BLUSHIFT AEROSPACE

The “Uber” to Space

January 31, 2021: First commercial launch of rocket powered by biofuel in the world

Stardust 1.0 Was A Historic Success

Problem with Rockets

- Complex
- Expensive
- Dangerous

Problems for Small Satellite Launch

Only have "Trains & Buses" to Space

- Lack launch & orbit control
- Launch delays common
- Man-rated mission costs

Over budget, behind schedule: NASA's SLS megarocket faces congressional review

By Elizabeth Howell March 17, 2020

"Not having to fly on NASA primary missions really opens up the materials and experiments that can be done. You would see customers trade losing precious scheduling time just to be allowed to use alternative materials not allowed on man-rated missions. All customers would appreciate this flexibility."

- Justin Treptow
  Launch Integration Engineer
  NASA

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Academic Researchers Underserved

- Most rideshares add ‘man-rated’ mission additional costs
- Launch delays of months to years means students often graduate before their launch
- 50% payloads want “polar orbit” trajectories
- Will pay up to 25% more for dedicated launch

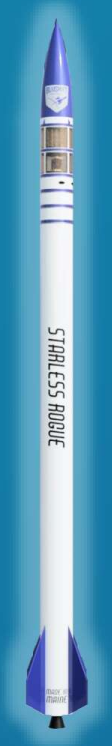
“For CU-E3 [CubeSat] I would estimate that 40% of the development by our PM and system engineer could have been avoided had we not needed to do manned mission stuff.”

- Andrew Dahir, U. of CO, Boulder

“I would say between 20 & 30% of development time is consumed to meet the extra safety requirements considering all the testing, verification, and licensing.”

