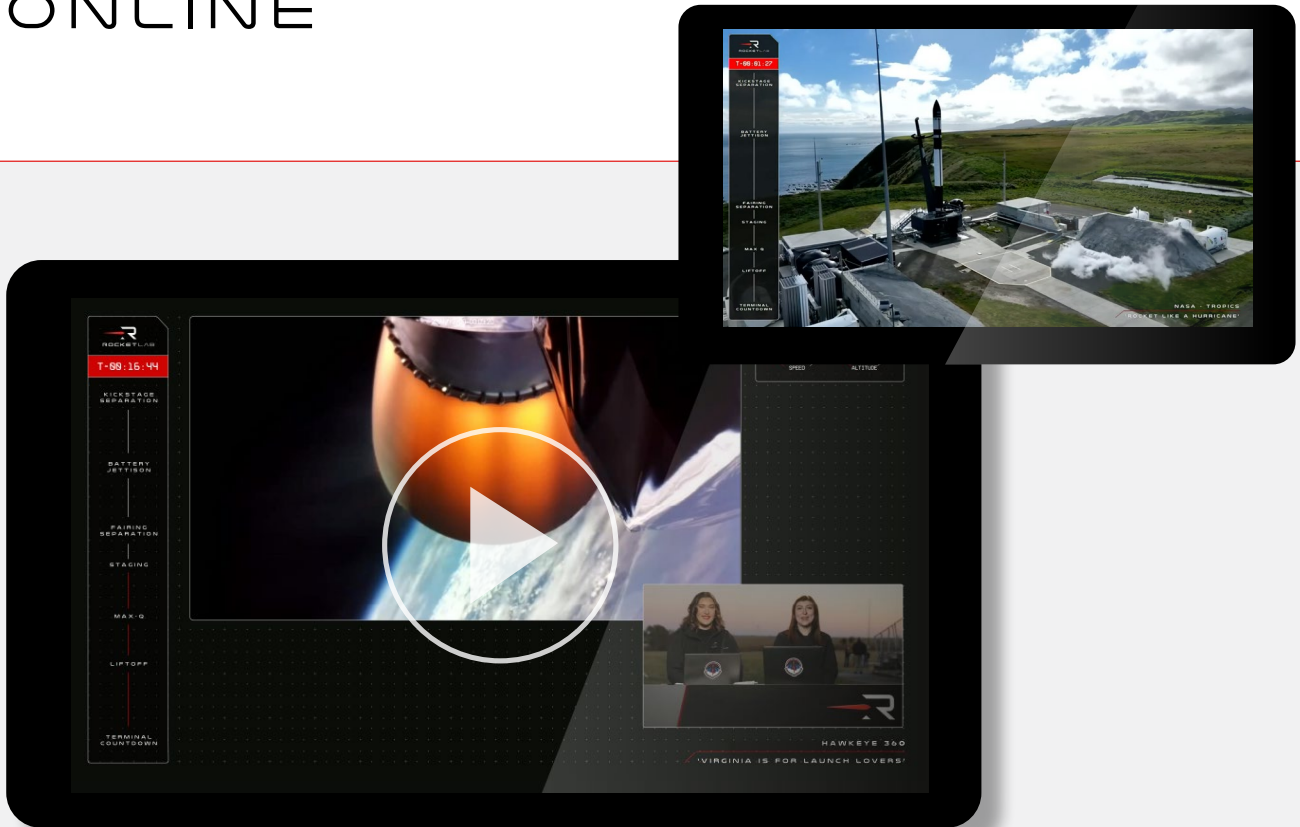


Operating a private orbital launch site alongside its own range and mission control centres allows Rocket Lab to reduce the overhead costs per mission, resulting in a cost-effective launch service for satellite operators.

