

NM Spaceport Authority - Status

For the

NMFA Oversight Committee

Truth of Consequences Civic Center

August 29, 2022

Scott McLaughlin, Executive Director



SPACEPORTAMERICA

THE SPACE TO BE...

OUTLINE

- Recent Activities
- Budget and Staff Review
- Business Development Update
- Infrastructure Updates

RECENT AND PLANNED ACTIVITIES



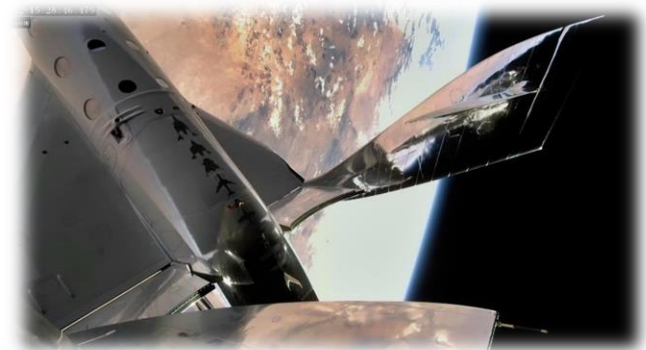
RECENT AND PLANNED ACTIVITY

- **Virgin Galactic** flight activities later this year and customer operations 2023
- **SpinLaunch** has continued high-energy kinetic test flights
- **USAF Thunderbirds** completed 2 ½ weeks of winter training
- **US Military Academy West Point** rocket launches in April
- **New Ascent** STEM “chipsat” tests
- **Tuskegee Airmen** space camp rocket launches
- **AeroVironment** small UAV training and testing
- Rental of runway for Indy race car **aerodynamics testing**
- Two HAPS (**High Altitude Platform System**) customers this fall
- **STEM Outreach** including virtual, site tours/demos etc.
- Largest **Spaceport America Cup** was held in June
- **Guinness Book of Records** set for world’s fastest blind driver
- Garage Shop **car racing and testing** ahead of Bonneville Flats
- **MOU with Sierra Space** for *Dream Chaser* vehicle re-entry
- **UP Aerospace Rocket Launch** planned for November
- **PBS** and **National Geographic** documentary features planned
- Updates to visitor experience in partnership with **NM Space History Museum** planned
- **Updates to VLA, SOC repairs, and master plan** all underway
- **Kinetic launch** customer to be on site
- **Liquid rocket engine testing** later this fall
- **Suborbital liquid rocket launch** in 2023
- See www.youtube.com/c/SpaceportAmerica

VIRGIN GALACTIC STATUS

From 2022 Q2, released August 4, 2022

- Selected Aurora Flight Sciences, a Boeing Subsidiary, to Build Two New Motherships; Planned to Enter Service in 2025
- Delta Class Spaceship Manufacturing Facility in Phoenix Area, Expected to be Fully Operational in Late 2023
- Commercial Launch Anticipated for Q2 2023
- Secured Land for new Astronaut Campus Training Facility in Sierra County



SPINLAUNCH

- Completed 9 test flights so far
- Construction phase complete
- Moving toward continuous test operations cadence



Real Engineering link: <https://www.youtube.com/watch?v=yrc632oilWo>

Plans to be back in 2023



From white paper: ***Bridging the Digital Divide with Aviation in the Stratosphere***, Dec. 23, 2021;
HAP Alliance
(<https://hapsalliance.org>)



Photo credit: NASA/Carla Thomas
Provided by HAPSMobile Inc.

Section 2. Preparations for High-altitude Test Flight

Following the successful low-altitude test flights that verified basic safety, HAPSMobile took the next steps required to prepare for high-altitude test flights. Spaceport America (SpA), located in New Mexico, USA, was chosen as the venue. Ahead of transporting the aircraft, the airport's facilities were reserved and prepared for exclusive use. As a stratospheric flight tends to be a long-hours mission, various facilities were also prepared for the crew, making certain that appropriate measures had been taken and everything was in place.

