

SPACEPORT AMERICA
OUR NATION'S GATEWAY TO SPACE!

Economic and Rural Development Committee

11 October 2018

Outline

- 2 chart Bottom line Upfront and current Spaceport activity**
- 2 charts Our renewed National focus on space**
- 5 charts Commercial Space Industry - NMSA's competitive advantage and Vision forward**
- 7 charts Current efforts**
- 3 Charts Spaceport America Cup (including video)**
- 8 Charts Capital Outlay**

Dan Hicks
CEO, Spaceport America



A HISTORIC LOCATION....

...AND WE CONTINUE TO MAKE HISTORY!



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



- Exos Aerospace – first flight of new system conducted 25 Aug

New SARGE Pathfinder system – supports sub-orbital research

Multiple payloads on this demonstration flight



- Boeing CST-100 Starliner support – additional flights this fall

- NM Tech

Fourth mission completed 25 Apr 2018

Working with company for commercial application

- Spaceport America Cup

- Other – non aerospace



BOTTOM LINE UPFRONT

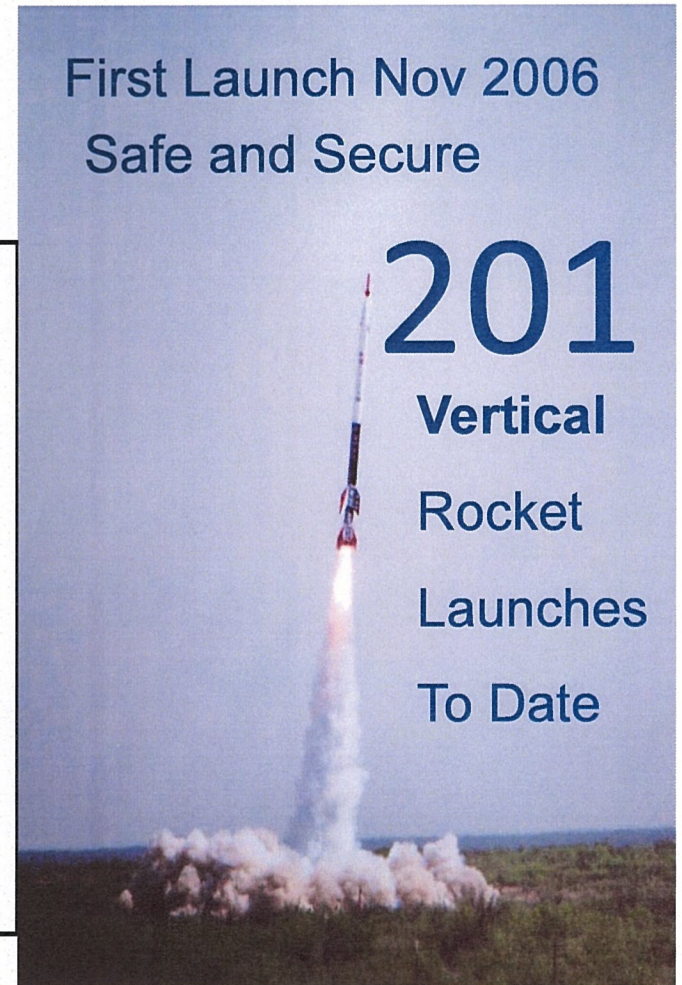


Three Key Takeaways

- Our Nation has a renewed focus on leading the world in Space Exploration.
- The Commercial Space Industry continues to be an economic driver world wide.
- Spaceport America is an economic engine with unique capabilities for the commercial, civil, and national security space sectors.

First Launch Nov 2006
Safe and Secure

201
Vertical
Rocket
Launches
To Date



Spaceport America launch operations started 2006 – continued strong growth!

