

SPACEPORT AMERICA
OUR NATION'S GATEWAY TO SPACE!

Legislative Finance Committee

New Mexico Spaceport Authority update - 28 Sep 2017 Interim Meeting

Spaceport Update - Outline

1 chart Bottom line Upfront

2 chart NMSA activity status – good news

9 charts Historical perspective - Commercial Space Industry - NMSA's vision going forward – Current events

5 charts Financial charts

Dan Hicks

CEO, Spaceport America



SPACEPORT AMERICA

BOTTOM LINE UPFRONT

Three Facts

- Spaceport America is creating jobs!
- \$9.2M customer revenue to date!
- The Commercial Space Industry continues to grow world wide!

Two Requests

- Revert to prior year funding level
\$375k (FY18) + \$625K = \$1M (~FY12)
- Support the Commercial Space Protection Act Legislation



100

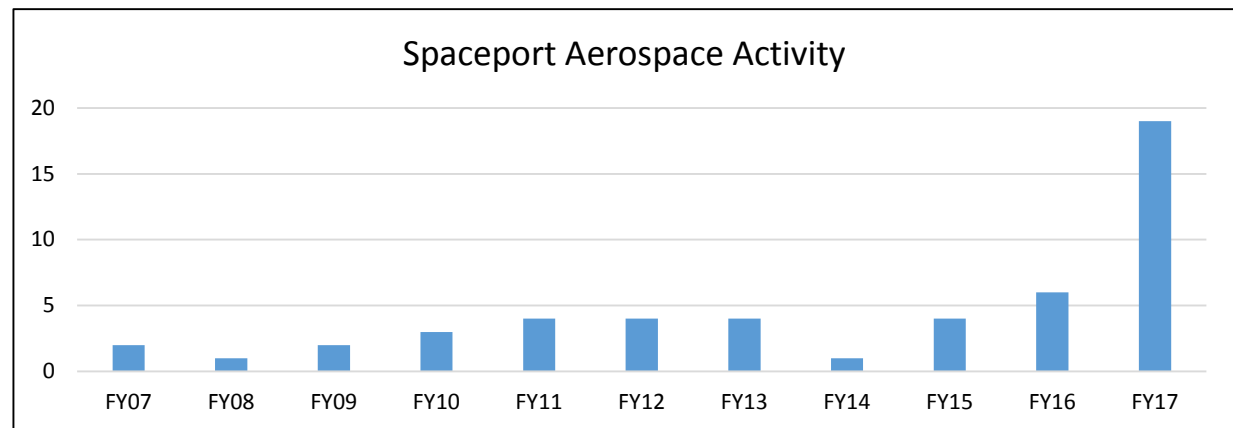
Rocket
Launches
To Date

AEROSPACE ACTIVITY



- FY17 Aerospace activity breakdown
 - 14 Launches from VLA
 - 60 Launches during the inaugural Spaceport America Cup
 - 2 Launch system tests
 - 1 Flight mission from HLA
 - 2 Balloon missions

- **Spaceport activity over time**



*Does not include 60 launches from SA Cup Event

- New jobs created each year
- Estimated **100 new jobs** in FY18

Estimated Avg 60k salary generates 6M in first-order economic stimulus in FY18

	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>
Total	50	75	175
SA	18	18	20
VG	15	25	120
Contractors	20	32	35

EXECUTIVE DIRECTORS

- GEORGE HARRIS 1/94 TO 12/94 *NEW MEXICO OFFICE OF SPACE COMMERCIALIZATION (NMOSC)*
- LONNIE SUMPTER (INTERIM) 1/95 TO 2/95 (NMOSC)
- LOU GOMEZ (ACTING) 3/95 TO 6/96 (NMOSC)
- LANCE GRACE 7/96 TO 8/97 (NMOSC)
- LOU GOMEZ (ACTING) 9/97 TO 12/97 (NMOSC)
- HANSON SCOTT 1/98 TO 12/02 (NMOSC)
- PETER MITCHELL 1/03 TO 1/05 (NMOSC)
- RICHARD KESTNER 2/05-10/05 (NMOSC)
- LONNIE SUMPTER 10/05-2/07 (NMOSC)
- RICK HOMANS 3/07 TO 7/07 *NEW MEXICO SPACE AUTHORITY (NMSA)*
- STEVE LANDEENE 1/08 TO 4/09 (NMSA)
- RICK HOMANS 6/09 TO 12/10 (NMSA)
- CHRISTINE ANDERSON 3/11 TO 6/16 (NMSA)
- DAN HICKS 11/16 TO ** (NMSA)

