

Tab 1	SB 1312 by Torres; (Identical to H 01227) Tuskegee Airmen Commemoration Day
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The Florida Senate
COMMITTEE MEETING EXPANDED AGENDA
MILITARY AND VETERANS AFFAIRS, SPACE, AND
DOMESTIC SECURITY
Senator Wright, Chair
Senator Torres, Vice Chair

MEETING DATE: Monday, January 22, 2024
TIME: 1:30—3:30 p.m.
PLACE: 301 Senate Building

MEMBERS: Senator Wright, Chair; Senator Torres, Vice Chair; Senators Baxley, Collins, and Pizzo

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS		COMMITTEE ACTION
1	SB 1312 Torres (Identical H 1227)	Tuskegee Airmen Commemoration Day; Designating Tuskegee Airmen Commemoration Day, which occurs on the fourth Thursday in March, as a legal holiday, etc.		Favorable Yeas 5 Nays 0
		MS GO RC	01/22/2024 Favorable	
2	Presentation on Activities and Spaceport Operations by SpaceX			Presented
3	Presentation on Activities and Spaceport Operations by Blue Origin			Not Considered
4	Presentation on Project Kuiper by Amazon			Presented
5	Presentation on Activities and Spaceport Operations by the National Aeronautics and Space Administration			Presented
Other Related Meeting Documents				

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Military and Veterans Affairs, Space, and Domestic Security

BILL: SB 1312

INTRODUCER: Senator Torres

SUBJECT: Tuskegee Airmen Commemoration Day

DATE: January 19, 2024

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Brown	Proctor	MS	Favorable
2.			GO	
3.			RC	

I. Summary:

SB 1312 designates as a legal holiday, Tuskegee Airmen Commemoration Day. The holiday is to be held the fourth Thursday in March.

The bill takes effect July 1, 2024.

II. Present Situation:

United States War Department's Civilian Pilot Training Program (CPTP)

In anticipation of international conflict, in the 1930's a number of European countries (notably Germany and Italy¹) bolstered their air force through offering civilians schooling as air pilots.² The United States responded with a similar model, the Civilian Pilot Training Program.³ Like those in Europe, the U.S. programs offered only civilian flight training, but with an underlying future military purpose. The CPTP accepted its first students in 1938.

Although the Army began to rapidly increase its own pool of Army-trained pilots under the threat of war, it could not keep pace.⁴ In 1939, the Army had a total of only 4,502 pilots.⁵ These numbers grew to 8,000 in 1940 and exceeded 27,000 in 1941, but the Army could not by itself

¹ Theresa L. Kraus, FAA Historian, Federal Aviation Administration, *The CAA Helps America Prepare for World War II*, available at https://www.faa.gov/sites/faa.gov/files/about/history/milestones/The_CAA_Helps_America_Prepare_for_World_WarII.pdf (last visited Jan. 12, 2024).

² National Museum of the U.S. Air Force, *Civilian Pilot Training Program*, available at <https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/196137/civilian-pilot-training-program/> (last visited Jan. 12, 2024).

³ *Id.*

⁴ *Id.*

⁵ *Id.*

train the vast numbers of pilots needed in those years.⁶ The CPTP filled this gap by greatly subsidizing the pool of air pilots required to engage in wartime activities.⁷

In addition to boosting the population of qualified military pilots, the CPTP provided African Americans and women uncharted opportunity previously denied to them in aviation. “Pioneering black fliers campaigned hard for public awareness of their abilities, and their efforts paid off with an antidiscrimination rule” in the implementation of the CPTP.⁸

Federally funded, the CPTP recruited students through colleges and universities, six of which were historically black colleges (HBCs).⁹ The Tuskegee Institute, in Macon County, Alabama was one of the six participating HBCs.¹⁰ The CPTP at the HBCs significantly increased the numbers of African American civilian pilots, but they continued to be excluded from aviation duty in the military.¹¹ A NAACP challenge, combined with other pressures, resulted in the decision of the War Department in June 1941 to establish one segregated flying unit.¹² This unit came to be known as the 99th Pursuit Squadron, subsequently designated in May 1942 as the 99th Fighter Squadron at Tuskegee Army Air Field.¹³

Tuskegee Institute at Macon County, Alabama

In June of 1941, the War Department granted a contract for primary flight training to the Tuskegee Institute, which was applied to greatly expanding its aviation program, hiring more civilian instructors, and building its own civilian airfield dedicated as Moton Field in 1943 in memory of the Tuskegee Institute’s second president.¹⁴ The first class of cadets transferred from Moton Field to Tuskegee Army Air Field for the second phase of their flight training in early November 1941.¹⁵ Following the December 7, 1941, attack on Pearl Harbor, the War Department funded additional segregated aviation units at Tuskegee Army Air Field.¹⁶

Tuskegee Airmen

All told, Tuskegee Institute graduated nearly 1,000 pilots from its Airmen program¹⁷, with the first group graduating March 7, 1942.¹⁸ Of these, 352 became Tuskegee Airmen, known as the “Red Tails” because of the distinctive red tails painted on their fighter planes deployed

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ Encyclopedia of Alabama, *History, 1929-1945, The Great Depression and WWII, Tuskegee Flight Training Program*, available at <https://encyclopediaofalabama.org/article/tuskegee-flight-training-program/> (last visited Jan. 12, 2024).

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ Tuskegee University, *Tuskegee, Tuskegee Experience*, available at [https://www.tuskegee.edu/Content/Uploads/Tuskegee/files/TuskegeeExperience\(1\).pdf](https://www.tuskegee.edu/Content/Uploads/Tuskegee/files/TuskegeeExperience(1).pdf) (last visited Jan. 12, 2024).

¹⁸ Encyclopedia of Alabama, *supra* note 9 at 6.

overseas.¹⁹ During World War II (WWII) the Tuskegee Airmen flew more than 1,800 missions, including 351 missions to successfully protect bomber airplanes in the sky. They additionally shot down 112 enemy airplanes. Of the 352 airmen in overseas deployment, 32 were taken as prisoners of war²⁰, and 84 died.²¹

Combat Awards and Medals

Tuskegee Airmen have come to be known for their aviation skill, bravery, and role in breaking down racial barriers.

Tuskegee Airmen collectively or individually received the:

- Distinguished Flying Cross;
- Air Medal;
- Bronze Star;
- Purple Heart;
- Soldier Medal;
- Silver Star;
- Legion of Merit;
- Red Star of Yugoslavia; and the
- Congressional Gold Medal.²²

The Congressional Gold Medal is the nation's highest military award for valor, presented by the U.S. president in Congress' name. By law, only servicemembers who distinguish themselves "through conspicuous gallantry and intrepidity at the risk of life above and beyond the call of duty" are eligible.²³ Surviving Tuskegee Airmen attended the ceremony and were awarded the medal, March 29, 2007.²⁴

Notable Tuskegee Airmen and Florida

Numerous Tuskegee Airmen have a connection to Florida. The list below of notable airmen with links to the state is not exhaustive.

General Daniel "Chappie" James, Jr., born in Pensacola, rose in military ranks to become the first African-American four-star general.²⁵ Later serving in both the Korean War and the

¹⁹ Tuskegee University, *supra* note 16.

²⁰ Tuskegee Airmen, Inc., Howard Baugh Chapter, *Combat Awards & Commendations*, available at <https://www.hbc-tai.org/awards---commendations.html> (last visited Jan. 12, 2024).

²¹ NASA, *Tuskegee Airmen, Fighting to Fly*, available at <https://www.nasa.gov/wp-content/uploads/2017/08/tuskegee-element.pdf> (last visited Jan. 12, 2024).

²² Tuskegee Airmen, Inc., *supra* note 19.

²³ Dept. of Defense, *Medal of Honor*, available at <https://www.defense.gov/Multimedia/Experience/honors-for-valor/> (last visited Jan. 17, 2024).

²⁴ The White House Archives, President George Bush, *Tuskegee Airmen Congressional Gold Medal Ceremony*, Mar. 29, 2007, available at <https://georgewbush-whitehouse.archives.gov/infocus/veterans/tuskegee/index.html> (last visited Jan. 17, 2024).

²⁵ Chappie James Museum of Pensacola, *About Chappie*, available at <https://www.chappiejamesmuseum.org/about-chappie> (last visited Jan. 17, 2024).

Vietnam War, he subsequently held the federal position of assistant secretary deputy of defense in public affairs.²⁶ Today the Chappie James Museum honors him in Pensacola.

