

PICS OR IT DIDN'T HAPPEN PRESS KIT JULY 2020



LAUNCHING ON ELECTRON VEHICLE
THIRTEEN: 'PICS OR IT DIDN'T HAPPEN'





ROCKET LAB PRESS KIT

'PICS OR IT DIDN'T HAPPEN' 2020

LAUNCH INFORMATION

LAUNCH WINDOW

4 JULY – 17 JULY, 2020 NZT
3 JULY – 16 JULY, 2020 UTC

LAUNCH SITE

LAUNCH COMPLEX 1
MAHIA PENINSULA, NZ

Daily launch opportunity

09:13 - 10:03 NZT

21:13 - 22:03 UTC

14:13 - 15:03 PT

17:13 - 18:03 ET

Watch the live launch webcast: www.rocketlabusa.com/live-stream.

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

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 **LIFT OFF OF THE DON'T STOP ME NOW MISSION** | June 2020

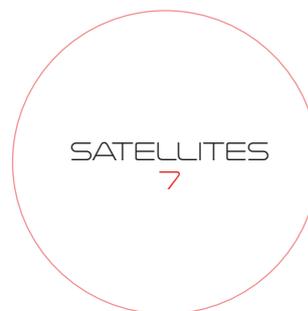
MISSION OVERVIEW

'Pics Or It Didn't Happen' will deploy seven small satellites to a 500km circular low Earth orbit. The mission will be Rocket Lab's 13th Electron launch.

In a demonstration of our rapid launch capability, the launch window for 'Pics Or It Didn't Happen' will open just 21 days after Rocket Lab's most recent launch, the 'Don't Stop Me Now' mission which launched from LC-1 on 13 June UTC.

With a full Electron rocket produced every 18 days, a satellite manufacturing division, and two operational launch pads with a third on the way – Rocket Lab is putting small satellites in space faster and easier than ever before.

TARGET ORBIT INFORMATION





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PAYLOADS ONBOARD 'PICS OR IT DIDN'T HAPPEN'



The primary payload aboard this mission, Canon Electronics Inc.'s CE-SAT-IB, was procured by satellite rideshare and mission management provider Spaceflight Inc. The mission objective for the CE-SAT-IB satellite is to demonstrate Canon Electronics Inc.'s Earth-imaging technology with high-resolution and wide-angle cameras, as well as test the microsatellite for mass production.



The next five satellites manifested on this mission are the latest generation of SuperDove satellites manufactured by Planet, operator of the world's largest constellation of Earth-observation satellites. Planet's satellites are capable of imaging the Earth's entire landmass on a near-daily basis. This unprecedented dataset helps researchers, students, businesses and governments discover patterns, detect early signals of change, and make timely, informed decisions. These five SuperDoves, Flock 4e, are equipped with new sensors to enable higher image quality with sharper, more vibrant colors and accurate surface reflectance values for advanced algorithms and time-series analysis.



The final spacecraft aboard Electron for this mission has been supplied by British small mission prime, In-Space Missions. The Faraday-1 6U CubeSat is a hosted payload mission providing a low-cost route to orbit for start-ups, institutions, and large corporate R&D groups. In addition, it provides a first flight demonstration of In-Space's own software-defined payload that will enable uploadable payload capabilities on future missions. Faraday-1 is the first flight of the Faraday service with four future satellites already under contract.



