

SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

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SPACEPORT AMERICA

COMMERCIAL SPACE INDUSTRY

--- WHAT IS IT?

- FLIGHT BEYOND THE KÁRMÁN LINE (>62 MILES ABOVE SEA LEVEL) THAT IS CONDUCTED AND PAID FOR BY AN ENTITY OTHER THAN A GOVERNMENT AGENCY



COMMERCIAL SPACE: WHY NOW?

- **AVAILABLE TECHNOLOGY**
- **FEDERAL BUDGET DECLINE**
- **SPACE IS THE “FINAL FRONTIER”**
- **ENTREPRENEURIAL SPIRIT IS THRIVING**
- **SPACE IS “THE GRAND CHALLENGE”**

COMMERCIAL AVIATION INDUSTRY ANALOGY

- THE 1950S AVIATION INDUSTRY WAS BUILT ON MILITARY AVIATION TECHNOLOGY LIKE THE B-29
- THE COMMERCIAL SPACE INDUSTRY IS ABOUT WHERE THE COMMERCIAL AVIATION INDUSTRY WAS IN THE EARLY 1950s

Boeing Stratocrusier
Lockheed Constellation
Douglas DC-6



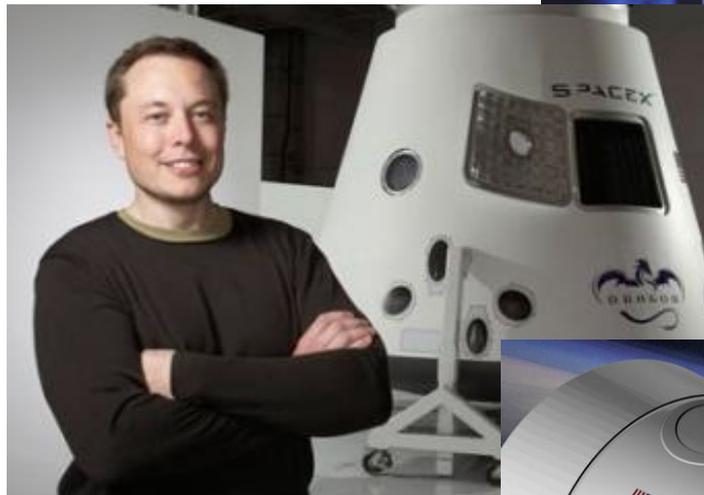
B-29

FACES OF THE COMMERCIAL SPACE INDUSTRY

- VISIONARY LEADERSHIP
- ENTREPRENEURIAL
- TIME TO MARKET
- AGILE “NEW” ORGANIZATION
- STREAMLINED OPERATIONS



Richard Branson



Elon Musk



Jeff Bezos

COMMERCIAL SPACE INDUSTRY MOTIVATION

- EXPLORATION
 - PIONEERING
 - MONEY
 - HUMAN PRESERVATION
- ... AND MORE

COMMERCIAL SPACE INDUSTRY MARKETS

- **LONG-TERM VISION**

Commercial Human Space Transportation

Commercial Space Cargo Transportation

Communications

Remote Sensing / Imaging

Exo-Planetary Resource Mining

Space Colonization

- **REGULATED/LICENSED BY
FAA-AST**



COMMERCIAL SPACEFLIGHT FEDERATION (CSF)

