



**PASO ROBLES**

SPACE INNOVATION  
& TECHNOLOGY PARK

Located at PRB



# PASO ROBLES SPACE INNOVATION & TECHNOLOGY PARK



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Digital Transformation Hub

## Paso Robles, Cal Poly move forward on spaceport initiative

Posted: 8:28 am, December 13, 2022 by News Staff



University will produce workforce development training programs to help create a hiring pipeline for students



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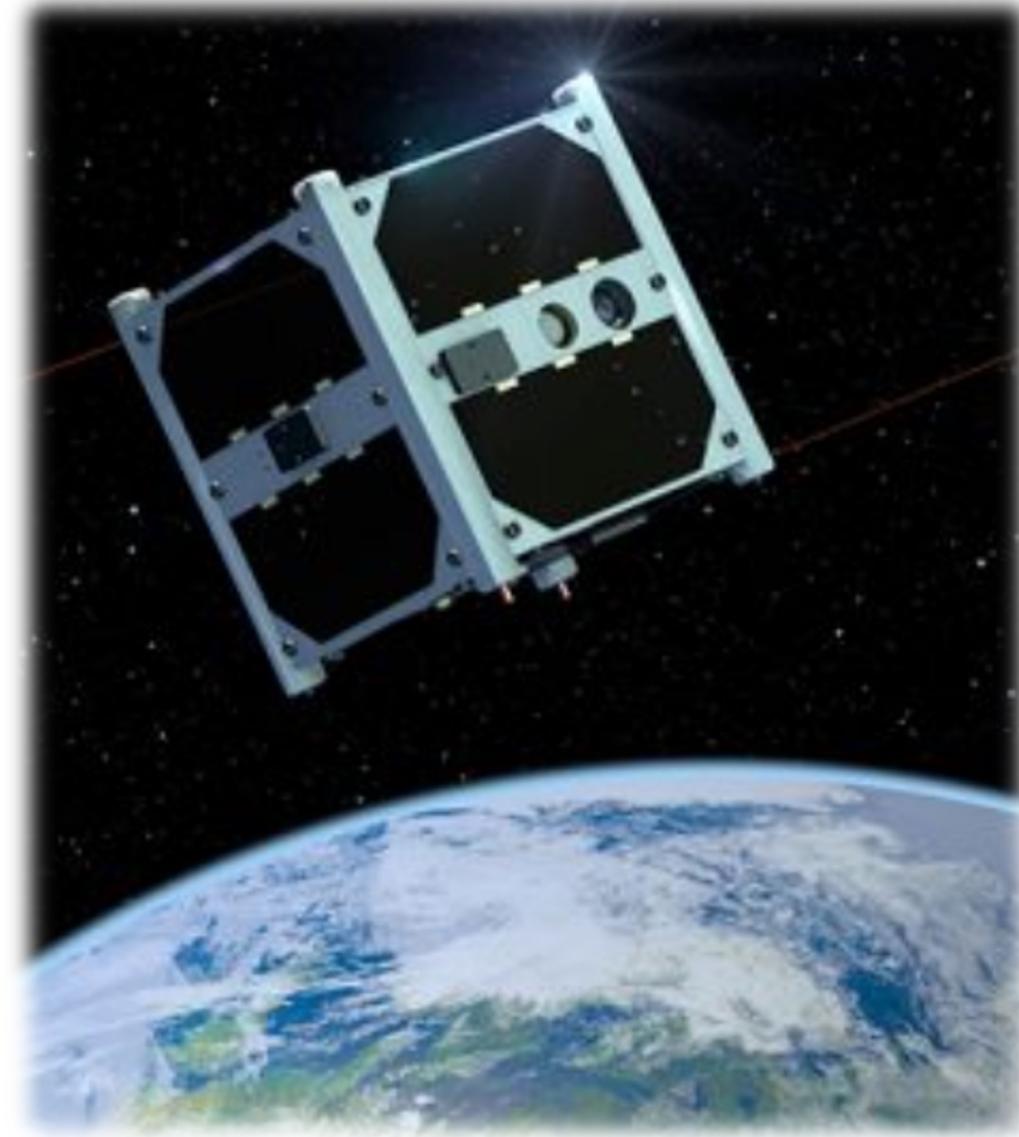
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# CAL POLY DIGITAL TRANSFORMATION HUB (DxHub)

- AWS STRATEGIC RELATIONSHIP (CIC)
- REAL-WORLD STUDENT EXPERIENCES
- SOLUTION PROTOTYPING
- FOCUS AREAS
  - Public Sector Digital Transformation
  - Cloud Innovation Development
  - International Development Technology (WorldBank)
  - Space Operations Innovation (Space Force)
  - Workforce Development



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# CAL POLY

## LEADERS IN SPACE EDUCATION

- Co-Founders of CubeSats
- Creating opportunities in Cybersecurity & space
- #2 in Aerospace, Aeronautical, Astronautical Engineering (US News & world Report)



### SPACE GRAND CHALLENGE - CYBERSECURITY AND SPACE



- 2017 - 2019**
- In person events on-campus
  - Cyber Challenge
  - 335 student participants
  - California based competition



