

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

CENTER FOR BIOLOGICAL DIVERSITY,
AMERICAN BIRD CONSERVANCY,
SURFRIDER FOUNDATION, SAVE RGV, and
THE CARRIZO/COMECRUDO NATION OF
TEXAS, INC.,

Plaintiffs,

v.

FEDERAL AVIATION ADMINISTRATION and
BILLY NOLEN, in his official capacity,

Defendants,

and

SPACE EXPLORATION TECHNOLOGIES
CORP.,

1 Rocket Road
Brownsville, TX 78521,

Proposed Intervenor-Defendant.

Civil Action No. 1:23-cv-1204-CJN

**DECLARATION OF BRET JOHNSEN IN SUPPORT OF SPACE EXPLORATION
TECHNOLOGIES CORP.'S MOTION TO INTERVENE**

I, Bret Johnsen, declare as follows:

1. I am over the age of 18, of sound mind, and if called upon, could testify under oath as to the following.

2. I am the Chief Financial Officer at Space Exploration Technologies Corp. ("SpaceX"). I have held that position for more than 12 years.

3. As a Chief Financial Officer, I am personally familiar with SpaceX's interests and investments in the Starship/Super Heavy program, as well as with the substantial work completed

by SpaceX and others in connection with review of SpaceX's launch vehicle operator license at issue in this case.

4. I make this Declaration in support of SpaceX's Motion to Intervene. Except where specifically noted, the facts stated herein are based on my personal knowledge or upon information collected at my direction by SpaceX personnel operating under my supervision, at my direction, and within the scope of their respective duties.

I. SPACEX AND THE BOCA CHICA LAUNCH SITE

5. Since its founding in 2002, SpaceX has substantially reduced the cost of spaceflight and thereby greatly opened access to space. SpaceX has done so by developing innovative launch vehicles that are reusable and reliable. These innovations have made SpaceX the world's leading space transportation company and an essential part of the United States' space program.

6. Over ten years ago, as SpaceX's launch manifest was growing rapidly, SpaceX began to pursue a private launch site that could provide needed capacity for its launches and accommodate tight launch windows, which are time periods during which a particular mission is to be launched. As detailed in a Final Environmental Impact Statement ("EIS") issued by the Federal Aviation Administration ("FAA") in 2014, SpaceX identified and screened potential sites for commercial launch activities.¹ After extensive evaluation, which included consideration of economic and technological constraints—such as available trajectories, latitude, and the ability to meet public safety requirements—SpaceX ruled out various locations and proposed to build a launch site on private land in southern Texas near Boca Chica. On July 9, 2014, the FAA issued

¹ The EIS is available at https://www.faa.gov/space/environmental/nepa_docs/spacex_texas_eis/.

a Record of Decision (“ROD”) to approve SpaceX’s construction and operation of the Boca Chica launch site.²

II. DEVELOPMENT OF THE STARSHIP/SUPER HEAVY PROGRAM

7. After the FAA issued SpaceX its license to build and operate the Boca Chica launch site, SpaceX began to develop a new launch vehicle called Starship/Super Heavy. Starship/Super Heavy is a fully reusable, super heavy-lift launch system comprised of (i) the Super Heavy first stage that brings the Starship spacecraft to space, (ii) the Starship spacecraft that carries the payload(s), and (iii) attendant integration and launch and landing facilities.

8. Starship/Super Heavy stands to revolutionize space travel by substantially reducing the cost of accessing space while at the same time substantially increasing the mass and size of payloads that can be delivered to space. Starship will allow scientists to focus on previously impossible scientific missions and to pursue the fastest, easiest way to get their missions from concept to execution by eliminating the need to miniaturize, reduce mass, and create a system of deployments to fit in smaller launch vehicles. For instance, with its large capacity, Starship could economically put large telescopes and heavy science experiments in orbit, and cargo, people, and even colonies on moons and other planets.