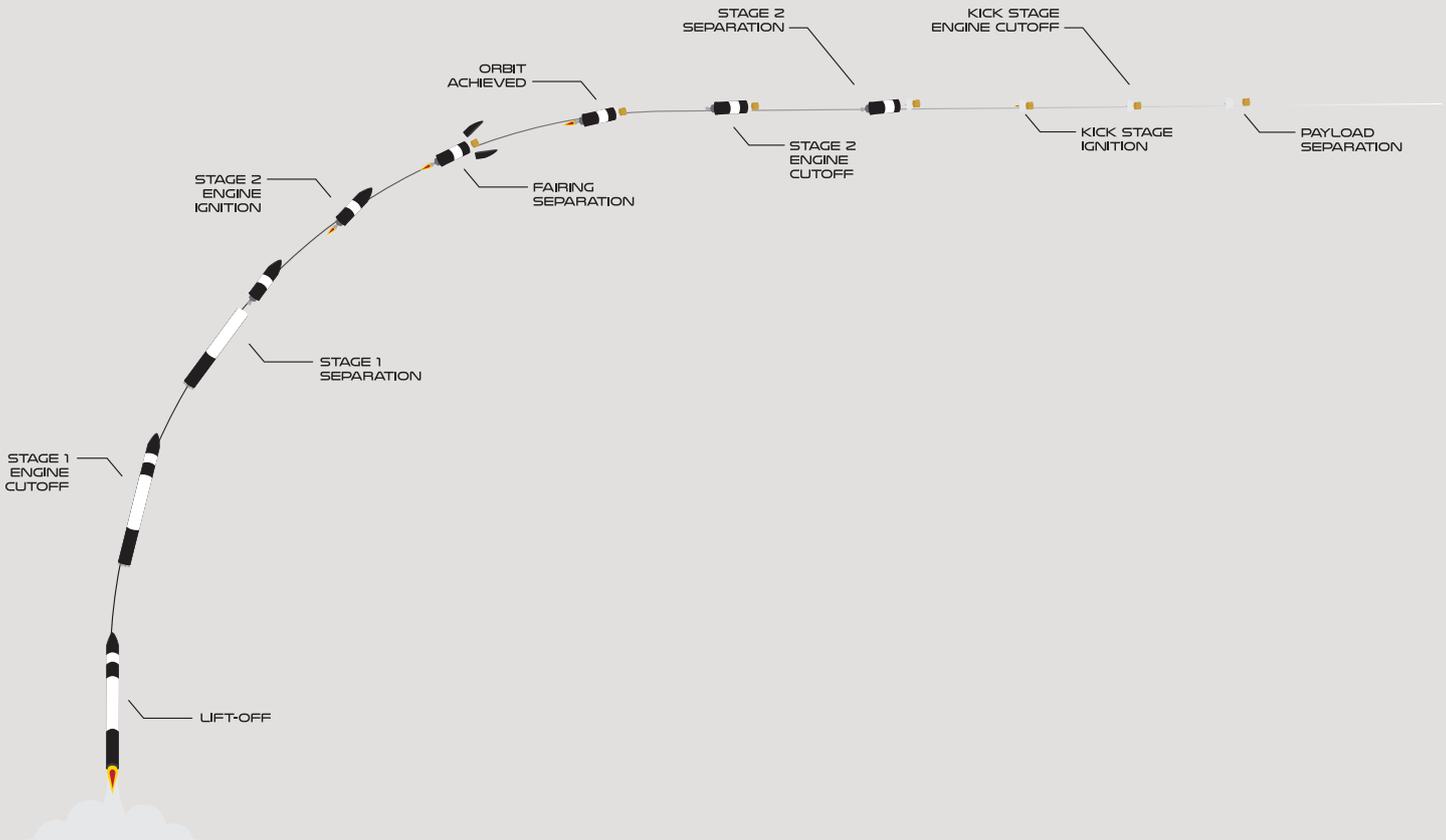
○ CANON ELECTRONICS INC.'S CE-SAT-IB



○ PLANET SUPERDOVES BEING INTEGRATED WITH ROCKET LAB MAXWELL DISPENSERS

TIMELINE OF EVENTS

| | EVENT |
|------------|--|
| -06:00:00 | Road to the launch site closed |
| -04:00:00 | Electron is raised vertical, fueling begins |
| -02:30:00 | Launch pad personnel exit area ahead of launch |
| -02:00:00 | Electron filled with liquid oxygen (LOx) |
| -02:00:00 | Safety zones are activated for designated marine space |
| -00:30:00 | Safety zones are activated for designated airspace |
| -00:18:00 | The Launch Director conducts a go/no-go poll of launch operators to confirm Electron is ready for launch |
| -00:02:00 | Launch autosequence begins |
| -00:00:02 | Rutherford engines ignite |
| 00:00:00 | Lift-off |
| +00:02:35 | Main Engine Cut Off (MECO) on Electron's first stage |
| +00:02:38 | Stage 1 separation |
| +00:02:41 | Electron's Stage 2 Rutherford engine ignites |
| +00:03:14 | Fairing separation |
| +00:06:27 | Battery hot-swap |
| +00:08:59 | Electron reaches orbit |
| +00:09:02 | Stage 2 Engine Cut Off (SECO) |
| +00:09:07 | Stage 2 separation from Kick Stage |
| +00:49:39 | The Curie engine on the Kick Stage ignites |
| +00:52:06 | Curie engine cuts off |
| ~+00:60:00 | Payloads deployed |



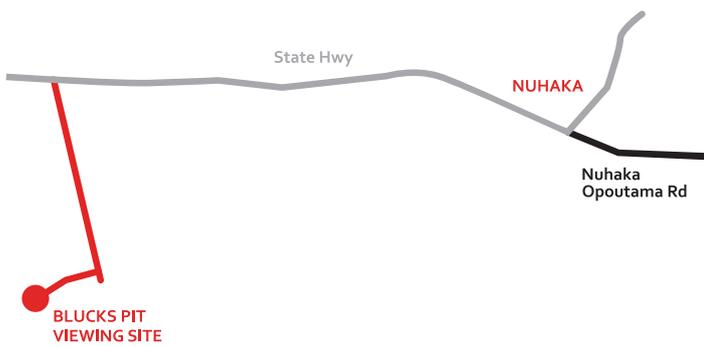


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VIEWING A LAUNCH

VIEWING IN PERSON

