

**SPACEPORT AMERICA**  
**OUR NATION'S GATEWAY TO SPACE!**

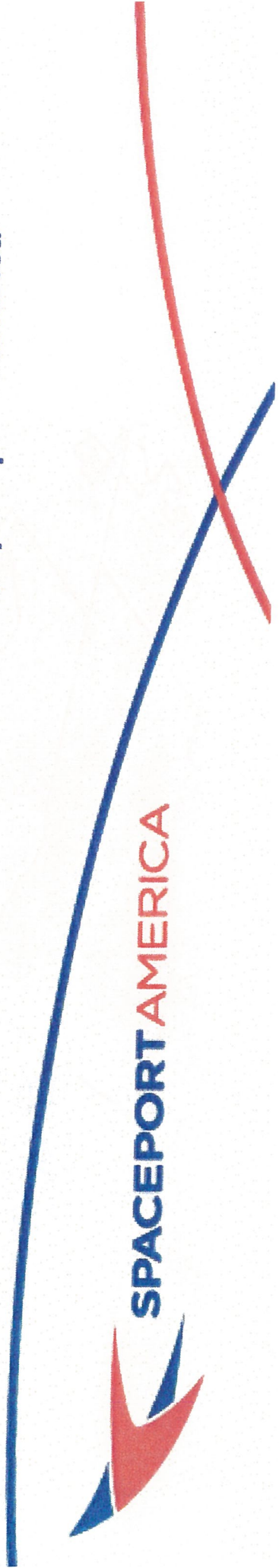
# Economic and Rural Development Committee

1 July 2019

**Dan Hicks**  
**CEO, Spaceport America**



**SPACEPORT AMERICA**



A HISTORIC LOCATION.....



...AND WE CONTINUE TO MAKE HISTORY!



El Camino Real de Tierra Adentro

# NATIONAL SPACE COUNCIL



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## Presidential Space Policy Directives:

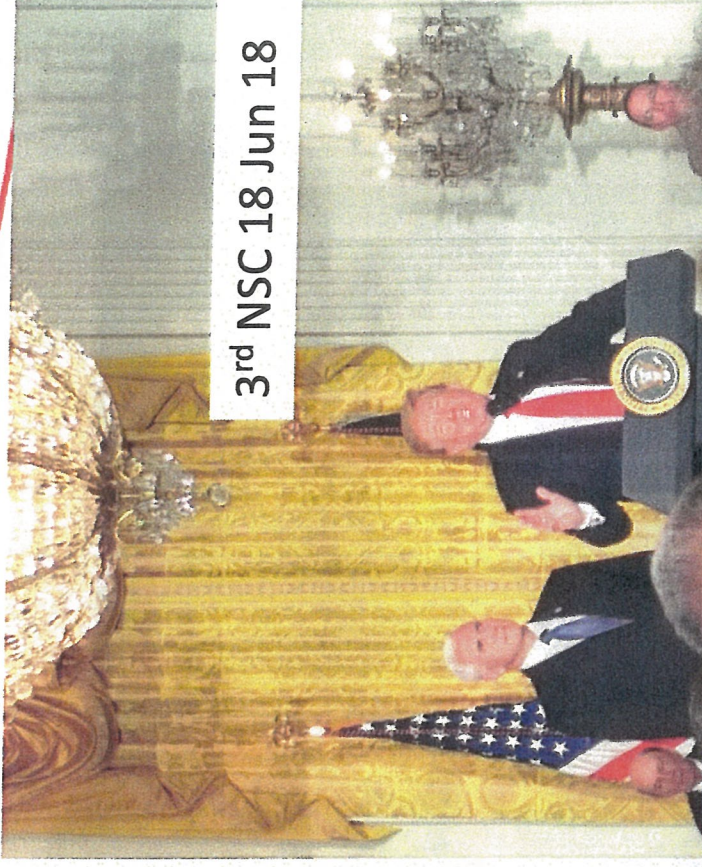
- #1 US regain Space Leadership,
- #2 DoC and DoT Streamline Space Access,
- #3 Tasking DOC for Space Traffic Mgt & Situational Awareness