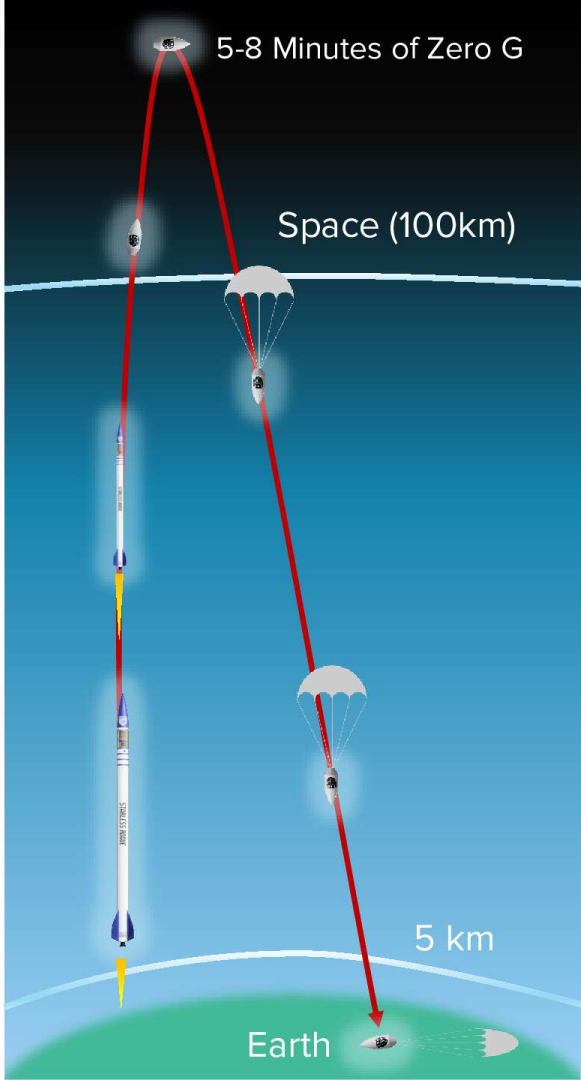
- Michael Fernandez, CalPoly

Sub-Orbital Launch Service



Starless Rogue

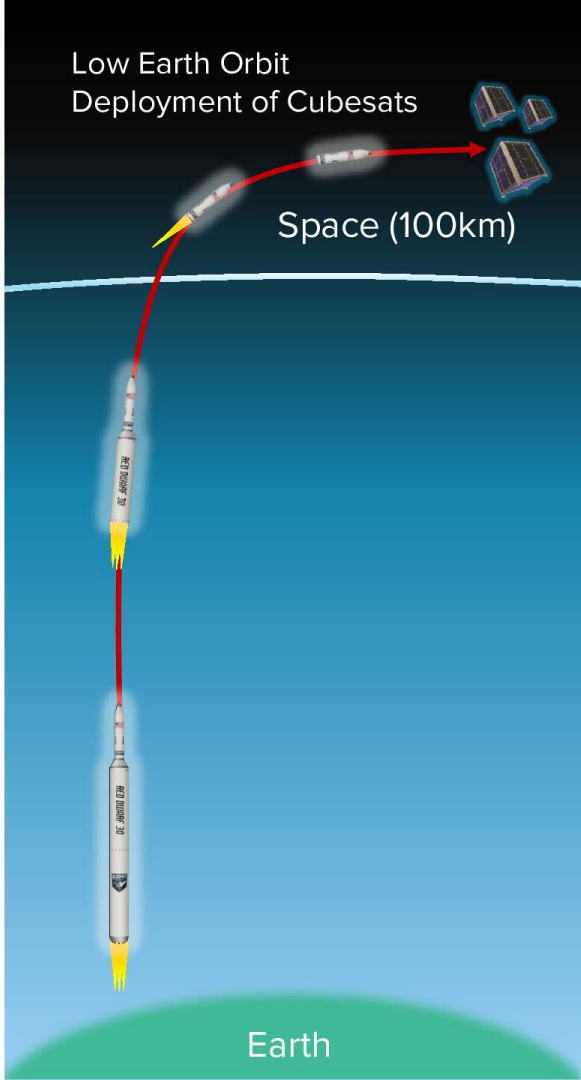
- Twice the Time in Space
- Larger payload area for experiments & research
- Low launch g's reduces payload development costs
- Increase payload success rate by decreased vibrations



Orbital Cubesat Launch Service

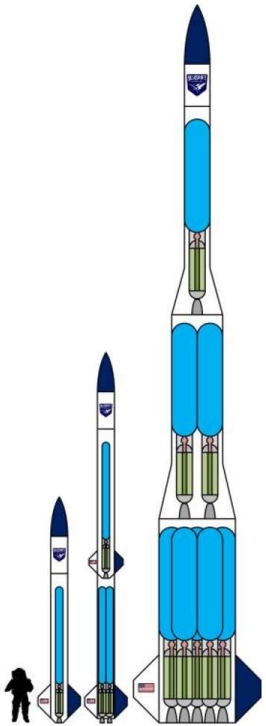
Red Dwarf

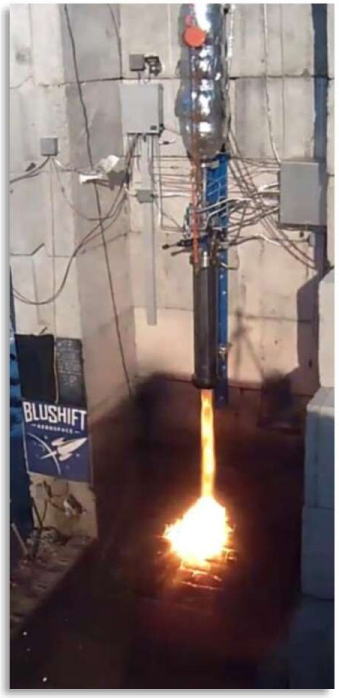
- Truly dedicated launch service for Cubesats (30kg)
- Nano payload customers has control of orbit and timing
- Wider range of payloads permitted than in rideshares
- Less red-tape and lower development costs by up to 40% over man-rated rockets
- Polar orbits available
- Customers willing to pay up to 25% more for dedicated launch

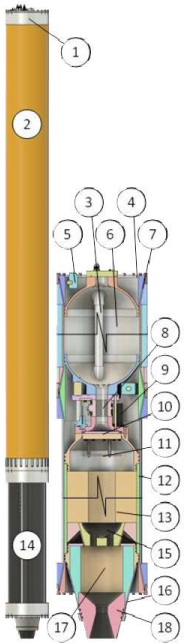


MAREVL™

Modular Adaptable Rocket Engine for Vehicle Launch*







* Developed under NASA SBIR

bluShift's Launch Vehicle Program

- 'Uber to Space'
- Dedicated 30kg Payloads
- Reduce Cubesat R&D costs by up to 40%