NATIONAL SPACE COUNCIL



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**



3rd NSC 18 Jun 18

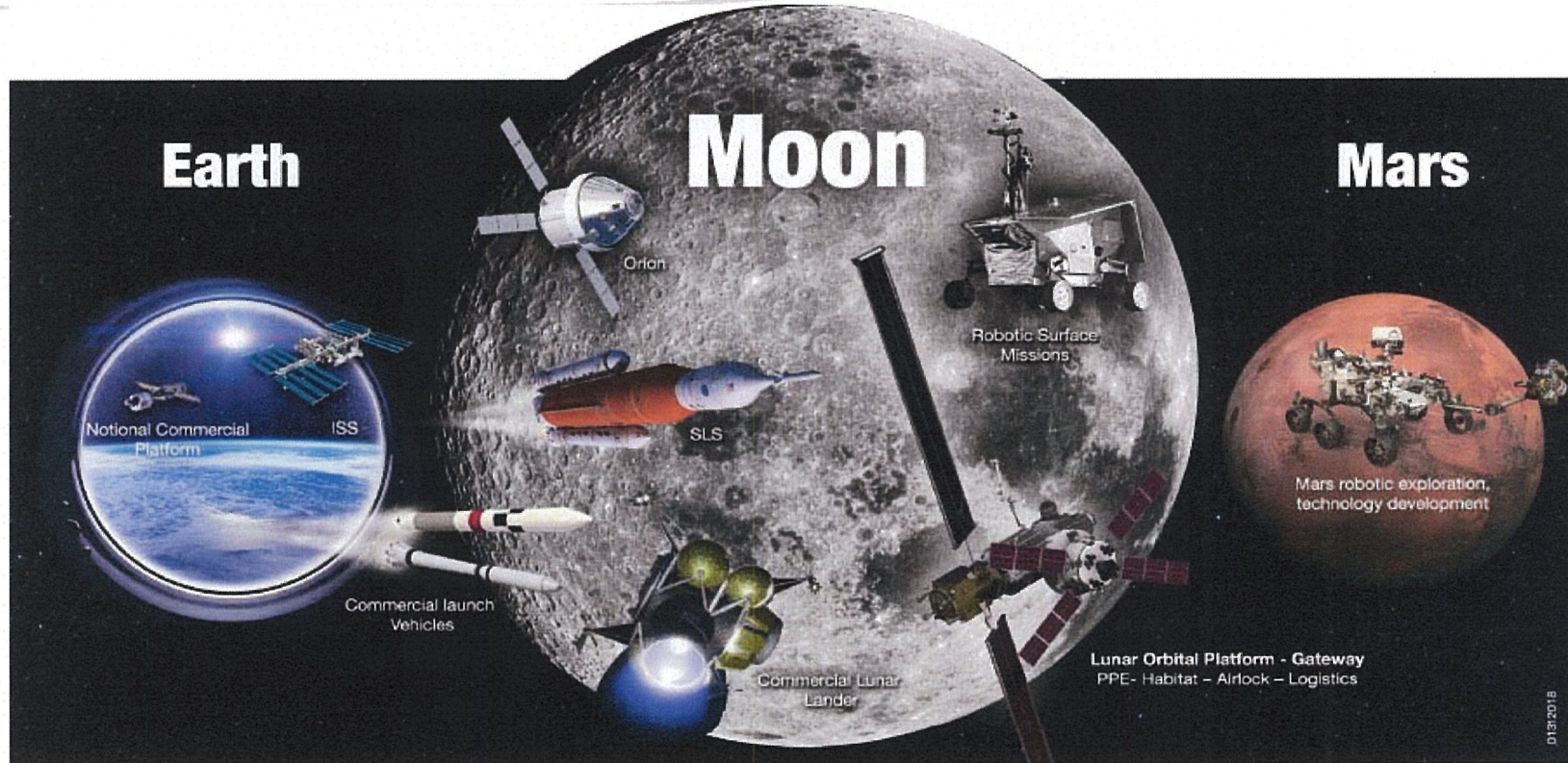


1st NSC 5 Oct 17



2nd NSC 21 Feb 18

US LEADERSHIP IN SPACE EXPLORATION



In LEO
Commercial & International
partnerships

In Cislunar Space
A return to the moon for
long-term exploration

On Mars
Research to inform future
crewed missions

This journey to Mars will require a tremendous amount of research in life and material sciences; new propulsion technologies; and enhanced robotics with unique C2, artificial intelligence, self learning modules