Charles P. Bailey, Sr., born in Punta Gorda²⁷, bears the distinction of being the first aviator from Florida to become a Tuskegee Airman pilot.²⁸ He is also known for downing two enemy aircraft.²⁹ His legacy is honored with a bronze bust of his likeness and name at the Deland Naval Air Station Museum.³⁰

Lieutenant Alvin J. Downing, born in Jacksonville, became a squadron commander, and a musician and educator in the Army Air Forces Band. After his service, he settled in St. Petersburg and Clearwater, a celebrated jazz educator and performer.³¹

Second Lieutenant Alphonso Simmons of the 100th Fighter Squadron from Jacksonville survived his downed plane to fight alongside a Yugoslavian anti-communist group before he could find his squadron. He was later killed in air combat March 3, 1945.³²

First Lieutenant James Polkinghorne, Jr., born in Pensacola, was a senior at the Florida Agricultural and Mechanical University (FAMU) when he entered the U.S. Army Air Corps, the first FAMU student to be accepted and to become a Tuskegee Airman. The flight leader of a squadron of fighter planes, he was shot down and died in combat May 5, 1944. His name is on the Tallahassee Aviation Wall of Fame inside the Tallahassee International Airport.³³

Lieutenant Daniel K. Keel, Jr., of Lake County, is one of only five triple-rated airmen, as pilot, bombardier, and navigator. A graduate of Boston Latin School with a classical education in 1941, he was studying aeronautical engineering at Northeastern University when he was drafted in 1943. He is one of three servicemembers to earn the distinction of obtaining three Aeronautical Ratings during WWII.³⁴

²⁶ *Id.*

²⁷ Deland Air Naval Museum, *Delandings, WWII Tuskegee Airmen*, available at <https://www.delandnavalairmuseum.org/newsletters/delandings-february-16.pdf> (last visited Jan. 17, 2024).

²⁸ Florida Weekly, Charlotte County edition, *Punta Gorda Heros Warbird on Display at Air Show*, available at <https://charlottecounty.floridaweekly.com/articles/punta-gorda-heros-warbird-on-display-at-air-show/> (last visited Jan. 17, 2024).

²⁹ National Museum of the United States Army, *Soldier Profiles, 1st Lt. Charles P. Bailey*, available at [National Museum of the United States Army \(thenmusa.org\)](https://www.thenmusa.org) (last visited Jan. 17, 2024).

³⁰ Deland Air Naval Museum, *supra* note 24.

³¹ Weekly Challenger, *I am Alvin J. Downing*, available at <https://theweeklychallenger.com/i%E2%80%88am-alvin-j-al-downing/> (last visited Jan. 17, 2023).

³² Caf Rise Above, *Caf Rise Above, Alphonso Simmons*, available at <https://cafriseabove.org/alphonso-simmons/> (last visited Jan. 17, 2024).

³³ Tallahassee Democrat, *FAMU honors Tuskegee Airmen Lt. James Polkinghorne, Jr. with residence hall renaming*, available at <https://www.tallahassee.com/story/news/2019/11/07/famu-honoring-tuskegee-airmen-lt-james-polkinghorne-jr-friday-residence-hall-renaming/2515654001/> (last visited Jan. 17, 2024).

³⁴ Lake and Sumter Style, *Tuskegee Airman Daniel Keel Celebrates 101st Birthday*, available at <https://pinellascf.org/news/actii-feats-service-tuskegee-airmen/>, Sept. 26, 2023 (last visited Jan. 17, 2024).

Callie Odom Gentry, of Pasco County, is a female Tuskegee Airman. She served as a stenographer at the Lockbourne Air Force Base in Ohio, which primarily housed Tuskegee Airmen. Her work included interviewing survivors after a plane crash.³⁵

Legal Holidays and Observances

Chapter 683, F.S., establishes legal holidays and special observance days. Designation of a legal holiday under ch. 683, F.S., does not mean that the day is a paid holiday. Section 110.117, F.S., sets forth the holidays that are paid holidays to be observed by all state branches and agencies.³⁶

Whenever any legal holiday falls on a Sunday, the following Monday shall be deemed a public holiday for all and any of the purposes mentioned.³⁷

Section 683.01(1), F.S., provides that the legal holidays of Florida, also declared as public holidays, are:

- Sunday, the first day of each week;
- New Year's Day, January 1;
- Birthday of Martin Luther King, Jr., January 15;
- Birthday of Robert E. Lee, January 19;
- Lincoln's Birthday, February 12;
- Susan B. Anthony's Birthday, February 15;
- Washington's Birthday, the third Monday in February;
- Good Friday;
- Pascua Florida Day, April 2;
- Confederate Memorial Day, April 26;
- Memorial Day, the last Monday in May;
- Birthday of Jefferson Davis, June 3;
- Flag Day, June 14;
- Independence Day, July 4;
- Labor Day, the first Monday in September;
- Columbus Day and Farmer's, the second Monday in October;
- Veteran's Day, November 11;
- General Election Day;
- Thanksgiving Day, the fourth Thursday in November;
- Christmas Day, December 25; and
- Shrove Tuesday, sometimes also known as "Mardi Gras", in counties where carnival associations are organized for the purpose of celebrating the same.³⁸

References in contracts made to "legal holidays" are understood to include holidays designated in s. 683.01, F.S., and others designated in law.³⁹

³⁵ Pinellas Community Foundation, *Act II – Feats of Service – The Tuskegee Airmen*, available at <https://pinellascf.org/news/actii-feats-service-tuskegee-airmen/> (last visited Jan. 17, 2024).

³⁶ Section 110.117(1), F.S.

³⁷ Section 683.01(2), F.S.

³⁸ Sections 683.01(a)-(u), F.S.

³⁹ Section 683.02, F.S.

III. Effect of Proposed Changes:

SB 1312 amends s. 683.01, F.S., to designate as a legal holiday, Tuskegee Airmen Commemoration Day. The holiday is to be held the fourth Thursday in March.

The bill takes effect July 1, 2024.

IV. Constitutional Issues:**A. Municipality/County Mandates Restrictions:**

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None identified.

V. Fiscal Impact Statement:**A. Tax/Fee Issues:**

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 683.01, Florida Statutes.

IX. Additional Information:**A. Committee Substitute – Statement of Changes:**

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

By Senator Torres

25-01505-24

20241312__

A bill to be entitled

An act relating to Tuskegee Airmen Commemoration Day; amending s. 683.01, F.S.; designating Tuskegee Airmen Commemoration Day, which occurs on the fourth Thursday in March, as a legal holiday; providing an effective date.

WHEREAS, before World War II, African Americans had very limited roles in the defense of the United States and none in military aviation, and when the nation was drawn into the war, African Americans aspired to more meaningful jobs in the military, including flying and maintaining aircraft, and

WHEREAS, as the rapid expansion of aircraft production during the war created a greater need for military pilots, public outcry from civil rights groups and black professional organizations exhorted the United States War Department to begin training black pilots in the Army Air Corps, and

WHEREAS, the United States War Department's Civilian Pilot Training Program (CPTP) authorized colleges and universities to train students in order to increase the number of civilian pilots and thereby increase the nation's military preparedness, and

WHEREAS, Alabama's Tuskegee Institute was one of six black colleges and universities chosen to participate in the CPTP, was later selected to offer advanced training, and was the primary flight training facility for the student pilots who would become the famed Tuskegee Airmen, and

WHEREAS, the 99th Pursuit Squadron, the first black flying squadron, trained at Dale Mabry Field near Tallahassee to

Page 1 of 3

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

25-01505-24

20241312__

prepare for combat overseas, and the Eglin Field ranges in Okaloosa County were used by the first class of advanced training cadets, as well as pilots in the advanced training stage, for gunnery and combat tactics, and

WHEREAS, the outstanding performance of the Tuskegee Airmen was unprecedented in military aviation history, and

WHEREAS, the month of March is significant to the Tuskegee Airmen, as it is the month in which the first cadets received their wings; the first maintenance crew began training at Chanute Field, Illinois; the first Pursuit Squadron, the 99th, was activated; Eleanor Roosevelt visited Kennedy Field and flew with Chief Alfred Anderson, an African American instructor pilot; and President George W. Bush presented the Tuskegee Airmen with the Congressional Gold Medal, and

WHEREAS, General Daniel "Chappie" James, Jr., born in Pensacola, became the first African American to achieve the rank of four-star general in the Armed Forces; Second Lieutenant Charles P. Bailey, Sr., born in Punta Gorda, was the first aviator from Florida to become a Tuskegee Airman pilot of the 99th Pursuit Squadron; and Lieutenant Alvin J. Downing, born in Jacksonville, was a special service officer and renowned musician and educator in the Army Air Forces Band and in the St. Petersburg and Clearwater areas, and

WHEREAS, Second Lieutenant Alphonso Simmons of the 100th Fighter Squadron from Jacksonville became a casualty of war on March 3, 1945; and the first Tuskegee Airman aviator from Florida to earn his wings and the first Floridian Tuskegee Airman of the 301st Fighter Squadron, First Lieutenant James Polkinghorne, Jr., of Pensacola was a casualty lost on a combat

Page 2 of 3

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

25-01505-24

20241312__

mission over Italy on May 5, 1944, and

WHEREAS, Lieutenant Colonel George E. Hardy, residing in Sarasota County, is a famed "Red Tail" P-51 pilot of the 332nd Fighter Group; Lieutenant Daniel K. Keel, Jr., residing in Lake County, is one of only five triple-rated airmen, serving as pilot, bombardier, and navigator; and Callie Odom Gentry, residing in Pasco County, is a female Tuskegee Airman who was a stenographer during the war, and

WHEREAS, Tuskegee Airman Chief Master Sergeant Richard R. Hall, Jr., formerly of Winter Park, was an aircraft mechanic in the 99th Fighter Pursuit Squadron, served 30 years in the military, and was one of the first African American Chief Master Sergeants; Lieutenant Colonel Robert C. Hughes, formerly of Brevard County, was a Caucasian flight instructor; and Lieutenant Raymond Cassagnol, formerly of Seminole County, was one of five Haitian-born Tuskegee Airmen, NOW, THEREFORE,

Be It Enacted by the Legislature of the State of Florida:

Section 1. Present paragraphs (h) through (u) of subsection (1) of section 683.01, Florida Statutes, are redesignated as paragraphs (i) through (v), respectively, and a new paragraph (h) is added to that subsection, to read:

683.01 Legal holidays.—

(1) The legal holidays, which are also public holidays, are the following:

(h) Tuskegee Airmen Commemoration Day, the fourth Thursday in March.

