

# Welcome!

Thanks for joining us for Space Day NY 2023

Here's the outline for today's virtual Town Hall.

- ◆ Introduction to Empire Space and Space Day NY
- ◆ Empire Space Updates
- ◆ Tour of the New York Space Ecosystem
- ◆ Preparing for Space Day 2024

ENTER YOUR FEEDBACK IN THE [TOWN HALL DISCUSSION](#) GOOGLE FORM

# Introduction



# EMPIRE SPACE

VIRTUAL TOWN HALL

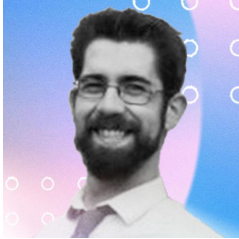
INAUGURATING SPACE DAY NEW YORK

*May 25th, 2023*

# Space Day NY 2024 Recap

<b>Time</b>	<b>Event</b>	<b>Organization</b>	<b>Speaker</b>
6:00 PM	Empire Space Virtual Town Hall	NASA NYSG	Dr. Mason Peck
11:00 AM	SSPI-WISE Open Meeting	SSPI-WISE	Tamara Bond-Williams
1:00 PM	2024 Eclipse Information Session	RMSC	Dan Schneiderman
2:00 PM	Copernic Space Interview	Copernic Space	Grant Blaisdell
4:00 PM	Telescopes & Space Science STEAM Workshop	NASA Ambassador	Robin Vernuccio

# The Team



## Patrick Chase

LOCATION: ROCHESTER, NY

EDUCATION: BA, POLITICAL SCIENCE, UNIVERSITY OF ROCHESTER

EXPERIENCE: POLITICAL COMMUNICATIONS AND FIELD WORK



## Evan Lerner

LOCATION: NEW YORK, NY

EDUCATION: BS AND MS IN AEROSPACE ENGINEERING, UNIVERSITY OF MICHIGAN

EXPERIENCE: PRODUCT AND ENGINEERING FOR SPACE AND DEFENSE



## Casey Slone

LOCATION: SARATOGA SPRINGS, NY

EDUCATION: BA IN POLITICAL SCIENCE, UNIVERSITY OF ROCHESTER

HOPES AND DREAMS: NEW YORK STATE ECONOMIC GROWTH

## Meet Our Space Day NY Sponsors



**NASA NEW YORK**  
Space Grant Consortium



**COPERNIC**  
SPACE

**NY Space Business Roundtable**  
**Real. New York.**



Columbia Space Initiative





# What is Space Day?

1. A new opportunity to celebrate New York's history in space exploration while laying the groundwork for sustained, statewide space ecosystem growth.
2. Taking New York from a Top 15 Space State to the Top 10 requires greater integration and visibility for the space sector, including in Albany.
3. There is tremendous potential for job growth and new academic & civic programming, but too often the sector is fragmented and unperforming.
4. Space Day is an opportunity to take pride in our past, acknowledge the strengths & weaknesses of our present, and build a plan for a bright future.



## *Space Day NY 2023 Top Takeaways*

- ❖ **Full day** programming 11:00 am-7:30 pm May 25th, 2023.
- ❖ Over **100 participants** across 5 events from multiple regions of NY and over a dozen organizations involved.
- ❖ Participants included a diverse cross-section of society, industry professionals and interested citizens.
- ❖ Executed a **wide range** of programming including a session on space finance assets & finance, **STEAM kids workshop**, and 2024 Total Solar Eclipse info session.
- ❖ Key partnerships with critical NY space stakeholders, building towards future programming and collaborations.
- ❖ Visit [youtube.com/@empirespace3842/playlists](https://youtube.com/@empirespace3842/playlists) to see more than 4 hours of Space Day NY 2023 content.



