

**CALIFORNIA COASTAL COMMISSION**

455 MARKET STREET, SUITE 300  
SAN FRANCISCO, CA 94105-2219  
FAX (415) 904-5400  
Voice (415) 904-5260



# W10a

**CD-0003-24 (Department of the Air Force – U.S. Space Force)**

**June 12, 2024**

**Correspondence**



DEPARTMENT OF THE AIR FORCE  
UNITED STATES SPACE FORCE  
SPACE LAUNCH DELTA 30

June 7, 2024

Colonel Mark A. Shoemaker, USSF  
Commander  
Space Launch Delta 30  
747 Nebraska Ave, Ste A302  
Vandenberg SFB CA 93437-6261

Kate Huckelbridge, Ph.D  
Executive Director  
California Coastal Commission  
455 Market Street, Suite 300  
San Francisco, California 94105-2219

Dear Dr. Huckelbridge,

The purpose of this letter is to provide a response and supporting materials provided by my staff to the most recent California Coastal Commission (CCC) staff report in preparation for the 12 June 2024 hearing regarding the installation's pending USSF federal consistency determination (CD-0003-24).

I thank the CCC Commissioners and staff for your continued communications with the SLD 30. All CCC Commissioners and staff continue to have an open invitation for future visits to the installation so that SLD 30 may continue to support a better understanding of SLD 30's Department of Defense launch mission and our control of all commercial space activities operating on VSFB property.

If you have any questions or concerns, please contact Ms. Bea Kephart, (805) 605-7924, [beatrice.kephart@spaceforce.mil](mailto:beatrice.kephart@spaceforce.mil).

Sincerely,

**SHOEMAKER**  
**MARK.A.1077**  
**726418**  
MARK A. SHOEMAKER, Colonel, USSF  
Commander

Digitally signed by  
SHOEMAKER.MARK.A.1077726418  
DN:  
cn=SHOEMAKER.MARK.A.1077726418  
, o=U.S. Government, ou=USSF,  
email=unknown, c=US  
Date: 2024-06-07T16:13:14-0700

Attachment: SLD 30 Response to CCC Staff Report (2 pages)

**ATTACHMENT**

## **June CCC Public Hearing SLD 30 Response to CCC Staff Report**

**General.** It is Space Launch Delta (SLD) 30's position that the CD filed 7 March 2024 (CD-0003-24) and the proposed minimization measures SLD 30 has been willing to agree to implement since the drafting of this CD and resulting negotiations with the CCC up to the 12 April 2024 hearing, are consistent to the maximum extent practicable within the enforceable policies of the CCMP. The SLD 30 provided the required information pursuant to 15 CFR 930.39 in the CD-0003-24 and the information was and is commensurate with the expected coastal effects in the coastal zone off VSFB property. SLD 30 attended two public hearings subsequently and provided presentations and additional information to the CCC staff and to the CCC. After the SLD 30's last virtual attendance on 10 May, the CCC staff submitted additional questions on 14 May 2024. SLD 30 provided sufficient responses to the additional inquiries on 17 May 2024 and at the time all remaining staff questions had been addressed by SLD 30 in order to provide the CCC staff time to complete their report. Pursuant to 15 CFR 930.41, a state agency's determination of whether the required information is complete is not a substantive review of the adequacy of the information.

**1. Sonic Booms.** Sonic boom footprint was provided in the body of CD-0003-24 and the Appendix B, and levels for southern Santa Barbara, Ventura, and Los Angeles counties were provided to CCC Staff on 17 May 2024. The SLD 30 has provided the current best available information about the boom noises first reported being heard from a fraction of the launches from southern Santa Barbara County, Ventura County, and Los Angeles County starting in the March – April 2024 time frame. Reports were spread across both coastal and non-coastal zone areas. According to modeling efforts, the psf has not exceeded 2.13 psfs, putting it within the 1.0 to 5.0 psfs (128 to 140 dBs) already analyzed in the CD-0003-24, and that information has been provided. The SLD 30 will continue to monitor and assess, including reinitiation of consultation with USFWS if SLD 30 determines adverse effects of this unanticipated noise travel.

**2. Marine Mammal Monitoring.** Sufficient information has been previously provided under the initial National Marine Fisheries Service (NMFS) Letter of Authorization (LOA), the CD-0003-24, and recently the updated LOA as consultation continues as per these authorizations. SLD 30 has complied with, will comply with additional monitoring as may be required, and has/will provide any additional information as accomplished as per the NMFS LOAs.

**3. Marine Debris.** This information was provided in the ND-0009-23 previously submitted, in the CD-0003-24, as well as the associated draft EA/FONSI provided attached to the subject CD. As per the 12 April 2024 hearing, SLD 30 is open to further increasing the ratio of marine debris offsets but has not received guidance on what the CCC would deem adequate. This, as well as the agreed minimization measures, would be further coordinated during the development of the Marine Debris Plan that was included in the 12 April 2024 public hearing addenda.

**4-5. ESHA.** In the past, in spirit of cooperation and comity, SLD 30 has voluntarily protected such natural resources identified by the CCC on its property. However, as stated on previous

communications (SLD 30 inputs on staff report for CD-0010-22 and CD-0003-24), it is the position of the SLD 30 that ESHA policy, in particular Section 30240(a) of the Coastal Act, is not applicable to VSFB as it is outside of the coastal zone. The SLD 30 will continue to protect natural resources on its property pursuant to its land and environmental management programs mandated under applicable federal statutes and DoD policies (e.g., Endangered Species Act, Marine Mammal Protection Act, Integrated Natural Resources Management Plan (INRMP) pursuant to the Sikes Act and DODI 4715.03, Natural Resources Conservation Program, etc.) (See also, CD-0003-24, Attachment 3, USFW BO).

**6. Artificial Night Lighting.** SLD 30 provided in email communication to CCC staff on 28 March 2024 that SLD 30 is preparing a lighting management plan and specific BMPs such as shielding, not having lights face the beach where practicable, outling when lights are needed for operations.

**7. Commercial and Recreational Fishing.** Information on this matter was provided in the CD-0003-24. At the 11 April 2024 hearing details on communications with the fishing stakeholders would be developed in a Commercial and Recreational Fishing Coordination Plan that was included in the April Public Hearing Addenda. However, as per the current staff report the plan is no longer required.

**8. Wetlands.** This matter is related to activity that occurred on installation property after all regulatory compliance was completed in 2018. As communicated with CCC staff and reflected in the addenda to the April Staff Report (W13a-4-2024; page 11), SLD 30's restoration measures followed applicable Regional Water Quality Control Board (RWQCB) requirements.