U.S. COMMERCIAL SPACEPORTS

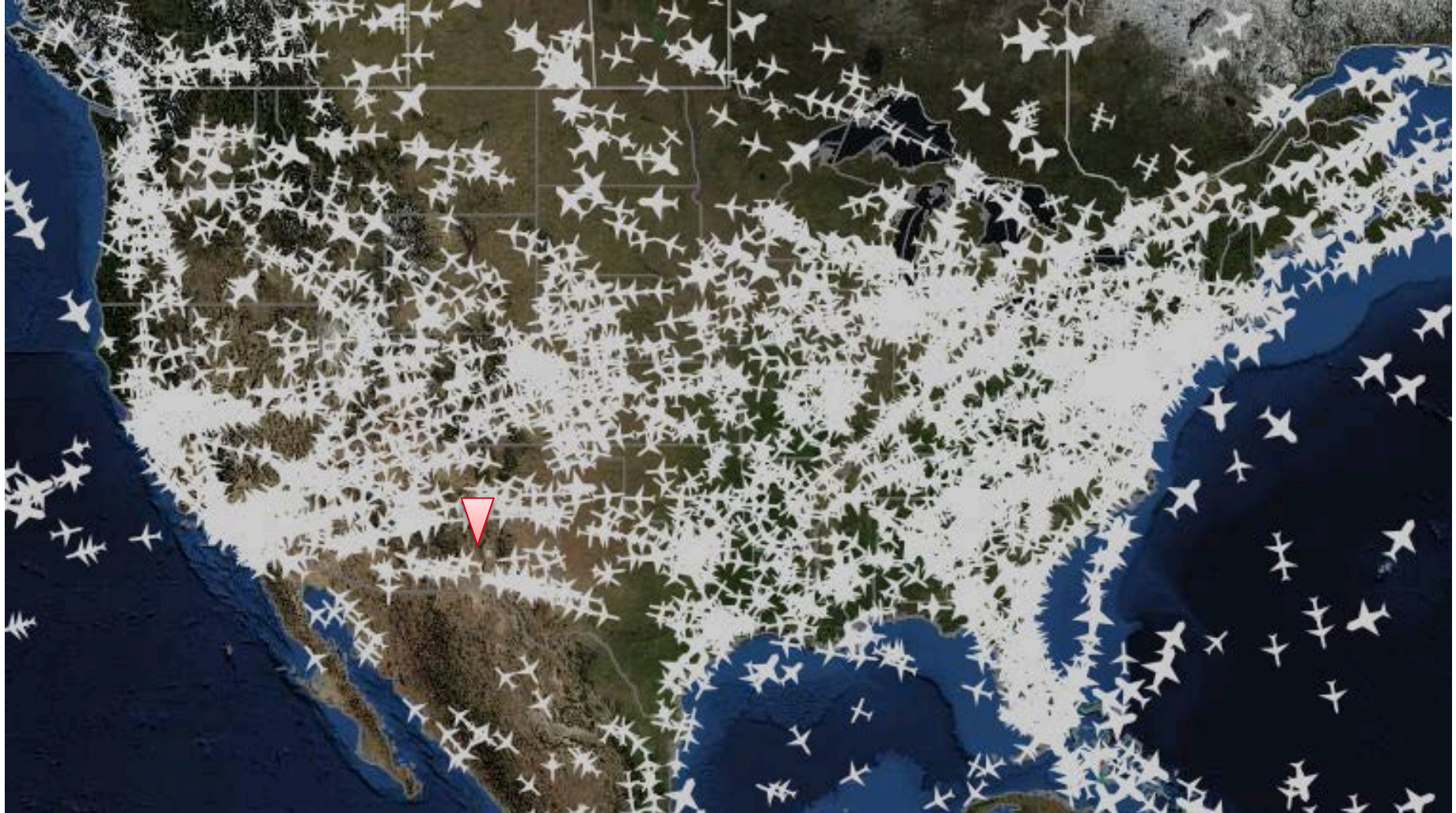
The Commercial Space Industry is **\$330B** per year & growing