bluShift's MAREVL Engine Advantage

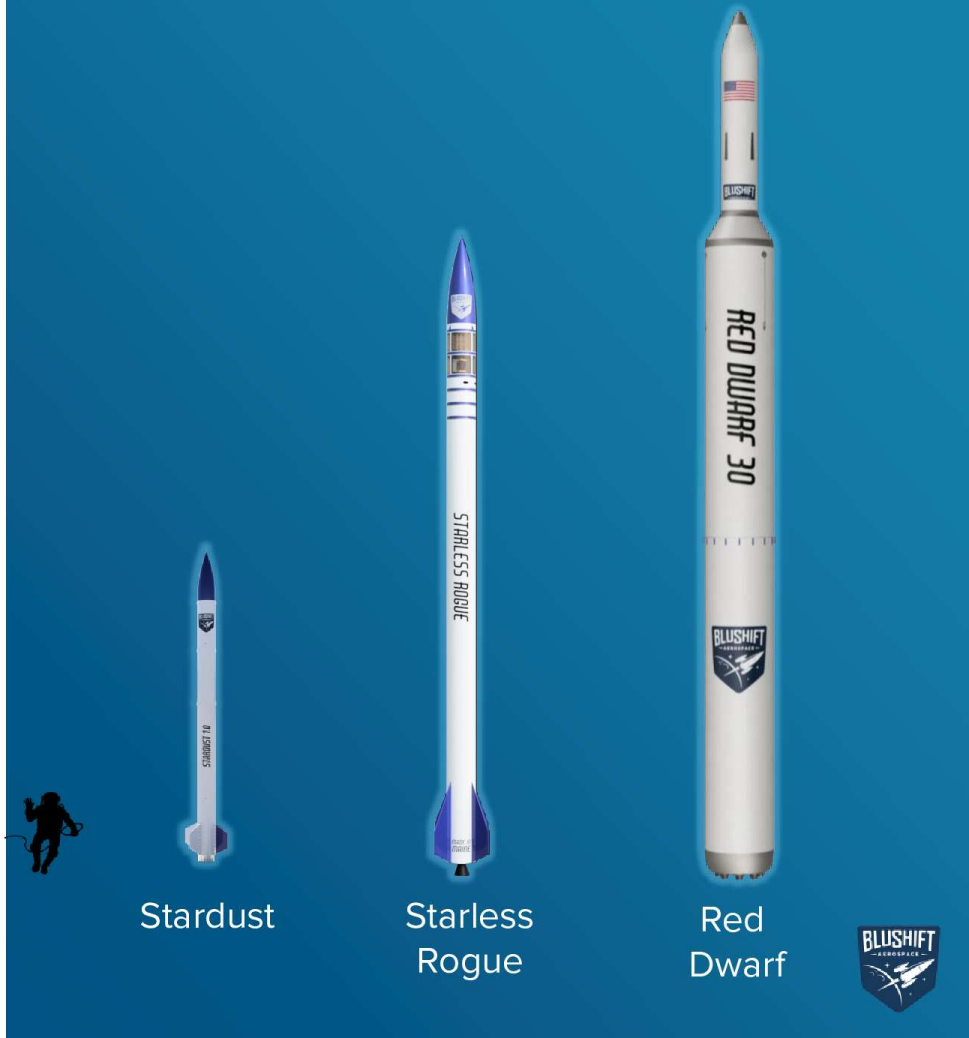
- Half Plumbing Cost/Complexity
- Modularity = Lower Manuf. Cost
- Environmentally Friendly, Safer, Non-Toxic

Sub-orbital & Orbital
Dedicated Launch Services

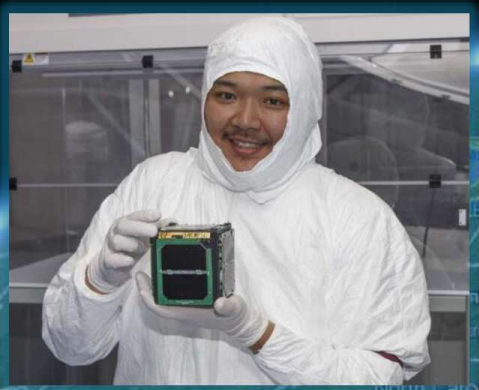
Beachhead Customer
Academic Researchers

30kg payload rocket service provides

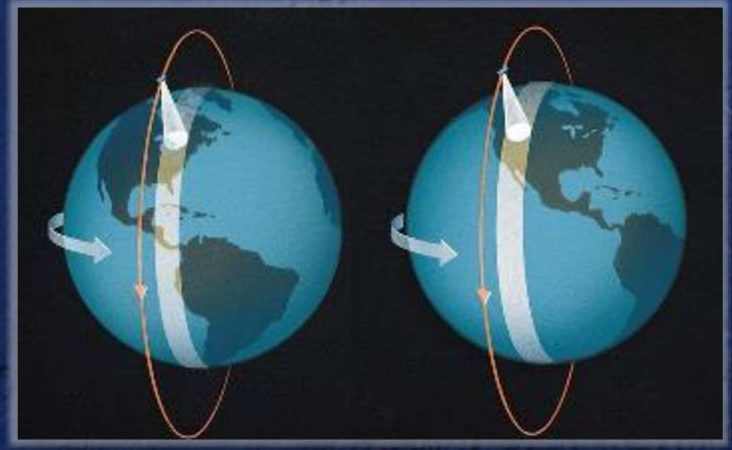
- Reduced launch wait time
  Enables Design, Build, Launch by diploma
- Reduce manuf. & launch costs
  by up to 40%
- Increased flexibility
  on research that can be performed