- **INDUSTRY TRADE & ADVOCACY ASSOCIATION**

- **40+ MEMBERS**

Spaceflight developers, operators, suppliers and spaceports

- **MISSION**

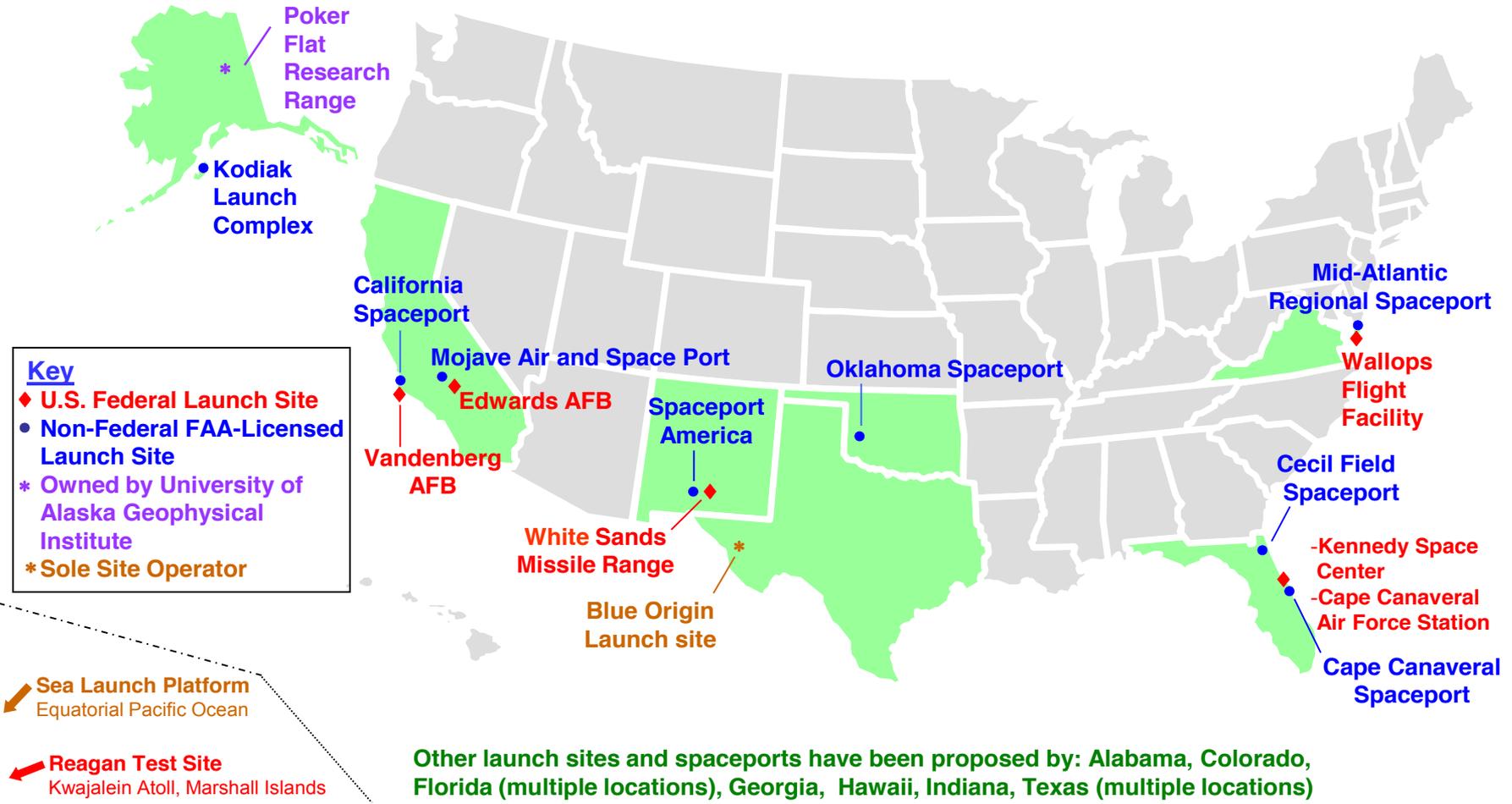
Promote the development of commercial human spaceflight, pursue ever higher levels of safety, and share best practices and expertise throughout the industry.



COMMERCIAL SPACEFLIGHT FEDERATION

Spaceport America is a founding, Executive Member of the CSF

U.S. COMMERCIAL SPACEPORTS



GROWTH IN U.S. COMMERCIAL SPACEPORTS

• TO DATE (8)

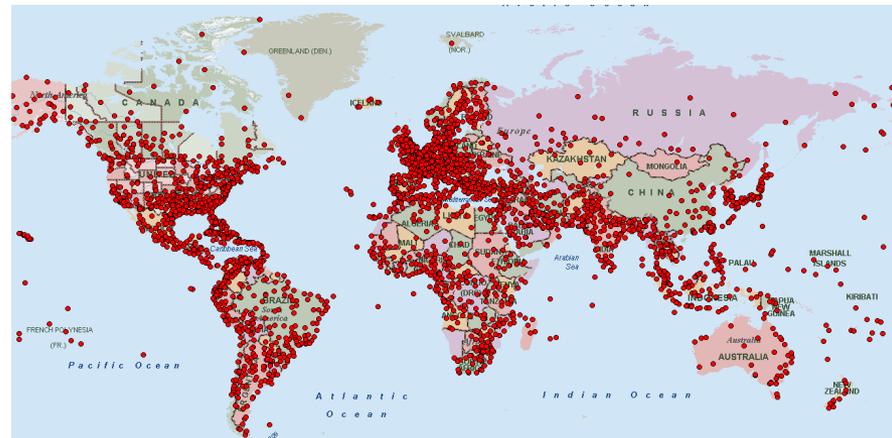
- Spaceport America
- Spaceport Florida
- Mid-Atlantic Regional Spaceport
- California Spaceport
- Oklahoma Spaceport
- Mojave Spaceport
- Kodiak Launch Complex
- Cecil Field Spaceport