# New York's Space Legacy

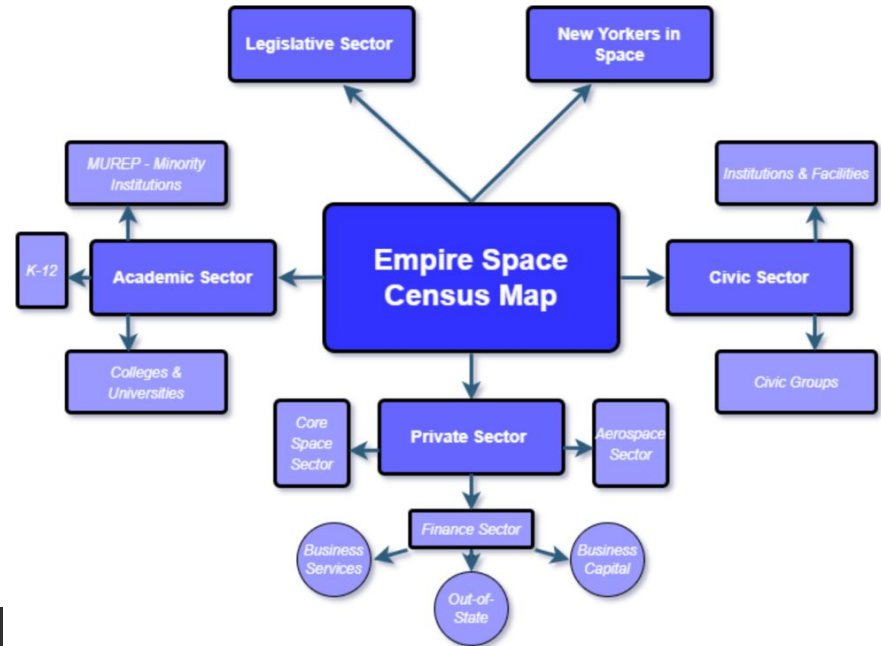
- ❖ Lindbergh flew from Long Island and the Apollo landers were built here.
- ❖ NY astronauts from the beginning of the space industry up to the present day.
- ❖ Significant contributions to space research and exploration from NY institutions such as Cornell, Columbia, Brookhaven, University of Buffalo.
- ❖ NASA does have a facility in the state at Columbia and there is an associated economic footprint.
- ❖ Tens of thousands currently employed in space and aerospace statewide.

NEW YORK HAS A  
PROUD & ENDURING  
LEGACY IN SPACE

# Empire Space Updates

## Key Resource Highlight - The Census

- ◆ The Census is publicly available on our website: [EmpireSpace.org/Data](https://EmpireSpace.org/Data)
- ◆ Document and expose the deep network of NY space stakeholders
- ◆ The census is public to promote engagement and collaboration
- ◆ Explore the new york space sector and learn just how potent of an economic, academic, and cultural force it can be in the future!