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 'The Lightning God Reigns' launch will be available shortly after a successful mission at:

[www.flickr.com/photos/rocketlab](https://www.flickr.com/photos/rocketlab)

## UPDATES

For information on launch day visit:

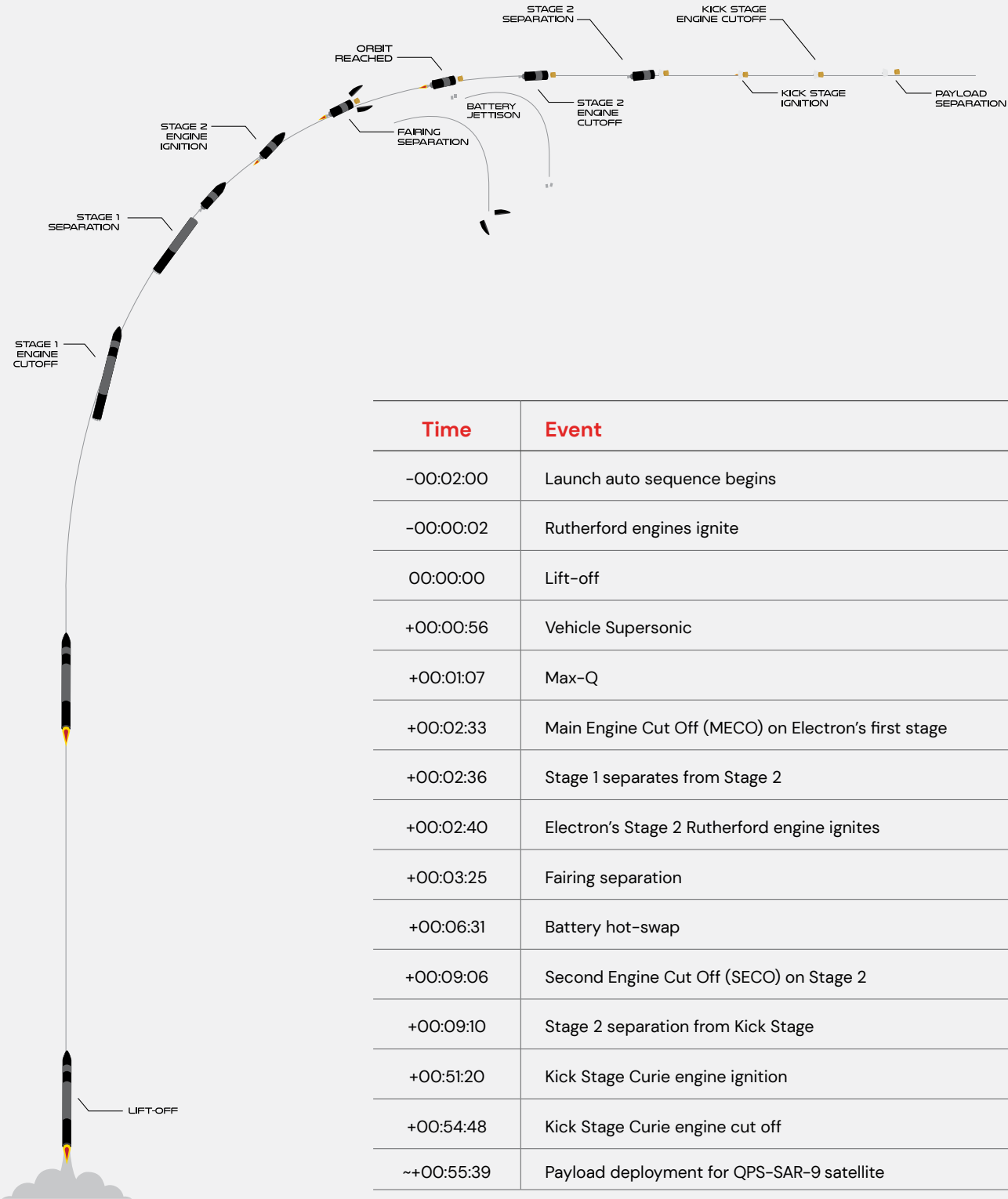
[rocketlabusa.com/next-mission](https://rocketlabusa.com/next-mission)

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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





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