

# I CAN'T BELIEVE IT'S NOT OPTICAL PRESS KIT AUGUST 2020

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LAUNCHING ON ELECTRON VEHICLE  
FOURTEEN: 'I CAN'T BELIEVE IT'S NOT OPTICAL'





# ROCKET LAB PRESS KIT

## 'I CAN'T BELIEVE IT'S NOT OPTICAL' 2020

### LAUNCH INFORMATION

#### LAUNCH WINDOW

25 AUG - 8 SEPTEMBER  
NZT / UTC

#### LAUNCH SITE

LAUNCH COMPLEX 1, PAD A  
MAHIA PENINSULA, NZ

#### Daily launch opportunity

NZT : 15:05– 19:05

UTC: 03:05 – 07:05

PT: 20:05 – 00:05 (19/20 August)

ET: 23:05 – 03:05 (19/20 August)

Watch the live launch webcast:  
[www.rocketlabusa.com/live-stream](http://www.rocketlabusa.com/live-stream).

For information on launch day visit  
[www.rocketlabusa.com/next-mission/](http://www.rocketlabusa.com/next-mission/)

#### Follow Rocket Lab:

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● ROCKET LAB'S MISSION  
PATCH FOR 'I CAN'T BELIEVE  
IT'S NOT OPTICAL'



● CAPELLA SPACE'S MISSION  
PATCH FOR 'I CAN'T BELIEVE  
IT'S NOT OPTICAL'



● FAIRING FOR THE 'I CAN'T BELIEVE IT'S NOT  
OPTICAL' MISSION | August 2020

### MISSION OVERVIEW

'I Can't Believe It's Not Optical' is a dedicated mission for Capella Space, an information services company providing Earth observation data on demand.

Capella's payload, 'Sequoia', is a single 100 kg class microsatellite which will be the first publicly available satellite in the company's commercial Synthetic Aperture Radar (SAR) constellation. By positioning the satellite to a 45-degree inclination, Capella Space will maximize coverage over important areas such as the Middle East, Korea, Japan, Europe, South East Asia, Africa, and the U.S.

The mission name is a nod to Capella's SAR technology that provides high quality images of the Earth day or night, and in any weather conditions. Capella's space-based radar can detect sub-0.5 meter changes on the surface of the Earth, providing insights and data that can be used for security, agricultural and infrastructure monitoring, as well as disaster response and recovery.