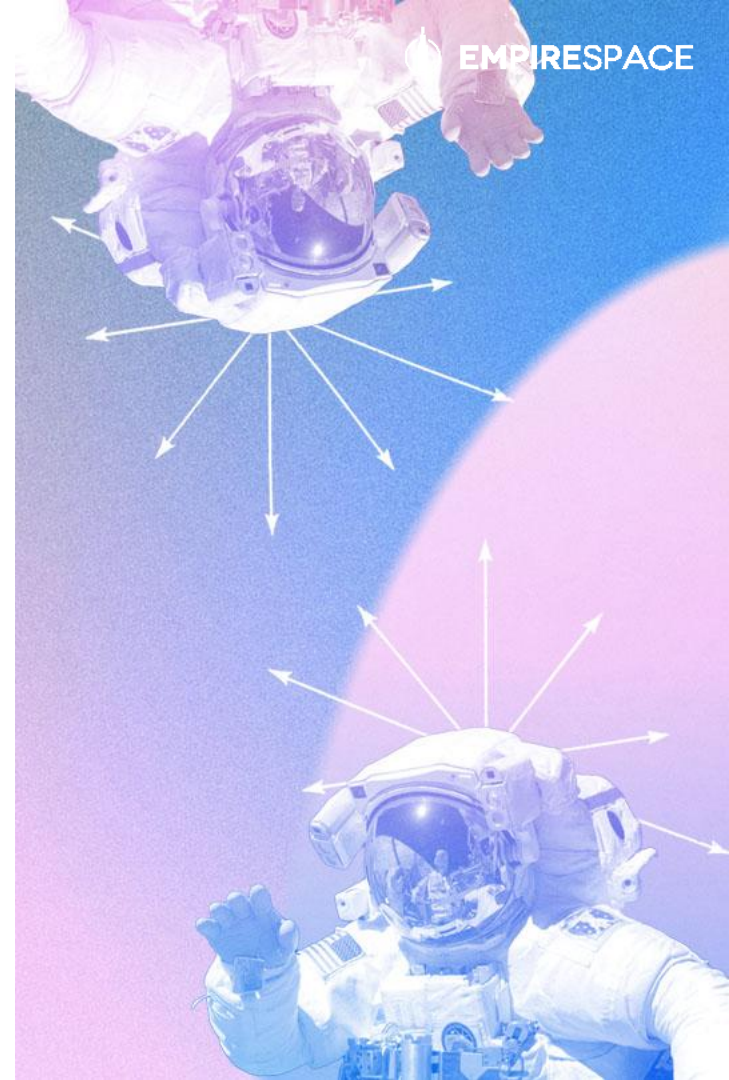
EXPLORE THE CENSUS TO LEARN MORE

# What's New!

- ◆ Intern development
- ◆ Significant NY space networking activity
- ◆ NY Space Chat Slack channel
- ◆ **Space Day NY**
- ◆ New Reports on NASA Connections, New Yorkers in Space
- ◆ New Donation opportunities

ENTER YOUR FEEDBACK IN THE

[TOWN HALL DISCUSSION](#) GOOGLE FORM



# Our Growing Team

We've had a number of outstanding contributions from a number of our interns, including the following highlights:

- ◆ **Serena Sidlow**, a student at the CCNY School of Engineering, has conducted a number of in-depth reports on the various New Yorkers who have gone to space.

***"Multiple Astronauts With New York Ties Aim for the Stars"***

- ◆ **Aayusha Singh**, a student at the National Institute of Technology in Srinagar, India conducted an in-depth analysis of the ties between the private sector and NASA.

***"NASA Affiliated Companies Key Part of NY Space Ecosystem"***

Both Serena & Aayusha have asked to stay on board, and we have other interns with their own unique projects underway.

Please reach out to Evan ([evan@empirespace.org](mailto:evan@empirespace.org)) or Patrick ([patrick@empirespace.org](mailto:patrick@empirespace.org)) if you have any questions about our internship program!

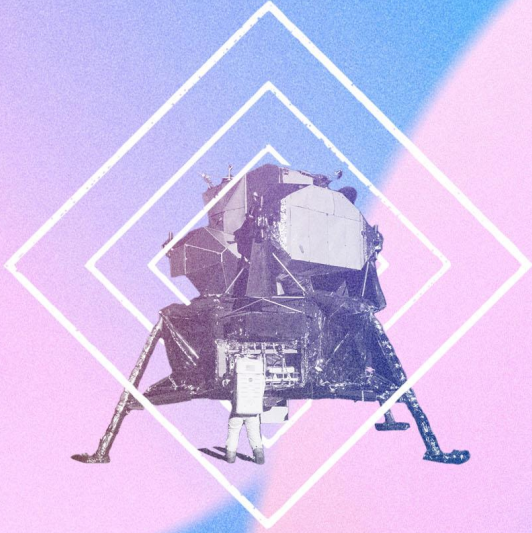
## Recent Empire Space Events

<b>Date</b>	<b>Event</b>	<b>Date</b>	<b>Event</b>
March 8th	SSPI-WISE Women Engagement Panel	April 21st	Columbia Space Initiative Call w/International Space Station
March 13th-16th	Satellite 2023 DC	May 4th	LACC Reaching for the Stars with LTIO at Luxembourg House
March 20th	SpaceRig Mixer	May 8th	NYC Space Meetup hosted by Balerion Space Ventures
April 15th	RMSC Yuri's Night	May 25th	<b>Space Day NY!</b>

# Get Involved

There are so many ways for individuals and groups to actively engage with the NY space ecosystem, we want to inspire more *agency* across the space sector.