Maine's Unique Polar Launch Opportunity

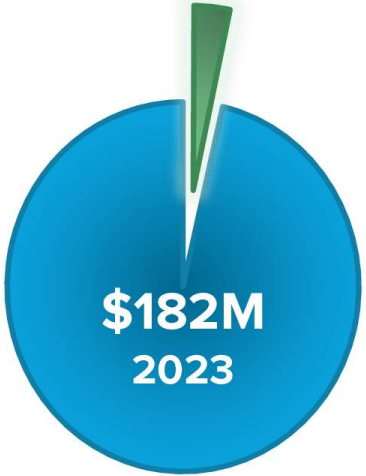


50% CubeSat launches want "polar orbit" trajectories



Commercialization Potential

$1.7M, 1st Year of Sub-Orbital Service (1%)



Sub-Orbital

$12.6M in 2nd Year of Orbital Service (3.7%)

Low Earth Orbit

This slide contains forward-looking projections that are not guaranteed

Sub-Orbital Industry

- Sounding Rockets
  1. Blue Origin (44% of TAM)
  2. Up Aerospace (8%)
  3. Virgin Galactic (potential)
  4. Exos (potential)

- Other Competition
  * High Altitude Balloons
  * Zero-G Aircraft

Cubesat LEO Launch Industry

Commercially Active Competitors

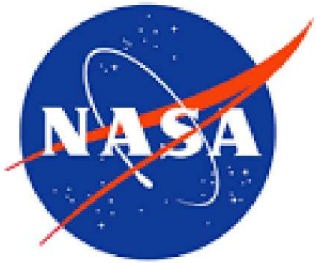
1. Int'l Space Station Launchers
2. RocketLab
3. SpaceX
4. India's PSLV
5. Virgin Orbit

Future

1. Firefly
2. Astra & 100 others…

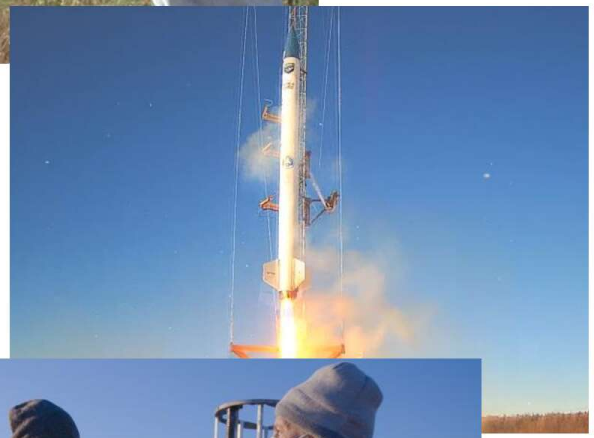
ALL have large rideshares (150-1200kg+) payloads, bluShift is 30kg

Funding to Date



Traction to Date

Stardust 1.0 Launch
Former Loring AFB



- Purpose:
  Investor demonstration vehicle
- Secured $100k MTI Matching Loan &
  $100k private capital to fund launch
- Commercial Payload Customers:
  Kellogg's Research Lab
  Rocket Insights, LLC
- Academic Payload Customer:
  Falmouth Maine High School

Business Model

Short Term Funding (6 Months)

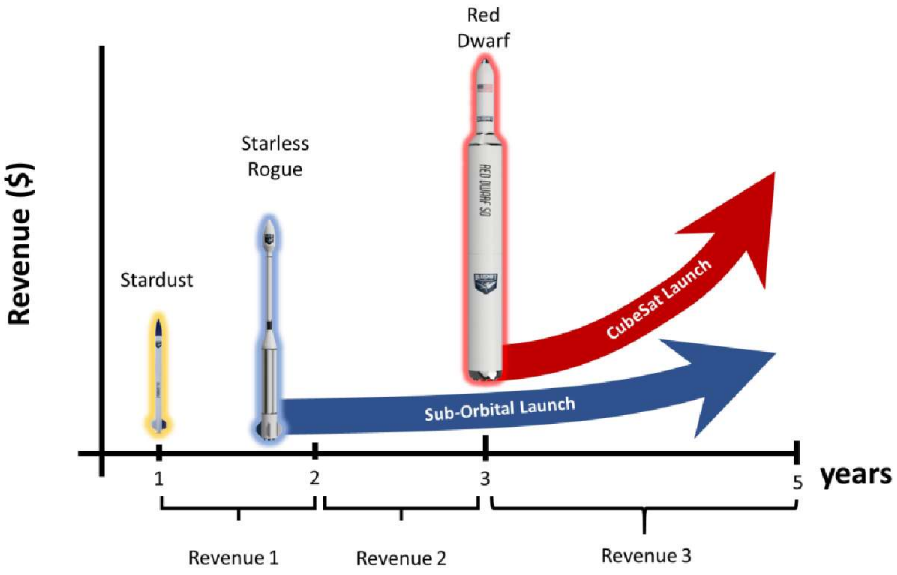
- Federal SBIR Grants
- MTI Matching Loans
- Owner Investment
- Stardust 1.0 Launch Revenue
- Angel Investment ($1.2M Convertible Note)
- Crowd Equity SAFE Note ($1M)