USAF THUNDERBIRDS

- This was for their winter training exercises
- Included over 70 persons in hotels for over 2 weeks in T or C
- They will likely make this a regular part of training, especially if improved facilities (e.g. larger hangar)



GARAGE SHOP, DAN PARKER, AND INDY CAR TESTS

- Only host events like this on non-interference basis for aerospace customers
- Creates local economic impact and additional revenue for the spaceport
- Most are private testing events, but some allow the public to be a part



On March 31, 2022 Dan Parker set the record as the world's fastest blind driver

NMSA BUDGET



NMSA BUDGET

- Earlier
 - After analysis, the NM Legislature concluded it was in the best interest of the state to replace the excess pledged revenue (EPR) previously used for operations.
 - A \$1M supplemental was appropriated for shortfalls for FY22
 - \$1.7M appropriated from the GF for FY23
- Budget uncertainty created issues such as deferring maintenance and delayed recruiting efforts, which we are now working to catch up
- Filling the budget allows the Spaceport to continue 24/7 site activities, hire to needed FTE levels, and continue to work on non-revenue generating goals such as STEM, workforce development outreach, as well as supporting aerospace economic growth initiatives in the state
- A shortage of employees has been our main impediment to handling increased operations and business development tasks
- SpA is about 65% self-funded, with inherent uncertainty in customer revenue and expenses (e.g., maintenance and repairs)

NMSA BUDGET VS ACTUAL (THOUSANDS)

Item	FY21 Actual	FY22 ² Actual	FY23 Budgeted	Notes
Operating Revenue	5,603	7,525	6,923 ³	From customers (fees, leases, utilities, fuel)
General Fund	1,917	2,091	3,879	FY23 includes increased appropriation
Revenue Total	7,520	9,616	10,802	
200 Personal Services	2,120	1,720	2,759	
300 Contract Services	4,550 (1,750) ¹	4,627	5,638	
400 Other Costs	1,968	2,299	2,405	
Expense Total	6,888¹	8,646	10,802	
Supplemental		1,000		
Net Result	632	1,970		

Notes

- 1) Partial contractual expenses in the amount of \$1,750M were transferred to Capital Projects Fund, as directed by Legislature. Actual expenses for FY21 were \$8,638.
- 2) Ended June 30, 2022. Numbers are unaudited and subject to change for FY closeout.
- 3) Original budgeted value is shown but expect customer revenue to be higher.

- Still difficult to fill many positions due to job market conditions
- New Aerospace Engineer starting in several weeks
- Two retirements by end of September as well as another employee resigning and leaving the area soon
- Will be advertising for Flight Control Specialist soon
- With filled budget, can hire to about 28 FTE's (we are at about 21 right now)
- Will staff-up to cover critical operations first, such as air space management
- Other staff will be hired as the budget stabilizes and becomes consistent

BUSINESS DEVELOPMENT UPDATE



BIZ DEV AND SALES

- Signed MOU with **Sierra Space**
- Working on **FAA reentry license**
- Presented at **STC** in Los Angeles
- Attended Aerospace States Association (**ASA**)
- Attended and presented at **PACA**
- Attended **FEMIA** to build relationship with aerospace activities in Mexico
- New customer **HAPS** facility completed
- Planning agreements in place with various companies
- Attended **State of Space Industrial Base** (SSIB) – Launch Services Working Group
- Future exhibitions include **SpaceCom** (Feb. 2023), **Space Symposium** (Colorado, April 2023)
- Attendance at **FAA CST**
- Getting ready for **SA Cup 2023**



2022 SPACEPORT AMERICA CUP

- Premier event hosted by Spaceport America since 2017
- 2020 cancelled, 2021 successfully held virtually
- 2022 was the largest Cup to date with 4 local teams competing earning an estimated \$1.2 million in economic impact (hotels, restaurants, etc.) and reached over \$8.8m in earned media for the Spaceport, Las Cruces, and New Mexico.