**DEPARTMENT OF THE AIR FORCE**  
**REGIONAL ENVIRONMENTAL COORDINATOR, REGION 9**  
**510 HICKAM AVENUE, BUILDING 250A**  
**TRAVIS AFB, CA 94535**

June 7, 2024

David C. Bell, Ph.D  
Air Force Regional Environmental Coordinator  
Region IX  
510 Hickam Ave Bldg. 250, Bay A  
Travis Air Force Base, CA 94535

Kate Huckelbridge, Ph.D  
Executive Director  
California Coastal Commission  
455 Market Street, Suite 300  
San Francisco, CA 94105-2219

Dear Dr. Huckelbridge,

As the Air Force (AF) Regional Environmental Coordinator (REC) in U.S. Environmental Protection Agency Region 9, I am responsible for coordinated responses to various environmental policies and regulatory matters for the Department of the Air Force (DAF), including matters related to the United States Space Force (USSF). The purpose of this letter is to provide a response to the most recent staff report in preparation for the 12 June 2024 hearing and to provide detail to the California (CA) Coastal Commission (CCC) on the Department of Air Force (DAF) position, in alignment with prior Space Launch Delta (SLD) 30 and DoD communications, regarding the federal activities at Vandenberg Space Force Base (VSFB) under the Coastal Zone Management Act (CZMA). SLD 30 has cooperated with the CCC in multiple exchanges of information and engagements to provide supporting information on the DAF position with respect to space launch activities at VSFB to assure the CCC of the DAF's commitment to address impacts associated with these activities in accordance with applicable Federal and State law. We still hope to reach a mutual resolution and obtain the CCC concurrence with the USSF federal consistency determination (CD) for Space Exploration Technologies' (SpaceX) use of Space Launch Complex 4 (SLC-4) on VSFB property regarding SpaceX's increase to 36 launches annually.

As mentioned, consistent with previous DoD and prior SLD 30 communications, (1) the DAF will undertake its federal actions in a manner consistent to the maximum extent practicable with the enforceable policies of the CZMP through the federal consistency process under the CZMA and (2) federal activities, including commercial space activities on VSFB, are not subject to the California Coastal Zone Management Program's (CZMP) Coastal Development Permit (CDP).

## **Launch Activities on VSFB Constitute “Federal Agency Actions”**

Launches on VSFB constitute “federal agency actions” and fall within the federal CD process. The CCC staff report is inconsistent with the CZMA as it asserts that commercial space launches occurring on federal lands may necessitate the use of the CDP process where a non-federal entity (*e.g.*, Blue Origin, SpaceX, or any Government contractor) is involved in the military’s federal activity on its property. Federal agency activities include “any functions performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities.” 15 C.F.R. § 930.31(a); *see also* 15 C.F.R. § 923.33 (“[T]he boundary of a State’s coastal zone must exclude lands owned, leased, held in trust or whose use is otherwise by law subject solely to the discretion of the Federal Government”); *Manchester Pac. Gateway LLC v. Cal. Coastal Comm’n*, 2008 U.S. Dist. LEXIS 347032 (rejecting CCC’s position that the CDP process should apply to a joint venture between the Department of the Navy and a private developer on federal lands).<sup>1</sup> Congress has authorized the DoD and DAF to take certain actions on federal property and in support of commercial launch activities. Specifically, federal statutory authorities (1) authorize military services to grant use of property it owns, (2) regulate that use and activity in conformity with such authorities and DoD and DAF policy, and (3) support the advancement of commercial space launch activity and commercial space launch entities.<sup>2</sup>

This position has been articulated to the CCC throughout this CD process, and both DoD REC for Region 9 and the previous commander of VSFB outlined these positions in letters to the CCC in October and November 2022, respectively. Both letters are attached for your reference.

## **Federal Lands are Exempted from ESHA Designations**

The CZMP/CZMA does not provide authority for ESHA designations on federal lands. The CZMA explicitly excludes federally owned property from the definition of the “coastal zone.” The DAF recognizes that this exclusion does not extend to CDs where activities on federal lands have reasonably foreseeable impacts that affect any land or water use or natural resource of the coastal zone off federal property. 15 C.F.R. §§ 923.33(b), 930.11(g), and 930.31(a). However, this process does not authorize the CCC to designate ESHA on federal property since ESHA designation by definition only applies to “coastal zones.” To hold otherwise, would allow the CCC to indirectly regulate development of lands outside of the “coastal zone,” notwithstanding previous voluntary cooperation with respect to such habitat on VSFB. As such, VSFB will be reconsidering whether to support such future requests. The DAF will continue to protect natural resources on its property pursuant to its land and environmental management programs mandated under applicable federal statutes and DoD policies (*e.g.*, Endangered Species Act, Marine Mammal Protection Act, Integrated Natural Resources

---

<sup>1</sup> Specifically, the court held that: “(1) the focus of the statute is on the federal use of federal lands, and not the use of private parties to accomplish federal objectives and (2) the Federal Government, through Congressional and agency action, acted in its sole discretion by legislative mandate and agency action to define the use of the [development] and to permit the Secretary of the Navy to jointly develop the [development] in conjunction with a private developer.”

<sup>2</sup> *E.g.*, Title 51, United States Code (USC), Chapter 509, Commercial Space Launch Activities; Title 10, USC, Chapter 135, Space Programs; Title 10, USC, Chapter 159, Real Property and Chapter 903, Department of the Air Force, Chapter 80, Department of the Navy, Chapter 703, Department of the Army.

Management Plan (INRMP) pursuant to the Sikes Act and DODI 4715.03, *Natural Resources Conservation Program*, etc.).

We thank you for your continued communications with the military in CA, and we will continue to cooperate, consult, and coordinate with you and your staff on DoD activities through the federal consistency process pursuant to the CZMA and DoD's statutory authorities and responsibilities as designated by Congress. SLD 30 also extends an open invitation to visit the installation so that SLD 30 may continue to support a better understanding of SLD 30's controlling role over all the commercial space entities operating on VSF property.

If you have any questions or concerns, I can be reached at [david.bell.3@us.af.mil](mailto:david.bell.3@us.af.mil).

DAVID C. BELL, Ph.D.  
AF Regional Environmental Coordinator, Region 9

Attachments:

1. Letter from Commander Navy Region SW, dated 25 October 2022
2. Letter from SLD 30/CC, dated 2 November 2022

Cc:

Cassidy Teufel, Deputy Director, CCC  
Col Rebecca M. Gawaran, SSC/JA  
Maj Steven McKeveatt, AF/JAOE-WR  
Maj Charlton Hedden, AF/JAOE-FSC  
Mr. Brett Downey, AF/JAOE-FSC  
Mr. J.C. Golumbfskie-Jones, NRSW



# **ATTACHMENT 1**



**DEPARTMENT OF THE NAVY**  
COMMANDER NAVY REGION SOUTHWEST  
750 PACIFIC HIGHWAY  
SAN DIEGO CA 92132-0058

IN REPLY REFER TO:

5090  
Ser N40  
October 25, 2022

John Ainsworth  
Executive Director  
California Coastal Commission  
455 Market Street, Suite 300  
San Francisco, California 94105-2219

Dear Mr. Ainsworth,

**SUBJECT: DEPARTMENT OF DEFENSE POSITION ON REQUESTS FOR COASTAL DEVELOPMENT PERMITS ON FEDERAL PROPERTY IN CALIFORNIA**

On behalf of the military Services in California, and consistent with previous communications on this uniquely federal issue, this letter serves as notice that the Department of Defense (DoD) will undertake its federal actions in a manner consistent to the maximum extent practicable with the enforceable policies of California's approved coastal zone management programs through the federal consistency process under the Coastal Zone Management Act (CZMA).

