

Creating a Thriving Space Enterprise on the Central

COMMERCIAL SPACE MASTER PLAN VANDENBERG SPACE FORCE BASE



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Governor's Office of Business
and Economic Development

Space Launch Delta 30
Vandenberg Space Force Base

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Ideas • Action for a Thriving Central Coast



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Overview

1. Who We Are
2. Timeline
3. Economic Impact
 - *Current State*
 - *Forecast*
4. Commercial Space Master Plan
 - *Market Analysis*
 - *Commercial Players*
 - *Assets*
 - *Central Coast Identity*
 - *Vison*
 - *Goals + Objectives*
5. Next Steps



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Who We Are: About the MOU Partners

We are a diverse group of regional, industry, and development leaders that have joined together to advance the development of the Central Coast Space Ecosystem and create economic prosperity in the Central Coast Region.



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Timeline: Our progress

MOU Signed

Mar
2020

Phase 0 Master Plan

Aug
2020

Santa Barbara County
Joins MOU

Jan
2021

VSFB
Economic Impact

May
2021

Phase 1
Master Plan

June
2021



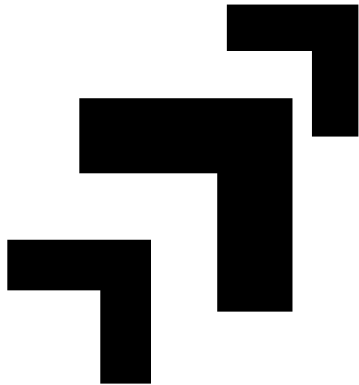
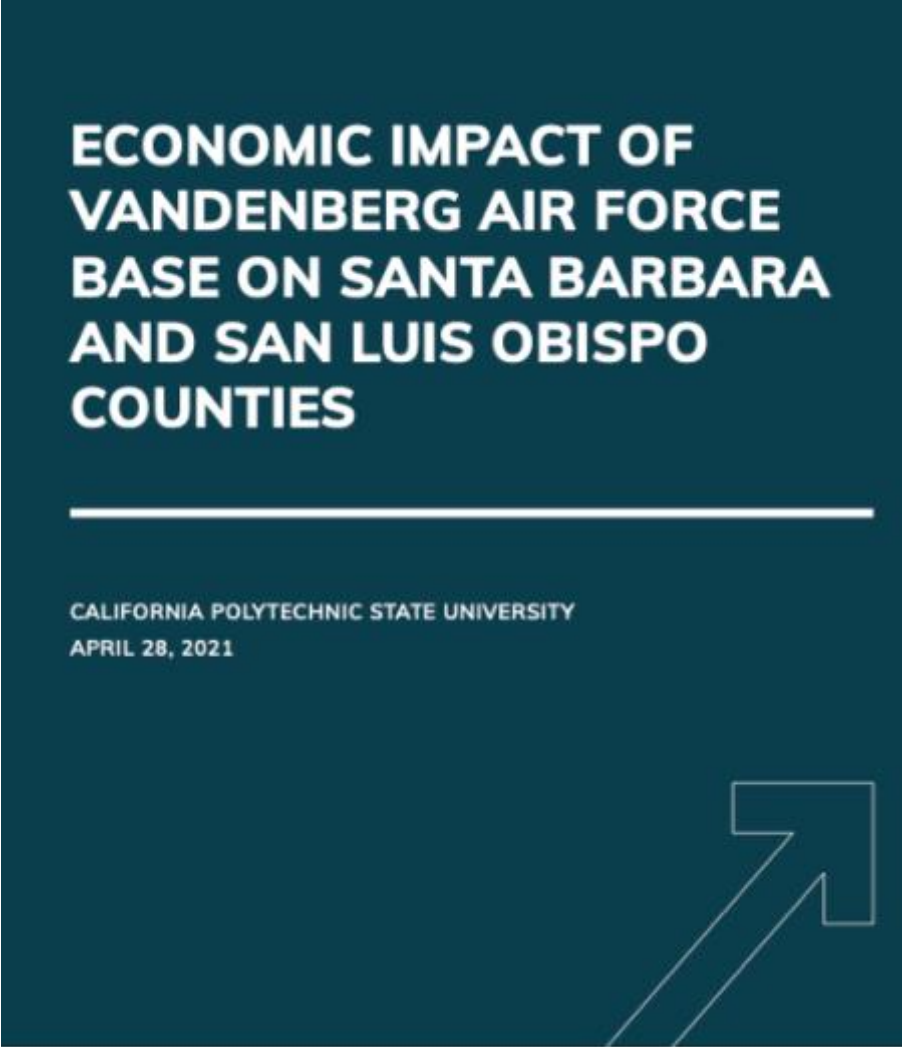
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Economic Impact: Deliverable 1