- ❖ Join our Slack Channel (ask Evan or Patrick for more details).
- ❖ Visit [EmpireSpace.org/GetInvolved](https://EmpireSpace.org/GetInvolved) for Calendar, NASA Ambassador Database, Social Media Database, and more.
- ❖ Attend virtual & in-person events near you, and if there aren't any, hold some yourself!
- ❖ Sign up for our Newsletter (email [info@empirespace.org](mailto:info@empirespace.org))
- ❖ Spread the word to family, friends, and community members about the Story of Space in New York, our history, and our potential future.





# COLUMBIA SPACE INITIATIVE





# Tour of the New York Space Ecosystem

[Census Data](#)

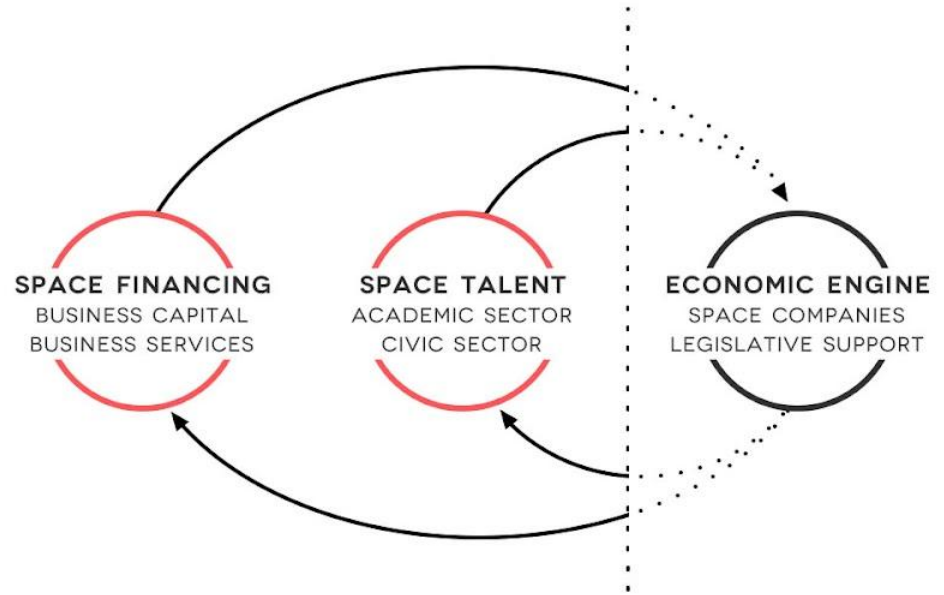
# Ecosystem Summary

## High Points

- ◆ Space finance powerhouse
- ◆ Statewide Civic network
- ◆ Academic & Research infrastructure
- ◆ Baseline NASA presence

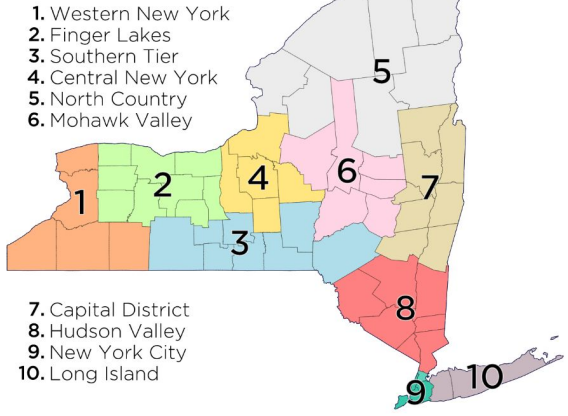
## Areas to Focus On

- ◆ Finance barriers
- ◆ Gaps in environment, networks, and resources
- ◆ Clusters & fragmentation