Wairoa District Council has allocated a rocket launch viewing area for the public near Nuhaka, accessible via Blucks Pit Road. Visit www.visitwairoa.co.nz/welcome-to-wairoa/space-coast-new-zealand/ for more information. Scrubs and postponements are likely during launch windows, so visitors to the Blucks Pit viewing site should anticipate multiple postponements, sometimes across several days.



● LC-1 LAUNCH VIEWING AREA | Blucks Pit Road, near Nuhaka



● LAUNCH VIEWING AREAS DISTANCE FROM ROCKET LAB LC-1

LIVESTREAM

The best way to view a launch is via Rocket Lab's live video webcast. This offers the best views of launch and includes helpful commentary about the launch process. A livestream will be made available approximately 15 - 20 minutes prior to a launch attempt. Rocket Lab will post links to the webcast when live via Facebook and Twitter. The livestream is viewable at www.rocketlabusa.com/live-stream and Rocket Lab's YouTube channel.



● ROCKET LAB'S LIVESTREAM OF 'DON'T STOP ME NOW' MISSION | June, 2020

LAUNCH FOOTAGE AND IMAGES

Images and video footage of the 'Pics Or It Didn't Happen' launch will be available shortly after a successful mission at www.rocketlabusa.com/news/updates/link-to-rocket-lab-imagery-and-video

Images and footage of previous Rocket Lab launches can also be found at that link.

SOCIAL MEDIA

For real time updates on the launch follow the Rocket Lab Twitter page @RocketLab

f @RocketLabUSA t @RocketLab

CONTACTS

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500KM

The circular orbit targeted for this mission.

-3

The number of seconds in the countdown to lift-off when Electron's nine Rutherford engines ignite.