SA CUP SPONSORS

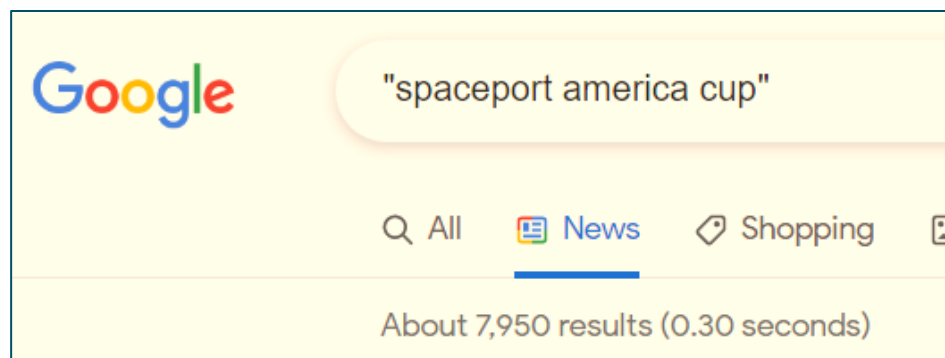
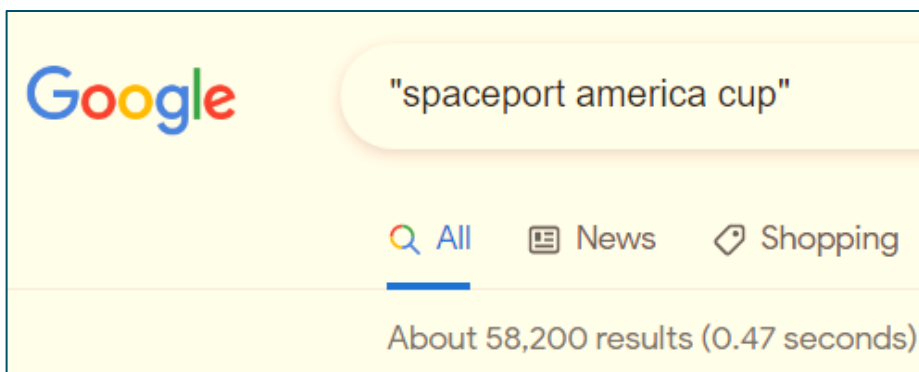


Sandy Jones
Contractor



SA CUP LINKS ETC.