**MONEY & STUDENTS ARE LEAVING THE STATE.**

**WE NEED TO CLOSE THE LOOP.**

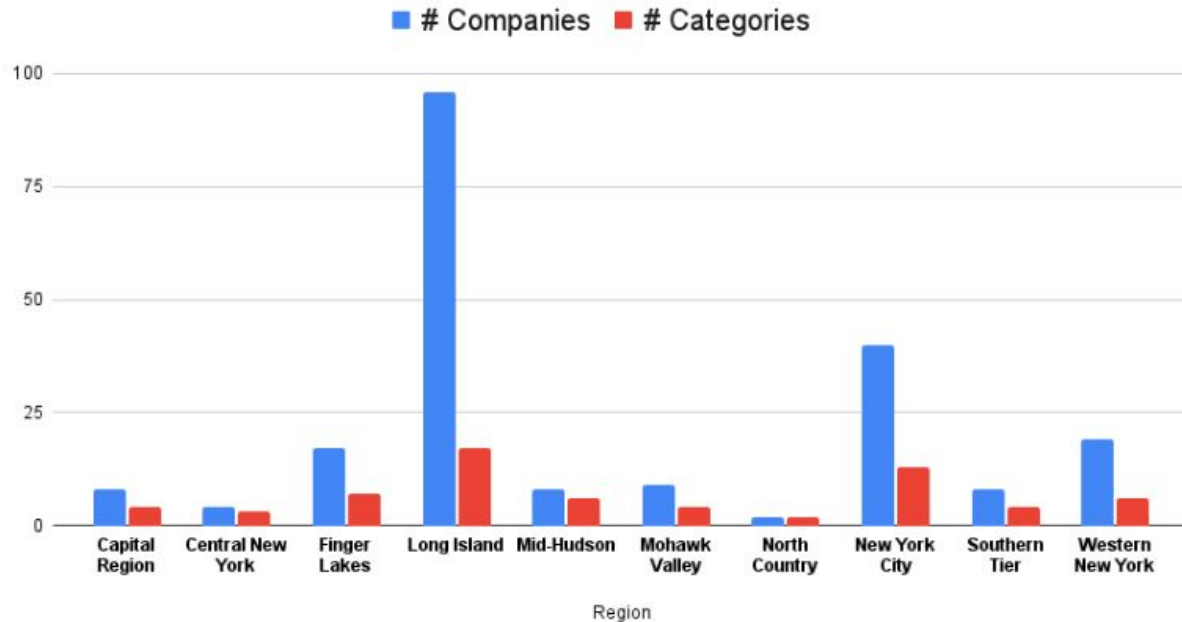
**DATA BY REGION**


	Finance	Academic	Civic	Companies	Astronauts
<b>Western NY</b>	19	44	24	19	3
<b>Finger Lakes</b>	15	40	17	16	2
<b>Southern Tier</b>	12	28	14	8	3
<b>Central NY</b>	10	24	9	4	3
<b>North Country</b>	1	27	7	2	1
<b>Mohawk Valley</b>	3	23	7	9	1
<b>Capital District</b>	37	36	13	8	1
<b>Hudson Valley</b>	21	41	27	8	2
<b>New York City</b>	<b>198</b>	<b>146</b>	<b>35</b>	37	<b>12</b>
<b>Long Island</b>	7	46	27	<b>94</b>	3

# Space Companies Active Statewide

“Every region of New York is home to some space-related economic activity, with Long Island’s legacy aerospace sector obvious.”