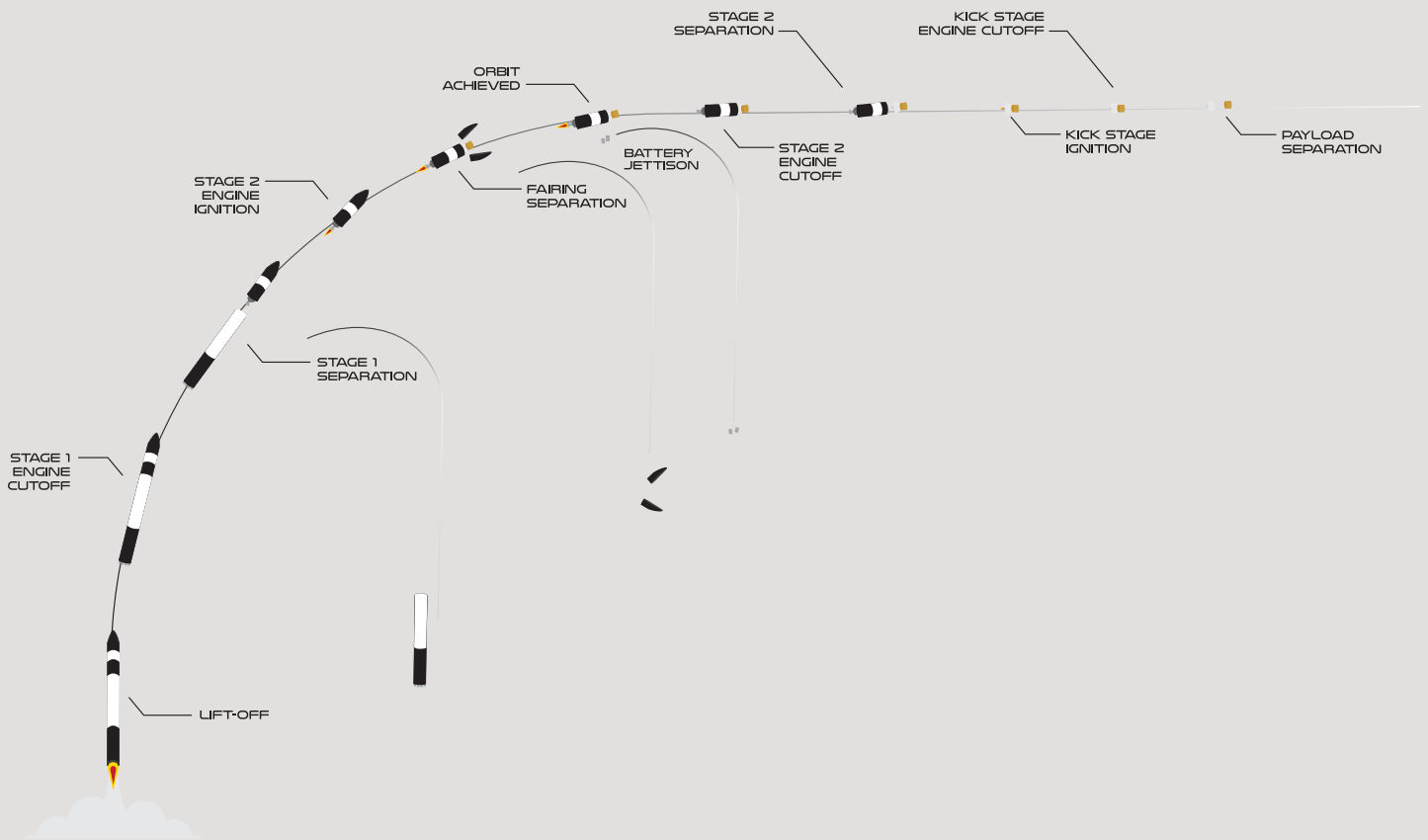
### TARGET ORBIT INFORMATION



# 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
	+00:02:36 Main Engine Cut Off (MECO) on Electron's first stage
	+00:02:39 Stage 1 separation
	+00:02:43 Electron's Stage 2 Rutherford engine ignites
	+00:03:16 Fairing separation
	+00:06:28 Battery hot-swap
	+00:08:52 Electron reaches orbit
	+00:09:01 Stage 2 separation from Kick Stage
	+00:52:52 The Curie engine on the Kick Stage ignites
	+00:55:18 Curie engine cuts off
	~+00:60:00 Payloads deployed

HOURS:MINUTES:SECONDS FROM LIFT-OFF





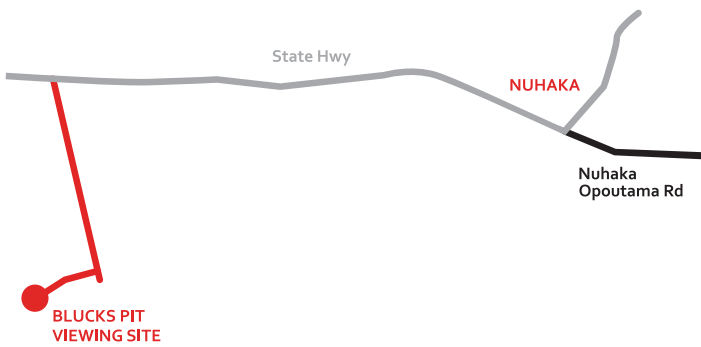
# ROCKET LAB PRESS KIT

## 'I CAN'T BELIEVE IT'S NOT OPTICAL' 2020

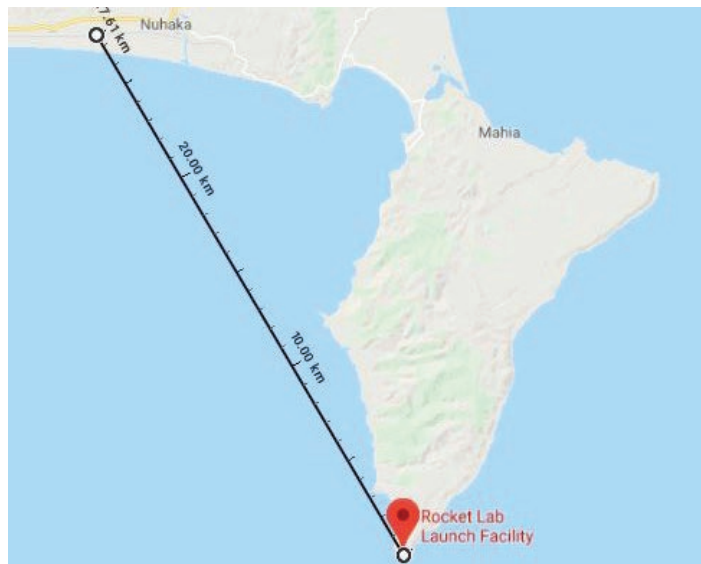
### VIEWING A LAUNCH

#### 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/](http://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.