Medium Term (1-3 Years)

- 2nd Private Round ($5.5M Seed Round)
- Sub-Orbital Launch Revenue
- 3rd Private Round ($7.7M Series A)

Long Term (Years 4+)

- Orbital Nanosat Launch Revenue



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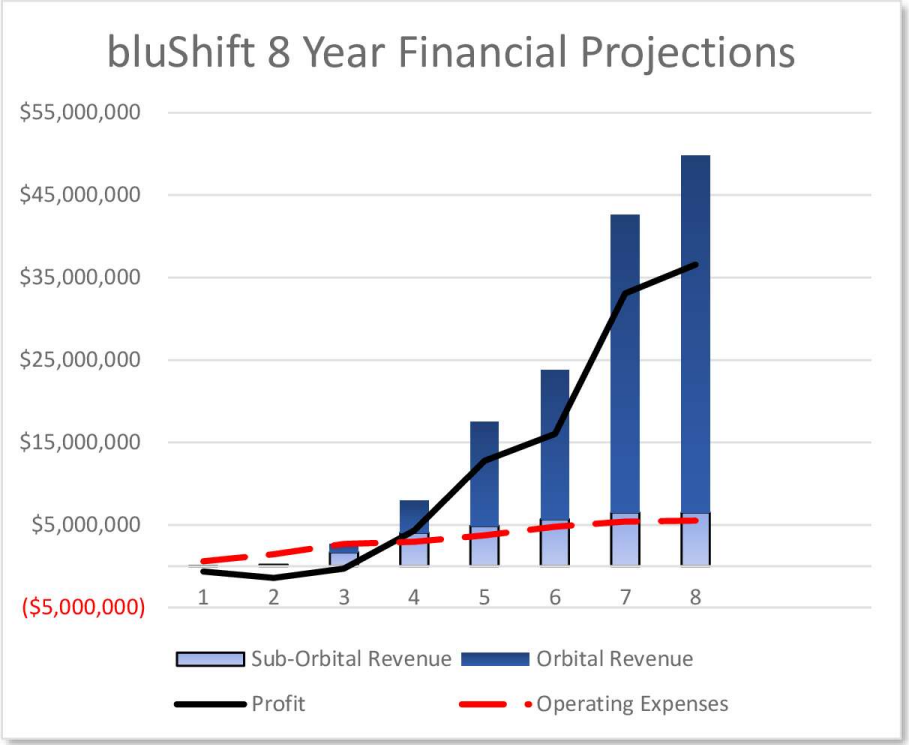


This slide contains forward-looking projections that are not guaranteed

- 2-Phase Revenue Approach
- Cash Flow Positive 4th Year
- Sub-orbital revenue feeds orbital development

Projection assumes:

- 30% of early launches are failures and/or rocket is unrecoverable
- Year 2 is first year of significant revenue with 2-3 suborbital flights at discounted for a full 30kg manifest
- Year 3 at least 2 additional full-commercial sub-orbital flights are expected with increased revenue per flight. A beta flight of the orbital rocket (not to insert to payloads to orbital insertion) is expected with highly discounted rate.
- Year 4 is 5 suborbital launches at full rate, 1 NASA qualifying flight of orbital service at a discounted rate followed by 1 at slightly discounted rate.
- Year 5 is 6 suborbital launches, 7 orbital.
- Year 6 is 7 suborbital, 10 orbital.
- Year 7 is 8 suborbital, 20 orbital.
- Year 8 is 8 suborbital, 24 orbital.