• PROPOSED

- Front Range Airport, Colorado
- Midland Airport, Texas
- Titusville Airport, Florida
- South Texas Spaceport
- Spaceport Alabama
- Hawaii Spaceport
- Wisconsin Spaceport
- Spaceport Indiana
- Spaceport Washington
- Chugwater Spaceport
- Spaceport Georgia



TODAY



The Year 2114?

SPACEPORT AMERICA QUICK FACTS



- **SPACEPORT AMERICA IS THE WORLD'S FIRST PURPOSE-BUILT COMMERCIAL SPACEPORT**
- **OWNED AND OPERATED BY A STATE OF NM AGENCY (NMSA)**
- **\$218.5M STATE INVESTMENT FOR DEVELOPMENT**
- **1300+ JOBS GENERATED TO DATE**
- **TWO LAUNCH TENANTS: VIRGIN GALACTIC AND SPACEX PLUS OTHER CUSTOMERS**
- **20 LAUNCHES TO DATE**
- **OVER 50% OF OPERATIONS BUDGET HAS BEEN COVERED BY REVENUE FOR PAST 3 YEARS**

Goal: to be self-sustaining and a NM economic engine while inspiring visitors, particularly students

BUSINESS MODEL

VERTICAL AND HORIZONTAL SPACE LAUNCH



TOURISM



2 major lines of business – both are needed for long-term success

CHALLENGE: BUILD A SPACEPORT HERE



SUCCESS!



GATEWAY AT SUNRISE



GATEWAY TO SPACE



GATEWAY AT SUNSET



SPACEPORT AMERICA IS A SELF-CONTAINED “CITY”



FUEL STORAGE DEPOT



12,000 FT SPACEWAY 16-34



WASTEWATER TREATMENT PLANT



1.3M GAL WATER STORAGE &
BOOSTER STATION



COMMUNICATIONS SYSTEM



AWOS III WEATHER STATION

EMERGENCY RESPONSE VEHICLES



SPACEPORT AMERICA ATTRIBUTES



FAA Licensed Spaceport

18,000 acres—room for many tenants

Great weather with low humidity
High elevation

Suborbital trajectories proven

Orbital trajectories possible

Horizontal and Vertical Launches
supported

Affordable launch costs

Customized service based on customer
needs

20 Vertical launches to date from Spaceport America

Preparing for SpaceX F9R

Preparing for Virgin Galactic first flight

UP Aerospace scheduled for October 2014

Others in discussion

Gateway Gallery to open January 2015

New Security/Front Gate to be completed in February 2015

Visitor Center Departure Point to open in December 2015



VISITOR EXPERIENCE (VE) OVERVIEW

- FUN, IMMERSIVE, INTERACTIVE
- SCIENCE, TECHNOLOGY, ENGINEERING & MATH EDUCATIONAL FAMILY EXPERIENCES
- HIGHLY PERSONALIZED
- BROAD INDUSTRY PARTICIPATION
- UNIQUE GLIMPSE INTO THE FUTURE OF TRANSPORTATION



VISITOR EXPERIENCE COMPONENTS



SPACEPORT VISITOR CENTER

Starting point for Visitor Experience in T or C
6,000 sq.ft. transportation & story hub near highway