- 2020**
- Moved to online format
  - Expanded partnership
  - 315 participants
  - Focused on California students
- 2021**
- Fully online competition
  - Space focused
  - 298 participants
  - Multi State



Inaugural Global Competition  
Gamification and Esports for  
Space and Cybersecurity Skills  
Development

'CubeSats,' co-founded at Cal Poly, inducted into Space Technology Hall of Fame

Posted: 5:53 am, March 5, 2022 by News Staff



Cal Poly Professor John Bellardo, far right, measures a 3U satellite in the Cal Poly CubeSat Lab assisted by, from left Jordan Ticktin, a Cal Poly alumnus who works at NASA's Jet Propulsion Lab, and Ryan Luke, an electrical engineering student from Santa Maria. Cal Poly students have designed and built 12 CubeSats that were launched into space. Photo credit: Joe Johnston, Cal Poly.



Photograph taken by AeroCube-2, April 17, 2007

## FAA License Application

Part 420 License to Operate a Launch Site

Subpart A General

- § 420.1 General.
- § 420.3 Applicability.
- § 420.5 Definitions.
- § 420.6-420.14 [Reserved]

Subpart B Criteria and Information Requirements for Obtaining a License

- § 420.15 Information requirements.
- § 420.17 Bases for issuance of a license.
- § 420.19 Launch site location review - general.
- § 420.21 Launch site location review - launch site boundary.
- § 420.23 Launch site location review - flight corridor.
- § 420.25 Launch site location review - risk analysis.
- § 420.27 Launch site location review - information requirements.
- § 420.29 Launch site location review for unguided launch vehicles.
- § 420.30 Launch site location review for permitted launch vehicles.
- § 420.31 Agreements.
- § 420.32-420.40 [Reserved]

Subpart C License Terms and Conditions

- § 420.41 License to operate a launch site - general.
- § 420.43 Duration.
- § 420.45 Transfer of a license to operate a launch site.
- § 420.47 License modification.
- § 420.49 Compliance monitoring.



## Space Industry Ecosystem Mapping & Partnership Development



## Education & Workforce Development Strategy



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# FAA LICENSE APPLICATION

Develop a comprehensive and collaborative application for the FAA license to operate a commercial spaceport, grounded in thorough research and procedures



## LICENSE TO OPERATE A LAUNCH SITE:

### Subpart A: General

- General
  - Prescribes information and demonstrations that must be provided to the FAA as part of a license application
  - Goes over requirements for preparing a license application
  - Equivalent levels of safety
- Basic applicability of the license as well as general definitions

### Subpart B: Criteria and Information Requirements for Obtaining a License

#### • General

- Identifying who is the launch site operator(s)
- Launch site descriptions: List of equipment types of launch vehicles, etc.
- Identifying foreign ownership

#### • Environmental

- Really long process that really will take the longest
- Need to follow NEPA and CEQA standards and regulations
- Will most likely be fully completed by third-party firm

#### • Launch Site Location Review

- Demonstrate that the launch site complies with certain standards
  - This is where we must simulate that a launch vehicle can be launched safely from the launch point
  - Flight corridors, launch site boundary, risk analysis
- Appendix A, B, C, D

#### • Explosive Site Plan

- Submission of explosive site plan that complies with certain standards
  - Appendix E
- We are not a federal launch range so we do not have to comply to federal requirements

#### • Launch Site Operations

- Provide necessary information about what is to be conducted at the launch site that is consistent with standards

### Subpart C: License Terms and Conditions

#### • General

- “A license to operate a launch site authorizes a licensee to operate a launch site in accordance with the representations contained in the licensee's application, with terms and conditions contained in any license order accompanying the license, and subject to the licensee's compliance with 51 U.S.C. Subtitle V, chapter 509 and this chapter.
- A license to operate a launch site authorizes a licensee to offer its launch site to a launch operator for each launch point for the type and any weight class of launch vehicle identified in the license application and upon which the licensing determination is based.
- Issuance of a license to operate a launch site does not relieve a licensee of its obligation to comply with any other laws or regulations; nor does it confer any proprietary, property, or exclusive right in the use of airspace or outer space.”

### Subpart D: Responsibilities of a Licensee

#### • General

- A licensee must operate its launch site in accordance with the representations in its application.