Game Changing Small Launch Costs

	Cost to Competitors	bluShift's Cost	Why?
MAREVL Modular Green Engine Tech	60% More (liquid rocket engines)	40% Savings	Modular, Simpler, Safer
FAA Launch Approval	Year-long headache	Streamlined	Ocean Launch
Launch Range Costs	$250k-$1M/launch	<$50k/launch	Maine Spaceport & Barge Launch
Launch Insurance	20-25% of Launch	10-15%	No People/Property

= $1M-$1.5M Savings Per Launch

Team Members

Sascha Deri

CEO

David Hayrikyan

CTO

Randy Walther

CFO

Bonny Ethridge

Exec. Assistant

Luke Saindon

Senior M.E.

Alex Morrow

Mech. Eng.

Gerard Desjardin

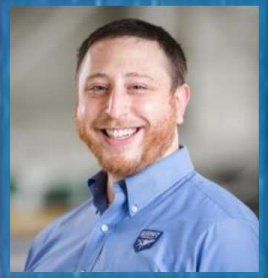
Test Eng.

Philip Molloy

Embedded Controls Eng.

Dan Leclair

RF Eng.



Seth Lockman

Marketing

Betta Stothart

Media Relations

Ben Farmer

Business Dev.

Advisors

Matt Hoffner

Entrepreneurial Advisor, MTI
Investor

Dr Gregory Falco

Space Security Expert
Investor

Jeff Spaulding

Attorney, Eaton Peabody

John Karp

Commercialization Expert
Investor

Dr. David Stickler

Hybrid Rocket Exp, ret. MIT

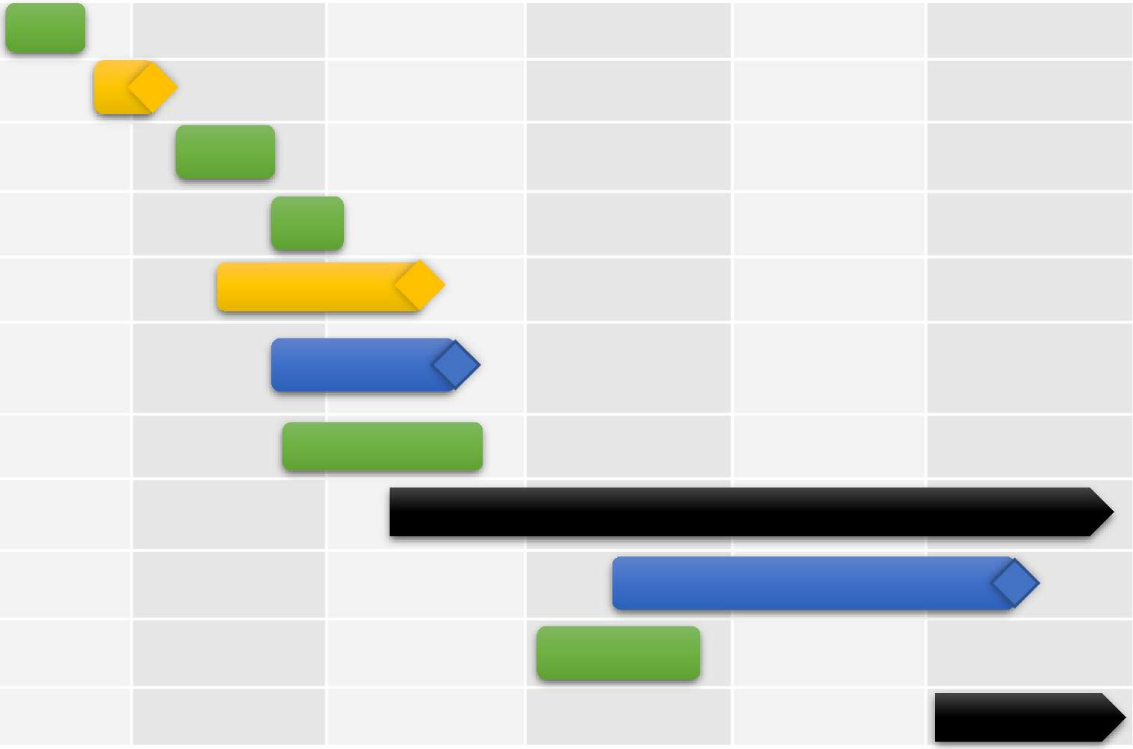
Summary

- $69B Market over 10 Years
- bluShift's MAREVL rocket tech lowers cost to market & production
- 2-Phase market strategy creates revenue early
- Launching to Polar Orbit from Maine meets 50% of TAM needs

This slide contains forward-looking projections that are not guaranteed

Our Timeline

Milestone	2020	2021	2022	2023	2024	2025
$100k Pre-Seed Fundraising **[done]**						
Stardust 1.0 Prototype Launch **[done]**						
$0.5M-1.07M – SAFE Note Round 1						
$2M-$4M – SAFE Round 2						
Starless Rogue β Prototype Launch						
NASA Flight Opportunities Qualifying Suborbital Starless Rogue Launch						
$5.5M Seed Round						
Full Sub-Orbital Launch Services						
NASA Qualifying Orbital Launch						
$7.7M Series A Round						
Nanosat Launch Services						