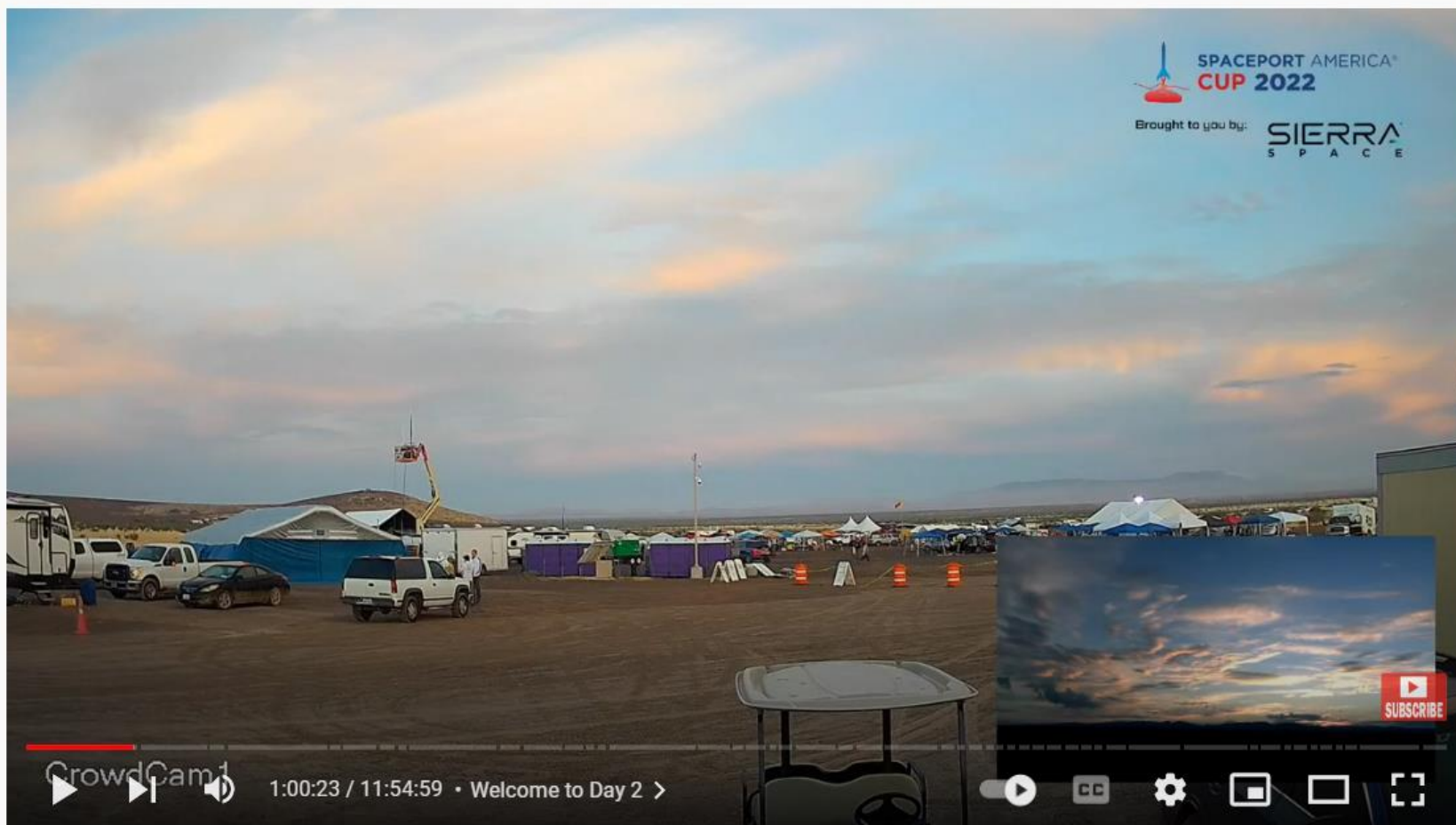
- <https://spaceportamericacup.com/>
- <https://www.soundingrocket.org/>
- <https://www.soundingrocket.org/2022-sa-cup---15th-anniversary.html>
- <https://www.youtube.com/c/SpaceportAmerica>
- <https://www.youtube.com/c/ExperimentalSoundingRocketAssociation>



LIVE STREAMED FOR THE FIRST TIME



Search



SOME SA CUP NUMBERS



- 5,500 participating
- 1300 students in NM
- 200 teams signed up, 151 selected, 89 made it to SpA
- 20 Countries
- 4 regional schools*
- 90 flights
- 8.9M Media Impressions
- \$700k Earned Media
- 100k views on live stream

* UTEP, NMSU, NM Tech, UNM

CHILE CUP WINNERS, NMSU ATOMIC AGGIES



- <https://www.facebook.com/NMSUAtomicAggies/>
- <https://engr.nmsu.edu/news-events/2022/07/nmsu-atomic-aggies.html>

STEAM AND OUTREACH

- Leading **GSA Academic Partnership Working Group** - ISS data collection program running in LCPS
- Assisted in bringing **Teachers in Space** Workshop to NM late June
- Supported **Girls in Aviation** event during SpA Cup
- **NMSA Outreach efforts recognized** by state Delta Kappa Gamma group
- **STEM Visits** to local schools
- **Student site visits to SpA** and partnership with tenants
- Supported the **Tuskegee Airmen Space Camp** rocket launches
- Creating new **STEM SpA activity teaching coloring book**
- Working on updating **Visitor Experience** and merchandise (partnership with DCA)