Section 2. This act shall take effect July 1, 2024.



The Florida Senate

Committee Agenda Request

To: Senator Tom Wright, Chair
Committee on Military and Veterans Affairs, Space, and Domestic Security

Subject: Committee Agenda Request

Date: January 17, 2024

I respectfully request that **Senate Bill #1312**, relating to Tuskegee Airmen Commemoration Day, be placed on the:

- ☒ committee agenda at your earliest possible convenience.
- ☐ next committee agenda.

A handwritten signature in black ink, appearing to read "Victor M. Torres, Jr.", is written over a horizontal line.

Senator Victor M. Torres, Jr.
Florida Senate, District 25

APPEARANCE RECORD

SB 1312

1-22-24

Meeting Date

Bill Number or Topic

Military & Vet Affairs, Space & Drones Sec

Committee

Deliver both copies of this form to
Senate professional staff conducting the meeting

Amendment Barcode (if applicable)

Name Chante' Jones, AARP Florida Phone 850.272.0551

Address 215 S Monroe Ste 603 Email cejjones@aarp.org

Street

Tallahassee FL 32301

City

State

Zip

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☒ In Support ☐ Against**PLEASE CHECK ONE OF THE FOLLOWING:**☐ I am appearing without
compensation or sponsorship.☒ I am a registered lobbyist,
representing:

AARP Florida

☐ I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022 Joint Rules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

S-001 (08/10/2021)



SPACEX

KIKO DONTCHEV
VP, LAUNCH

January 22, 2024

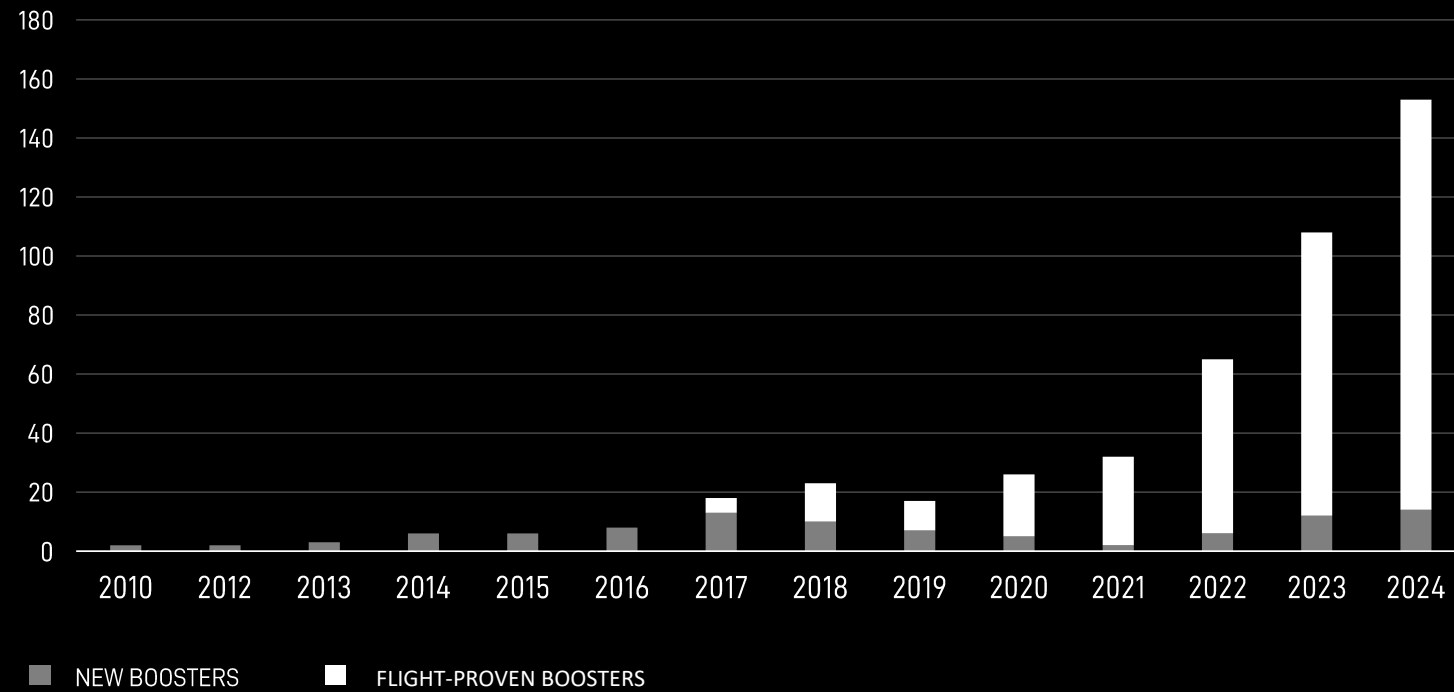


SpaceX Overview

- The world's leading space launch and space services provider
 - **Launch: 300+** successful launches to orbit and beyond, for the U.S. Government, global commercial customers, and Starlink
 - **Reusability: 260+** rocket landings and **230+** re-flights
 - **Human Spaceflight: 7** successful NASA crewed missions to orbit since May 2020 (+1 underway today – Crew-7), and private orbital crewed flights
 - **Moon and Mars:** Developing Starship, the most powerful rocket and spacecraft in history, supporting NASA's return to the Moon
- Designing, manufacturing, launching, and operating **Starlink**, providing high-speed, low-latency satellite broadband across Florida, the United States, and around the world



BOOSTER FLIGHT RATE





OFFSHORE RECOVERY



JUST READ THE INSTRUCTIONS
CAPE CANAVERAL

A SHORTFALL OF GRAVITAS
CAPE CANAVERAL

OF COURSE I STILL LOVE YOU
VANDENBERG





FAIRING RECOVERY

~\$6M IN SAVINGS PER RECOVERY

REFLOWN FAIRINGS MORE THAN 300 TIMES

ATTITUDE-CONTROL THRUSTERS

STEERABLE PARACHUTE





DRAGON

43

TOTAL SUCCESSFUL
LAUNCHES

This includes cargo missions for ISS
resupply, human spaceflight missions
to the ISS and Earth orbit

39

VISITS TO THE ISS

We work with NASA and other
partners like Axiom to provide access
to the International Space Station

22

TOTAL
REFLIGHTS

Dragon is fully capable of
refurbishment and multiple reflights per
spacecraft





DRAGON

TWO TOWERS IN FLORIDA





STARLINK

2.3 MILLION CUSTOMERS AND COUNTING
IN OVER 70 COUNTRIES, ON ALL 7 CONTINENTS
MORE THAN 5,000 SATELLITES IN SPACE TODAY
ADDING DIRECT TO CELL CAPABILITY
100% COVERAGE IN FLORIDA – ~60K HOUSEHOLDS TODAY



STARSHIP



STARSHIP

NASA HUMAN LANDING SYSTEM

PART OF NASA'S ARTEMIS PROGRAM

ARTEMIS III: FIRST TO LAND HUMANS SINCE APOLLO 17

ARTEMIS IV: MOONWALKS / SURVEY SOUTH POLE

FUTURE MISSIONS: DELIVER SUPPLIES / ROVERS / EQUIPMENT



THANK YOU



The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

Bill Number or Topic

Amendment Barcode (if applicable)

Meeting Date

Committee

Name

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Speaking:

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For

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Against

☐

Information

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In Support

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Against

PLEASE CHECK ONE OF THE FOLLOWING:

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This form is part of the public record for this meeting.

