



Vandenberg AFB Commercial Space Opportunities

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Purpose

- Present to Santa Barbara County leadership the US Space Force (USSF) equities in facilitating a robust commercial space enterprise
 - USSF believes it is in the Nation's best interest to facilitate the industrial base of domestic commercial space launch providers at Vandenberg AFB
 - Facilitating commercial space industry requires strengthening industry and government (federal, state, and local) partnerships
- Vandenberg AFB (VAFB) is an opportunity-rich space enterprise environment, and we need to engage with other federal agencies, state or local governments, universities, or other entities to capitalize on our existing capabilities



FIREFLY
AEROSPACE

Spacelift of the Future



Current

New

Relativity

SPACEX

ULA

abl SPACE SYSTEMS



BLUE ORIGIN

SPINLAUNCH

400 ft

300 ft

200 ft

100 ft

Spin Launch

Astra Rocket 1

Electron

Pegasus XL

Minotaur I
Minotaur IV

ABL Space Systems

Firefly Alpha

Firefly Beta

Relativity T1

Relativity T2

Atlas V

Vulcan

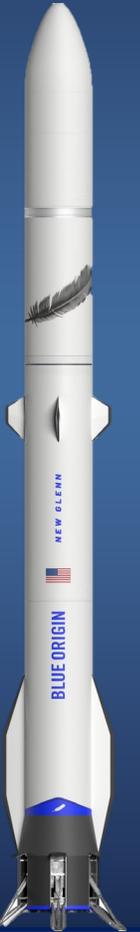
Delta IV

Falcon

Falcon Heavy

Delta IV Heavy

New Glenn





VAFB's Potential Impact on Commercial Space Industry

- **VAFB is**
 - Nation's primary Polar Orbit launch site
 - Home of nation's primary Space Operations Center
 - Home to a major node in the USSF's Satellite Control Network
- **VAFB has**
 - Many acres of "previously-disturbed" land
 - Access to commercial/government communication networks
 - Access to major County/State roads and highways
 - Access to railroad
 - Access via boat dock
 - Two major Universities within 1 hour commute



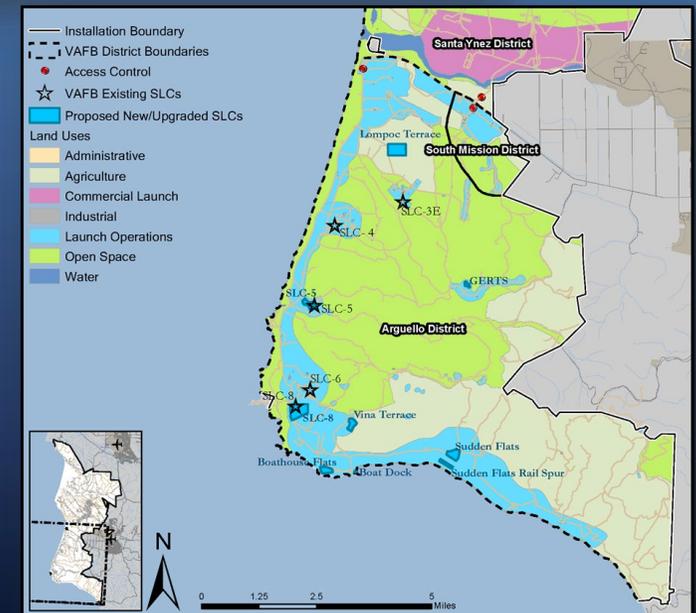
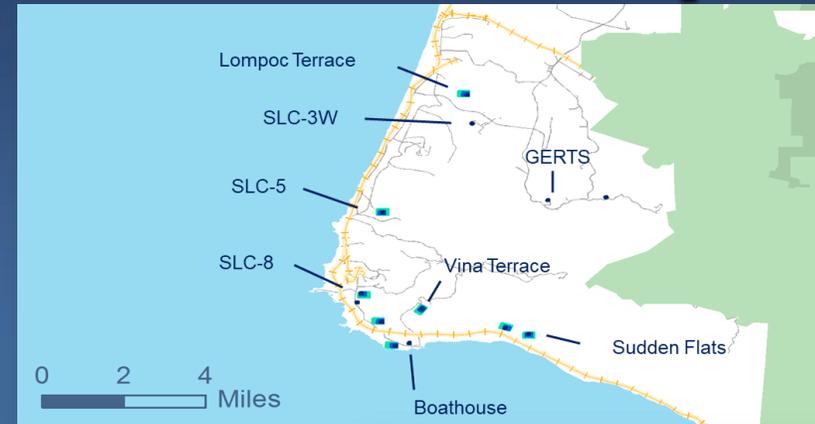
“Perfect Storm” for Commercial Space