Economic
Impact
Analysis and
Future
Growth
Forecast

Economic Impact: The Model

ECONOMIC IMPACT MODEL

● + ● = Total Impacts



Economic Impact: Vandenberg Space Force Base

Current State

SANTA BARBARA COUNTY

Average Annual Total Employment (Jobs)



13,497

Average Annual Output (\$)



\$4.7B

CALIFORNIA

Average Annual Total Employment (Jobs)



18,416

Average Annual Output (\$)



\$6.3B

Economic Impact: Vandenberg Space Force Base

Forecast: Commercial Space Expansion

SANTA BARBARA COUNTY

Average Annual Total Employment (Jobs)



15,348

Average Annual Output (\$)



\$5.3B

CALIFORNIA

Average Annual Total Employment (Jobs)



20,899

Average Annual Output (\$)



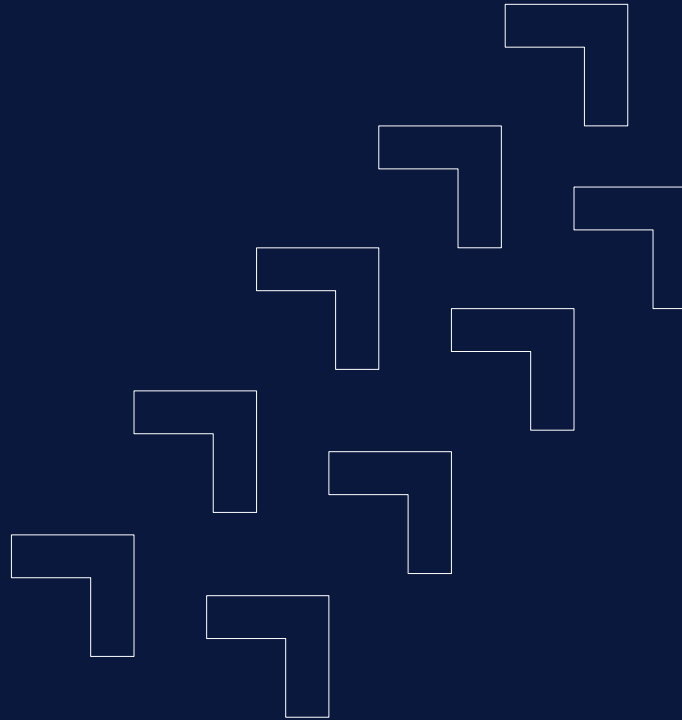
\$7.1B

Santa Barbara County is estimated to add 2,000 high paying jobs and \$1.5B additional economic impact by 2025

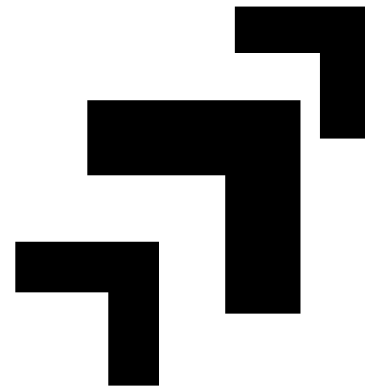
Commercial Space Master Plan: Deliverable