9. With these capabilities, Starship/Super Heavy has already been selected to serve numerous U.S. government and private launch customers, including missions of significant national importance for NASA, the United States military, and others. For example, NASA chose Starship as its lunar lander in the upcoming Artemis program. This means that Starship will land Americans on the Moon for the first time in 50 years.

² The ROD is available at https://www.faa.gov/sites/faa.gov/files/space/environmental/nepa_docs/spacex_texas_eis/SpaceX_EIS_ROD.pdf.

10. Over the last four years, SpaceX has conducted suborbital launches and landings of Starship prototypes under an experimental permit³ and license⁴ at the launch site as part of its Starship experimental test program, including a series of suborbital launches from just a few inches above ground level to up to 10 kilometers and higher. In addition, SpaceX has performed static fire engine tests and tank tests.

11. Since the FAA issued the ROD approving SpaceX's development of the Boca Chica launch site, SpaceX has invested more than \$3 billion into developing the Boca Chica launch facility and Starship/Super Heavy launch system. SpaceX has already developed significant launch-related infrastructure on the site, including a vertical launch area, launch and landing control center, and other supporting facilities that have been in use for years. The vertical launch area includes an orbital launch pad, test pad, landing pad, orbital beam, tank farm and support equipment, orbital bunkers, and access roads. The launch and landing control center, which is located several miles west of the vertical launch area, consists of a two-story building (referred to as Stargate). A solar farm and SpaceX's manufacturing and production area, where SpaceX builds and modifies launch vehicles, are near the launch and landing control center.

12. The next step in SpaceX's Starship/Super Heavy development process is operationalizing orbital flights. In early 2021, SpaceX began the FAA application process for a launch vehicle operator license to move forward with this next stage of the Starship/Super Heavy

³ Initial low-altitude "hops" were authorized by FAA experimental permit EP 19-012, *available at* https://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/media/150%20m%20hop%20Permit%20%20Order%20Mod_08_23_2019.pdf.

⁴ The FAA authorized SpaceX to conduct flights using the Starship prototype vehicle from SpaceX's Boca Chica Launch Site under FAA license LRLO 20-119, *available at* https://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/media/License%20and%20Orders%20SpaceX%20LRLO%2020-119%20Starship%20Prototype%202021-03-12.pdf.

program by conducting a limited number of Starship/Super Heavy orbital launches, along with additional Starship suborbital test launches that could be needed.

13. SpaceX's proposal includes up to 5 orbital Starship/Super Heavy launches per year and 5 suborbital Starship launches per year from the Boca Chica launch site. Additionally, it includes SpaceX's proposal to build launch-related infrastructure, including a redundant launch and landing pad, a payload-processing facility, support buildings, and parking, and to expand the existing solar farm.

14. Because SpaceX's operations and infrastructure could evolve as Starship/Super Heavy is tested and then put into operation, the FAA decided that a Programmatic Environmental Assessment ("PEA") was the appropriate level of National Environmental Policy Act ("NEPA") review.

15. On June 13, 2022, the FAA issued a final PEA⁵ and Finding of No Significant Impact ("FONSI")/ROD, which concluded that the proposed Starship/Super Heavy launch program would not significantly impact the environment, particularly given the numerous mitigation measures SpaceX will implement.⁶

16. On April 14, 2023, the FAA issued a license that authorizes SpaceX to launch Starship/Super Heavy from Boca Chica on a specific trajectory and land Super Heavy in the Gulf of Mexico and Starship in the Pacific Ocean. *See* Ex. A (April 14, 2023, Launch License and Orders from FAA). Before issuing the license, the FAA confirmed that the CSLA's demanding

⁵ The PEA is available at <https://www.faa.gov/stakeholderengagement/spacexstarship/assessment-spacex-starshipsuper-heavy-launch-vehicle-program>.