Recently, the DoD has been in receipt of multiple communications from the California Coastal Commission (CCC) requesting that the Coastal Development Permit (CDP) process be utilized where a private entity is involved in the military's federal activity.

Federal activities include "any functions performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities." 15 CFR 930.31(a). Furthermore, under the CZMA (16 USCS § 1453(1)), "lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents" are excluded from the coastal zone.

The question of whether "solely to the discretion of or which is held in trust by the Federal Government" includes the actions of private entities at the direction of the Federal government, was the subject of litigation in *Manchester Pac. Gateway LLC v. Cal. Coastal Comm'n (2008)*. In this case, the Navy had leased the Navy Broadway Complex (NBC) to a private developer in return for a new Navy headquarters building on the property. The court rejected the CCC's argument that the involvement of a private entity negated the Federal government's sole discretion under the statute. Specifically, the California 9<sup>th</sup> Circuit Court held that:

"(1) the focus of the statute is on the federal use of federal lands, and not the use of private parties to accomplish federal objectives and (2) the Federal Government, through Congressional and agency action, acted in its sole discretion by legislative mandate and agency action to define the use of the NBC and to permit the Secretary of the Navy to jointly develop the NBC in conjunction with a private developer."

5090  
Ser N40  
October 25th, 2022

CDPs are only required for development in the coastal zone as per California Public Resources Code 30600. Any federal activity, lease or project undertaken on a military installation, is by definition not in the coastal zone. All activities taking place on federally owned DoD land, including those that utilize private entities, are done so in a manner exercising our statutory responsibilities. Federal activities include a range of activities where a Federal agency makes a proposal for action initiating an activity or series of activities when coastal effects are reasonably foreseeable. 15 CR 930.31(a). Assuming arguendo that a particular activity did not satisfy the definition of Federal activity in 15 CFR 930.31(a), as long as the DoD is not issuing a federal license or permit to an applicant under subpart D and E or granting federal assistance under subpart F, the federal activity residual category would apply. 15 CFR 930.31(c). The Federal consistency process would still be the appropriate avenue.

We thank you for your partnership with the military in California and look forward to continuing to work with you and your staff on DoD activities through the Federal Consistency process. Our point of contact on this issue is Kathryn Ostapuk, who can be reached at [kathryn.g.ostapuk.civ@us.navy.mil](mailto:kathryn.g.ostapuk.civ@us.navy.mil) or 619-933-2561.

Sincerely,



J. C. GOLUMBFSKIE-JONES  
Deputy Regional Environmental Coordinator  
By Direction  
of the Commander

Copy to: Cassidy Teufel, Federal Consistency Manager, CCC  
Kate Hucklebridge, Senior Deputy Director, CCC  
Kerry Kehoe, Federal Consistency Specialist, Office for Coastal Management

# **ATTACHMENT 2**



DEPARTMENT OF THE AIR FORCE  
UNITED STATES SPACE FORCE  
SPACE LAUNCH DELTA 30

2 NOV 22

Colonel Robert A. Long, USSF  
Commander  
Space Launch Delta 30  
747 Nebraska Ave, Ste A302  
Vandenberg SFB CA 93437-6261

Mr. Cassidy Teufel  
Manager, Federal Consistency Division  
California Coastal Commission  
455 Market Street, Suite 300  
San Francisco, California 94105-2219

Dear Mr. Teufel

Space Launch Delta (SLD) 30, 30 CES/CEI, received your response to the request for withdrawal of Consistency Determination No. CD-0010-21, dated August 31, 2022. In it, you stated that the Blue Origin (BO) project is considered to solely constitute private commercial development and requested that SLD 30 withdraw our Consistency Determination (CD) and direct BO to submit a Coastal Development Permit (CDP) request. In accordance with the October 25, 2022, letter from the DoD Regional Environmental Coordinator for Region 9 and for the reasons stated below, SLD 30 disagrees with the project characterization in your request. Therefore, SLD 30 will not withdraw our CD or direct BO to request a CDP.

Under the Coastal Zone Management Act (16 USCS § 1453(1)), "lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents" are excluded from the coastal zone. The project is located on Vandenberg Space Force Base (VSFB). Thus, the site is not in the coastal zone. CDPs are only required for development in the coastal zone as per California Public Resources Code 30600. Because the project is not in the coastal zone, no CDP is required.

Federal activities include "any functions performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities." 15 CFR 930.31(a). Since 1984, we have encouraged and supported commercial space launches and entities, as directed by Congress through statutes, rules, and policy: Commercial Space Launch Act (CSLA) (1984); DoD Directive 3230.3, DoD Support for Commercial Space Launch Activities (1986); Title 51 of the United States Code (U.S.C.), National and Commercial Space Programs (codified existing statutes, e.g., the CSLA and Title 15, Commercial Space Competitiveness) (2010); and 10 U.S.C. § 2276, Commercial space launch cooperation (2013). Congress, through 10 U.S.C. § 2276, authorized the Secretary of Defense to encourage commercial space activities by enabling domestic corporation investment in DoD space transportation infrastructure. In 10 U.S.C § 2276, Congress also authorized the DoD to maximize private entities using DoD space

transportation infrastructure capacity. SLD 30 has fulfilled its statutory commercial space launch responsibilities on VSFB for decades, during which the Coastal Commission has never asserted that any commercial space project was a private commercial development requiring a CDP. At VSFB, federal government payloads are launched by commercial space entities. BO's operations will include launches on behalf of the federal government. Thus, BO's project is a federal activity being performed on behalf of a federal agency in the exercise of its statutory responsibility. See 15 CFR 930.31(a).

Because BO's Space Launch Complex 9 construction and operation is a federal activity being conducted outside of the coastal zone, we are not withdrawing our previously submitted CD. For that CD, we look forward to your immediate review and approval, or working with you to ensure that the project will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of California's approved coastal zone management programs.

If you have any questions or concerns, please contact Ms. Bea Kephart, (805) 605-7924, [beatrice.kephart@spaceforce.mil](mailto:beatrice.kephart@spaceforce.mil) .