2

**Building A Thriving Space Enterprise
on the Central Coast of California**



Commercial Space Master Plan
Vandenberg Space Force Base
June 2, 2021

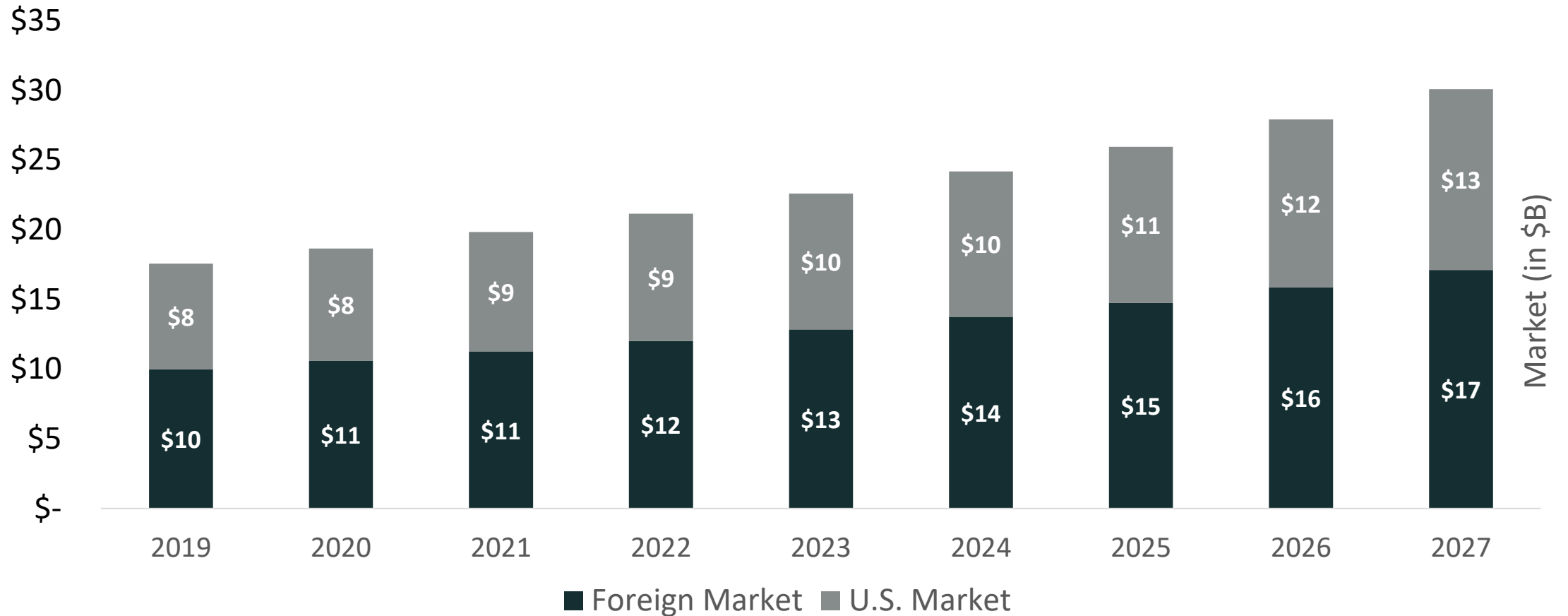


Phase 1
Commercial
Space Master
Plan

Commercial Space Master Plan: Market

Analysis

*The global launch market is predicted to reach up to **\$30B USD** by the year 2027, with the United States capturing about **40%** of the market.*