## Regional Distribution of Space Companies in NY



# Space Companies Highlights

## Topline Numbers

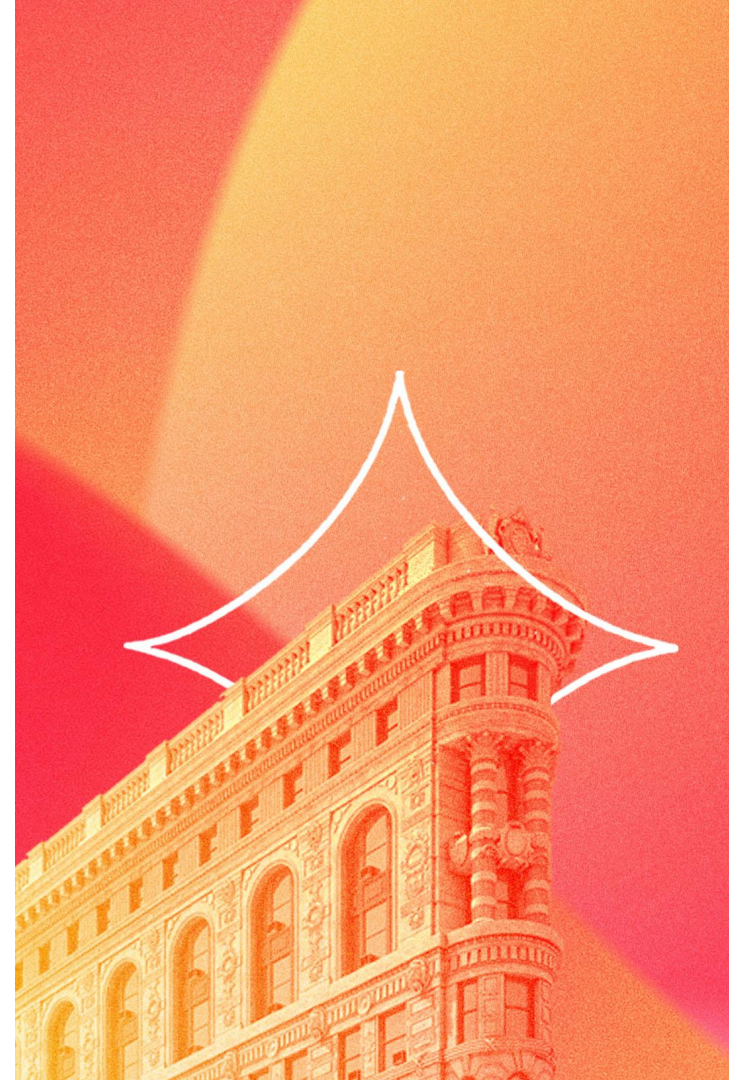
- ◆ 58 Core Space, 94 Aerospace, 62 Space & Defense companies in the Empire Space Census
- ◆ Total tracked employment of roughly 40,000
- ◆ Other estimates put it above 60,000

## Top 5 categories

- ◆ Aerospace Manufacturing (82)
- ◆ Telecommunications & Electronics (26)
- ◆ Aerospace Dev & Support (22)
- ◆ Space Force/Military (21)
- ◆ Space Data (13)