Sincerely



ROBERT A. LONG, Colonel, USSF  
Commander

Cc:

Maj Erik T. Jader, USAF HAF AFLOA/AF/JAOE-WR  
Maj Katelyn M. Bries, USAF HAF AF/JAOE-FSC (USSF)  
Mr. Brett Downey, USAF HAF AF/JAOE-FSC  
Dr. David C. Bell, USAF AFMC AFCEC/CZPW  
Mr. J. C. Golumbfskie-Jones, NRSW



June 7, 2024

To: Caryl Hart, Chair, California Coastal Commission

Cc: Kate Huckelbridge, Executive Director, California Coastal Commission  
Cassidy Teufel, Deputy Director, California Coastal Commission

**Re: Opposition to the Department of the Air Force Proposed Expansion of the Space Exploration Technologies Corporation's (SpaceX) Falcon 9 Space Program, CD-0003-24**

Dear Chair Hart and Honorable Commissioners:

The Surfrider Foundation (Surfrider) is a 501(c)(3) non-profit organization, made up of a network of passionate grassroots activists dedicated to protecting our ocean, waves, and beaches for all people to enjoy. In furtherance of this mission, Surfrider has five core initiatives: coastal preservation, beach access, clean water, ocean protection, and plastic pollution prevention. SpaceX's proposed program expansion could have significant negative impacts on beach access, water quality, marine debris and marine life, and the information provided by the Department of the Air Force (DAF) is insufficient for the Commission to conclude that the proposal is consistent with the Coastal Act.

Surfrider submits these comments on behalf of our thousands of members and supporters in California, including the Ventura Chapter, as well as our U.S. network of nearly 200 chapters and clubs, and more than 350,000 supporters, activists, and members. Surfrider's Ventura County Chapter commented on this issue at the Commission's April hearing with concerns about the rapid increase of launch frequency and strongly support the staff recommendation to "object" to DAF's proposed activities for numerous reasons, described below.

Given the potentially significant impacts of SpaceX's proposed program expansion on beach access, water quality, and coastal species, we urge the Commission to adopt staff's recommended objection to the consistency determination by DAF for the proposed expansion of the Space Exploration Technologies Corporation's (SpaceX) Falcon 9 Space Program at Vandenberg Space Force Base (VSFB) in Santa Barbara County.

**I. The proposed increase in SpaceX launches will reduce public access to critically important beaches, and the mitigation measures proposed are insufficient**

Jalama Beach County Park is a critically important beach camping location. It is one of the only beach camping sites in northern Santa Barbara County, and it can accommodate up to 900 people. Beach camping provides a more affordable alternative to hotels and other accommodations, making California's beaches accessible to more people. However, when these accommodations need to be closed due to safety concerns related to rocket launches, they become less accessible and present an environmental injustice. When campers were notified in advance of their camping reservation that they would be required to evacuate the area, a quarter of reservation holders chose to cancel their reservation. They did so because they did not want to or could not pack up all of their belongings and travel 30-40 minutes away from the beach for hours, particularly early in the morning or late at night, when launches commonly take place. Even with the proposed shuttle option, this is a massive inconvenience to campers.

Jalama Beach also serves as a day-use recreation area, where people come to walk, birdwatch, fish, surf, and otherwise enjoy the beach. As one of only three publicly accessible beaches on a 63-mile stretch of the coast, it is a very popular destination for these activities. When a launch takes place, day-use visitors may also be required to evacuate the area. Given that an evacuation can last from four to eight hours, these evacuations drastically limit the availability of Jalama to day-use visitors, significantly reducing public beach access.

Surfrider has significant concerns about the impacts of SpaceX's proposed increase in launch frequency on nearby beach access. In the past, SpaceX launches have required the closure of Jalama Beach and Jalama Beach County Park. Because of the Commission's concerns about these closures, DAF had agreed to limit the total number of yearly closures to 12. Despite this agreement, there were 15 closures of Jalama due to SpaceX launches in just the first seven months of 2023. Given the high number of closures associated with the existing number of SpaceX launches, a six-fold increase in launches will cause significantly more beach closures and significantly greater public beach access and environmental justice concerns.

While DAF has offered some mitigation measures, it is unclear that these will adequately address Surfrider's concerns regarding public beach access. DAF has promised to limit beach closures, but this is no different than the promise they made and then broke in previous years. DAF indicated that at the current launch frequency, night staffing is somewhat of a hardship. Will they be able to maintain nighttime launches at much greater launch frequencies?

DAF has also proposed providing shuttles to help evacuate people from the area. Campers may be unable to bring all of their belongings on the shuttle, meaning they will be forced to leave their belongings unattended at the beach—something which many campers may not be comfortable doing. Additionally, the provision of a shuttle does nothing to address the fact that visitors will be forced to leave the beach for four to eight hours, meaning that they will have significantly less time to enjoy the beach and its natural resources. DAF has also proposed shifting more of its launches to nighttime, so that they occur outside of day-use hours, reducing the number of people affected. However, these closures will still affect campers, and may even be more disturbing to campers than daytime closures. Additionally, nighttime launches may affect different species than daytime launches, meaning a more comprehensive study of the environmental impacts of such a shift is necessary. Given all of these concerns, Surfrider does



not believe that DAF's proposed mitigation measures are sufficient to ensure the protection of both the environment and the public's right to beach access.

## **II. DAF's marine debris mitigation plans are insufficient to address the environmental problems created by SpaceX's release of debris into the ocean**

Surfrider shares the Commission staff's concerns about the amount and types of marine debris that will be released by SpaceX under their proposal. Each launch requires the release of six to ten weather balloons, each of which contains an electronic device and 9-volt battery. Given the difficulty of recovering these devices, most of them will end up as marine debris. For each payload on a rocket, there are also two fairing halves, which would return to earth with parachutes and parafoils. While SpaceX has indicated it would attempt to recover these fairings, parachutes, and parafoils, some may sink before they can be recovered, contributing additional marine debris. There is also the possibility of a failed rocket or first stage landing that would result in the rocket or first stage ending up in the ocean. Given SpaceX's track record and apparent disregard for the environmental impacts of their activities, this is not an unlikely possibility.

DAF's proposed mitigation merely consists of SpaceX making donations to the California Lost Fishing Gear Recovery Project. Under the mitigation plan, SpaceX would donate \$10 to the fund for each pound of marine debris produced—an amount that DAF claims would be sufficient to fund removal of one pound of fishing gear from the ocean. However, there are a number of problems with DAF's proposal. First, it is unclear how SpaceX is calculating the amount of marine debris actually released during all phases of a launch. Second, the amount of money proposed to be donated is insufficient to cover the costs of recovering an equal weight of debris. The number was calculated by relying on an 8-year-old plan that has not been adjusted for inflation, and the plan was developed to address a different marine debris issue. Third, not all types of marine debris are created equal. A device containing electronic components and a battery includes heavy metals and other hazardous materials, which pose a greater threat to the ocean environment, including marine mammals and water quality, than a lost piece of fishing gear. DAF's proposed mitigation plan fails to account for this significant difference between the type of marine debris being released by SpaceX and the type of debris being recovered as a result of their donation, which does not appear to have been adjusted for inflation.

## **III. DAF has not adequately considered the impacts of sonic booms and other noise on people and important coastal habitats and species.**

We agree with the Commission staff that DAF has not adequately considered the potential impacts of sonic booms on people and coastal species. Both the initial rocket launch and the return of the first stage will result in sonic booms. DAF's consistency determination was based on the faulty assumption that these sonic booms would be limited to VTSB and the northern Channel Islands, so it did not consider potential impacts outside of that area. However, at past

Commission meetings, members of the public testified that they experienced sonic booms in Ventura, Santa Barbara, and Los Angeles Counties (up to 100 miles from the launch site) during past launches. Initially, DAF denied the possibility that sonic booms could have been heard along the mainland coast, but after conducting further modeling, admitted that the impact area of the sonic booms was much greater than that stated in their consistency determination. DAF also admitted that the unique atmospheric conditions in this region could contribute to sonic booms traveling even farther than previously predicted by models. Additionally, the model inputs may not have been accurate due to increased amounts of fuel used on SpaceX's Falcon 9 rockets, thereby increasing the weight of the rocket and the level of the sonic boom.