Spaceport America = 40 Vertical launches, 10 were to space; IREC another 60 Vertical launches; 7 major Horizontal Flight efforts

<p>Cecil Field Houston Midland Oklahoma</p>	<p>Cape Canaveral Mid-Atlantic California</p>	<p>Mojave => Three air launches to space Kodiak => Seasonal launch site for target missiles Blue Origin => Single customer only Poker Flat => Arctic research only</p>
}	}	
No launches to date	Large rocket, orbital focus	

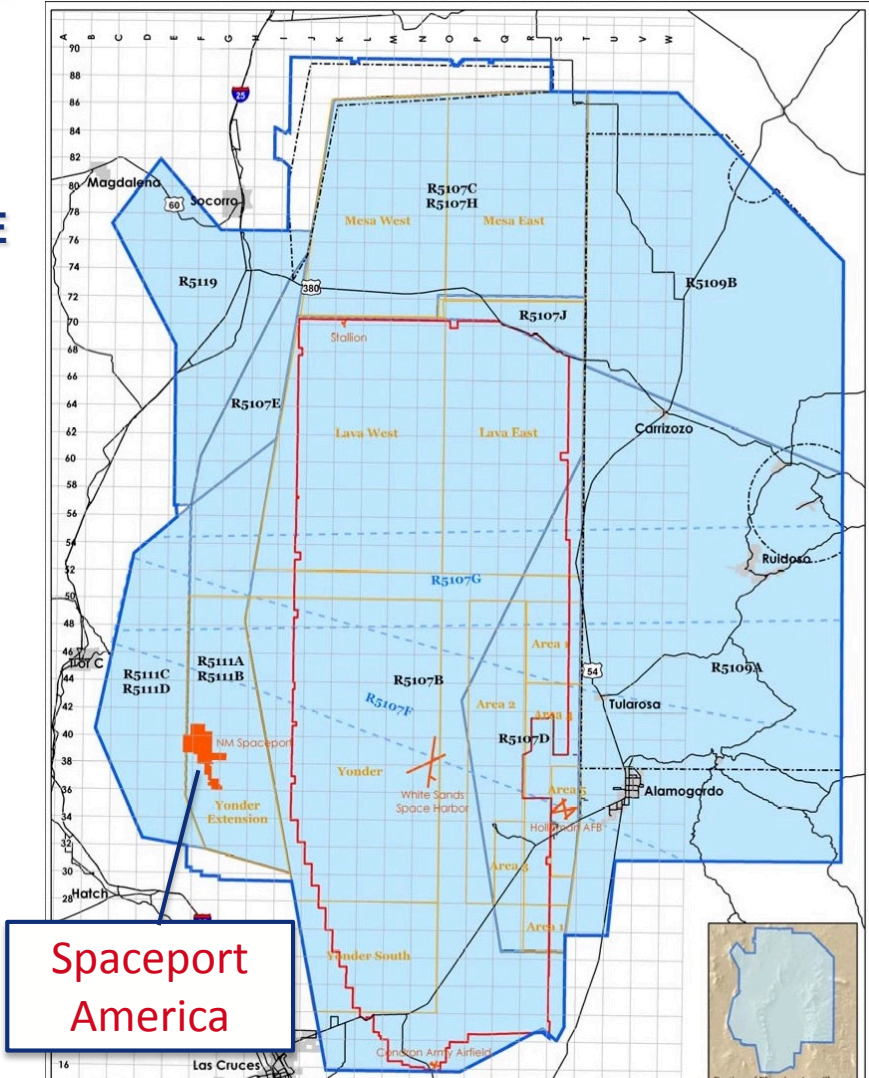
NATIONAL AIR TRAFFIC



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

SPACEPORT AMERICA IS A NATIONAL TREASURE

- **WE ARE UNIQUELY LOCATED AND PROVIDE ROUTINE ACCESS TO SPACE THAT DOES NOT EXIST ANYWHERE ELSE IN THE COUNTRY!**
- **WSMR AND NMSA HAVE A STRONG PARTNERSHIP TO SUPPORT BOTH THE COMMERCIAL SPACE INDUSTRY AND OUR NATION'S NATIONAL SECURITY INTERESTS!**
- **THE R5111 & R5107 COMPLEX ARE SURFACE TO UNLIMITED**



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

SPACEPORT AMERICA VALUE PROPOSITION

- **340+ DAYS OF SUNSHINE**
- **LAUNCH STARTS AT ELEVATION OF 4,600 FT ABOVE SEA LEVEL**
- **NO DAMAGE FROM SALT AIR CORROSION**
- **FIRST PURPOSE BUILT COMMERCIAL SPACEPORT**
- **LOW POPULATION DENSITY**
- **REMOTE LOCATION AND 24/7 SECURITY OFFERS PRIVACY**
- **ACCESS TO 6,000 SQ MI OF RESTRICTED AIRSPACE**

WE HEAR FROM OUR CUSTOMERS, "THERE IS NO OTHER PLACE LIKE SPACEPORT AMERICA FOR OUR OPERATIONS."