INFRASTRUCTURE UPDATES



INFRASTRUCTURE IMPROVEMENTS



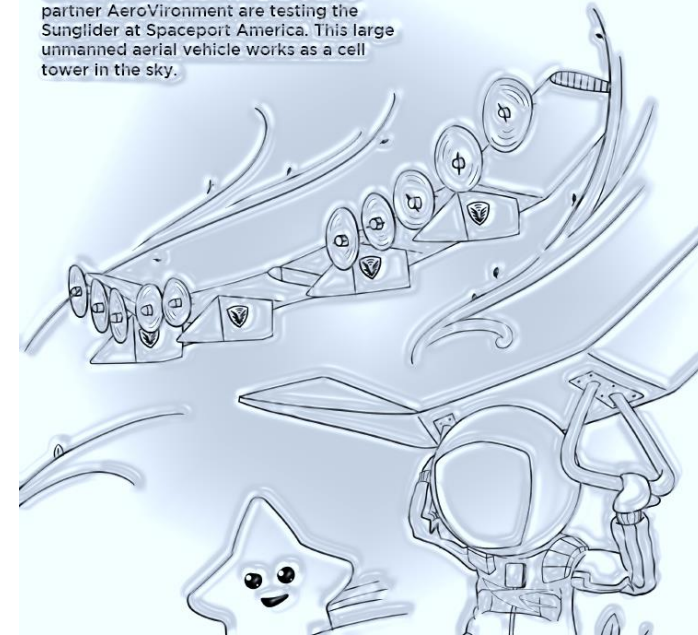
- Two **new project managers** hired to focus solely on capital projects
- **SOC Repair** contract awarded with repairs starting soon
- **Launch Rail** procurement completed with construction starting soon
- **Extending electricity** to several locations in VLA
- **Improving gravel roads in VLA**
- Starting **repairs for HLA paved roads**
- Finalizing design-build RFP for **STARC building**
- **Master Plan RFP** was recently released
- Gearing up for **Supplemental EIS** which includes **reentry license**
- Legislature approved FY24 ICIP* including \$2M to start work on **taxiway** and \$1.5M for **general infrastructure upgrades**
- **Cell tower antenna** with 2 carriers will be on site late this year
- VG Replica **Accessibility Improvements** and **Viewing Lot** near entrance
- Working to **improve dirt roads** around the spaceport
- Awaiting results of **EDA BBB** grant for **Space Valley Coalition**, including funds for **vehicle building in VLA**
- Part of **NSF Regional Engines** application, with proposal due June 2023

*Infrastructure Capital Improvement Plan

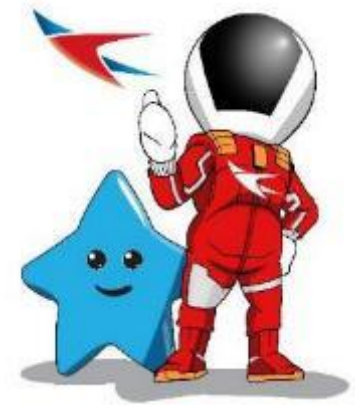
THANK YOU.



HAPSMobile and aircraft development partner AeroVironment are testing the SunGlider at Spaceport America. This large unmanned aerial vehicle works as a cell tower in the sky.



- URL: www.spaceportamerica.com
- Email: scott.mclaughlin@spaceportamerica.com
- Main Phone: (575) 267-8500
- Google Earth Link to Site: <https://tinyurl.com/y4grkvca>



ADDITIONAL LINKS

- **New Ascent:**
<https://www.newascent.space>
- **HAPS Alliance:** <https://hapsalliance.org>
- **Virgin Galactic information:**
<https://investors.virgingalactic.com/overview/default.aspx>
- **Aerospace States Association:**
<http://www.aerostates.org>
- **UP Aerospace:**
<https://www.upaerospace.com>
- **Sierra Space:**
<https://www.sierraspace.com/space-transportation/dream-chaser-spaceplane>
- **SpaceCom:** <https://spacecomexpo.com>
- **FAA Commercial Space Transportation Conference:**
<https://www.cstconference.space>
- **Space Symposium:**
<https://www.spacesymposium.org>
- **NMSA Master Plan RFP notice:**
<https://www.spaceportamerica.com/business>
- **New Mexico Space Valley:**
<https://spacevalley.org>
- **EDA BBB Regional Challenge:**
<https://eda.gov/arpa/build-back-better>
- **National Science Foundation Regional Innovation Engines:**
<https://beta.nsf.gov/funding/initiatives/regional-innovation-engines>
- **CNBC - Space Industry Growth:**
<https://tinyurl.com/y2px7l7x>
- **Spaceport America Podcast**
<https://open.spotify.com/show/3aj4WTWI5twYXRAZdb3LZi>
<https://www.spaceportamerica.com/press-center/#podcast>