and DoD to create a Space Force

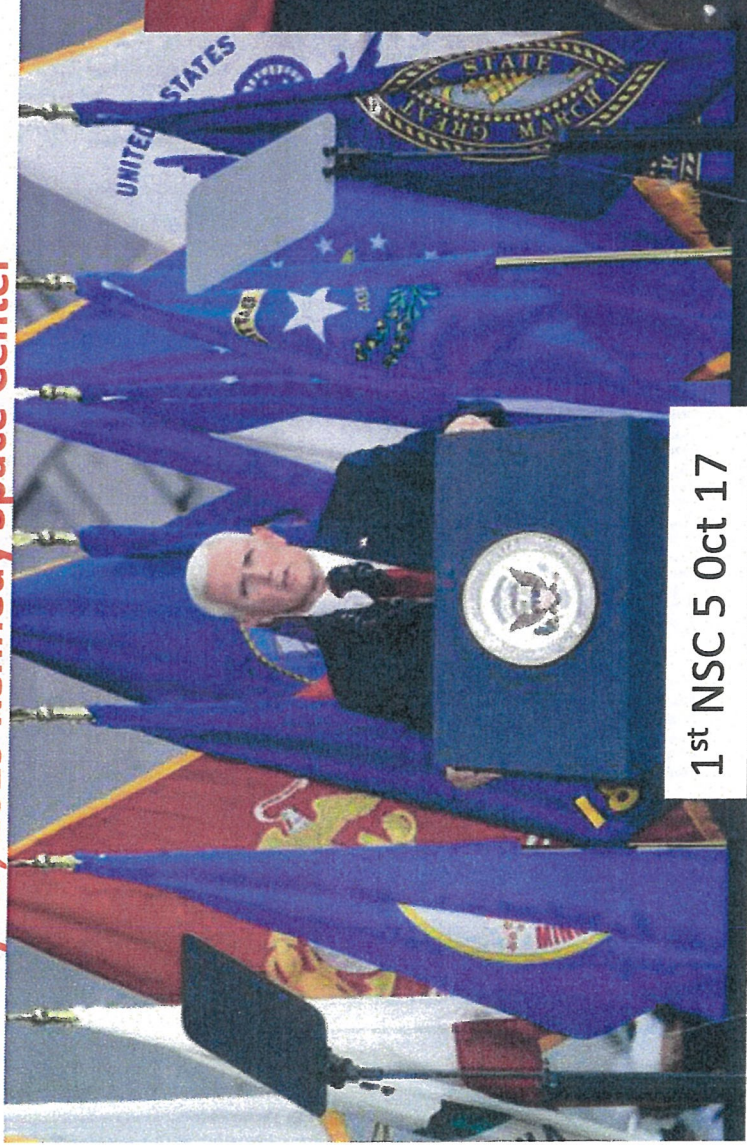
**#4 Winning the next frontier-Moon, Mars, Beyond**

**#5 Focus NASA on the Moon 2024**

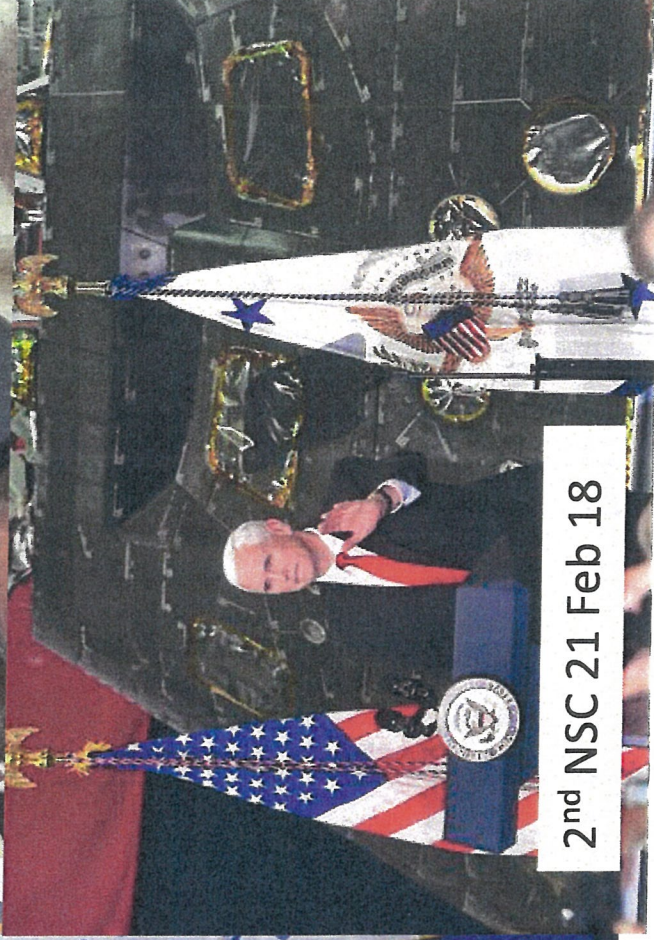
**#6 July 20, 2019 Kennedy Space Center**