S-001 (08/10/2021)



BLUE ORIGIN

FOR THE BENEFIT OF **EARTH**

MEGAN MITCHELL

Vice President, Government Relations



M I L L I O N S O F P E O P L E
L I V I N G & W O R K I N G I N S P A C E
F O R T H E B E N E F I T O F
E A R T H

NEW SHEPARD



NEW GLENN



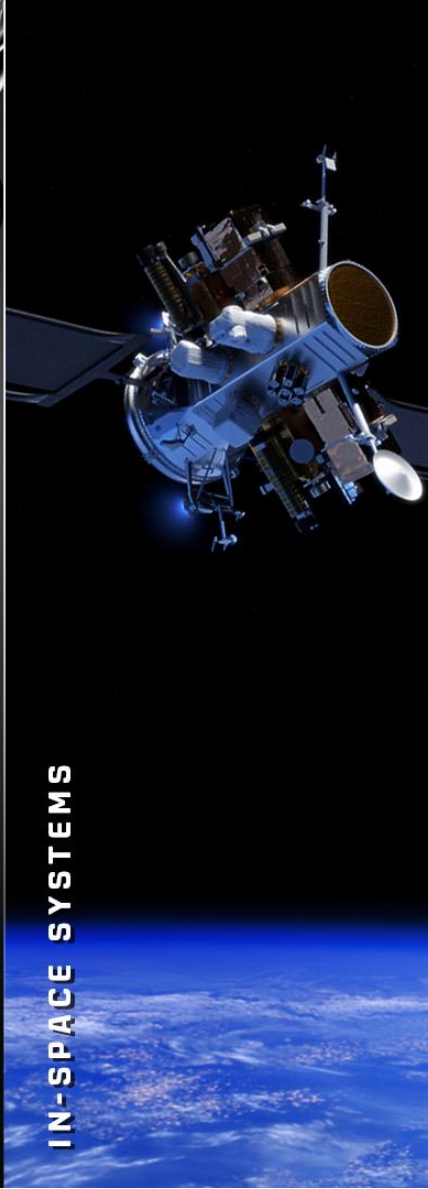
LUNAR PERMANENCE



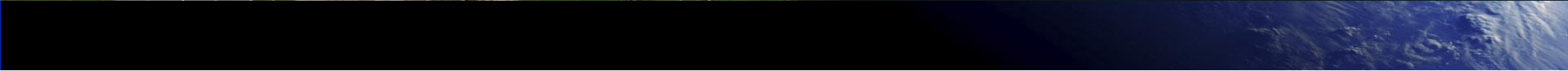
ENGINES



IN-SPACE SYSTEMS













ORBITAL ROCKET

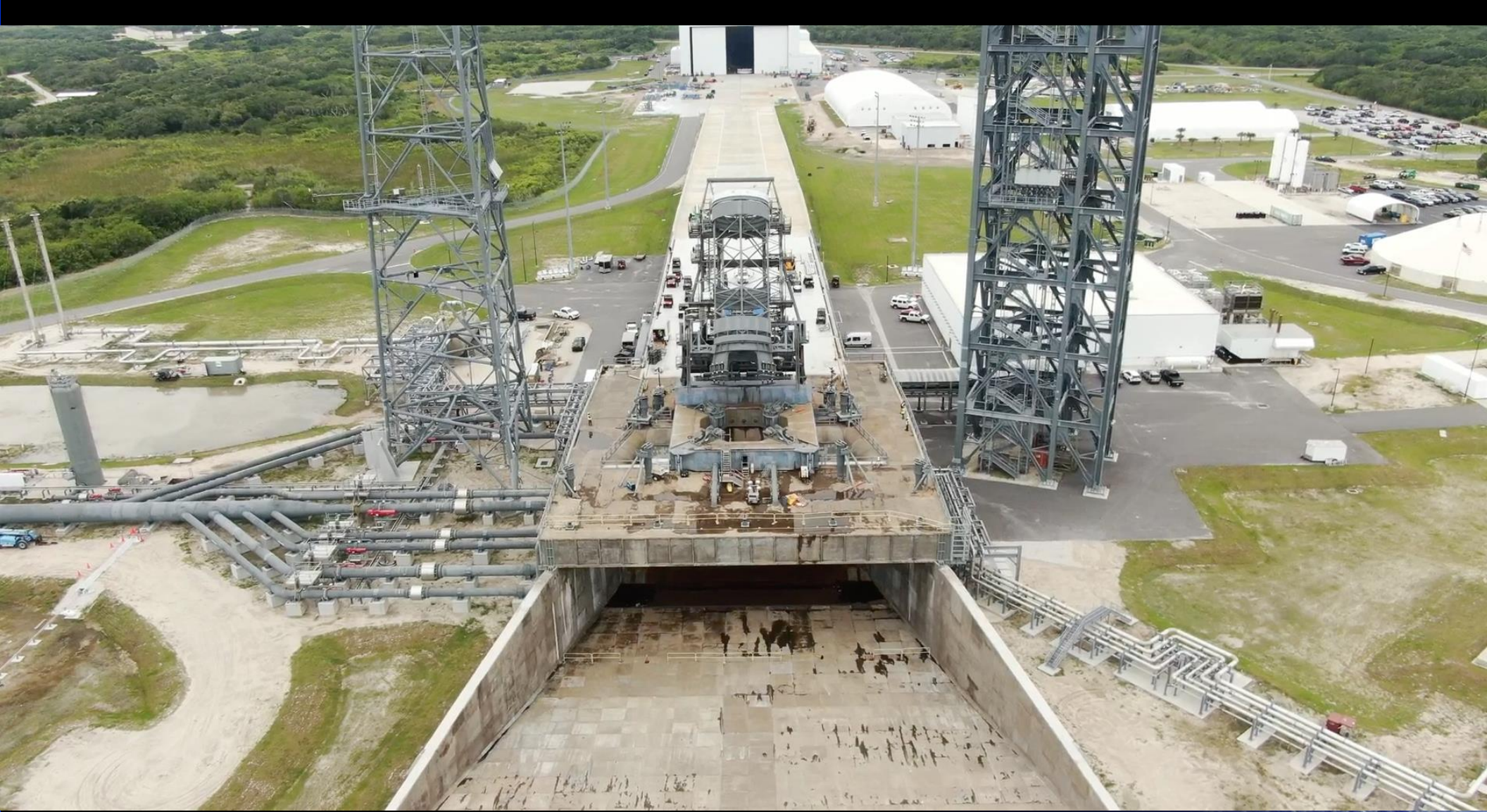
NEW GLENN















THANK YOU



A dark blue background with a curved orange line representing an orbital path. A small orange circle is positioned on this path. The background is speckled with white dots, suggesting a starry sky.

amazon | project kuiper

Florida Senate Committee on Military and
Veterans Affairs, Space, and Domestic Security

January 22, 2024

The background of the slide features a dark blue, stylized representation of the Earth. It is covered with a dense pattern of small, golden-yellow dots, which represent the Project Kuiper satellite constellation in low Earth orbit. The dots are distributed across the visible surface of the planet, with some appearing in clusters and others more isolated.

Our Mission

Project Kuiper is an initiative to increase global broadband access through a constellation of satellites in low Earth orbit (LEO). Its mission is to deliver fast, affordable broadband to unserved and underserved communities around the world.

Our guiding principles



Customer-First

We start with the customer and work backwards. Our services are designed to delight customers, and to provide a simple, convenient experience every step of the way.



Affordability

Amazon has a long-standing commitment to low prices. We are inventing new technologies to ensure Project Kuiper is affordable and accessible for our customers.



Reliability

Customers around the world trust Amazon to provide reliable service, from same-day delivery to cloud solutions. Project Kuiper will deliver the same reliable, consistent service for our customers.



Safety

We are committed to operating safely across every aspect of the Kuiper System, from our orbits in space to our facilities here on Earth.



Security

Our system is designed to protect the security and privacy of our customers, from individual households to large enterprise and government customers.



Sustainability

Amazon is committed to building a sustainable business for our customers and the planet, and we are inventing new ways to protect the space around Earth.

Bridging the digital divide

There are billions of people on Earth without reliable broadband. Project Kuiper will bridge the gap in places where service is unreliable or expensive, or where it doesn't exist at all.

