

▶ **Cochise County  
Vertical Launch Facility**

Guiding Arizona From Ground to Space



**Arizona  
Spaceport  
Alliance**

# Project Vision

## **MISSION**

To establish a regional vertical launch facility developed for satellite launch vehicles not exceeding small-lift launch capabilities.

## **VISION**

A destination small rocket vertical launch facility that complements the Arizona aerospace industry, and provides the small satellite space sector with a reliable and affordable gateway to satellite orbits.

## **VALUES**

Sustainable, Affordable, and Reliable Access to Space

# Objectives YEAR ONE

- » Address Market Opportunity Related to Commercial Space Market in the Arizona Aerospace Industry
- » Commence Discussions with Potential Users of Vertical Launch Facility
- » Analyze Potential Strategies
- » Commence Market Analysis to Determine Feasibility
- » Begin Investigation of Potential Sites
- » Choose Site
- » Begin FAA Licensing Procedures

# Objectives

## YEARS 2 & 3

- » Commence Environmental Analysis
- » Continue FAA Licensing Procedures
- » Obtain FAA License
- » Begin Marketing Campaign Establishing a Regional Option for Satellite Deployment in Cochise County



# Due Diligence

## PROXY 1

### BLUE ORIGIN WEST TEXAS LAUNCH SITE

Corn Ranch (Near Van Horn)  
Culberson County, Texas 79855

# Blue Origin

- » Leadership: Jeff Bezos & Rob Meyerson
- » Commercial Space Transportation License LRLO 17-105
- » FAA Designation: West Texas Launch Site (WTLS)
- » Issued August 17, 2017

## **ONGOING PROJECTS**

- » Engine Testing
- » Suborbital Test Flights
- » New Shepard System (NSS) Spacecraft Research & Development, & Testing

# Blue Origin

## STATISTICS

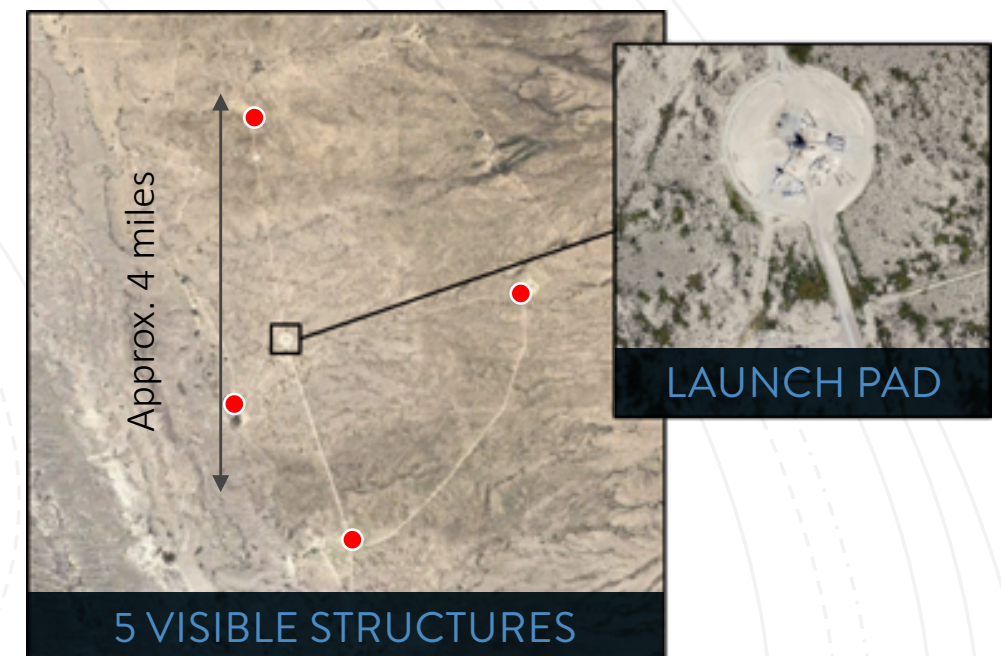
- » 290,000 AC
- » 50 Employees
- » 8 Total Launches
- » 8 Successful Launches
- » First Flight: April 29, 2015