Unique attributes make Spaceport America a National Treasure

CURRENT & FUTURE GROWTH

- **SUB-ORBITAL- FOCUS ON RESEARCH/ASTRONAUT EXPERIENCE**

We have three of the top four Sub-orbital Launch Operators as tenants!

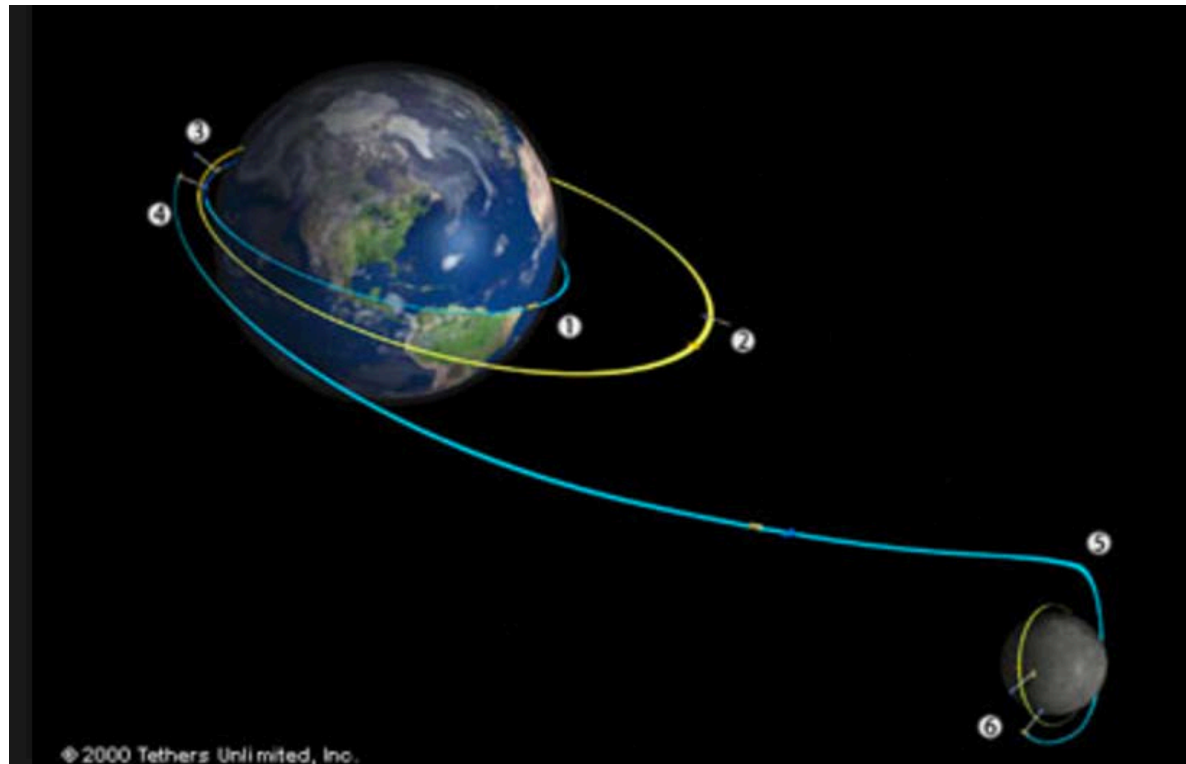
- **ORBITAL – WITH THE RIGHT TECHNOLOGIES**

Spaceplane, Single-Stage to Orbit, Returnable Booster, etc.