- Commercial Space is a key component in USSF doctrine
- USAF/USSF willing and able to lease property for commercial space
- USSF developing plans for ‘Range of the Future’ and ‘Spaceport of the Future’
- Substantial private investment in commercial space industry
- Substantial commercial space networks now being deployed
- Vandenberg is already a recognized spaceport, with billions of dollars invested by the USG
- REACH independently leveraging State/local resources



What USSF Is Accomplishing to Enable Commercial Space

- **Easing Environmental workload**
 - Small Launch Vehicle Programmatic Environmental Assessment (EA) to “pre-approve” new launch sites
 - Resulting EA will save applicable small launch providers 18-month effort and costs
- **Making Investments that meet National Security needs**
 - Upgrading communication networks
 - Modifying base access points
 - Developing plans for infrastructure upgrades
 - Updating small lift pad (SLC-8)





What USSF Is Accomplishing to Enable Commercial Space (cont'd)

• USSF Implementing “Range of the Future”

- Space launch is changing...
 - Launch schedule expected to grow
 - Multiple users
 - Increased operation tempo
- Update Western Range technology to solidify resilience, agility, responsiveness, and efficiency:
 - Plug-n-Play Docking
 - High-speed Internet
 - HD Optics & Display
 - Remote Control Operations

Single User/Configuration
Launch to Schedule

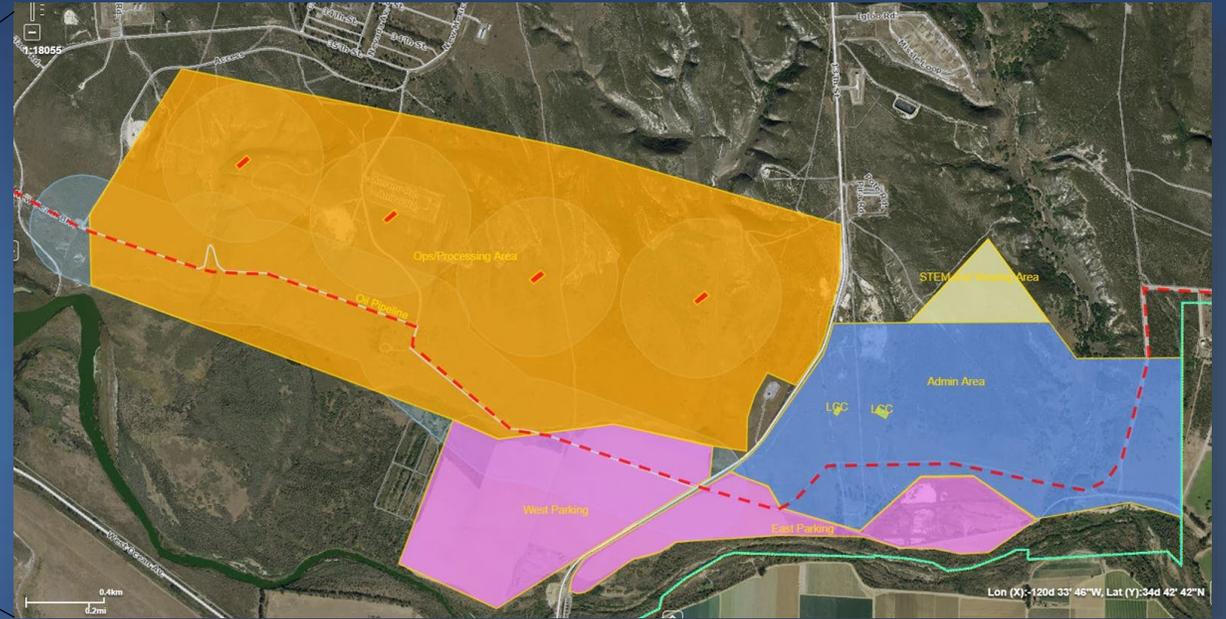
TO
TO

Multi-User/Configuration
Launch on Demand





Commercial Space Zone



- Carve out portion of base for exclusive use of commercial space entities
- Outside of base gates/base security
- Will drive need for increased support from local agencies for utilities and other services



Questions?