1 billion

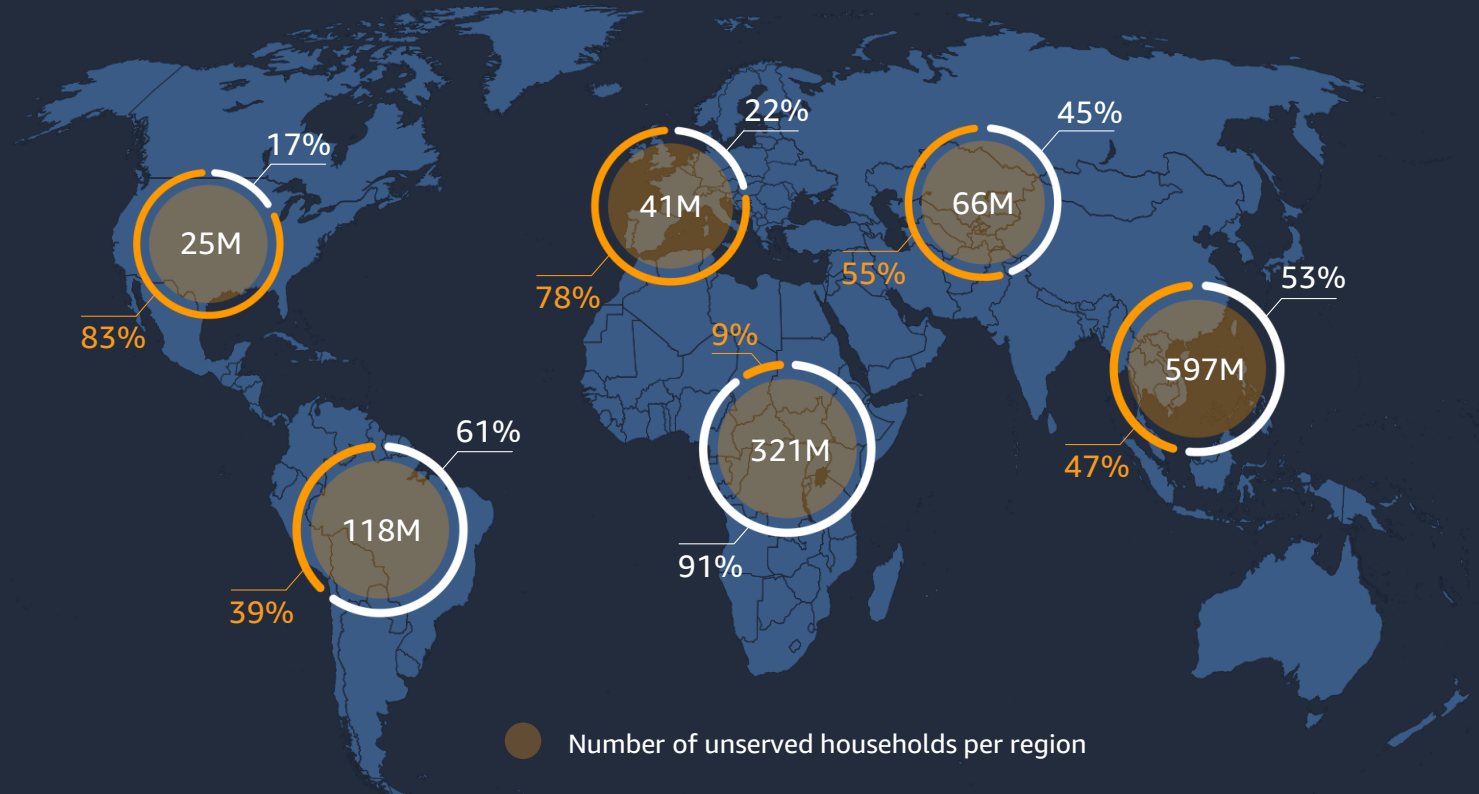
unserved households across the globe have no fixed broadband today (50% of the global total)

300 million

underserved households are on legacy DSL technologies

100 million

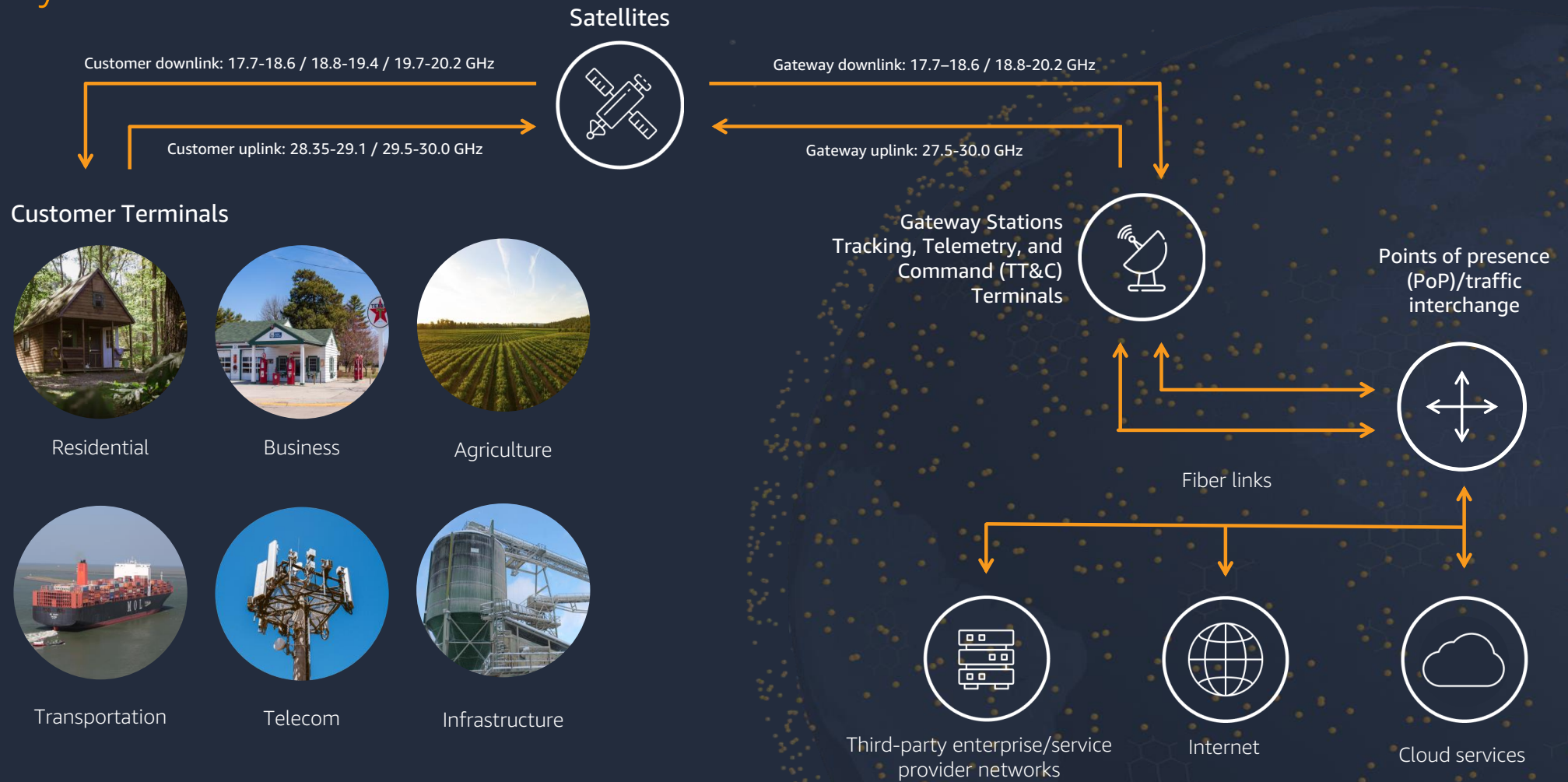
business, enterprise, and public sector endpoints lack reliable connectivity



- Number of unserved households per region
- Percentage of served fixed-broadband households (DSL, cable, fiber)
- Percentage of unserved households within the region