7.0

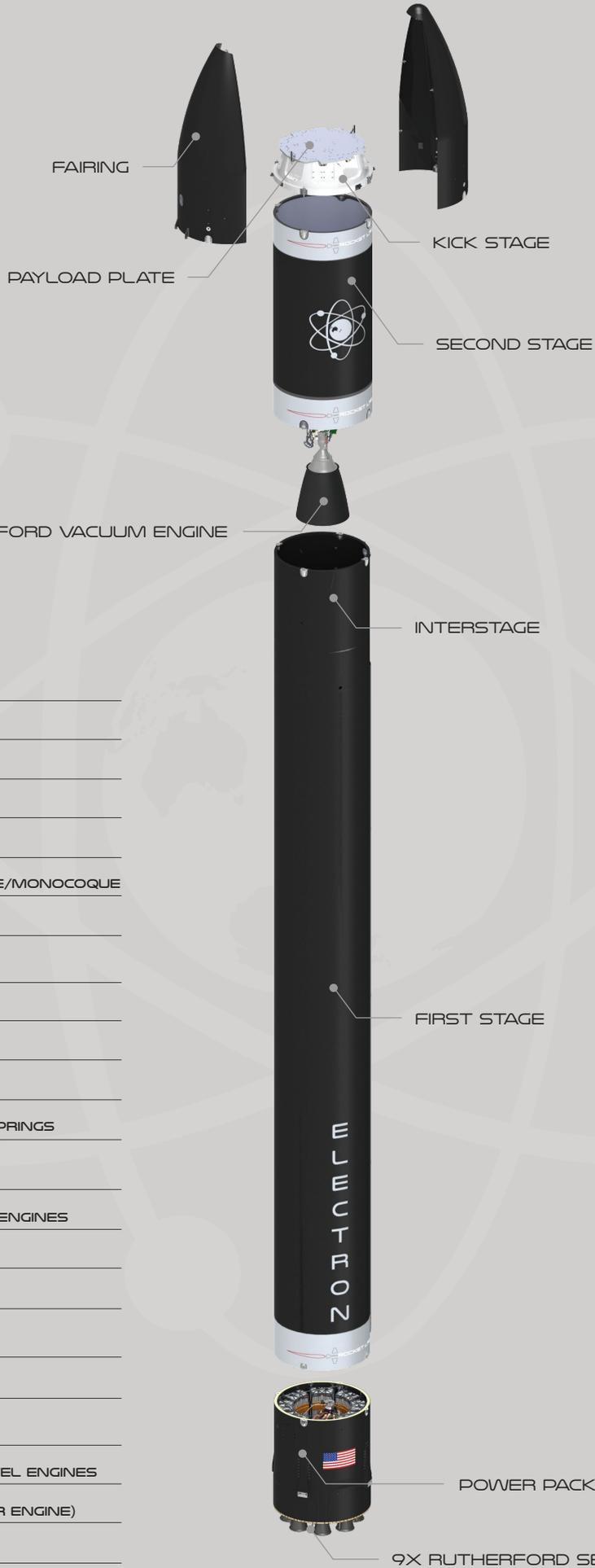
How many payloads are on Electron.

540

The approximate number of seconds before Electron reaches orbit.

THE ANATOMY OF A MISSION PATCH

ELECTRON



OVERALL

LENGTH
17M

DIAMETER (MAX)
1.2M

STAGES
2 + OPTIONAL KICK STAGE

VEHICLE MASS (LIFTOFF)
13,000KG

MATERIAL/STRUCTURE
CARBON FIBER COMPOSITE/MONOCOQUE

PROPELLANT
LOX/KEROSENE

PAYLOAD

NOMINAL PAYLOAD
150KG TO SSO

PAYLOAD DIAMETER
1.08M

PAYLOAD HEIGHT
1.91M

FAIRING SEP SYSTEM
PNEUMATIC UNLOCKING, SPRINGS

STAGE 2

PROPULSION
1X RUTHERFORD VACUUM ENGINES

THRUST
5500 LBF VACUUM

ISP
343 SEC

INTERSTAGE

SEPARATION SYSTEM
PNEUMATIC PUSHER

STAGE 1

PROPULSION
9X RUTHERFORD SEA LEVEL ENGINES

THRUST
5500 LBF SEA LEVEL (PER ENGINE)

ISP
311 SEC

9X RUTHERFORD SEA LEVEL ENGINES



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