3rd NSC 18 Jun 18



1st NSC 5 Oct 17



2nd NSC 21 Feb 18

# THE COMMERCIAL SPACE MARKET

*WHAT IS NEW OVER THE PAST TWO YEARS!*



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**Bank of America**  
**Merrill Lynch**

“ONE OF THE FINAL FRONTIERS  
OF INVESTING”

Commercial Space Market: 2016 \$339 Billion (\$36B US Gov't)  
2045 \$2.7 Trillion

“Space Companies Are Receiving Billions  
From Venture Backers-Nov. 1, 2017”



**CNBC**

***The 2018 Space Foundation Report shows Global  
Space spending in 2017 at \$383.5 Billion***

# NATIONAL AIR SPACE CONGESTION

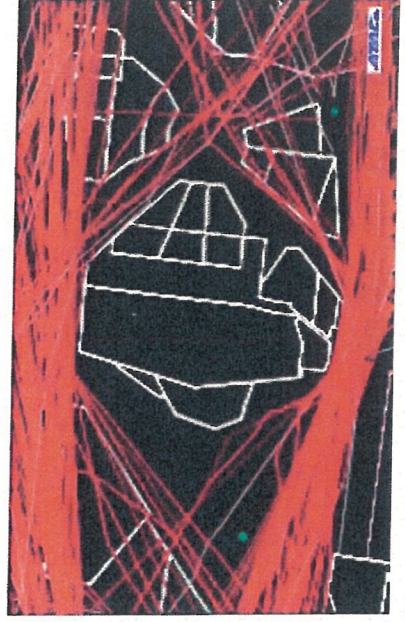


▼ Spaceport America's strategic advantage = 6,000 sq. miles of restricted airspace in collaboration with U.S. Army White Sands Missile Range