Commercial Space Master Plan: Market Analysis

\$25.6B Invested in space companies in 2020

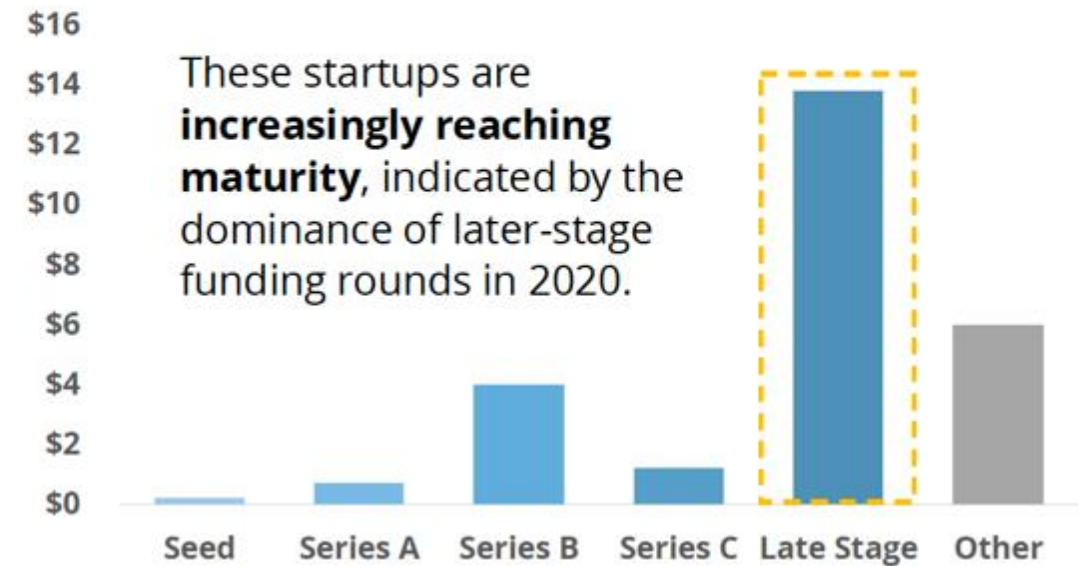
359 Investments in space companies in 2020

Cumulative Investment in Space Technology Companies

The bulk of investment to-date in Space Technology companies has flowed to players in **Applications** (Positioning, Navigation, SSA, etc.) and **Infrastructure** (Launch, Satellite Manufacturing, etc.)