THE COMMERCIAL SPACE MARKET: OCT. 2017 REPORT



**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

Kingdom of Saudi Arabia to invest
\$1Billion in Richard Branson's Space
Companies- Oct. 26, 2017

**The
Washington
Post**

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

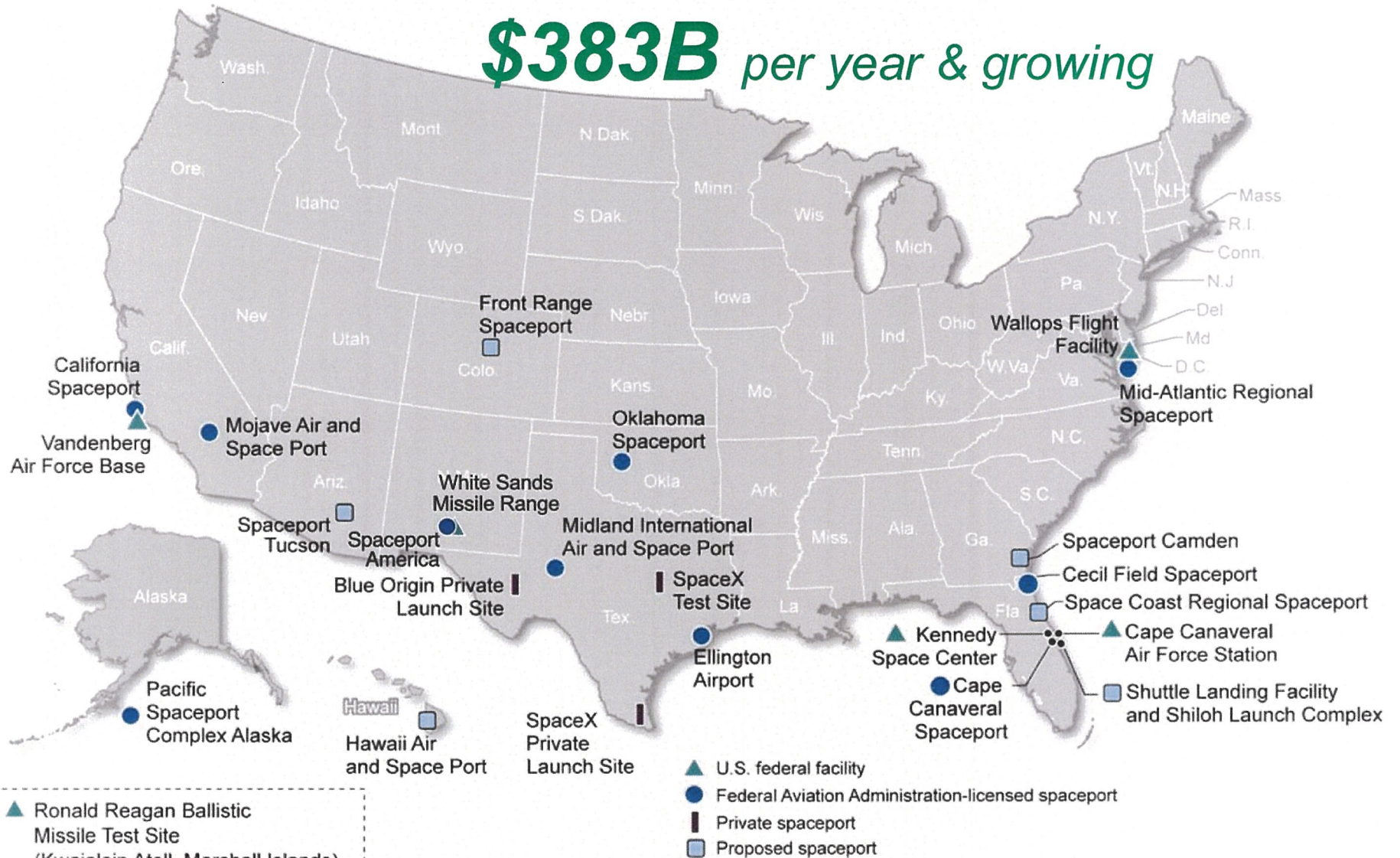


***The 2018 Space Foundation Report shows
Global Space spending at \$383.5 Billion***

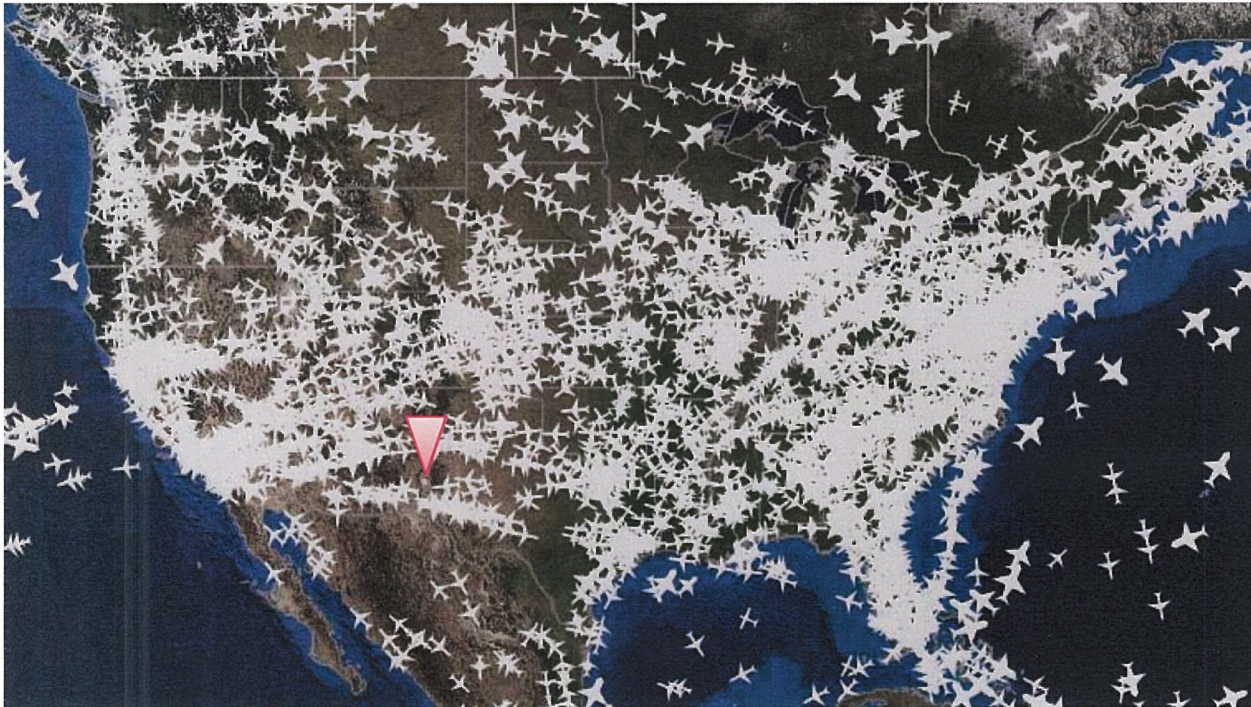
US SPACEPORT STATUS



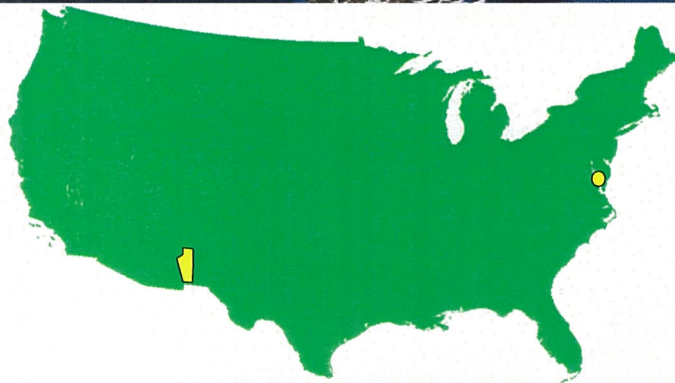
The Global Space Industry is
\$383B per year & growing