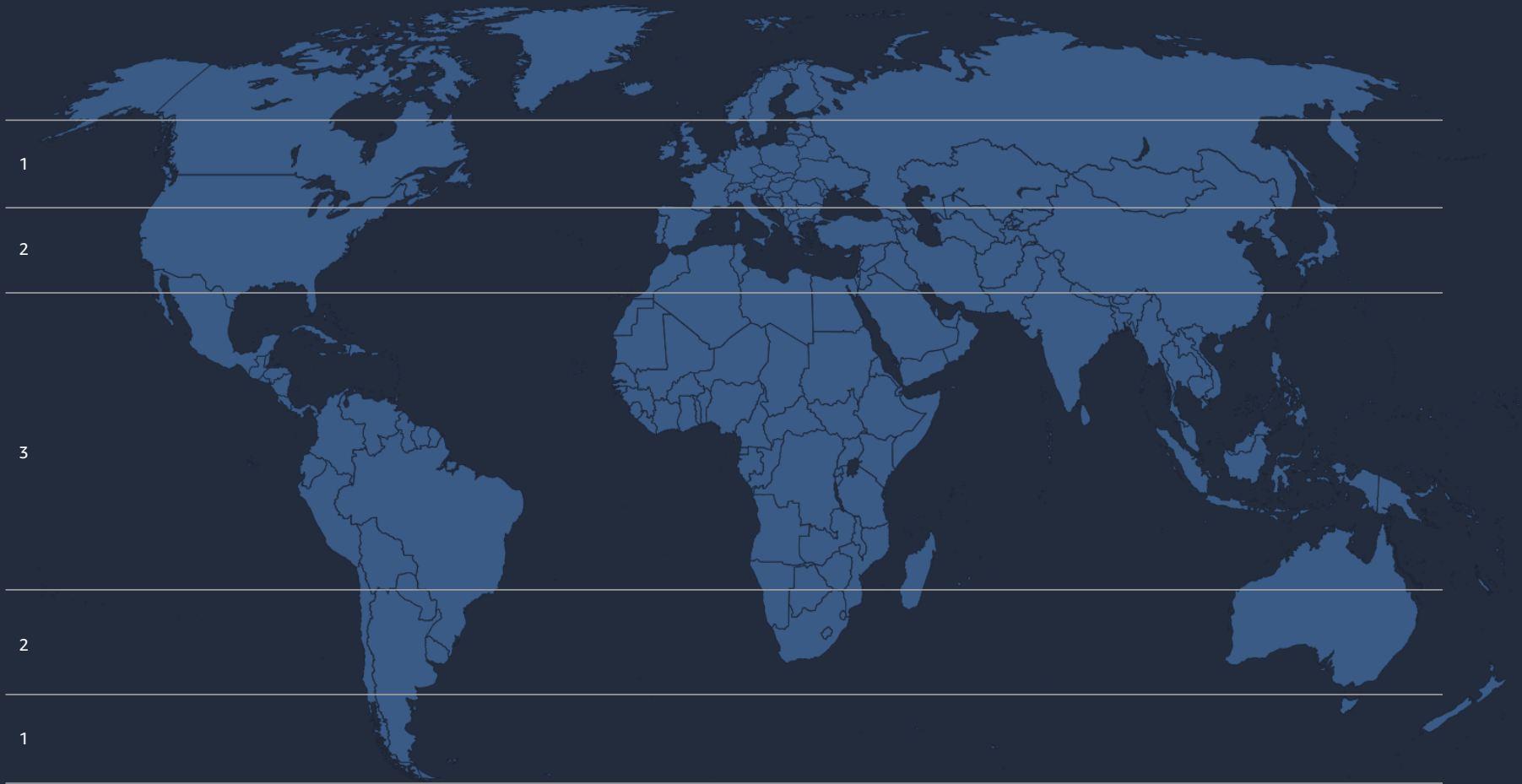
Source: S&P Market Intelligence

System architecture



Global coverage

Initial satellite constellation will cover the world's most populated regions.



Map sourced from Vecteezy

Customer terminal antenna

Small, compact terminals allow customers to connect to the network and enjoy fast, reliable service at an affordable price.



Technical specs

Type:	Single Aperture Phased Array Antenna
Frequency:	Ka-band
Diameter:	12 in. (30 cm)
Max. Throughput:	400 Mbps
Downlink:	17.7-18.6 GHz 18.8-19.4 GHz 19.7-20.2 GHz
Uplink:	28.35-29.1 GHz 29.5-30.0 GHz

Our customers



Residential

High-speed, low-latency service for individual households



Small Businesses

Bringing small businesses into the digital age



Public Services

Increasing access to information, education and healthcare



Enterprise & Transportation

Flexible, secure broadband to connect remote assets across land, sea and air



Emergency Services

Reliable broadband to support emergency and disaster relief efforts



Telecommunications

Expanding wireless and mobile networks to new regions

Production Deployment

Amazon has secured 77 heavy-lift launches to support its ambitious deployment plan for Project Kuiper.

Project Kuiper Launch Lineup

- Secured launches across three providers – Arianespace, Blue Origin, and United Launch Alliance (ULA)
 - Heavy-lift vehicles will provide enough capacity to deploy vast majority of our 3,236-satellite constellation
 - Amazon is investing billions of dollars across the three agreements, making it the single largest commercial procurement of launch vehicles in history
- Secured three additional launches with SpaceX for more capacity to support our deployment schedule





Prototype Mission

Amazon launched its two prototype satellites – KuiperSat-1 and KuiperSat-2 – on October 6, 2023.

Mission Objectives

- Mission allows us to test communications and networking technology used in our final satellite design, and validate launch and mission management procedures.
- Prototypes include production-ready technology and sub-systems, including phased array and parabolic antennas, power and propulsion systems, and custom-designed modems.

Safety & Sustainability

- Prototypes are designed for atmospheric demise and will be actively deorbited after the mission.
- One of two satellites includes reflectivity mitigation technology to evaluate ways to reduce impact on optical astronomy.

Mission Details

- Mission launched from Cape Canaveral Space Force Station in Florida on the United Launch Alliance Atlas V rocket.

Amazon commitment

Amazon is invested in the long-term success of Kuiper.

\$10 billion initial investment

Our initial \$10 billion commitment to Project Kuiper will create jobs and infrastructure around the world.

Facilities & infrastructure

A new, 219,000-sq-ft facility in Redmond, Wash., serves as our HQ and primary prototype manufacturing facility, and we're continuing to add new space.

Hiring

There are more than 1,400 people working on Project Kuiper at multiple locations across the country, and the team is growing quickly.

Industry Impact

Contracts support thousands of suppliers and highly skilled jobs in 49 states in the U.S. and 13 countries across Europe.



Kuiper Florida Commitment



Payload Processing Facility (Cape Canaveral)

Amazon is investing \$120 million and creating more than 50 jobs in a new 100,000 sq. ft facility at Space Florida's Launch and Landing Facility. Expected opening Q4 2024.

Partnership with ULA

Includes investments in launch infrastructure and service upgrades at Cape Canaveral Space Force Station.





Thank you

Beth Cooley

Head, State & Local Policy, Connectivity

bethcool@amazon.com

The Florida Senate

APPEARANCE RECORD

1/22/24

Meeting Date

Deliver both copies of this form to
Senate professional staff conducting the meeting

Project Kniper

Bill Number or Topic

Military + Veteran Affairs

Committee

Amendment Barcode (if applicable)

Name Beth Cooley

Phone 1-206-266-1000

Address 510 14th St S.

Street

Email betncool@amazon.com

Arlington,

City

VA

State

22204

Zip

Speaking: ☐ For ☐ Against ☐ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:



I am appearing without
compensation or sponsorship.



I am a registered lobbyist,
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This form is part of the public record for this meeting.

S-001 (08/10/2021)

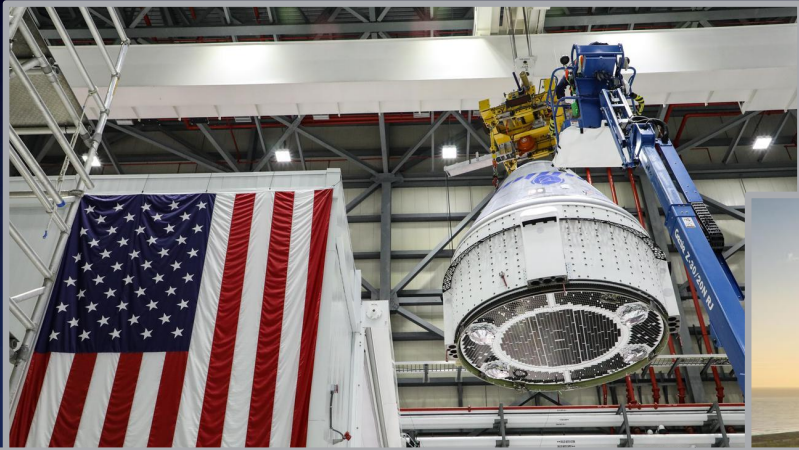


Launching Humanity's Future

Burton Summerfield
Associate Center Director, Management
Kennedy Space Center

KENNEDY SPACE CENTER

KENNEDY SPACE CENTER
LAUNCHING HUMANITY'S FUTURE



Provide
continuous access
to **space** from **Earth's**
premier spaceport
through **creativity**
and **innovation.**