2020 Investment In Space Technology Companies

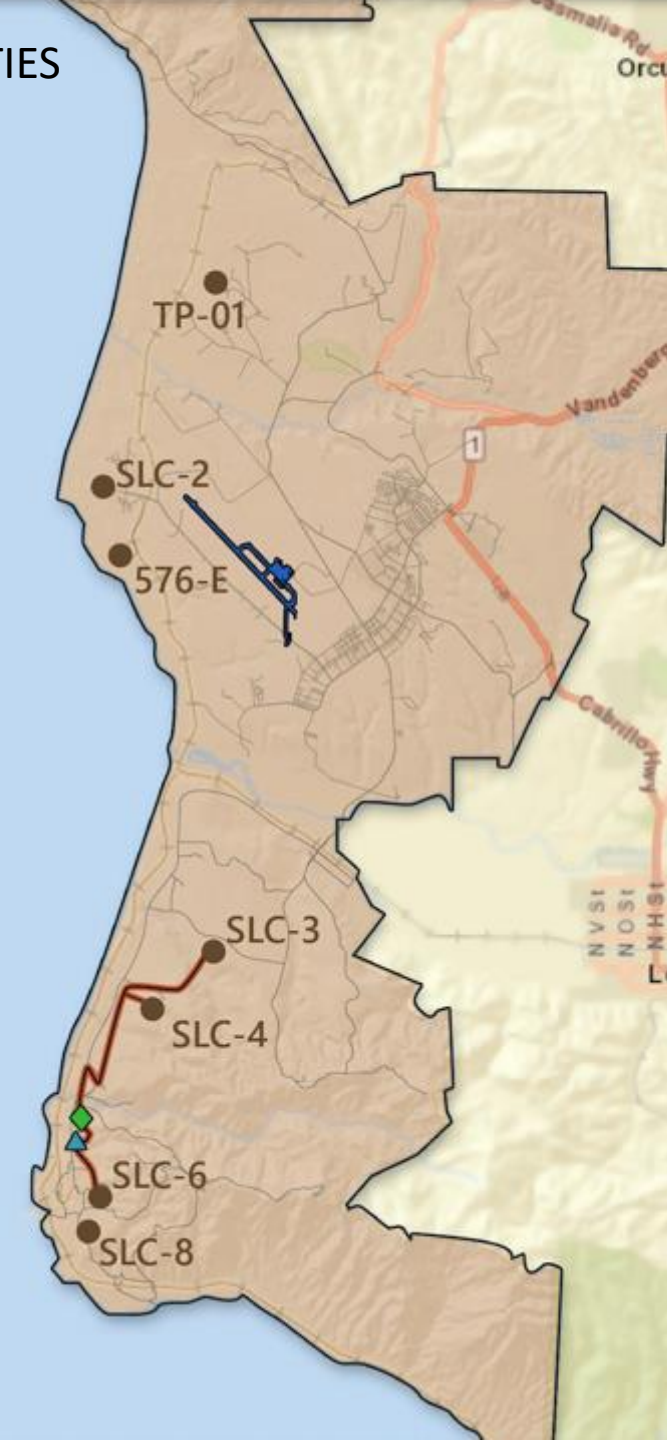


Data Source: Space Capital Q4 Investment Report

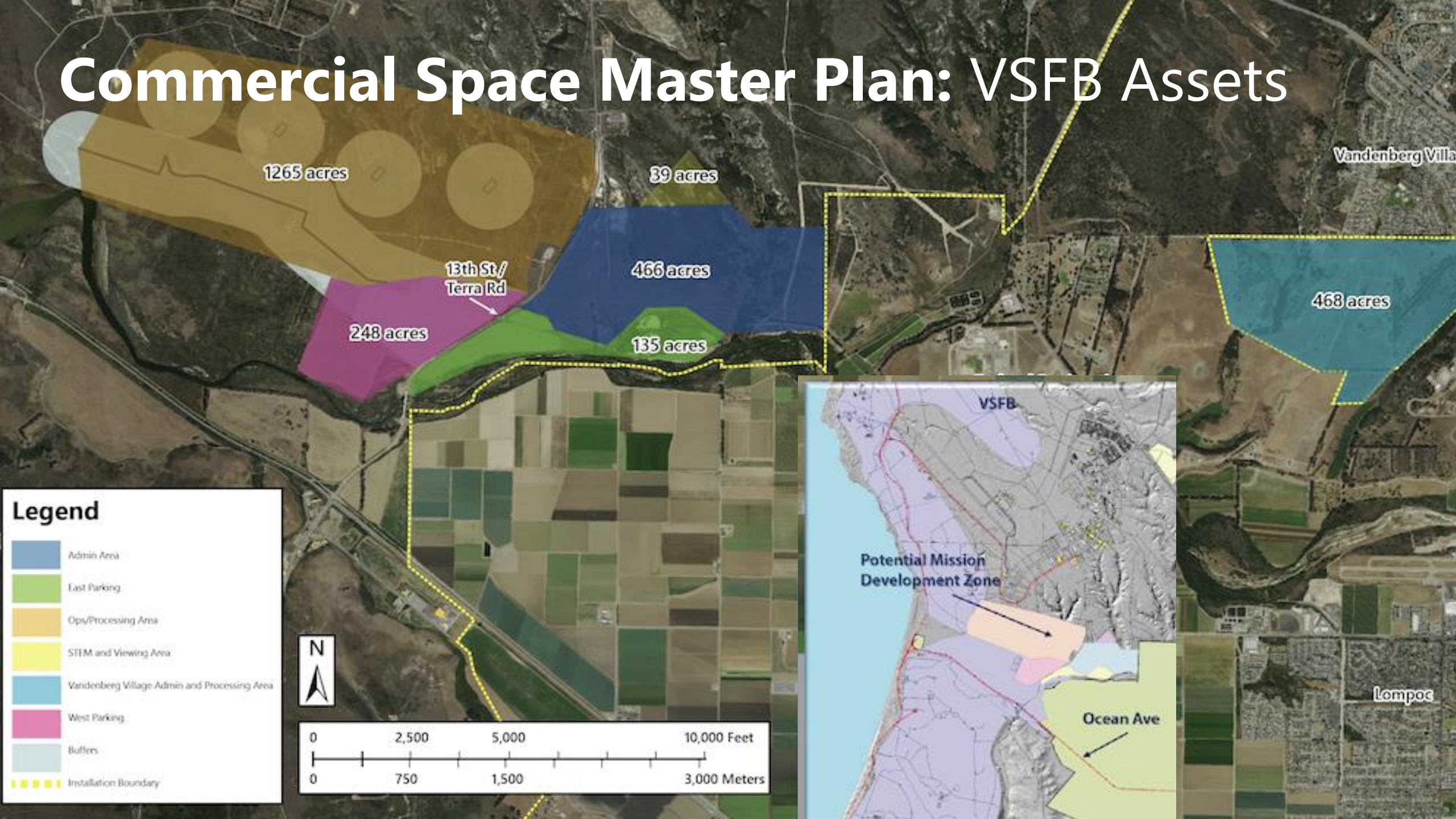
Commercial Space Master Plan: VSFB Assets