Surfrider's members live and recreate in Ventura, Santa Barbara, and Los Angeles Counties, and will be disrupted by increased frequency of sonic booms. Sonic booms are startling and can disrupt everyday activities. With the number of SpaceX launches increasing from six to 36 per year, there will be significantly more disturbances.

People are not the only ones impacted by sonic booms. Surfrider and its members are also concerned about the health of coastal habitats and species. The area potentially impacted by sonic booms is incredibly biodiverse and home to ecologically sensitive habitats, marine mammal haul outs, seabird nesting areas, and reefs. Given that the footprint of the sonic boom is significantly larger than the one used in DAF's consistency determination, the impacts to species will be much greater than those calculated in the determination. DAF has not identified all of the sensitive species located in the larger sonic boom impact area, nor has DAF determined the potential environmental impacts of sonic booms on those species. DAF also has not proposed any alternatives or mitigation measures.

While DAF has started to attempt to monitor the spread and impacts of sonic booms, there is currently very little monitoring data available. Because of this, there is no baseline data available that could be used to understand the effects of a proposed increased frequency of sonic booms. SpaceX should not be allowed to dramatically increase the frequency of their launches without a better baseline understanding of the impact these sonic booms are already having, and without the ability to accurately predict the true reach of the impacts thereof.

A smaller area around the launch site is also impacted by the noise associated with launches. The in-air noise level associated with a launch is 150 decibels (louder than a jet taking off) in the immediate vicinity and 100 decibels (nearly as loud as amplified music at a concert) up to 14.5 miles away from the launch site.

These significant noise levels will affect both people and species in the area, including sensitive species such as western snowy plover, California least tern, pallid and western red bats, and California red legged frog. Studies have shown serious human health impacts associated with exposure to noise, including cardiovascular disease and premature death.<sup>1</sup> And impacts on local wildlife have already been observed. In particular, there are several seal and sea lion (pinniped) haul out areas in the vicinity of the launch site, and DAF monitoring of these areas

---

<sup>1</sup> <https://apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2022/01/07/noise-as-a-public-health-hazard>

during past launches has shown pinnipeds rushing into the water in response to the noise. Pinnipeds come onto land to rest and warm up, and even small disruptions to haul-out time can cause increased stress. Pinniped mothers that are repeatedly disturbed at a haul out may even abandon their pups.<sup>2</sup> Observers also noted dead harbor seal pups that were not malnourished, suggesting that they were not abandoned, but rather were injured or killed by the sudden movement of the other seals. Despite these obvious impacts to marine mammals, DAF's monitoring reports have repeatedly stated that there are "no impacts," bringing into question the reliability of DAF's monitoring and reporting.

### Conclusion

DAF has proposed a six-fold increase in SpaceX launches at VSFB, but has failed to fully consider the impacts of their proposal on public beach access, marine debris, people, and important habitats and species. The proposed launch increase is likely to reduce public beach access in one of the only accessible public beaches in northern Santa Barbara county—a location which also happens to also be an affordable beach camping location. The proposal will make beach access more difficult for many Californians and visitors, particularly people who cannot afford more costly accommodations or who do not have access to reliable transportation. The proposal would also cause an increase in marine debris, including debris that contains heavy metals and other hazardous materials. Yet DAF's proposed mitigation measures involves SpaceX simply making a small donation to the California Lost Fishing Gear Recovery Project—a donation that is insufficient to cover the costs of cleaning up a weight of debris comparable to what SpaceX has released, and which targets a completely different type of debris that does not contain hazardous materials. The increased frequency of sonic booms and noise associated with the propose project will impact large swaths of the coast, causing disturbances to both people and sensitive species. However, DAF's consistency determination was based on faulty data that does not even recognize the geographic extent or environmental impact of these disturbances. Surfrider strongly urges the Commission to adopt the Commission staff's recommendation and object to DAF's consistency determination.

Sincerely,



Jennifer Imm  
Legal Intern  
Surfrider Foundation



Mandy Sackett  
Senior California Policy Coordinator  
Surfrider Foundation

---

<sup>2</sup> [https://www.nps.gov/pore/learn/nature/harbor\\_seals.htm](https://www.nps.gov/pore/learn/nature/harbor_seals.htm)



June 7, 2024

California Coastal Commission  
455 Market Street, Suite 300  
San Francisco, CA 94105

RE: Vandenberg Space Force Base Federal Consistency Item W10a (Consistency Determination No. CD-0003-24, SpaceX)

Dear Chair Hart and Honorable Coastal Commissioners,

The Gaviota Coast Conservancy (GCC) is a California public benefit organization committed to permanently protecting the rural character and environmental integrity of the Gaviota Coast for present and future generations. Along with rural character and environmental integrity, public access and recreational opportunities is the “third pillar” that together fulfills GCC’s mission. Vandenberg Space Force Base (VSFB) encompasses an important and substantial portion of the Gaviota Coast and its biodiversity, so protecting its environmental integrity and the recreational experience at adjacent public beaches is of paramount importance to GCC.

GCC recognizes the potential benefits of a robust space program, including supporting our national security, and economic competitiveness. It is important however that activities at VSFB are carried out in a manner that preserves the ecological integrity of the base, and the Gaviota Coast and surrounding coastal areas more broadly. We appreciate the thoroughness with which the Commission and Commission Staff has approached this proposal, and we also appreciate that the Space Force has worked collaboratively with Commission staff to try to find a path to achieve California Coastal Management Program (CCMP) consistency.

We’re concerned however that the substantial increase in launch activity proposed as part of this SpaceX CD has not been adequately studied or mitigated, and as such we support Staff’s recommendation that the Commission object to the SpaceX CD on the basis that sufficient information has not been provided to support a finding that the proposal is consistent with the CCMP. One glaring omission concerns the impacts of sonic booms on a much broader area than previously disclosed, including all of the Gaviota Coast, as well as numerous sensitive coastal areas in Santa Barbara and Ventura Counties. We hope that the Space Force and SpaceX will diligently provide the additional information requested to determine whether the proposal constitutes a “federal agency activity” and whether the proposed project is fully consistent with Sections 30230, 30231, 30234.5, and 30240 of the Coastal Act.