- **TRANSPORTATION HUB – A FULL SERVICE SPACEPORT!**



**GOAL IS TO DEVELOP
PRIMARY INLAND
SPACEPORT TO SUPPORT
OUR NATIONS
COMMERCIAL, NASA AND
DoD INTERESTS**



SOME EXPERIMENTS CAN'T TAKE PLACE HERE
ON EARTH OR WOULD TAKE MUCH LONGER

It is going to take a lot of advances in life and material sciences to send humans to Mars by the 2030's...

Spaceport America is in an **excellent position** to support the micro-gravity research needed for the Commercial Space Industry and NASA's exploration efforts

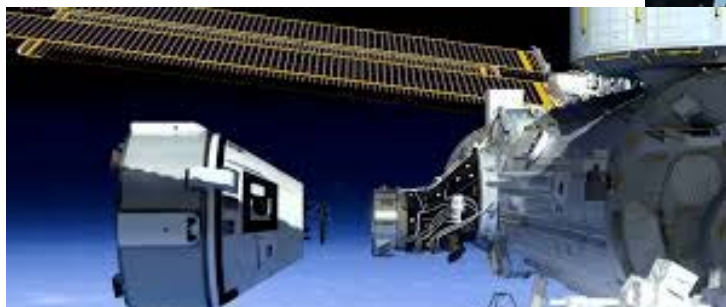
THIS MICRO-GRAVITY RESEARCH IS IMPORTANT AS IT WILL LEAD TO MANY ADVANCES SUCH AS CANCER FIGHTING MEDICATIONS



Photo credit: Team Daniela Grim
Poorly differentiated follicular thyroid cells shortly before launch. The cells were then exposed to microgravity aboard the International Space Station for the Cellbox-Thyroid investigation.

HIGH VISIBILITY SPACE TESTING

- Working with WSMR and Boeing on multiple drop tests of the new Crew Transportation Capsule for the International Space Station – 2016 – 2017
- First successful launch Feb 2017



- June 19-24, 2017
- 60 student rocket launches
- 91 university teams from 12 countries on 6 continents
- 1,622 visitors on site
- 82% out-of-state visitors
- Event revenue of \$188,852

BUDGET SUMMARY



Revenues		<u>FY18</u>	<u>FY19</u>
111	General Fund Transfers	375,900.00	1,000,000.00
130	Other Revenues	5,466,600.00	6,610,000.00
	Total	5,842,500.00	7,610,000.00

Expenses			
200	Personnel	1,814,000.00	2,534,200.00
300	Services	2,285,700.00	2,883,900.00
400	Other Costs	1,742,800.00	2,191,900.00
	Total	5,842,500.00	7,610,000.00

- **Requesting 30% budget increase for agency in FY19**

Increased Airspace Management Rqmnts (VG flights, HAFB, FAA coord, etc)

Increased Rocket Launches & Events

Required Preventative maintenance

GENERAL APPROPRIATION REQUEST



- FY09 1,246k
- FY10 1,246k
- FY11 1,129k
- FY12 490k
- FY13 456k
- FY14 456k
- FY15 459k
- FY16 460k
- FY17 420k
- FY18 375k
- FY19 Request: \$1,000k
Base \$375.9k / Expansion \$624.1k
- **Request to return funding to FY09-FY11 level**
- **Expansion allows agency to capture new business for New Mexico**
- **Failure to expand will keep agency at current activity levels and **LOSE business to other states.****

WHAT DOES THE EXPANSION FUND?

- **General Fund expansion covers:**

Aerospace Lead – Charged with oversight of day-to-day project management at Spaceport America

Airspace Flight Control Specialist – Expands personnel coverage to allow airspace use over a 24 hour flight window

Aerospace Engineer (Business Development) – Capture new revenue and aerospace jobs for New Mexico

Accounts Receivable Accountant – Invoices increased 75% in FY17. Admin staff is needed to track contracts, issue invoices, and perform collections on additional revenue.