- VSFB (Western Range)
- 100,000+ Acres of Land
- Potential mission development zone
- 19th largest runway in the world (15,000ft)
- Launch sites on North and South Base
- Space fueling and payload processing
- 38 designated sites, 15 operational sites, 3 future use, 1 training site
- Premier polar orbit launch site
- Boat Dock

VSFB LAUNCH FACILITIES

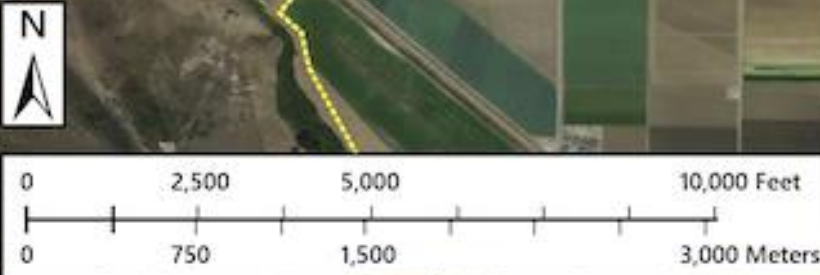


Commercial Space Master Plan: VSFB Assets




Legend

- Admin Area
- East Parking
- Ops/Processing Area
- STEM and Viewing Area
- Vandenberg Village Admin and Processing Area
- West Parking
- Buffers
- Installation Boundary



Commercial Space Master Plan: Central Coast Identity



- Strong sense of stewardship for the environment that makes this a world-class place to live and work
- Open spaces, recreation, agriculture and innovation
- Premiere education systems (UC, CSU, Community colleges)
- STEM fields like engineering, software, design, analysis; as well as marketing, logistics, advanced manufacturing, construction
- Consistent tourism, an agreeable climate and clean environment, and a geography situated between the
- Halfway between metropolitan hubs of San Francisco and Los Angeles