⁶ The FONSI/ROD is available at <https://www.faa.gov/stakeholderengagement/spacexstarship/spacex-starship-super-heavy-boca-chica-fonsi-rod>.

safety requirements were met. The FAA also prepared a Written Reevaluation concluding that the operations under the license are within the scope of the proposed action evaluated in the PEA.⁷

17. The license did not authorize any return landing at the Boca Chica launch site. Rather, it authorized Super Heavy to land and sink in the open ocean at least 19 miles off the coast of the Gulf of Mexico, and Starship to land and sink at least the far off the coast in the Pacific Ocean. Under the PEA, SpaceX has proposed to conduct a maximum of five such orbital launches a year.

18. On April 20, 2023, SpaceX conducted a test launch of Starship/Super Heavy in accordance with the license. The launch vehicle successfully lifted off and flew for several minutes before experiencing anomalies that resulted in the termination of the mission and safe destruction of the rocket over the Gulf of Mexico.

III. SPACEX'S INTEREST IN THE BOCA CHICA LAUNCH SITE AND STARSHIP/SUPER HEAVY PROGRAM

19. SpaceX has invested over \$3 billion into developing the Boca Chica launch facility and Starship/Super Heavy launch system.

20. SpaceX expects to generate a return on these investments through various revenue streams, including through Starship-related government and commercial contracts and through the sale of Starlink internet services. Indeed, SpaceX has already entered into billions of dollars' worth of contracts that depend on Starship/Super Heavy.

21. For example, in April 2021, NASA selected SpaceX's Starship/Super Heavy to serve as the Human Landing System to return American astronauts to the surface of the Moon. This contract has a value of \$2.9 billion. To earn this money, SpaceX must successfully execute a

⁷ The Written Re-Evaluation is available at <https://www.faa.gov/media/27236>.

test, development, and launch campaign of Starship/Super Heavy. The total contract amount is divided into a series of milestone payments that correspond to key events in the development, test, and launch progression, with the overwhelming majority of development activities being gated by the first orbital launch of Starship/Super Heavy. Specifically, there are major milestone payments totaling almost \$1 billion associated with the first orbital launch, propellant transfer demonstration flights, long duration orbital flight of Starship/Super Heavy, uncrewed lunar landing, and crewed lunar landing itself, as well as design and verification events that cannot proceed until the corresponding system maturity has been achieved and demonstrated in flight.

22. As another example, in January 2022, NASA selected Starship/Super Heavy to provide reliable and timely launch services for Venture-Class Acquisition of Dedicated and Rideshare missions. This contract is expected to generate \$10 million or more each year, and without the operation and launch of Starship/Super Heavy, SpaceX is unable to achieve this revenue.

23. Aside from government contracts, SpaceX also has commercial contracts tied to the Starship/Super Heavy program for civilian human space flight missions aboard Starship worth hundreds of millions of dollars at this time.

24. Starship/Super Heavy program will also serve Starlink, SpaceX's global low earth orbit satellite-based internet service. SpaceX has invested billions of dollars into Starlink. The ability of Starlink to deliver the highest possible quality connectivity to the most customers in the most places—and thereby generate the greatest return on SpaceX's investment—depends on the capability of the satellites in its network. The most advanced version of the Starlink satellite, called "v.2", is designed to launch exclusively on Starship/Super Heavy. Without Starship/Super Heavy's successful operation, not only will SpaceX be harmed financially by its inability to launch v.2

satellites, but also hundreds of thousands of people, including many in the United States who live in areas with no or limited access to high quality broadband and have placed deposits and are waiting until the Starlink constellation is upgraded and can serve them, will have to continue waiting.

25. If Plaintiffs are successful in their lawsuit, which seeks to set aside SpaceX's license, SpaceX's ability to support these and other public and private missions, and receive these revenues would be substantially delayed and jeopardized. If successful, Plaintiffs' lawsuit would also cause SpaceX to substantially reduce capital investments and workforce requirements at the Boca Chica facility, harming the interests of SpaceX, its employees in Texas, local communities, and the substantial national interest in the Starship/Super Heavy program.

26. Attached to this declaration is a true and correct copy the exhibit referenced above.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 18, 2023, at Hawthorne, California.

Bret Johnsen

