THE MOON GOD AWAKENS

PRESS KIT  |  December 2023

Rocket Lab USA, Inc.
rocketlabusa.com
**LAUNCH INFORMATION**

**LAUNCH SITE**
Launch Complex 1 – Pad B
Mahia, New Zealand.

**DAILY LAUNCH WINDOW OPENS**
Rocket Lab is targeting no earlier than December 15, 2023 UTC with a two hour daily window.

<table>
<thead>
<tr>
<th>Time Zone</th>
<th>Window Open</th>
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<tbody>
<tr>
<td>NZDT</td>
<td>17:00 – 19:00</td>
</tr>
<tr>
<td>UTC</td>
<td>04:00 – 06:00</td>
</tr>
<tr>
<td>EST</td>
<td>23:00 – 01:00</td>
</tr>
<tr>
<td>PST</td>
<td>20:00 – 22:00</td>
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</tbody>
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Back up opportunities are available throughout December.

**ORBIT**
575km
Circular Orbit

**SATELLITES**
1

**INCLINATION**
42 Degrees

**CUSTOMER**
iQPS

Rocket Lab USA, Inc. | Press Kit: 'The Moon God Awakens'
MISSION OVERVIEW

About ‘The Moon God Awakens’

Rocket Lab will launch the TSUKUYOMI-I synthetic-aperture radar (SAR) satellite for Japan-based Earth imaging company the Institute for Q-shu Pioneers of Space, Inc. (iQPS).

‘The Moon God Awakens’ is scheduled to launch from Pad B at Launch Complex 1 in Mahia, New Zealand, and will carry a single satellite for iQPS.

Named after the Japanese God of the Moon, the QPS-SAR-5 satellite “TSUKUYOMI-I” is a synthetic-aperture radar satellite that will collect high-resolution images of Earth. The satellite will join another iQPS satellite in orbit that will ultimately be a 36-satellite constellation capable of monitoring Earth at specific fixed points every 10 minutes.

The mission will be Rocket Lab’s 10th launch of 2023, exceeding our previous annual launch record of nine. ‘The Moon God Awakens’ will be Rocket Lab’s 42nd Electron launch overall.
LAUNCH SITE OVERVIEW

Rocket Lab Launch Complex-1
Mahia, New Zealand

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

For information on launch day visit: rocketlabusa.com/next-mission

Live stream

The live stream is viewable at:
rocketlabusa.com/live-stream

Updates

For information on launch day visit:
rocketlabusa.com/next-mission

Launch footage & images

Images and footage of “The Moon God Awakens” launch will be available shortly after a successful mission at:
www.flickr.com/photos/rocketlab

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-00:02:00 Launch autosequence begins
-00:00:02 Rutherford engines ignite
00:00:00 Lift-off
00:00:55 Vehicle Supersonic
00:01:04 Max-Q
+00:02:40 Main Engine Cut Off (MECO) on Electron’s first stage
+00:02:43 Stage 1 separates from Stage 2
+00:02:46 Electron’s Stage 2 Rutherford engine ignites
+00:03:27 Fairing separation
+00:06:43 Battery hot-swap
+00:09:28 Second Engine Cut Off (SECO) on Stage 2
+00:09:32 Stage 2 separation from Kick Stage
+00:54:13 Kick Stage Curie engine ignition
+00:56:40 Curie engine Cut Off
+00:57:30 Payload Deployed

TIMELINE OF LAUNCH EVENTS
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