## MISSION

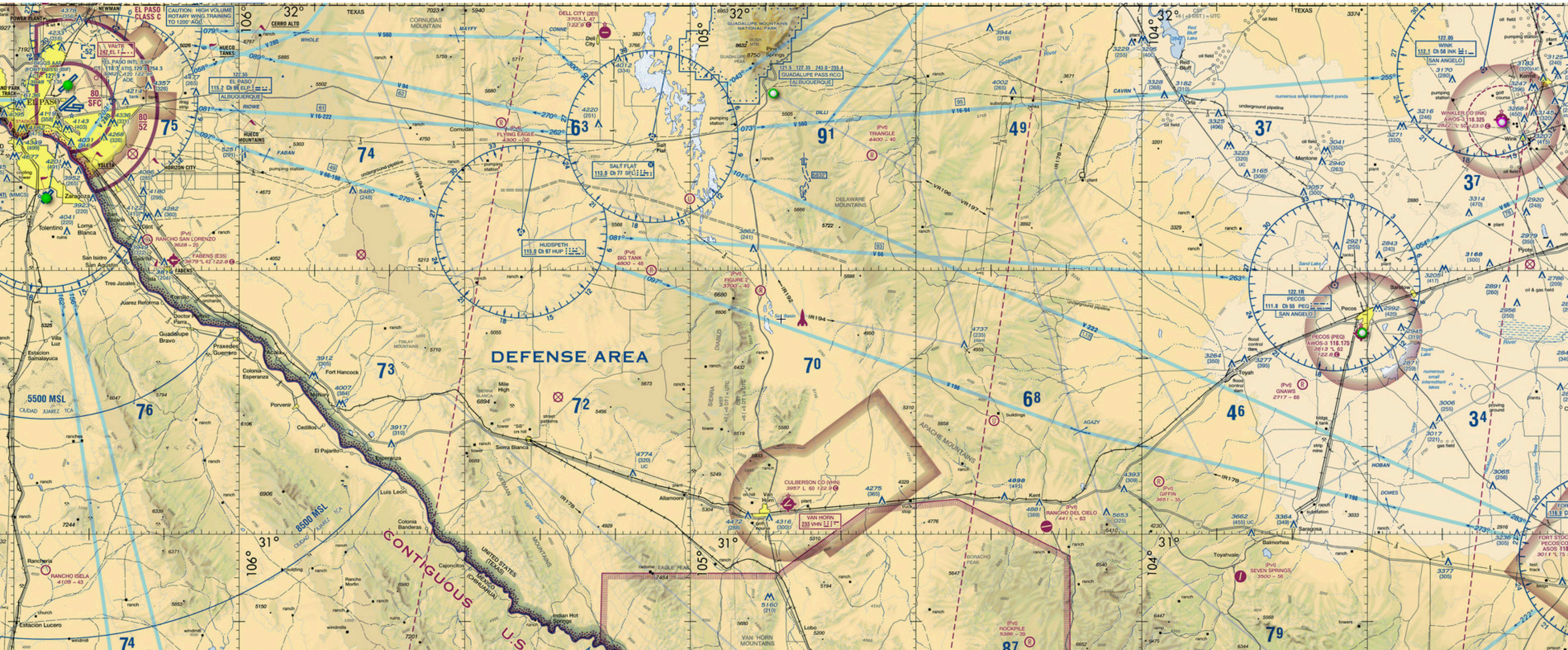
- » VTVL Vehicle (Vertical Takeoff, Vertical Landing)
- » Pressurized Capsule Atop Booster
- » Reusable Capsule and Rocket
- » Space Exploration
- » Resupply Missions
- » Satellite Deployment
- » Space Tourism

# Geography

- » 30 Miles North of Van Horn, TX
- » 150 Miles to El Paso, TX
- » 290,000 AC
- » Unrestricted Air Space
- » Lowest Safe Flying Altitude is approximately 7,000 feet



# Geography





# Due Diligence

## PROXY 2

**SPACEPORT CAMDEN, GEORGIA**

Woodbine

Camden County, Georgia 31569

# Geography

## CAMDEN, GA

- » Camden County Joint Development Authority
- » Georgia Department of Economic Development
- » Georgia Department of Transportation

### **ONGOING PROJECTS**

- » Vector test launch - August 2017
- » Camden Spaceport eliminates the need for commercial space companies to sequence alongside governmental payloads or be saddled with the federal government regulations