NATIONAL AIR TRAFFIC



▽ 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

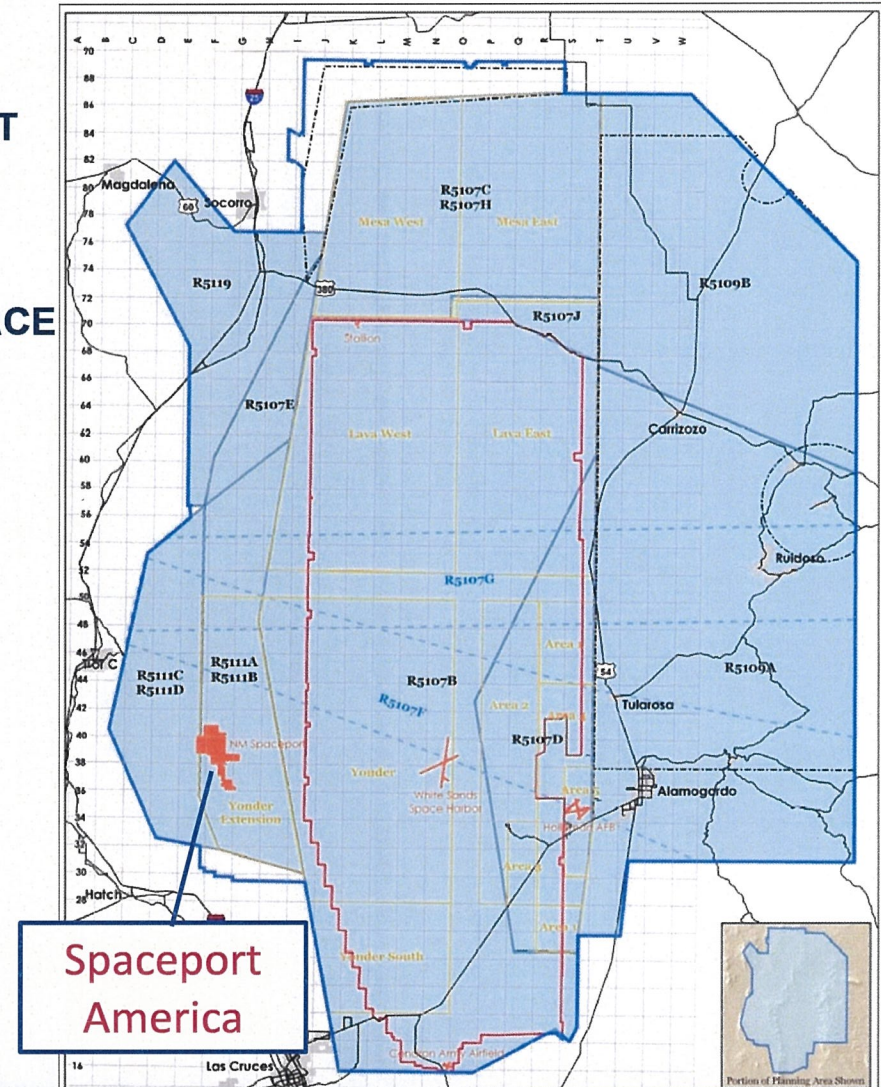
SPACEPORT AMERICA IS A UNIQUE CAPABILITY



- **WE ARE UNIQUELY LOCATED AND PROVIDE ROUTINE ACCESS TO SPACE THAT DOES NOT EXIST ANYWHERE ELSE IN THE COUNTRY!**
- **THE R5111 & R5107 COMPLEX ARE SURFACE TO UNLIMITED CONTROLLED BY DoD**

SPACEPORT AMERICA KEY ATTRIBUTES

- **340+ DAYS OF SUNSHINE**
- **LAUNCH STARTS AT ELEVATION OF 4,600 FT ABOVE SEA LEVEL**
- **SALT AIR CORROSION DAMAGE LESSENER**
- **LOW POPULATION DENSITY**
- **REMOTE LOCATION AND 24/7 SECURITY OFFERS PRIVACY**
- **ACCESS TO 6,000 SQ MI OF RESTRICTED AIRSPACE**



Access to Space - 24/7 through our WSMR partnership!