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We are looking for 8 months of initial investment
to develop the full size
MAREVL Rocket Engine
for the future Starless Rogue
BLUSHIFT
AEROSPACE
Initial $1.07M Crowd Equity Round

Problem

Small payloads ride trains or buses

Opportunity

Provide an Uber to space

bluShift's Solution

"Uber to Space"
Dedicated, low-cost rocket launch service

Market Opp

TAM: $69B by 2030

SAFE Note Round

$1.07M for 5 Months
$18M Max Cap
(Conversion in Seed Round)

SAFE Round 2 (and possibly 3+)
$2M: Q3, '21, ~$2M: Q2, '22
Seed Round
$5.5M: Q3, '22
Series A
$7.7M: 2H, '23 – 1H, '24

Financials

Cash Flow Positive: 4th Yr
Net Margin: 50% in 7 Yrs

Team

- CEO: 22 Years Exp
- Aerospace, Launch, Manufacturing, Test Engineering
- Marketing

Non-Dilutive Prior Funding

NASA

mti Maine Technology Institute

Sales Strategy

- 2-Phase: Sub-orbital & orbital
- Beachhead Customer: NASA-funded researchers
- Payload Brokers, Direct Sales

This slide contains forward-looking projections that are not guaranteed

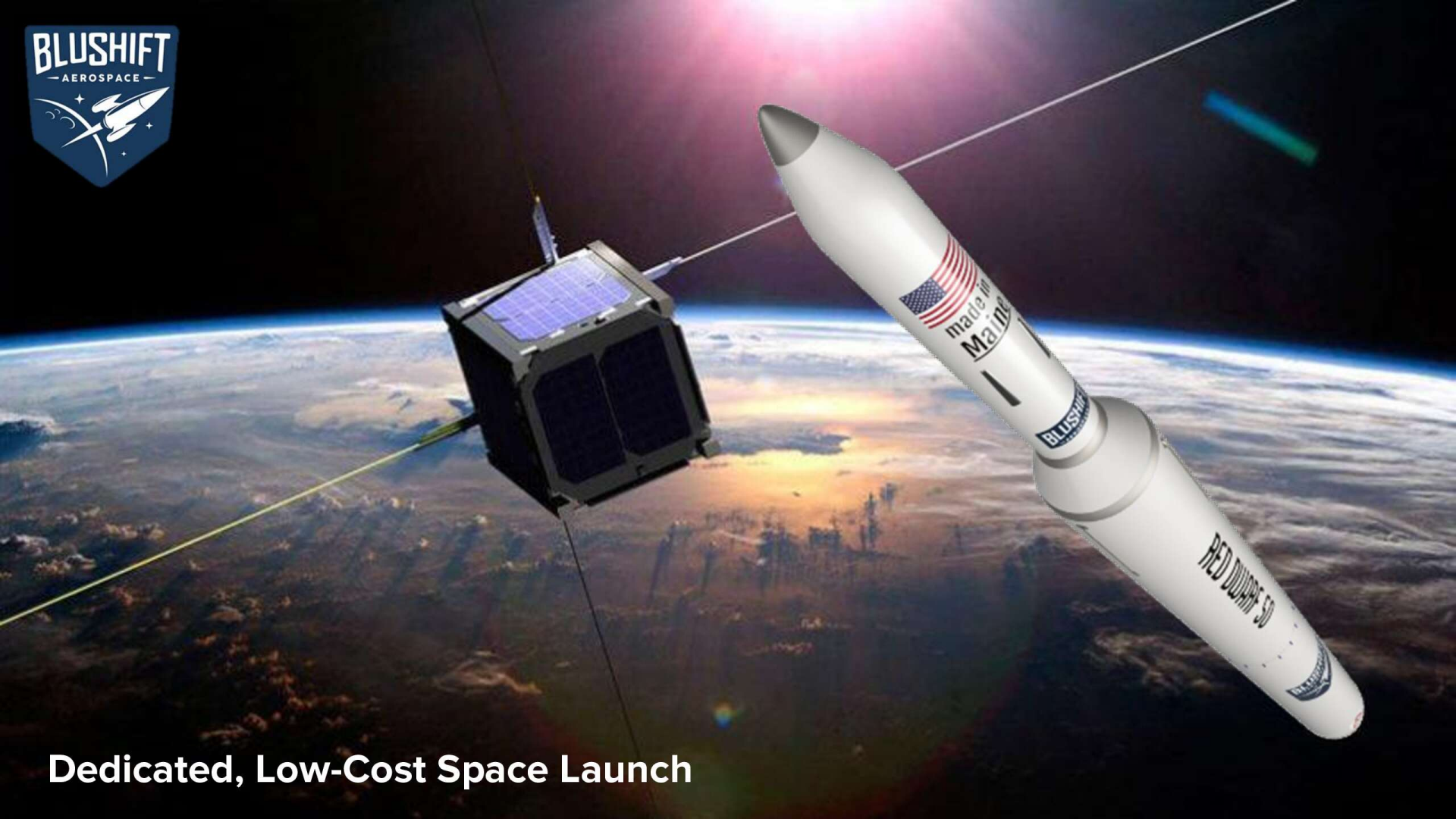
Green Nano Space Launch

Bonus Slides

Next-Generation Suborbital Researchers Conference, 2020

Customer Acquisition

- Business Development Hire (done)
- State space grant consortiums
- Qualify for NASA Flight Opp.
- Qualify for NASA Cubesat Launch Initiative
- Solicit College Space Programs
- Promote at NSRC Conference
- Work with Payload Launch Brokers Tyvak and Trisept
- Online Sales (Available Today)



Dedicated, Low-Cost Space Launch

Small Payloads Frustrated by Rideshares

- Customers want an Uber (not train or bus)
- Lack of control as secondary payloads