# Geography CAMDEN, GA

## STATISTICS

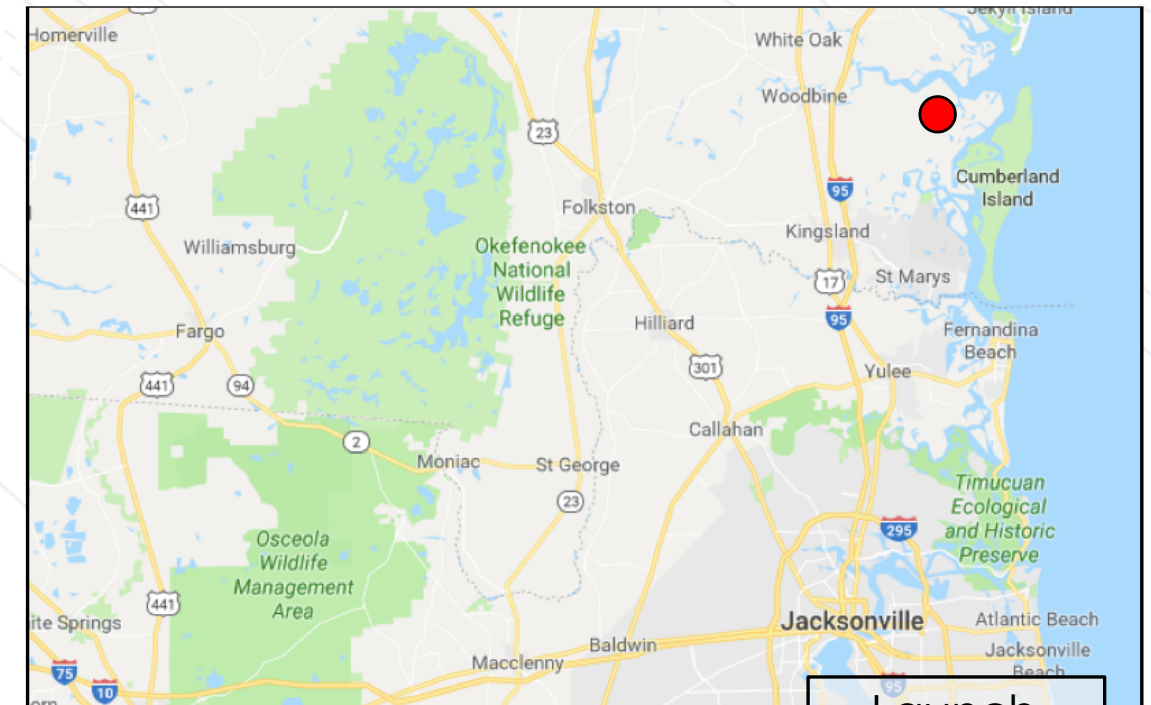
- » 12 proposed launches a year
- » Centralized Geographic Location
- » Largely Rural

## MISSION

- » Launch Innovation-Based Economy
- » Higher Learning & Technical Colleges
- » Education & Career Training
- » Tourism & Community Learning

# Geography

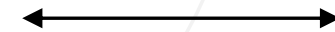
- » 50 miles N of Jacksonville, FL
- » 100 miles to Savannah, GA
- » ±25 AC
- » Unrestricted Air Space
- » Lowest safe flying altitude approx. 1700'



Launch Pad

5 Proposed structures

±1.5 miles





Proposed  
Location





# Due Diligence

## PHYSICAL

### POTENTIAL DEVELOPMENT PARTNERSHIPS

- » State of Arizona
- » Cochise County - Location TBD
- » Small Rocket Launch and Satellite Deployment Company
- » 3 Year Build - Proposed Launch Year - 2021

### SITE DEVELOPMENT

- » Business Development Incentives
- » Suitable Site Acreage, Air Space & Entitlements

# Due Diligence MARKET



**SPACEPORT  
AMERICA®**

- » 101 Vertical Launches
- » 6,000 STEM Students
- » Economic Impact FY 2016 \$20 Million

# Due Diligence MARKET

## GLOBAL SATELLITE MARKET

» \$258.3 Billion

## POTENTIAL PRIVATE PARTNERS



VECTOR



Orbital ATK



» ~27 US Companies

» ~40 International Companies

# Education

## POTENTIAL PUBLIC INSTITUTIONAL PARTNERS

- » Cochise College
- » University of Arizona - South
- » Regional High Schools
- » Arizona State University @ Cochise

# Due Diligence LEGAL

## **EXISTING ENTITLEMENTS**

### **CITY & COUNTY ZONING CONCERNS**

- » Land Acquisition May be Possible within City Limits, but Not Preferable

### **ARCHEOLOGICAL CONCERNS**

- » Requiring Tribal Cooperation
- » Class 1

### **ENVIRONMENTAL CONCERNS**

- » Phase 1
- » Wetland Issues
- » Wildlife Migration Patterns
- » Sensitive Environmental Areas

### **WATER, AIR, AND WASTE ISSUES**

- » ADEQ – Arizona Department of Environmental Quality

# Strategy & Plan

## PRIMARY DISCUSSIONS

- » Explore interest from Small Rocket manufacturers
- » Explore interest from Educational partners
- » Determine possible site locations
- » Conduct detailed Due Diligence
- » Determine feasibility options
- » Explore & begin discussions with adjacent organizations
- » Preliminary & Financing Costs
- » Establish Budget
- » Target Possible Site Acquisition

# Strategy & Plan

## PRECONSTRUCTION PHASE

- » Establish Entitlements – LOIs necessary
- » Acquire Site
- » Acquire Necessary Permitting & Licensing
- » Develop Timeline
- » Establish Project Delivery Method
- » Develop Documentation RFPs and LOIs

## Our Mission, Vision, and Values

ASA is on a mission to establish and support international entry points for space commerce and tourism and support the operation of spaceports in Arizona attracting the international commercial space market to Arizona. ASA's vision is that Arizona spaceports would offer thriving points of entry for commercial space activity coupled with vibrant space tourism opportunities leading to:

### CONNECTIVITY

Global, national and regional space industry networking, cooperation and market access.

### INNOVATION

Forefront of the newest technological and sustainable research and development related to the commercial space sector.

### EDUCATION

Foster and support future generations of the world's space professionals through STEM education in Arizona.



**Arizona  
Spaceport  
Alliance**



KEYSER  
relentless client champion