The fact that sensitive species have historically thrived at VSFB is a testament to Base leadership's commitment to environmental stewardship. However, it is unclear whether SpaceX shares that same commitment. As discussed in the Staff Report, the Space Force has not demonstrated that it is a principal in an agency relationship with SpaceX, that SpaceX is performing all its launch activities on behalf of the Space Force, or that Space Force is responsible and accepts liability for all of SpaceX's launch activities at VSFB. (P. 9.) While we agree more information is needed, precedent supports the Coastal Development Permit (CDP) path for the SpaceX proposal (*see* Staff Report, pp. 10-11) as does the law (*id.*, pp. 12-13, *California Coastal Commission v. Granite Rock Company* (1987) 480 U.S. 572). It is also prudent to require an enforceable CDP to ensure that SpaceX's launch activity proceeds in a manner that is fully consistent with the project description and applicable resource protections, given the extraordinary value and sensitivity of Base resources, the importance of adjacent public beaches, and the area of impact which extends far beyond the base to densely inhabited areas of the South Coast.

GCC previously raised concerns in comments to the Commission over the potential impacts of more frequent launches and sonic booms on protected wildlife species including marine mammals, Western snowy plover, California least tern, and California red-legged frog. New monitoring data associated with the SpaceX project evaluated the effects of launch activity during 2023 when a total of 24 Falcon 9 missions were launched. While the data provided to the Commission thus far is clearly incomplete, the limited data available shows alarming results that necessitate a much more thorough review.

As discussed in the Staff Report, the Space Force's marine mammal monitoring data from 2023 includes observations showing pronounced behavior responses and acknowledgement that several haul outs have been entirely abandoned, and during one event four dead harbor seal pups were observed. (P. 32.) Additionally, the monitoring conducted thus far suggests a possible correlation between launching the Falcon 9 rockets and reactions from Western snowy plovers and California least terns, including startling and flushing, damage to eggs, and abandonment of nests" (Staff Report, p. 45).

Additionally, with respect to California red-legged frog (CRLF), there has not been enough CRLF bioacoustics monitoring to determine that this species is not adversely impacted by launches or sonic booms. (Staff Report, p. 43.) The United States Fish and Wildlife Service (USFWS) previously found that operational noise may impact frog behavior, including calling frequency, and lead to increased risk of predation due to a "freeze" response to excessive sound.

*The Service anticipates the potential for long-term effects from chronic stress caused by routine intermittent acute noise from the proposed project's launch disturbance. These may include long-term population level effects including reduced reproductive success, survival, fitness, and spatial displacement.*

(USFWS Biological Opinion for SpaceX (2017-F-0480), p. 55.) "The loss of CRLF populations on VSFB would reduce genetic diversity and gene flow between frog

populations, which could affect the overall population of California red-legged frog in the coastal zone outside of the base.” (Staff Report, p. 42.) Based on this, it is reasonable to assume that the SpaceX proposal, and certainly the cumulative proposed increase in launch activity, could result in long-term population level effects on CRLF.

Finally, the lack of any information regarding monitoring of the two monarch butterfly aggregations sites located in the eucalyptus tree stands in Spring Canyon immediately adjacent to SLC-4 is very concerning. As explained in the Staff Report, the exhaust cloud of combusted fuel and steam could reach monarch aggregations and result in adverse impacts “such as physical damage to either stand trees or the monarchs themselves as well as initiation of flight responses causing the butterflies to use up necessary energy stores.” (P. 45.) Impacts to monarchs from exposure to the *highest* noise levels, as well as sonic booms, is also unknown and must be determined before the SpaceX proposal proceeds.

Not only is substantial additional information and analysis is needed to determine the magnitude of the impact to protected species including population-level impacts (and impacts beyond VSF boundaries from sonic booms), the measures proposed to mitigate the project’s identified impacts to wildlife from noise are woefully inadequate. In the case of Western snowy plover, California least tern, and CRLF, if increased monitoring shows statistically significant declines, compensatory mitigation would be deployed, but no curtailment of launch activity would occur except in the case of unpermitted take of marine mammals. In other words, if the project proves harmful to sensitive wildlife species, those species and the high-value habitat that VSF provides could be irretrievably lost. The Staff Report poses important questions regarding whether proposed mitigation is capable of effectively offsetting the project’s potential adverse impacts to sensitive species and habitat areas (p. 48). However, based on the nature of the potential impacts (e.g. abandonment of habitat and other population-level impacts), we think it’s clear that substantial additional mitigation measures are required to protect sensitive wildlife species from the noise and sonic booms caused by the project (as well as steam and exhaust in the case of monarch butterflies). Additional mitigation could include reducing launch frequency during time periods when sensitive species are most likely to be impacted, and the suspension and curtailment of launch activity if significant adverse impacts are documented.

Overall, GCC favors improved enforceability and oversight (that could be gained by requiring a CDP), as well as a more cautious approach to increasing launch cadence such as that outlined in the Staff Report (p. 33):

*Under a more controlled and cautious scenario, such a significant increase in launch cadence would be spread out over a longer period of time with defined, stepwise increases in cadence along with thorough monitoring and evaluation to assess adverse impacts. At a minimum, this approach would provide sensitive species in the area a greater opportunity to adjust to the increase in launches. Crucially, this more measured approach could also be structured to provide sufficient time for monitoring to assess how species are reacting to the increase in disturbance and whether the*

*increase is resulting in any significant adverse impacts. If significant impacts are detected, project changes and/or mitigation measures could be implemented and analyzed to determine whether they are effective, before continuing to increase the cadence.*

We request that the Commission object to the SpaceX CD based on an insufficiency of information, and ask that Space Force to return with the information identified in the Staff Report as necessary for the Commission to complete its consistency evaluation, including a thorough evaluation of the impacts of sonic booms within all affected areas. Finding a way to harmonize the needs of the Space Force with the protection of coastal resources is paramount, and we hope that all parties will continue to cooperate and collaborate in achieving that result.

Sincerely,



Ana Citrin, Esq.  
GCC Legal and Policy Director

CC: Cassidy Teufel, Deputy Director  
Wesley Horn, Environmental Scientist  
Jonna Engle, Environmental Program Manager  
Holly Wyer, Senior Environmental Scientist  
Walt Deppe, Environmental Scientist



Ideas + Action for a Thriving Central Coast

June 7, 2024

California Coastal Commission  
455 Market Street, Suite 300  
San Francisco, CA 94105

**Subject: REACH comments on Vandenberg Space Force Base and the growth in launch cadence**

Dear Commissioners and Staff:

Thank you for the opportunity to provide comments regarding your discussion on the growing launch cadence at Vandenberg Space Force Base.