- Delays costly to burgeoning new businesses & researchers

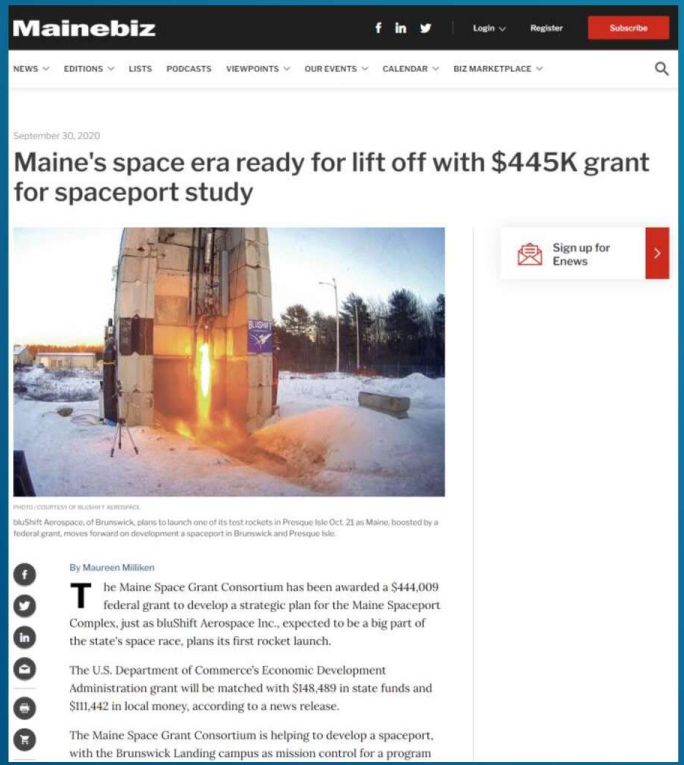
Nanosatellites

- 1 – 10Kg
- “CubeSat” Standard

Academic
- Research
- Technology Demonstrations

Commercial
- Earth Observation
- Communications
- Technology Development

bluShift works with Maine legislature to evaluate a Maine Spaceport



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September 30, 2020

Maine's space era ready for lift off with $445K grant for spaceport study

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bluShift Aerospace, of Brunswick, plans to launch one of its test rockets in Presque Isle Oct. 21 as Maine, boosted by a federal grant, moves forward on development a spaceport in Brunswick and Presque Isle.

By Maureen Milliken

The Maine Space Grant Consortium has been awarded a $444,009 federal grant to develop a strategic plan for the Maine Spaceport Complex, just as bluShift Aerospace Inc., expected to be a big part of the state's space race, plans its first rocket launch.

The U.S. Department of Commerce's Economic Development Administration grant will be matched with $148,489 in state funds and $111,442 in local money, according to a news release.

The Maine Space Grant Consortium is helping to develop a spaceport, with the Brunswick Landing campus as mission control for a program

bluShift honored with honored as the 2019 Innovator of the Year in the Small Company category by Midcoast Regional Redevelopment Authority.

Sascha unveiled bluShift's new vision of specializing in launch services for academics and research, at the 2019 meeting of the Northeast Regional Space Grant Consortia (Newport, RI)