CURRENT WORKLOAD

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SPACEPORT REACTION FROM LOCAL OFFICIALS



- *“AS A RESULT OF THE LAUNCH, OUR COMMUNITY EXPERIENCED MANY MORE HOTEL ROOM BOOKINGS, INCREASED TRAFFIC AT OUR CONVENIENCE STORES AND MANY MORE MEALS BEING SERVED TO MORE THAN 100 OUT OF STATE GUESTS. THIS IS GREAT FOR SIERRA COUNTY!”—COUNTY COMMISSIONER JIM PAXON REACTION TO LAUNCH WEEK ACTIVITIES FOR UP LAUNCH ON 9/17/2018.*
- *“SIERRA COUNTY BUSINESSES OFTEN KNOW WHEN INCREASED ACTIVITIES ARE OCCURRING AT THE SPACEPORT AS A RESULT OF ADDITIONAL EXPENDITURES OF HOTEL ROOMS, RESTAURANT RECEIPTS, AND EVENT SUPPLIES. SPACEPORT AMERICA CONTINUES TO CREATE GROWTH IN SIERRA COUNTY AND THE NEAR TERM FORECASTED ACTIVITY WILL CONTINUE TO GENERATE POSITIVE SIGNIFICANT IMPACTS ON OUR COMMUNITY.”—SIERRA COUNTY COUNTY MANAGER BRUCE SWINGLE*

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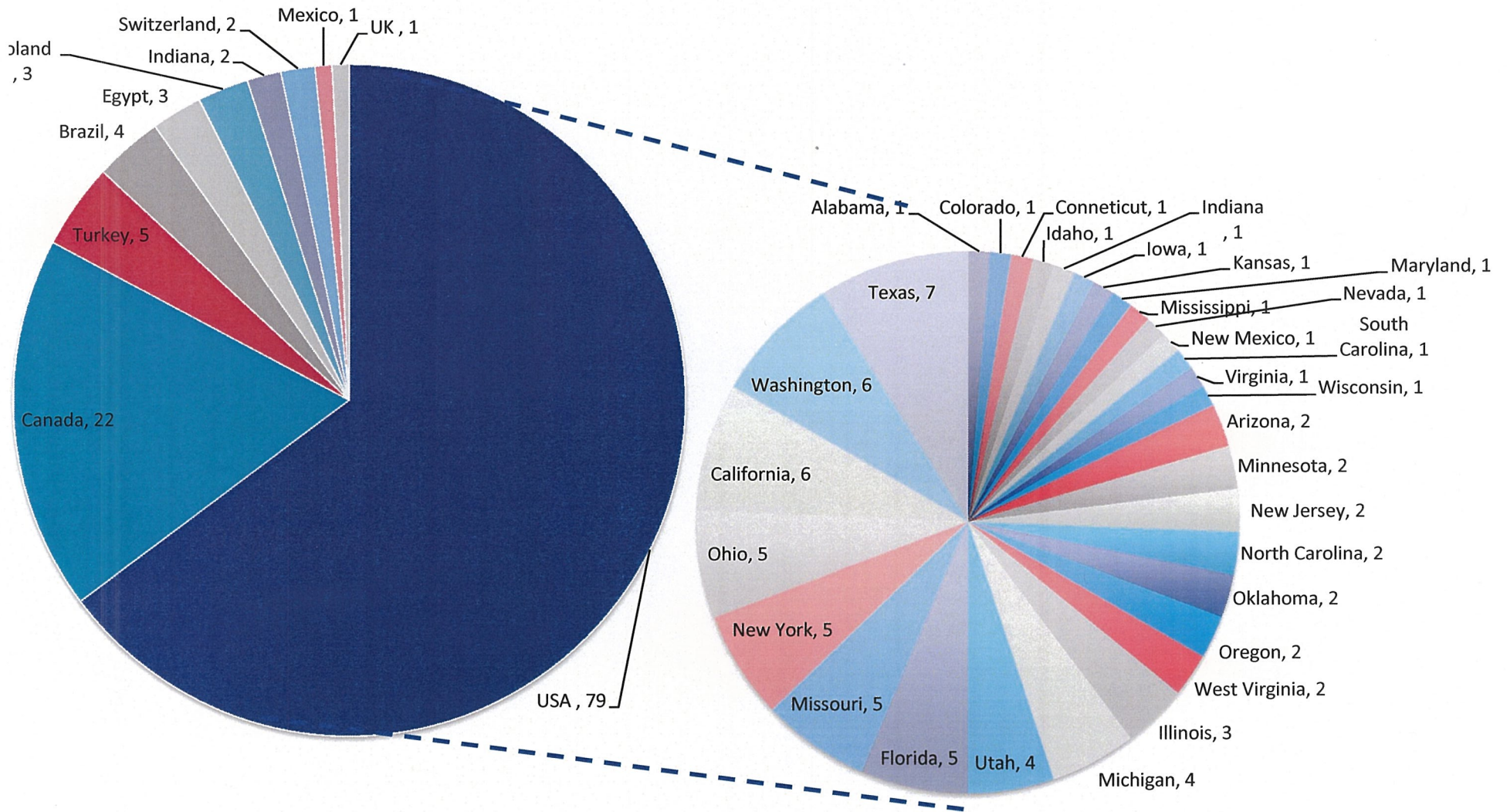
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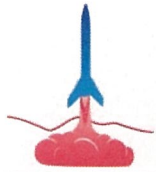
NEAR TERM EFFORTS