As the regional economic impact organization serving the Central Coast and the Governor's Military Council's appointed defense community support organization for Vandenberg, this is of significant importance to our mission and the work of thousands of others in our region, state, and nation. As we wrote in comments last month (attached), Vandenberg plays an indispensable role in our national security and the Central Coast's prosperity. Ahead of your upcoming meeting, we wanted to highlight several considerations as the Coastal Commission and Space Force look to move forward in a constructive way that advances our national security and the base's long-standing environmental stewardship:

- 1. Vandenberg plays a critical role in the livelihoods of the people of the Central Coast, and the opportunity to uplift our state's residents is tied directly to the increasing launch cadence.** As we noted last month, there is no comparable economic engine with the same potential to benefit the lives of the residents in this part of our state, which is essential given the vast number of struggling families and preponderance of low-wage jobs in this region.
- 2. The Central Coast and State of California have been working for many years, at all levels of government and all facets of the community, to support growth in the launch cadence and the jobs, investment and other positive community benefits that flow from that.** The Space Force and the launch operators at Vandenberg are critical partners, community members, and neighbors in this work. The state has also been a vital partner, with the Governor's launch of the Space Industry Task Force and the recent [letter](#) by nearly the entire California congressional delegation on the growing launch cadence at Vandenberg and space opportunities for the state. We appreciate the collaboration of state agencies including the Coastal Commission with Vandenberg over many years as these efforts have advanced and matured.
- 3. Vandenberg plays an important role in our state and nation's climate efforts.** In addition to being the launchpoint for many Earth observation satellites that enable greater understanding of climate change and other critical environmental issues, Vandenberg is chosen for launches precisely because it is the most fuel-efficient launch location in the country for reaching certain orbits. If launches moved away from Vandenberg to less ideal locations, that could directly result in increased emissions impacts.



- 4. It is essential that the Space Force be able to continue its mission uninterrupted on the Central Coast of California including growing the launch cadence, while continuing to build on the long-standing state-federal agency collaboration that has upheld our national security and environmental goals.** We look forward to supporting this critical collaboration for our region, state and nation.

Sincerely,

A handwritten signature in black ink that reads "Melissa James". The signature is written in a cursive, flowing style.

Melissa James  
President/CEO  
REACH  
[melissa@reachcentralcoast.org](mailto:melissa@reachcentralcoast.org)

Cc:  
Governor's Office of Business and Economic Development  
Governor's Military Council



Ideas + Action for a Thriving Central Coast

May 3, 2024

California Coastal Commission  
455 Market Street, Suite 300  
San Francisco, CA 94105

**Subject: REACH comments on Vandenberg Space Force Base and its importance to the Central Coast**

Dear Commissioners and Staff:

Thank you for the opportunity to provide comments regarding your discussions on operations at Vandenberg Space Force Base.

By way of background, REACH is a nonprofit, economic impact organization with a mission to increase economic prosperity on the Central Coast – serving San Luis Obispo and Santa Barbara Counties – through big thinking, bold action and regional collaboration. The north star of our work is collaboration with business, education, government and nonprofit partners to create good paying jobs and provide current and future generations the opportunity to thrive.

Vandenberg Space Force Base plays an indispensable role in our national security and the Central Coast's prosperity. We greatly appreciate the Coastal Commission's engagement on such an important topic for our region and are eager to support dialogue and collaboration. We understand recent discussions have taken place on the community connections to the growth in launch activity at Vandenberg. As REACH [serves](#) as the Governor's Military Council's appointed defense community support organization for Vandenberg, we appreciate the opportunity to share background on the importance of the base and the growth in launch activity to our region and state, as well as to our nation's security:

- **Vandenberg is an asset vital to the Central Coast community and economy.**
  - In 2021 REACH released an [economic impact report](#) with Cal Poly San Luis Obispo finding that the base supports 16,000 jobs and an annual economic impact of \$4.5 billion in Santa Barbara and San Luis Obispo counties, with the potential for that impact to grow to more than \$6 billion over the next decade, adding nearly 2,000 jobs in that timeframe. It is one of the largest employers in our region and slated for significant job growth in the coming years through a combination of public and private investment to support the increased launch cadence and related operations.
  - These jobs and investments are vitally needed to counteract the significant economic hardships on the Central Coast particularly in the communities near the base. In Santa Barbara County alone more than 70 percent of children are growing up in families struggling economically, according to a [report](#) we published this March. Low-wage agricultural roles predominate in the communities near the base. The job growth at Vandenberg tied to increasing launch activity offers the single largest opportunity by far to create better paying quality jobs for local residents and diversify the economy.
- **The Central Coast region is committed to and organized in support of growth at the base.**
  - Recognizing this enormous potential for our region, the community has come together over several years to maximize the positive impacts of Vandenberg for the Central Coast and wider state. The [REACH 2030 plan](#) – our regional economic strategy – was launched

in 2020 after extensive community engagement and prioritized building a thriving space enterprise at Vandenberg as one of several flagship regional economic initiatives.

- Pursuant to this plan, an [MOU](#) including Vandenberg, the Governor's Office of Business and Economic Development, REACH, Cal Poly, and Deloitte was launched to coordinate efforts in support of the base. This MOU was later expanded to include the County of Santa Barbara and regional colleges and universities and the surrounding cities.
- A [commercial space master plan](#) funded by the County of Santa Barbara and developed through the MOU was launched in 2021 outlining key infrastructure and other needs to support a thriving spaceport, which has guided extensive and ongoing community work by the MOU and partners to support the base and growth in launch activity.
- The increase in the launch cadence has spurred significant regional interest in space, science and technology. Few activities have the potential to bring friends and neighbors outside to look up into the sky as a rocket launch from Vandenberg. There are active community discussions underway to identify launch viewing areas to help more residents and visitors witness the excitement of a rocket launch, similar to how launch viewing in Florida has galvanized public interest since the Apollo era in science and space. Teachers on the Central Coast have taken the opportunity of more frequent launches in recent months to expose students to space, and there are active efforts with the workforce and education community to enhance career pathways for local residents into jobs in the burgeoning aerospace economy.
- **The State of California is building on the work at Vandenberg and its indispensable role in supporting aerospace innovation.**
  - Recognizing the sector's importance to the state, Governor Newsom [launched](#) a Space Industry Task Force in August 2022 at the California Defense Leadership Summit, building on this model for collaboration championed by the Central Coast community at Vandenberg and underscoring that "we are committed to taking the nation's space program to the next frontier." As was noted in the announcement, the industry supports 500,000+ high paying jobs statewide and the state has provided direct support to space companies with a goal to expand manufacturing and launch sites at Vandenberg.
  - The Governor's Military Council and Space Industry Task Force [visited](#) Vandenberg over the course of several days in March 2023, bringing together state agency leadership and community leaders to discuss the transformation of the base and growth in launches.
- **There is significant federal commitment to Vandenberg and the growth in commercial launch activity to advance our national security.**
  - Almost every member of California's congressional delegation highlighted the growing launch activity at Vandenberg and the opportunities this offers for jobs, innovation, and national security in a [letter](#) to Governor Newsom this March, noting that "*Supporting the commercial industry will also directly translate to increased capabilities for both our national security and civilian space programs, ensuring we always have assured access to space.*"
  - The vital national security importance of the growing launch cadence at Vandenberg was affirmed by the Secretary of the Air Force and Chief of Space Operations in recent congressional testimony, as explained by General B. Chance Saltzman:  
*"The more we use the infrastructure the more we can offset and defray some of the costs...as we use the commercial launch facilities they continue to develop the rocket and launch technologies...we enhance the experience and competencies of all those that operate the range... in the end, the real benefit is the*

*more you launch the more we are driving the cost per pound to orbit down, and this is one of the most beneficial things that the commercial industry has done for us in the launch enterprise...so that we can start to explore different kinds of constellations in different orbits and to do different kinds of missions.”*

Vandenberg is a critical member of the Central Coast community, and the base continues to lean into community conversations, showing up at events, explaining the growth in launch activities, answering questions, understanding and responding to concerns, collaborating on community issues, and continually working towards a stronger community partnership. Indeed, the collaborative MOU model that Vandenberg has helped lead with REACH and other partners is an example that other communities hosting federal installations in California and nationwide have looked to as a model for creating a successful partnership, and we have had many conversations with other communities seeking to work towards a similar approach.