## Regional Breakdown

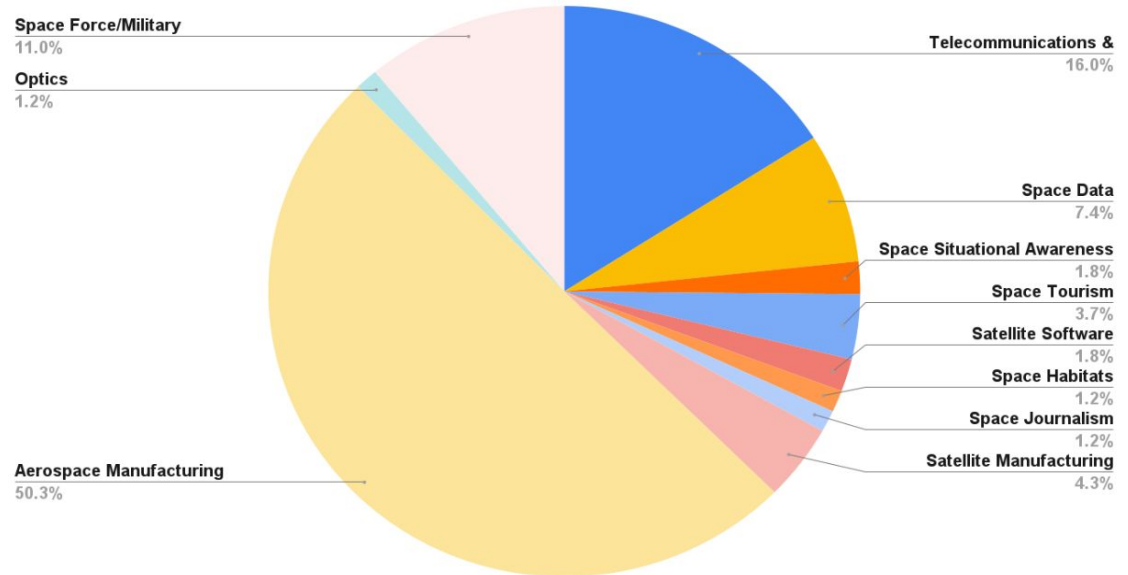
- ◆ Long Island, NYC, Western NY, & Finger Lakes = Top 4



# New York Space Companies Creating Jobs Statewide

“Legacy aerospace companies combine with space startups to form the backbone of an underappreciated segment of New York’s economy.”

NY Space Company Breakdown: Primary Category Entries



# New Yorkers Blazing a Path to Space

29 New Yorkers have been to space, spending a collective 3 years, 9 months, 10 days and 31 minutes away from the Earth.

Major historic 1sts of New Yorkers in space:

- ◆ 1st mother in space (Anna Lee Fischer)
- ◆ 1st private citizen in space (Dennis Tito)
- ◆ 1st female Shuttle Cmdr (Eileen Collins)
- ◆ 1st live tweet from space (Nicole Scott)
- ◆ 1st pilot of a crewed private spacecraft (Doug Hurley)

Image: Anna Lee Fischer of Queens was the 1st mother in Space.



Source: Empire Space  
[www.empirespace.org/data/nyers](http://www.empirespace.org/data/nyers)

# 8 of 40 Active NASA Astronauts have Ties to NY

*This data was gathered thanks to our intern Serena Sidlow, who has taken a particular interest in telling the stories of the New Yorkers who have been to space.*

## Born in New York

- ◆ Jeanette Epps - Syracuse  
Time in Space - TBD  
Missions - CST-100 Starliner (scheduled launch TBD)
- ◆ Douglas Wheelock - Binghamton  
Time in Space - 178 days, 9 hours, 34 minutes  
Missions - STS-120, ISS Expedition 24/25

## Grew Up in New York

- ◆ Jasmin Moghbeli - Baldwin  
Time in Space - TBD  
Missions - Space Crew-7 (scheduled launch August, 2023)

## College in New York

- ◆ Josh Cassada - U of R  
Time in Space - 157 days, 10 hours, 1 minute  
Missions - ISS Expedition 68/69
- ◆ Reid Weisman - RPI  
Time in Space - 165 days, 8 hours, 1 minute  
Missions - ISS Expedition 40/41 , Artemis II (scheduled Nov 2024)

## Served at West Point

- ◆ Andrew Morgan  
Time in Space - 271 days, 12 hours, 48 minutes  
Missions - ISS Expedition 60/61/62
- ◆ Francisco Rubio  
Time in Space - TBD (currently in space)  
Missions - ISS Expedition 67/68/69
- ◆ Mark Vande Hei  
Time in Space - 523 days, 8 hours, 59 minutes  
Missions - ISS Expedition 53/54, ISS Expedition 64/65/66