- Continued Prep for Virgin Galactic Operations
- Continued Prep for HyperSciences (Energetics-Pipeline to Space)
- Strategic planning – Business Plan update, Capital Outlay projects, SPA Master Plan (FY19)
- Quickly staff up to meet customer requests/inquires – currently have 9 NDAs in place
 - #1 VLA – small rocket company - tropospheric hypervelocity research*
 - #2 VLA/Bootheel – Stratospheric research*
 - #3 VLA & HLA – large company – LEO satellite launch capability*
 - #4 VLA & HLA - large company w/small research effort - Stratospheric*
 - #5 HLA & VLA - large company w/med effort rocket tracking inst/dev*
 - #6 HLA – large new company – LEO satellite launch capability*
 - #7 HLA – large new company – LEO servicing*
 - #8 VLA - small new company – LEO small sat launch*
 - #9 VLA – small new company – LEO small sat launch*

2018 TEAMS REPRESENTED AT THE CUP: 124 TEAMS, 10 COUNTRIES, 31 STATES





SPACEPORT AMERICA® CUP 2018



10K Commercial Of The Shelf Components

First Place - Team 47 McGill University

Second Place - Team 84 Brigham Young University

30K Commercial Of The Shelf Components

First Place - Team 79 Concordia University

Second Place - Team 111 Stanford University

10K Solid Rocket-Student Research and Developed Components

First Place - Team 60 The Ohio State University

Second Place - Team 85 West Virginia University

30K Solid Rocket-Student Research and Developed Components

First Place - Team 65 University of Illinois-Chicago

Second Place - Team 53 University of Minnesota

10K Hybrid/Liquid Rocket Student Research and Developed Components

First Place - Team 38 University of Waterloo

Second Place - Team 108 University of California-Los Angeles

30K Hybrid/Liquid Rocket Student Research and Developed Components

First Place - Team 9 University of Washington

Second Place - Team 105 AGH University of Science and Technology



CAPITAL PROJECTS IMPROVEMENT PLAN FY20-FY24



Rank	Project	Funded	2020	2021	2022	Total Cost	Amount not yet funded	Phases?
1	Vertical Launch Area / Bootheel Improvements	0	2,000,000	0	0	2,000,000	2,000,000	No
2	Spaceway Taxiway	0	10,000,000	10,000,000	0	20,000,000	20,000,000	Yes
3	Ground Support Equipment Aviation Hangar	0	10,000,000	0	0	10,000,000	10,000,000	No
4	Payload Processing Center	500,000	19,500,000	0	0	20,000,000	19,500,000	Yes
5	Visitor Center	0	20,000,000	0	0	20,000,000	20,000,000	No
6	Rocket Motor Test Stands	0	0	1,500,000	1,500,000	3,000,000	3,000,000	Yes
	Totals	500,000	61,500,000	11,500,000	1,500,000	75,000,000	74,500,000	