KSC IS THE “BEST OF THE BEST” FOR THE FIFTH CONSECUTIVE YEAR



EARTH'S PREMIER SPACEPORT

KSC PROGRAMS AND PROJECTS



Deep Space Logistics



Exploration Ground Systems



Commercial Crew Program



Exploration Research & Technology Programs



Launch Services Program

EARTH'S PREMIER SPACEPORT

INTERAGENCY COORDINATION



SPACE FLORIDA



EARTH'S PREMIER SPACEPORT

NASA KSC VISITOR COMPLEX



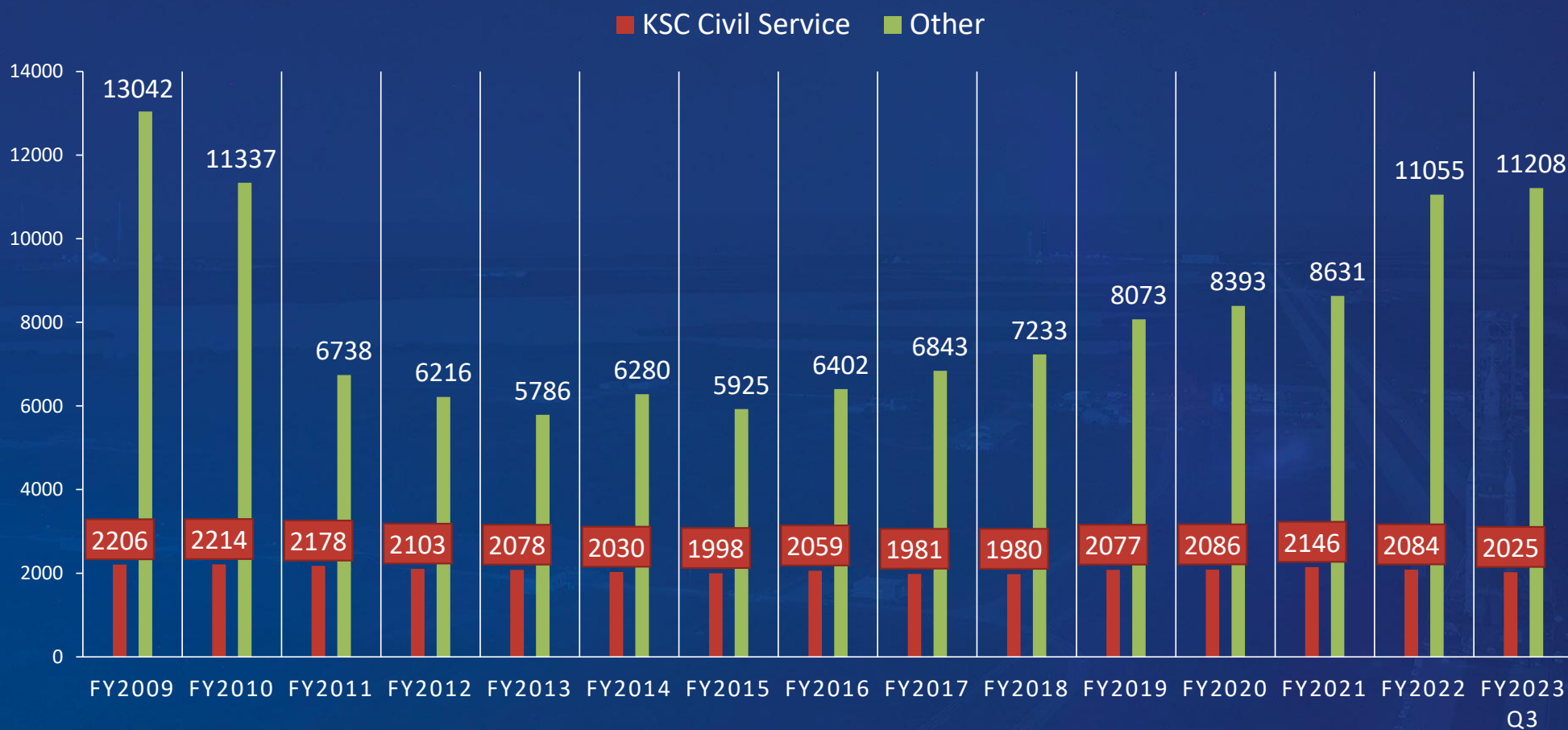
- Approximately 1.6 million visitors annually
- Provides up-close launch viewing and KSC bus tour opportunities for guests
- Home of Orbiter Atlantis and one of the Falcon 9 Boosters that launched Elon Musk's Tesla Roadster into space on the Falcon Heavy 2018 demonstration mission
- 8,000 students from Title I schools participating in the Astronaut Training Experience STEM Academy in 2023
- Received Autism Center certification in 2023

NASA does not use appropriated funds to operate the KSCVC.



EARTH'S PREMIER SPACEPORT

KSC WORKFORCE HEADCOUNT



2023 MILESTONES



Artemis II Solid Rocket
Booster Arrival
9/25



Artemis II Core Stage
Arrival
NET 12/1



Artemis II Stacking and
Integration Begins
NET 2024



Crew-6
Launch
3/2



Crew-5
Splashdown
3/11



Crew-7
Launch
8/26



Crew-6
Splashdown
9/4



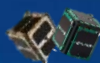
CRS-27
3/14



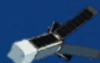
CRS-28
6/3



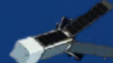
CRS-29
11/10



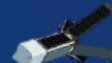
Elana 50, 43,
40, 47 and 48



TEMPO*
4/7



Tropics
5/3



Tropics
5/25



Psyche
10/13



Exploration Ground Systems



Commercial Crew Program



ISS Program



Launch Services Program

EARTH'S PREMIER SPACEPORT

KSC's ECONOMIC IMPACT



NASA Center:
Kennedy Space Center



NASA Overall State Impact ⁽¹⁾

• Jobs Supported	38,569
• Economic Output	\$7,425,085,000
• State Tax Revenue	\$248,435,000



Moon to Mars Campaign State Impacts

• Jobs Supported	10,016
• Economic Output	\$2,061,358,000
• State Tax Revenue	\$62,618,000



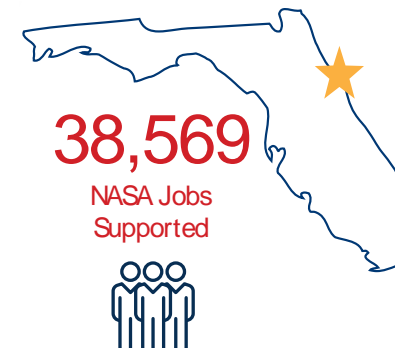
Investments in Climate Change Research & Technology State Impacts

• Jobs Supported	2,565
• Economic Output	\$431,644,000
• State Tax Revenue	\$13,873,000

⁽¹⁾ For more information please visit: [Value of NASA](#)

FY21 State Procurement Investments ⁽²⁾

\$1.9 B



There are 2,172 NASA federal jobs and 19,852 contractors* in the state of Florida.

For every NASA federal job located in Florida, an additional 16.8** jobs are supported in the state economy. For every million dollars' worth of economic output generated by NASA federal jobs, an additional \$6** million worth of output is sustained throughout the state economy.

* Represents NASA contractor employees and employees in the supply chain of those contractors.

** Multiplier based on IMPLAN Input Output (I-O) model. To learn more, please visit: <https://blog.implan.com/understanding-implan-multipliers>

EARTH'S PREMIER SPACEPORT

(1) For more information please visit: [Value of NASA](#)
(2) NASA contracts sourced in the state in FY21; see [FY21 NASA Economic Impact Report](#)

KSC LANDSCAPE 2023



99 partners and
243 partnership
agreements

Amazon
Project Kuiper
Space Florida LLF
Boeing
CST-100
SpaceX
Hangar X
FPL
Solar Site
Lockheed Martin
STAR Center
Astrotech Space Operations
KSC Visitor Complex
Space Florida
Exploration Park &
Space Life Science Lab
Airbus OneWeb
Firefly
Blue Origin
Manufacturing Complex



Sierra Space
Dream Chaser
NASA
Artemis SLS
SpaceX
Falcon 9/Falcon Heavy
NASA Launch Complex 48
ULA
Atlas V/Vulcan
SpaceX
Falcon 9
ULA
Delta IV
Firefly
Relativity Space
ABL
Stoke Space
Phantom and Vaya Space
Blue Origin
New Glenn
Lockheed Martin
Orion Manufacturing ¹⁰

EARTH'S PREMIER SPACEPORT

KSC INFRASTRUCTURE INTERDEPENDENCIES

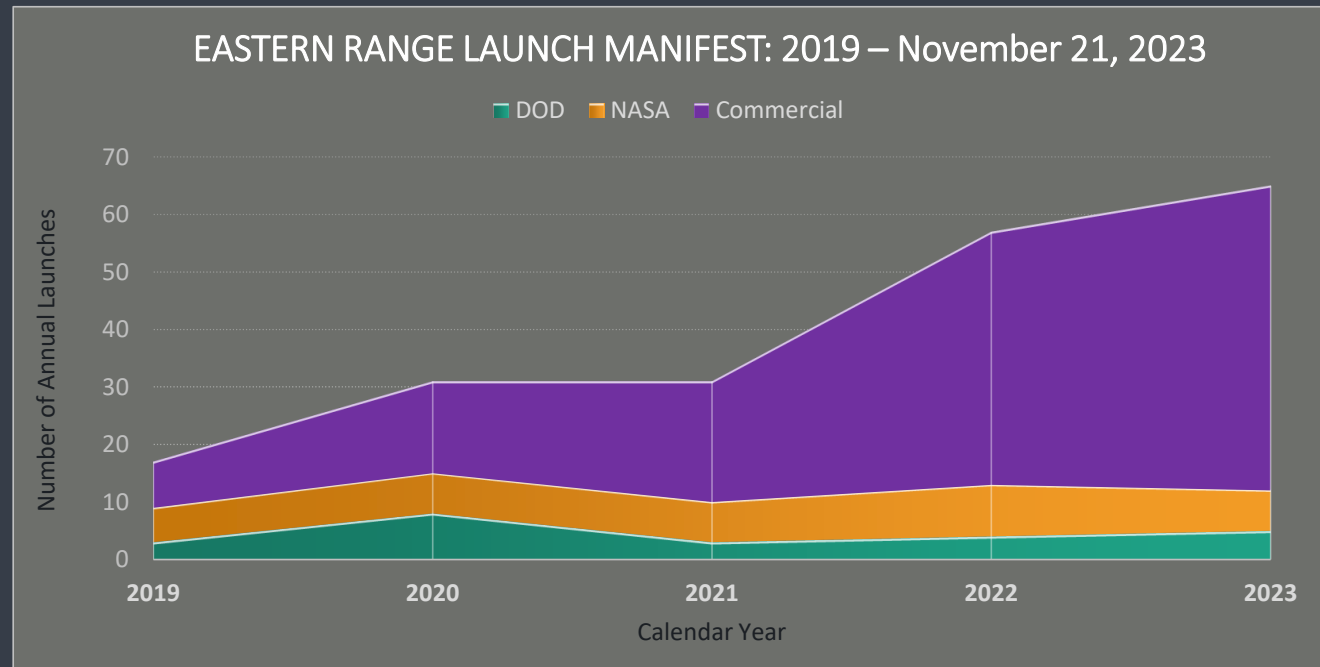


KSC common-use infrastructure provides power, commodities, and service infrastructure (e.g. sewer, roads, etc.) that support every launch from KSC/CCSFS. This infrastructure is key to providing robust launch capability that our nation needs now and in the future.