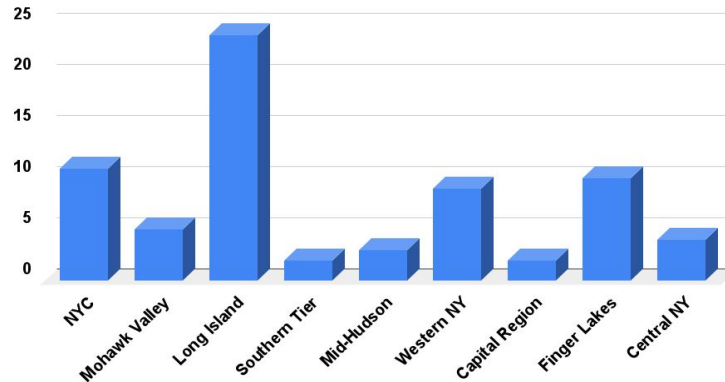


# NASA Footprints in New York

*This data was gathered thanks to our intern Aayusha Singh, who has done great work mapping the ties between NASA & businesses in NY.*

- ❖ NASA conducts significant climate and atmospheric research at its Goddard Institute for Space Studies, located at Columbia University in Manhattan.
- ❖ NASA economic impacts totaled over \$530 million in 2021 and supported over 2,300 jobs in fields as diverse as architecture, propulsion, optics, and launch support. **Both rank 15th nationally.**

*NASA Affiliated Companies in NY by Region*



- ❖ There are 37 private companies in New York with NASA ties at 70 sites across NY.

## Long Island In the Lunar Age

The aviation and aerospace industry on Long Island was critical in the Race to the Moon.

Six Grumman Lunar Landers sitting on the lunar surface today were crafted in New York.

The industry still employs tens of thousands across Long Island.

The Cradle of Aviation Museum in Garden City, Long Island is home to an unflown complete Lunar Lander on permanent loan from the Smithsonian.



Source: Cradle of Aviation Museum  
[www.cradleofaviation.org](http://www.cradleofaviation.org)

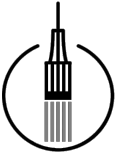
## Recap: The Story of Space in New York

- ❖ NY space ecosystem is statewide, in every corner of the state.
- ❖ NY's contributions to space are much larger than many realize.
- ❖ Move NY from Top 15 to Top 10 with focus, investment, and action.
- ❖ Everyone has a role to play in this new chapter.

# Our Vision: The Future of Space in New York

- ❖ Space Startup **Incubator or Accelerator** to anchor new space business in NY.
- ❖ New **supports and resources** for existing space sector firms in NY.
- ❖ Full K-College **space & aerospace pipeline** focused on the needs of NY companies and responsive to the broader space sector.
- ❖ **Robust connections** between space finance in NYC and NY space statewide.
- ❖ Active civic sector that **fosters connectivity and awareness of** NY space.
- ❖ **Involved and aware partners** in State & Local governments.

A word from our sponsor...



**NASA NEW YORK**  
Space Grant Consortium

# Preparing for Space Day NY 2024

# So What? What's Next?

## What do we do with all this info?

- ❖ Find new partners & make new connections
- ❖ Find new ways to amplify & promote
- ❖ Begin thinking & acting systematically statewide
- ❖ Space Day 2024 could be a proper lobbying day and a massive media event

## Upcoming Events

- ❖ [5th Summit for Space Sustainability](#)  
Secure World Foundation  
June 13th-14th
- ❖ In-person Empire Space event in the Fall
- ❖ **Space Day NY 2024!**

# Space Day 2024 Working Group

**Aim is for 2024 to be a 'full' event**

- ❖ Proper lobbying presence in Albany
- ❖ In-person events as well as virtual
- ❖ More diverse events (Think art contest, workshops, etc.)
- ❖ Try to contact the full Census between now and then (1000+ entries)

COMPLETE THE [SPACE DAY 2024 INTEREST](#) GOOGLE FORM



## Open Discussion

- ❖ Be sure to stay in touch (Slack, Twitter, email)
- ❖ Think about next year (join the Space Day Working Group)
- ❖ Keep working hard and spreading the word about space in New York

ENTER YOUR FEEDBACK IN THE [TOWN HALL DISCUSSION](#) GOOGLE FORM