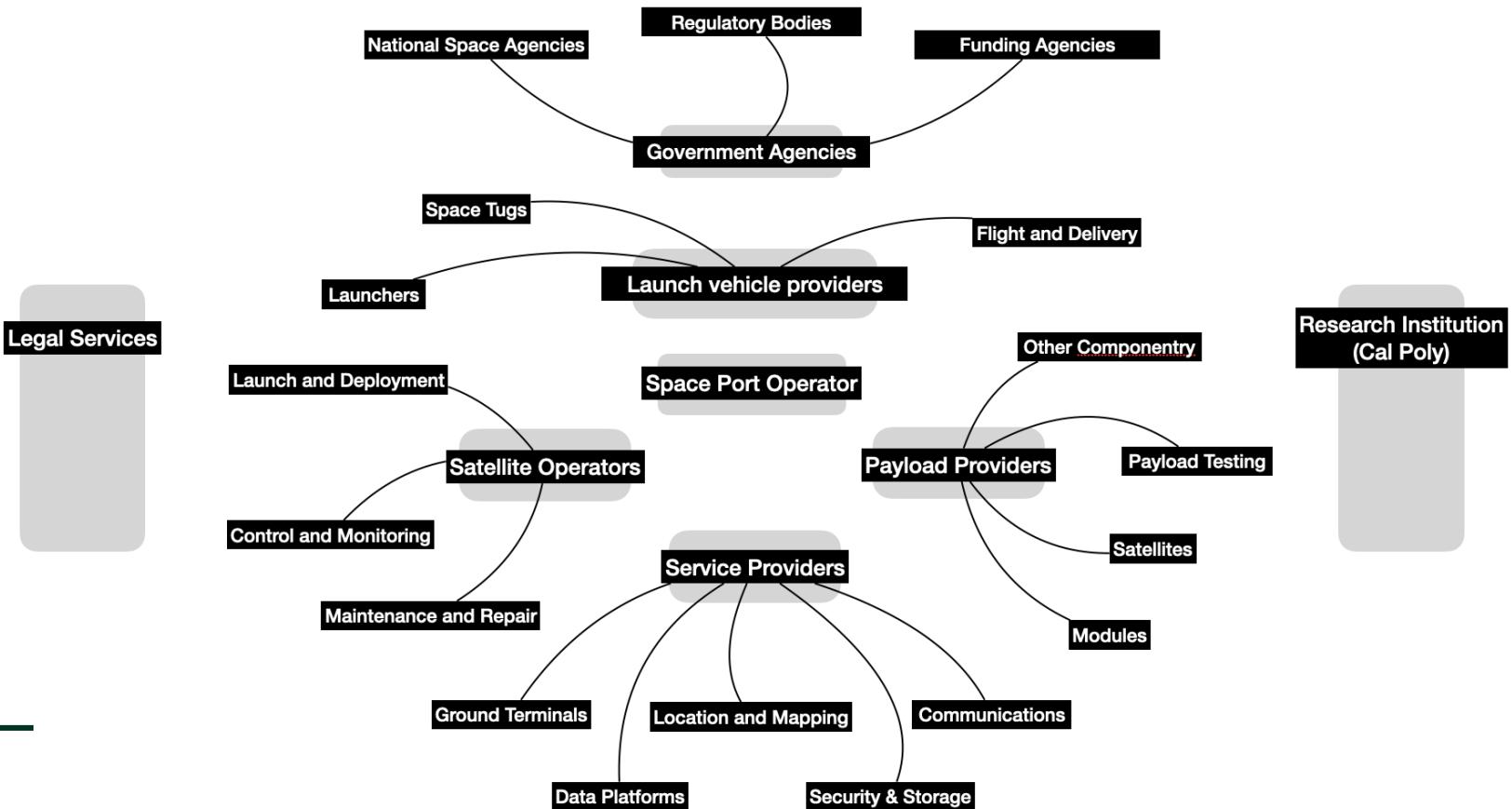


# SPACE INDUSTRY ECOSYSTEM MAPPING & PARTNERSHIP MAPPING

## 1. Identify Key Players

## 2. Build Relationships

## 3. Collaborate



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# IMAGERY & COMMUNICATION STRATEGIES FOR NEW INDUSTRY



A collage of various images illustrating different industries and technologies:

- A man wearing headphones and working on a laptop.
- An aerial view of a city and surrounding fields.
- A woman in a lab coat looking through a microscope.
- Aerial views of vineyards and agricultural fields.
- A person pouring red wine into a glass.
- A night view of city lights from space.
- Aerial views of clouds and Earth from space.
- A man working on a computer monitor.
- Aerial views of a runway and fields.

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CITY OF EL PASO DE ROBLES  
INCORPORATED 1889

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# DISCUSSION, QUESTIONS AND NEXT STEPS



Matthew Bornhorst

Anmol Sharma

Adam Hey

Kendall Wilhite

Miyu Nishii  
Business

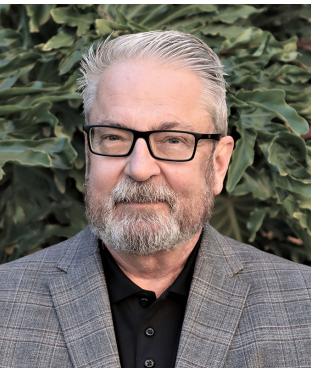
Logan Schwarz  
Computer Science

Miriam Gabai  
Graphic Communication

Aerospace Engineering



Paul Jurasin



Bill Britton



Dr. Elise St. John

Cal Poly Digital Transformation Hub



Paul Sloan

City of Paso Robles  
Economic Development Manager



Mark Scandalis

Paso Robles Municipal Airport (PRB)  
Airport Manager



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COME MEET US! LOWER LEVEL, LL3



**THANK YOU!**