The launch capabilities provided by commercial partners are now an integral component of accomplishing NASA's mission. The availability of common-use infrastructure to support partner launches has avoided the need for new duplicative infrastructure and associated costs that would have been passed on to NASA missions.

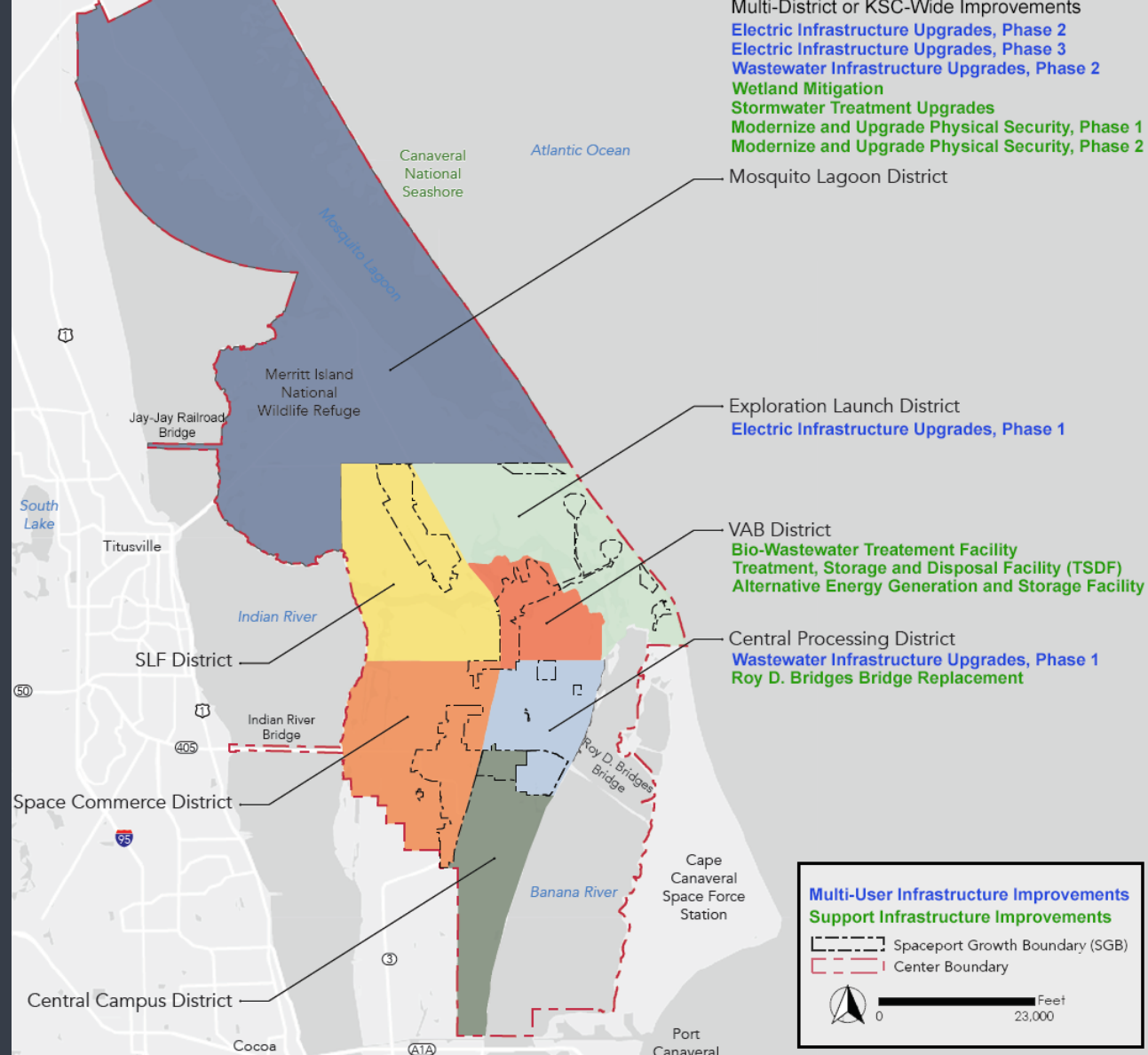
An inflection point has been reached where excess launch capacity could be limited in certain areas which would limit the evolution of the multi-user spaceport and impact NASA missions.

Launch rates from KSC/CCSFS are expected to increase to almost 225 by 2030. These launch demands will add additional strain on KSC's aging common-use infrastructure unless efforts to modernize these critical capabilities are made



THE SUCCESS OF NASA'S MISSION IS MUTUALLY
DEPENDENT ON COMMERCIAL PARTNERS AND
COMMERCIAL SUCCESS IS DEPENDENT ON NASA

INFRASTRUCTURE IMPROVEMENTS STRATEGY





LAUNCHING HUMANITY'S FUTURE

The Florida Senate
APPEARANCE RECORD

Meeting Date

Deliver both copies of this form to
Senate professional staff conducting the meeting

Bill Number or Topic

Committee

Amendment Barcode (if applicable)

Name BURTON SUMMERFIELD Phone 321-431-1333

Address MAIL CODE AA-C Email burton.r.summerfield@
Street ncsu.gov

KSC FL 32899
City State Zip

Speaking: ☐ For ☐ Against ☒ Information **OR** Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

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S-001 (08/10/2021)

CourtSmart Tag Report

Room: SB 301

Case No.:

Type:

Caption: Senate Military and Veterans Affairs, Space, and Domestic Security Committee **Judge:**

Started: 1/22/2024 1:32:11 PM

Ends: 1/22/2024 2:29:07 PM

Length: 00:56:57

1:32:10 PM	Chair Wright calls the meeting to order
1:32:16 PM	Roll call
1:32:21 PM	Quorum announced
1:32:29 PM	Pledge of Allegiance
1:32:36 PM	Led by Senator Pizzo
1:32:53 PM	Chair with opening comments-presentation by Blue Origin (Tab 3) is postponed
1:33:19 PM	Tab 2 Presentation on Activities and Spaceport Operations
1:33:34 PM	Mr. Kiko Dontchev, Vice President of Launch with SpaceX presents
1:51:36 PM	Questions
1:51:56 PM	Chair Wright
1:52:00 PM	Mr. Dontchev
1:53:21 PM	Chair Wright
1:53:37 PM	Tab 4 Presentation on Project Kuiper
1:54:21 PM	Ms. Beth Cooley, Head of State & Local Policy on Connectivity with Amazon presents
2:05:17 PM	Questions
2:06:18 PM	Senator Torres
2:06:24 PM	Ms. Cooley
2:07:10 PM	Senator Torres
2:07:13 PM	Ms. Cooley
2:08:08 PM	Chair Wright
2:08:13 PM	Ms. Cooley
2:08:39 PM	Chair Wright
2:08:46 PM	Tab 5 Presentation on Activities and Spaceport Operations
2:09:05 PM	Mr. Burt Summerfield, Associate Director with National Aeronautics and Space Administration presents
2:20:28 PM	Questions
2:21:30 PM	Senator Baxley
2:21:56 PM	Mr. Summerfield
2:23:53 PM	Senator Torres
2:23:56 PM	Mr. Summerfield
2:24:02 PM	Senator Torres
2:24:06 PM	Mr. Summerfield
2:24:39 PM	Senator Torres
2:24:43 PM	Mr. Summerfield
2:24:47 PM	Chair Wright
2:25:56 PM	Tab 1 SB 1312 Tuskegee Airmen Commemoration Day
2:26:13 PM	Senator Torres
2:27:17 PM	Questions
2:27:19 PM	Appearance Form
2:27:26 PM	Chante Jones waives
2:27:45 PM	Senator Torres
2:27:51 PM	Roll call
2:28:10 PM	SB 1312 is reported favorably
2:28:22 PM	Senator Pizzo
2:28:47 PM	Senator Torres moves to adjourn
2:28:56 PM	Meeting adjourned