**FAA Command and Controlled Airspace**

**Other Air Space**

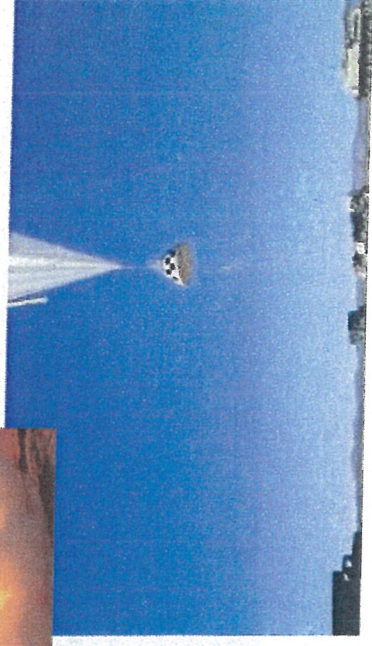


**Commercial Air Traffic routes around WSMR**

# RECENT/CURRENT WORKLOAD



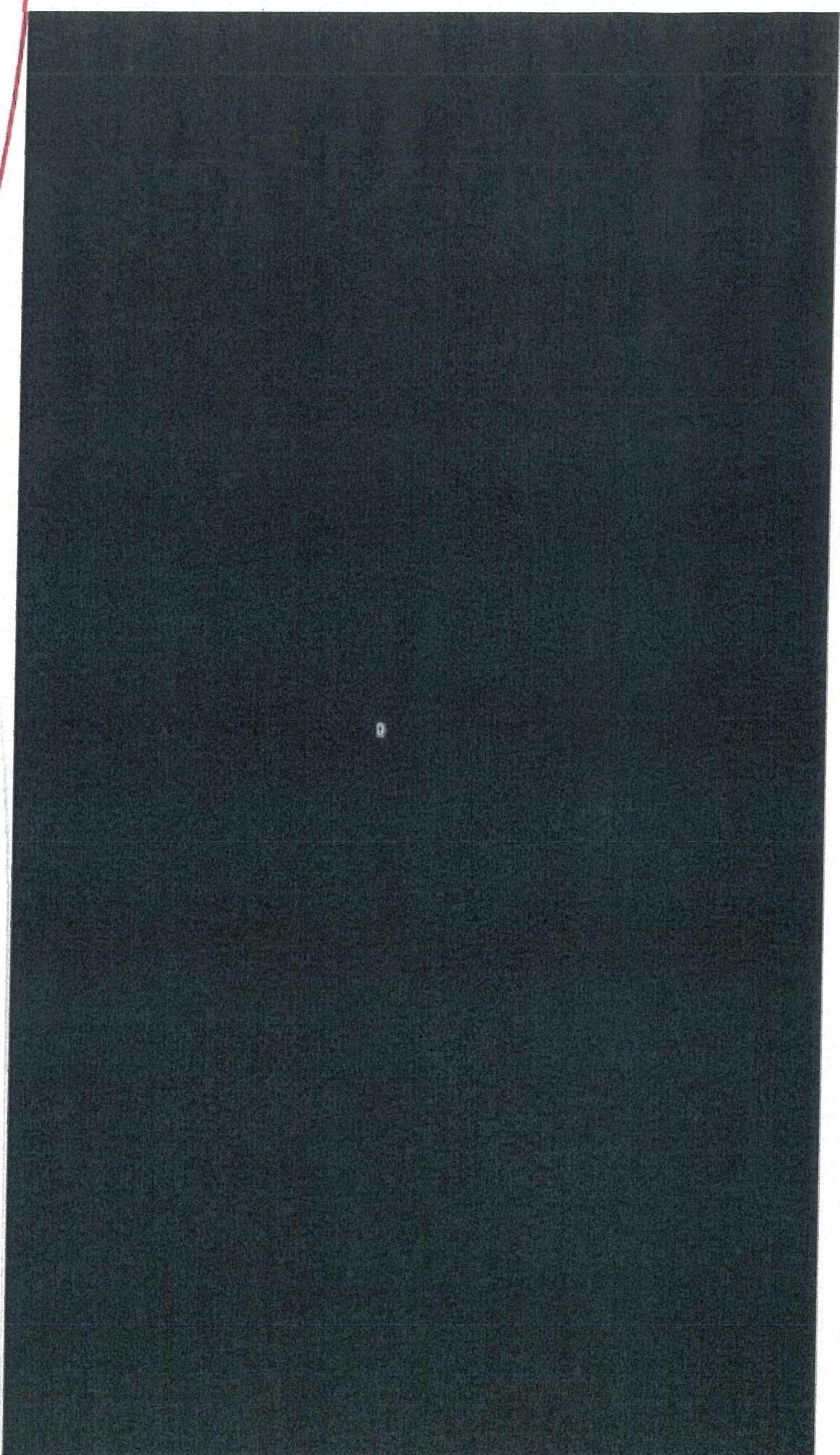
- **Up Aerospace – two flights conducted 12 & 17 Sep**
  - Multiple payloads on both flights
  - NASA Flight Opportunities & AMES Research Center
    - Spacecraft Aerobraking System for Mars and other Planets
  - Rocket motors from new Spaceport America Up/Cesaroni facility
  - Next flights in Fall 2019
- **EXOS Aerospace – 3<sup>rd</sup> flight 29 June 2019**
  - New SARGE Pathfinder System – supports sub-orbital research
  - Frist launch of new system was 25 Aug 18
- **NM Tech**
  - Fifth mission completed 13 Apr 2019
  - Working with a NM company for commercial application
  - Commercial flights in 2019
- **USC Launch 20 Apr 2019**
  - Potentially first University to reach Karman Line
- **Princeton OSI 4 launches week of 27 May, 2019**
- **Boeing CST-100 Starliner support**
  - 3<sup>rd</sup> Successful launch on 13 Mar 19, 4<sup>th</sup> Launch 18 May
- **Spaceport America Cup 18-22 June 2019**