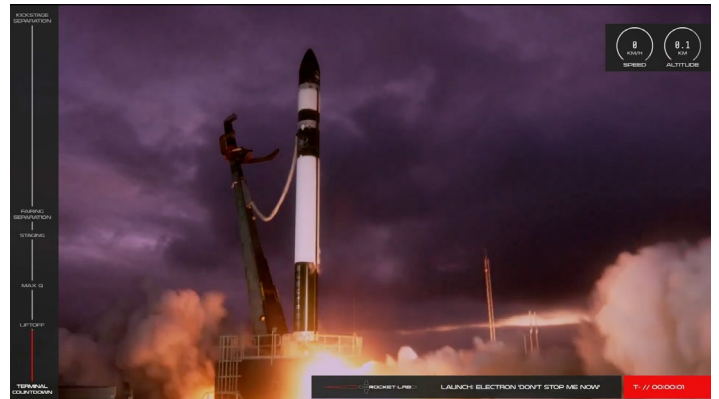
● LC-1 LAUNCH VIEWING AREA | Blucks Pit Road, near Nuhaka



● 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](http://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 'I Can't Believe It's Not Optical' launch will be available shortly after a successful mission at [www.rocketlabusa.com/news/updates/link-to-rocket-lab-imagery-and-video](http://www.rocketlabusa.com/news/updates/link-to-rocket-lab-imagery-and-video)

#### SOCIAL MEDIA

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

f @RocketLabUSA    t @RocketLab

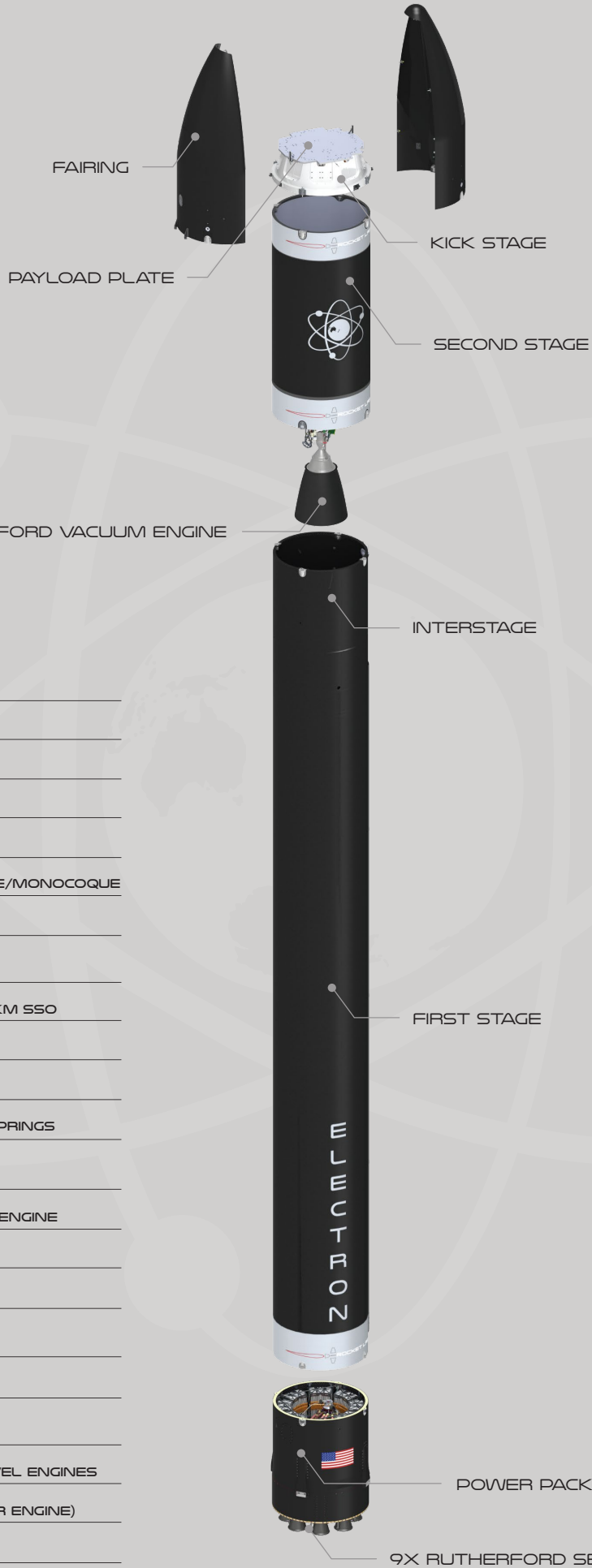
#### CONTACTS

MORGAN BAILEY  
HEAD OF COMMUNICATIONS

☎ +64 27 538 9039

✉ [m.bailey@rocketlab.co.nz](mailto:m.bailey@rocketlab.co.nz)

# ELECTRON



## OVERALL

**LENGTH**  
18M

**DIAMETER (MAX)**  
1.2M

**STAGES**  
2 + KICK STAGE

**VEHICLE MASS (LIFTOFF)**  
13,000KG

**MATERIAL/STRUCTURE**  
CARBON FIBER COMPOSITE/MONOCOQUE

**PROPELLANT**  
LOX/KEROSENE

## PAYLOAD

**NOMINAL PAYLOAD**  
200KG / 220LBM TO 500KM SSO

**PAYLOAD DIAMETER**  
1.08M

**PAYLOAD HEIGHT**  
1.91M

**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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## CONTACT US

[rocketlabusa.com](https://www.rocketlabusa.com)  
[+64 9 373 2721](tel:+6493732721)  
[enquiries@rocketlabusa.com](mailto:enquiries@rocketlabusa.com)

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