SHUTTLE TRANSPORTATION

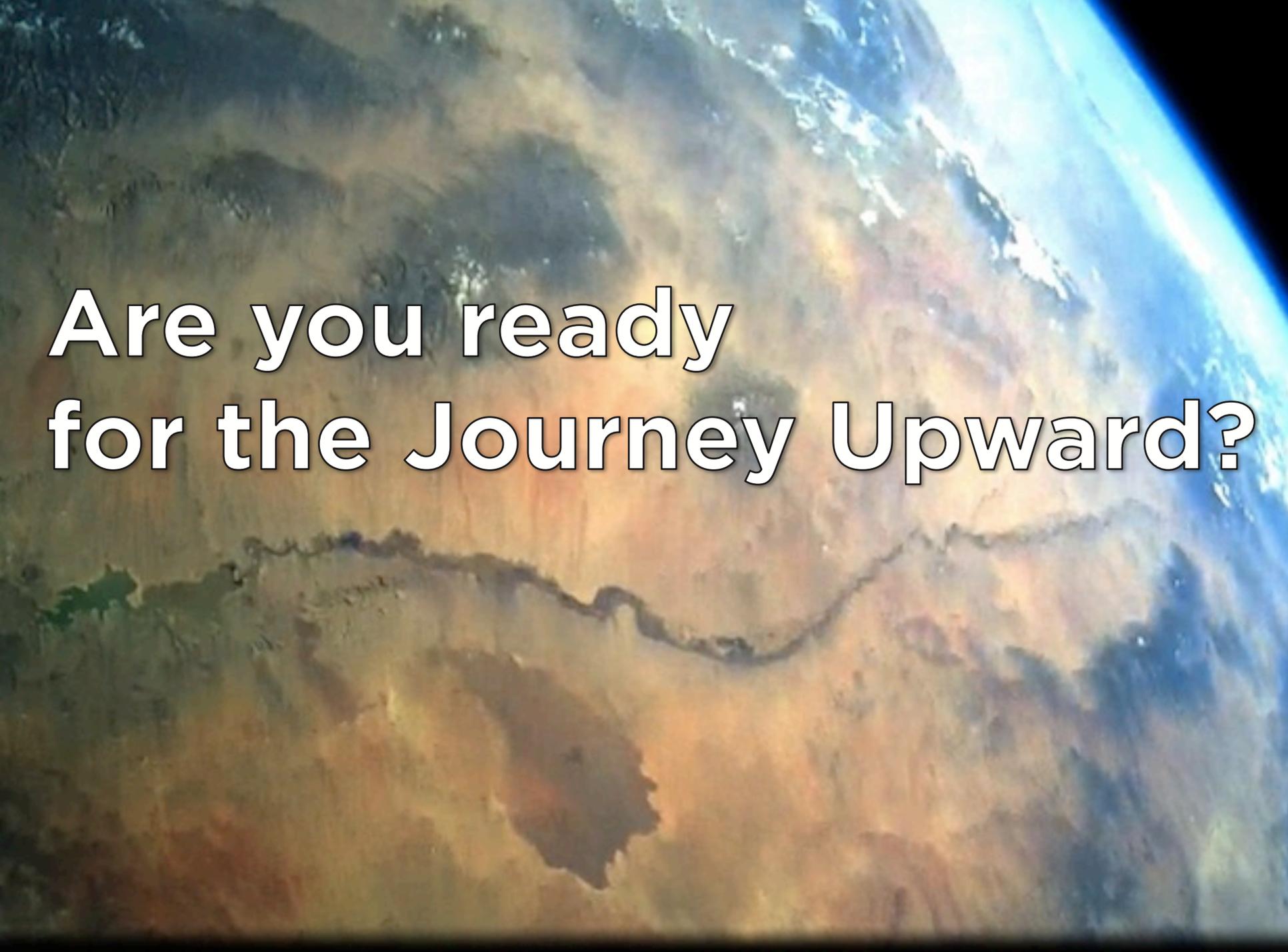
Mobile theater
1-hour inbound / outbound journey to & from Spaceport



FLIGHTLINE TOUR/GATEWAY GALLERY

1-hour escorted Spaceport property tour, including
Virgin Galactic Gateway To Space (4,000 sq.ft.)

To be completed in FY16

An aerial photograph of a wide, winding river valley. The river is dark and meanders through a landscape of brown and tan earth. There are some green patches, likely vegetation, on the left side. The top right corner of the image shows a bright blue arc, possibly representing the horizon or a sky gradient. Overlaid on the center of the image is the text "Are you ready for the Journey Upward?" in a white, bold, sans-serif font with a thin black outline.

**Are you ready
for the Journey Upward?**