Commercial Space Master Plan: Commercial Players

STRONG AND GROWING LIST OF COMMERCIAL SPACE LAUNCH PROVIDERS

SAMPLING OF GROWING LIST OF LOCAL COMMERCIAL SPACE COMPANIES



Relativity



Commercial Space Master Plan: Competitive Analysis

Market Attractiveness Matrix for Major U.S. Government-Operated Spaceports

	Program Does Not Exist	Program in Progress	Program Exists
	Vandenberg AFB	Cape Canaveral SFS & Kennedy Space Center	Wallops Flight Facility
Funding/financing from State Government	Program Does Not Exist	Program Exists	Program Exists
Funding/financing from Federal Government ¹	Program Does Not Exist	Program Exists	Program in Progress
Funding/Financing from private sector	Program Does Not Exist	Program Exists	Program Exists
Relationships with government offices at a spaceport	Program in Progress	Program Exists	Program Exists
Commercial enterprise zones or equivalent	Program in Progress	Program Exists	Program in Progress
Formal space industry commission	Program Does Not Exist	Program Exists	Program Exists
Developed master plan	Program in Progress	Program Exists	Program Exists
Presence of commercial space companies	Program Exists	Program Exists	Program Exists
Ability to launch to GEO	Program Does Not Exist	Program Exists	Program Does Not Exist
Ability to launch to polar orbit	Program Exists	Program in Progress	Program Does Not Exist
Statewide entity for space industry development	Program Does Not Exist	Program Exists	Program Exists
Site champions at the Federal level	Program Exists	Program Exists	Program Exists
Tax programs/incentives	Program Does Not Exist	Program Exists	Program Exists



Commercial Space Master Plan: Vision

To build a thriving space enterprise at Vandenberg SFB and in the surrounding Central Coast Communities that delivers the capabilities, infrastructure, and workforce to support sustained access to space, increased and responsible utilization of space-based capabilities and resources, and advances the quality of life and interests of the Central Coast communities.

OUTCOMES

1.

Increased number of space industry businesses and jobs on the Central Coast

2.

Attracted new talent from higher education with skills suited to a technology driven workforce

3.

Established a reputation as a space technology innovation hub

Commercial Space Master Plan | Goal 1: Attract Space Industry Activities to the Central Coast

OBJECTIVES

Establish Concierge Entity

1. Concierge Entity Design
2. Establish a Space Roundtable
3. Strengthen Linkages with Venture Capital and Private Equity Groups

Attract Launch Services Providers

1. Support Faster Times from Site ID to First Launch
2. Support Operationally Responsive Space Capabilities
3. Support Tactically Responsive Space Capabilities

Attract Secondary Service Providers

1. Attraction of SDA and STM
2. Attraction of remote sensing and ground system providers

Improve Regulatory & Business Environment

1. Assess Tax Impacts/Incentives
2. Streamline Processes
3. Assess Liability & Indemnification

INITIATIVES

Commercial Space Master Plan | Goal 2: Modernize and Invest in Infrastructure

OBJECTIVES

Improve On-Base Launch Supporting Infrastructure

1. Design and Build Supporting Launch Services Infrastructure
2. Infrastructure Investment and Development Plan

Improve On-Base Transportation and Logistics Infrastructure

1. Design and Build Ease-of-Access Infrastructure
2. Design and Build Logistics Infrastructure

Develop the Mission Development Zone

1. Anchor Tenant Recruitment
2. Develop a Mission Development Zone Design and Planning Guide
3. Produce a SCIF Payload Processing/ Flex Development Facility Design
4. Produce a Space Technology Accelerator Design

INITIATIVES

Commercial Space Master Plan | Goal 3: Strengthen the Central Coast Space Identity

OBJECTIVES

Central Coast Space Ecosystem Brand

1. Establish a Cohesive Branding and Marketing Identity for the Central Coast Space Ecosystem

Integrate Space and Regional Quality of Life

1. Develop Initiatives to Increase Space Industry Activities in the Region Compatible with K-12 STEM Education Priorities
2. Integrate Entertainment & Tourism Activities into Attraction Plans and Development Initiatives
3. Promote Linkages between Space Industry Growth and Conservation Priorities

Workforce Development and Economic Mobility

1. Incentivize Workforce Development and Economic Mobility throughout the Region

Housing and Transportation

1. Plan for Future Community Needs
2. Advocate for Transportation Infrastructure and Service

INITIATIVES

Next Steps:

- Work with MOU group to prioritize, resource, and implement plan actions
- REACH advocate for plan outcomes as Community Support Organization for VSFB and board member of California Defense Communities Alliance
- Support the attraction and expansion of commercial space entities on the Central Coast



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Questions?



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