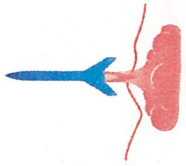


# Up Aerospace Launch



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# SPACEPORT AMERICA® CUP 2019

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## 10K Commercial Of The Shelf Components

First Place – University of Sydney  
Second Place - ETH Zurich

## 30K Commercial Of The Shelf Components

First Place - Georgia Institute of Technology  
Second Place – ETS Montreal

## 10K Solid Rocket-Student Research and Developed Components

First Place - The George Washington University  
Second Place – West Virginia University

## 30K Solid Rocket-Student Research and Developed Components

First Place - University of Minnesota Twin Cities  
Second Place - University of Minnesota

## 10K Hybrid/Liquid Rocket Student Research and Developed Components

First Place - Polytechnique Montreal

Second Place - AGH University of Science and Technology, Poland

## 30K Hybrid/Liquid Rocket Student Research and Developed Components

First Place - University of Washington  
Second Place - University of Waterloo



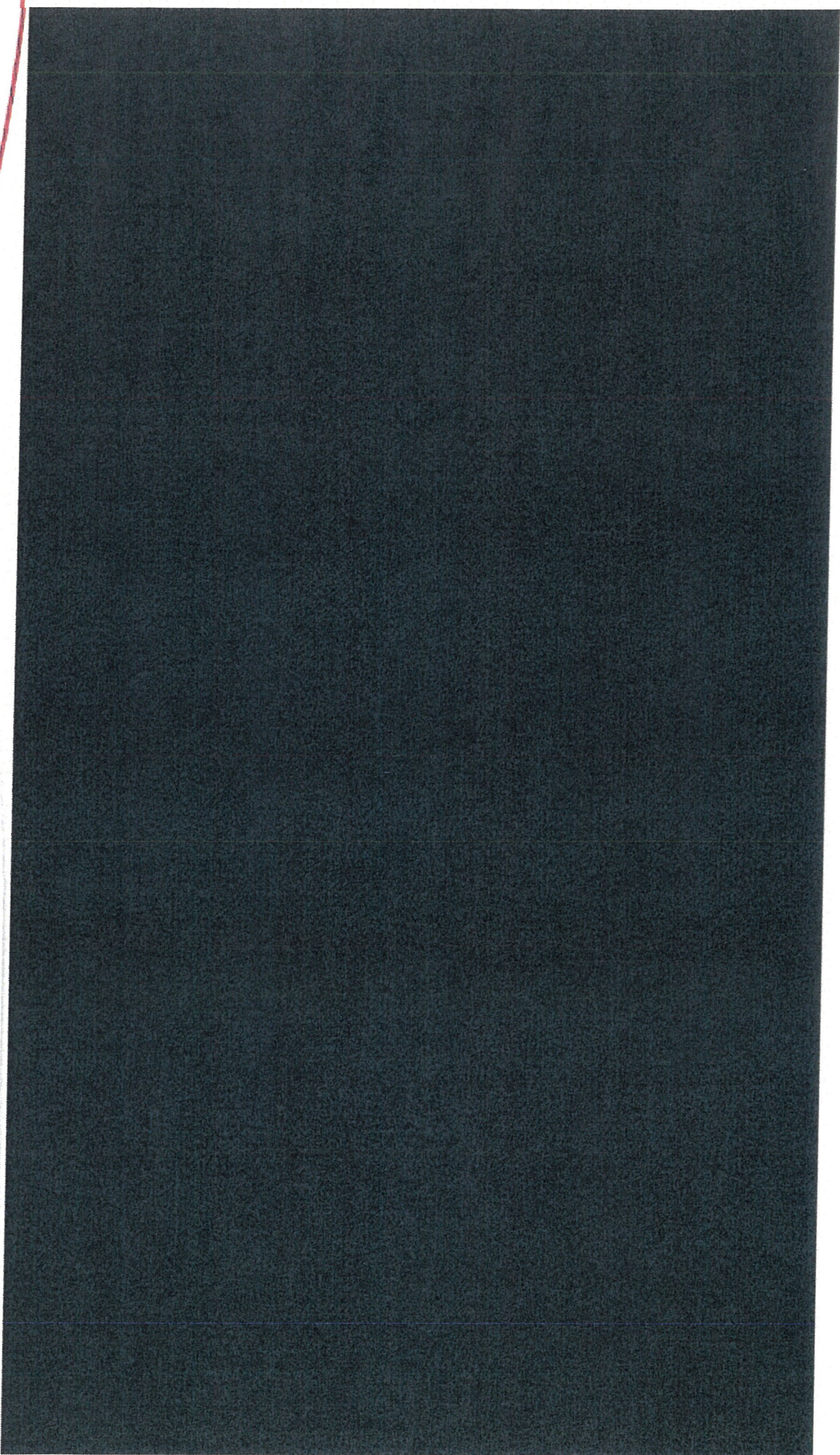
2019 Champion: University of Washington



# Virgin Galactic Reaches Space



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# SPACEPORT FY15 COMPARISON

## NM'S DECISION MOVING FORWARD....



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### Cape Canaveral Spaceport



### Mid-Atlantic Regional Spaceport



### Mojave Air and Space Port



### Spaceport America



| State: Florida   | State: Virginia  | State: California  | State: New Mexico   |
|--|--|--|---|
| <b>Budget:</b> \$20M operating / \$7M financing fund / \$20M infrastructure fund | <b>Budget:</b> \$25M operating                           | <b>Budget:</b> \$7.3M operating (does not include County services) | <b>Budget:</b> \$6.1M   |
| <b>State appropriation:</b> 18.9M (additional 19M in state grants)               | <b>State appropriation:</b> 11.8M                        | <b>State appropriation:</b> local taxes (500k) and airport revenue | <b>State appropriation:</b> 375k (600k local GRT)                           |
