ROCKET LAB INTRODUCTION

JULY 2016
THE COMPANY

• US Company HQ in LA (115,000 sq ft factory)
• 5 Sites in the US and NZ
• Fully vertically integrated in house
• First private company to reach space in southern hemisphere 2009
• Over 80 successful sounding rocket launches
• 10 year history building complex systems
FACILITIES

Rocket engine test cell

Mission Control

Stage test facility

Rocket Assembly line

NZ launch site

Chatham Island tracking site
WORLD CLASS TEAM

• 120 engineers
• 25% PhD's
• Global team and experience across multiple launch vehicles
• All disciplines: electronics, GNC composite, propulsion, structures, testing, materials......
SMALL PAYLOAD ACCESS TO SPACE

- Dedicated Small US Launch Vehicle
- Single satellite or multiple satellite deployments
- Orbital test launches complete by Year End 2016
- Full commercial manifest beginning 2017
- NASA Venture Class Launch Services (VCLS)
- Actively booking future dedicated launches and rideshare campaigns
To Fix Space Two things are needed

**COST REDUCTION:**
Cost per kg is not a relevant measure. Total cost to orbit is what counts.

**INCREASED LAUNCH FREQUENCY:**
Currently typical lead-times to get to orbit are 1 ~ 2 years. You can not be responsive to new market opportunities in those timeframes.
MEET ELECTRON

Dedicated small launcher

• 150kg Payload
• 500Km SSO
• Starting at $4.9m
• Clean sheet design
• Launched weekly
• Mass produced
Payload Module with Apogee Kick Motor

Interstage

Payload Fairing

Stage 2 core Battery Packs

Second Stage with 1 × Rutherford Vacuum Engine

Power Pack (Electron Stage 1 Core) with over 1 Megawatt of battery power

First Stage Trust Module with 9 × Rutherford Sea Level Engines
WHAT’S SPECIAL?

- 100% in house designed and produced
- All carbon composite structures
- State-of-the-art additive manufacturing
- Designed for production and reliability
- AS9100/ISO Compliant
- Dedicated platform launched weekly
POWERED BY RUTHERFORD
FACILITY READY TO GO
Launch vehicles coming together
GETTING IT DONE

- 3 Test vehicles in production
- Final qualification testing underway
- 1st stage qualification testing next month
- Scaling for commercial manifest production
THE RANGE PROBLEM

• US ranges struggle to support high frequency launches

• The best way to support high frequency launch is to build your own range

• The reason we are in NZ is because of the range

• All orbital planes from sun sync to 38° from one NZ launch range

• Worlds first FAA non-federal commercial launch range
GROUND STATION
CHATHAM ISLANDS

• 5.5 m & 3.7 m Antennae pads poured & cured
• Earthworks & fencing complete
• Electrical grounding, conduit & cable trays complete
• 20 ft container, network & generator commissioned
• 5.5m dish commissioned and functionally tested
• Very challenging place to do anything
U.S. DOMESTIC RANGE CAPABILITY

• Allows launch campaigns from NASA launch sites, Federal Government, Alaska Spaceport
• NASA Commercial Space Launch Agreement (CSLA) executed
• Meet DoD Responsive Space and Urgent Need requirements
• Electron complies with U.S. range FAA launch and safety requirements
PLUG IN PAYLOADS

- Fully encapsulated payloads for booster plug-in
- Can be encapsulated by the customer
- Rapid integration to flight (hours)
- Payload can be stored for extended periods ready for launch