- **Spaceport America revenue growth covers:**

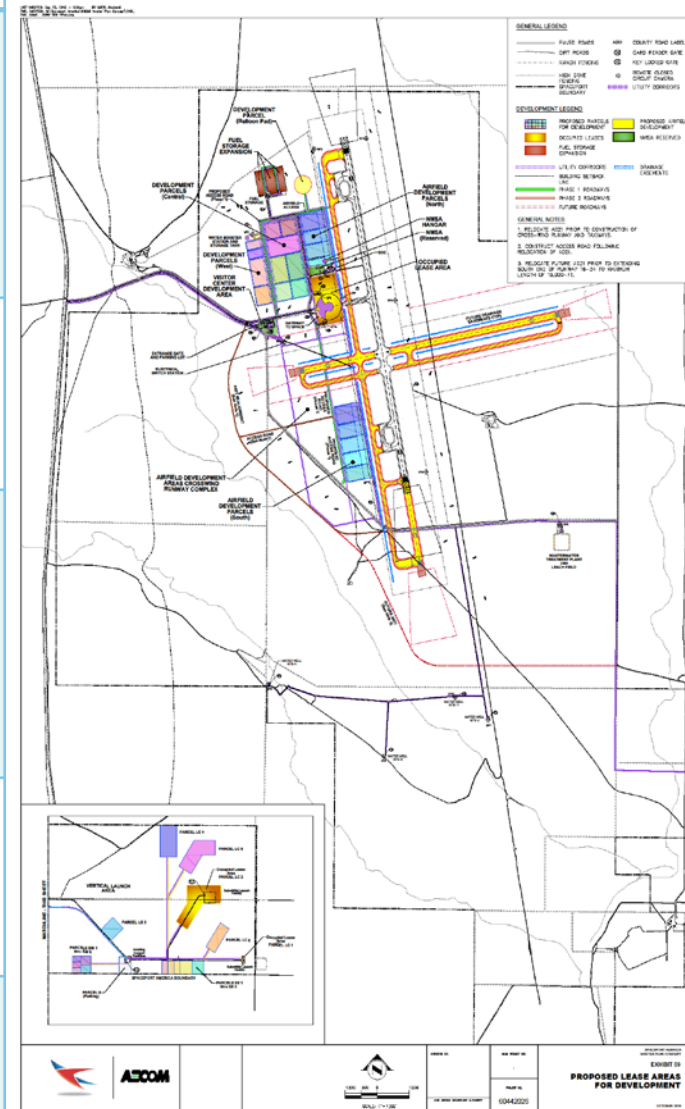
Facilities Engineer – Manages construction projects, preventative maintenance plan, and facilities master planning

Flight Operations Manager – Expands personnel coverage to allow airspace use over a 24 hour flight window

- **Protective Services increases to support additional operations**

CAPITAL IMPROVEMENT PLAN

Name	Description	Amount
SA Facilities Upgrades	Major repairs and upgrades on existing facilities at Spaceport America to include electrical, HVAC, fire suppression, water, sewage, security, mission control and other building systems.	500,000
Launch Vehicle Integration Facility	Construction for a new facility at Spaceport America for launch vehicle payload integration	20,000,000
Fuel Farm Installation	Construction for new fuel farm installation to include planning, design, and construction of concrete foundation, fuel tanks, electrical, support vehicles, and other infrastructure.	5,000,000
Spaceway Taxiway	Construction for improvements to the Spaceway at Spaceport America including taxiway infrastructure	20,000,000
Vertical Launch Area (VLA) Improvements	Major repairs in the Vertical Launch Area at Spaceport America to include electrical, communications, security, launch infrastructure/facility upgrades.	500,000
		Total cost: \$46,000,000



CAPITAL PROJECTS IMPROVEMENT PLAN FY19-FY23



ID	Year	Rank	Project Title	Funded to date	2019	2020	2021	2022	2023	Total Project Cost	Amount Not Yet Funded	Phases?
33685	2019	001	SA Facilities Capital Upgrades	0	500,000	0	0	0	0	500,000	500,000	No
33686	2019	002	SA Launch Vehicle Integration Facility	0	6,000,000	10,000,000	4,000,000	0	0	20,000,000	20,000,000	No
33687	2019	003	SA Fuel Farm Installation	0	3,000,000	2,000,000	0	0	0	5,000,000	5,000,000	No
33688	2019	004	Spaceway Taxiway	0	10,000,000	5,000,000	5,000,000	0	0	20,000,000	20,000,000	No
33691	2019	005	SA Vertical Launch Area Improvements	0	500,000	0	0	0	0	500,000	500,000	No

Number of projects:	5											
	Funded to date:	Year 1:	Year 2:	Year 3:	Year 4:	Year 5:	Total Project Cost:	Total Not Yet Funded:				
Grand Totals	0	20,000,000	17,000,000	9,000,000	0	0	46,000,000	46,000,000				

Spaceport America is successful and Operational!

SEE YOU IN SPACE!