| <b>Customer revenue:</b> 2.8M  | <b>Customer revenue:</b> 16.1M                           | <b>Customer revenue:</b> 8.1M (space and airport revenue)          | <b>Customer revenue:</b> 2.1M   |
| <b>Infrastructure:</b> Old NASA facilities                                       | <b>Infrastructure:</b> Old NASA facilities               | <b>Infrastructure:</b> Airport facilities                          | <b>Infrastructure:</b> Limited existing facilities, new construction \$220M |
| <b>Geography:</b> Coastal  | <b>Geography:</b> Coastal                                | <b>Geography:</b> Inland   | <b>Geography:</b> Inland  |
| <b>Airspace:</b> Heavy air traffic   | <b>Airspace:</b> Heavy air traffic                       | <b>Airspace:</b> Heavy air traffic                                 | <b>Airspace:</b> Restricted air space                                       |
| <b>Safety:</b> Heavily populated   | <b>Safety:</b> Heavily populated                         | <b>Safety:</b> Heavily populated                                   | <b>Safety:</b> Low population density                                       |
| <b>Economy:</b> High cost of living  | <b>Economy:</b> High cost of living                      | <b>Economy:</b> High cost of living                                | <b>Economy:</b> Affordable cost of living                                   |
| <b>Privacy:</b> IPRA protections for spaceport companies                         | <b>Privacy:</b> IPRA protections for spaceport companies | <b>Privacy:</b> No IPRA protections for spaceport companies        | <b>Privacy:</b> No IPRA protections for spaceport companies (*Passed '18)   |
| <b>Elevation:</b> 0 ft   | <b>Elevation:</b> 0 ft                                   | <b>Elevation:</b> 2,700 ft   | <b>Elevation:</b> 4,500 ft  |
| <b>Days of sunshine:</b> 240   | <b>Days of sunshine:</b> 210                             | <b>Days of sunshine:</b> 284                                       | <b>Days of sunshine:</b> 340  |