Thousands of Central Coast residents as well as numerous local government, educational, community and industry partners work every day to support Vandenberg, advance its critical national security mission, and maximize the vital benefits that the growth in launch activity provides for our workforce, economy, and community. Thank you for your engagement on these critical issues for the Central Coast and we look forward to collaborating with the Coastal Commission in these important efforts.

Sincerely,

A handwritten signature in black ink that reads "Melissa James". The signature is fluid and cursive, with a long horizontal stroke at the end.

Melissa James  
President/CEO  
REACH  
melissa@reachcentralcoast.org

**From:** [Ryan Dunn](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Friday, June 7, 2024 3:32:55 PM

---

**To Whom it may Concern,**

Mantis Composites strongly supports Space Launch Delta 30 in ensuring a consistent and capable launch cadence that would be enabled by CD-0002-24 submitted to the commission. Consistent and repeatable launch, regardless of the provider, is critical to the ability of Space Launch Delta 30 (SLD 30) to perform its mission and maintain an ability to prevent and repel very real threats to the United States and our allies.

While the proposal at hand focuses on a specific launch site and launch system, the determination of the committee will have knock-on effects throughout critical portions of the US launch industry. Vandenberg provides critical access to specific orbits and test ranges that otherwise require enormous amounts of capital, time, and fuel (with resulting CO2 emissions) to access from other launch sites available to the United States. As a result, a wide variety of DoD consider launch testing from Vandenberg. Programs such as:

**Next Generation Interceptor:** A defense system that will provide the primary layer of protection against nuclear weapons in the event of a launch directed at the US mainland.

**Glide-Phase Interceptor:** A defense system that will, among other capabilities, allow the US to defend against weapons currently used by Russia against Ukraine.

**MACH-TB:** A test bed for hypersonic systems that are designed to provide a critical check against in-use Russian and Chinese equipment that is degrading US and allied capabilities across the globe.

These programs are all under intense time and financial pressure to respond to very real threats our adversaries are using or threatening to us against the United States and our allies. As a result, they must carefully consider the availability, capability, and reliability Vandenberg offers. A critical portion of these considerations rely on the frequency and reliability of launch at Vandenberg, which supports the local industries and competence to provide competent and effective launch services.

If the Coastal Commission cannot provide timely and reliable engagement that inspires confidence in SLD 30's launch capabilities, regardless of provider, reliable and consistent launch capability will be degraded and result in expensive, less efficient, and less effective test launches that delay or degrade the defense of the United States and cost the American taxpayer considerably. Approving these launches under CD-0003-24 solidifies SLD 30's ability to provide launch capability that allows the United States and our allies to prevent conflict, defend allies, and protect the United States mainland.

Ryan Dunn - CEO, Mantis Composites

*PROPRIETARY INFORMATION: The material contained in this email is confidential information of Mantis Composites Inc. and is intended only for the named recipient(s) to whom it was originally addressed. If you have received this e-mail in error, please notify the sender of this message immediately by return e-mail and permanently delete the message and all attachments.*

*EXPORT CONTROLLED DATA: This message and its associated attachments may contain technical information for which export is governed by the United States Department of State. It is the responsibility of the recipient(s) of this e-mail to control such information to remain in compliance with the U.S. Arms Export Control Act, the International Traffic in Arms Regulations, and the Export Administration Act.*

**From:** [ANN CANTRELL](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Friday, June 7, 2024 3:44:10 PM

---

The Sierra Club Los Cerritos Wetlands Task Force opposes the expansion of launches by SpaceX.

We support Staff's recommendation of requiring a CDP for SpaceX.

Ann Cantrell and Anna Christensen, co-chairs

**From:** [Linde Owen](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Monday, May 27, 2024 12:10:48 AM

---

Dear Commissioners,

Item CD-003-24 has me morally disturbed...

*'Consistency determination by the United States Space Force to increase Space Exploration Technologies' (SpaceX) Falcon 9 launch and landing activities at Vandenberg Space Force Base (VSFB) from six to 36 per year as well as the addition of offshore landing locations in the Pacific Ocean Vandenberg Space Force Base, Santa Barbara County. (WH-SF).'*

While I have no say in your likely approval, I do have a comment and concern that the impact of an additional 30 launches and infrastructure will do NOTHING towards helping our Climate Collapse nightmare. Splashing back into Earth's dying ocean like marine life bombs. As if conquering the 'future' is more entertaining than repairing the current world we have.

Increasing emission pollution, risking occasional failure events, and trying to guide the parts back as if the ocean was a cesspool. BUT... because it will help the economy, it will become a pride-full and exciting new neighbor. More tourists will travel from everywhere to exhilarate at the blast-offs. More is always a good thing. Millions and Billions spent on the brave new world communications and war tools could be used for cleaning up our Co2 problem. What's more important to each of you?

I think SIX is plenty for now and wish this expansion wasn't allowable until the climate was more stable.

Thankyou,

Linde Owen

Los Osos

**From:** [Melanja Jones](mailto:Melanja.Jones@coastal.ca.gov)  
**To:** [Energy@Coastal](mailto:Energy@Coastal.ca.gov)  
**Subject:** Re: Hearing Notice for USSF Consistency Determination Increase SpaceX Falcon 9 Launch Activities  
**Date:** Saturday, June 1, 2024 7:06:50 PM

---

Hello

Thank you for sending the upcoming hearing notice regarding the application to increase SpaceX launches at Vandenberg.

I live in Carpinteria and over the course of the winter months I noticed a huge increase in the number of sonic booms from the launches. In addition to rattling windows and being disturbing to human residents of the Central Coast, the sonic booms were extremely disturbing to the seals at the seal rookery at Carpinteria. The booms would frighten the mother seals and send them stampeding which is very dangerous for the seal pups at the rookery.

SpaceX is a private business, not a government entity, and so I urge the Coastal Commission to hold them to the previous number of launches, not to allow them to drastically increase the launches.

Please include this in whatever public comments are registered at the hearing.

Thank you for your consideration.

Melanja Jones  
9702317426  
[Melanjaj@gmail.com](mailto:Melanjaj@gmail.com)

On Thu, May 30, 2024, 4:33 PM Energy@Coastal <[EORFC@coastal.ca.gov](mailto:EORFC@coastal.ca.gov)> wrote:

Hello,

Please find attached the hearing notice for a consistency determination from the USSF for a proposed increase in SpaceX Falcon 9 launch activities at Vandenberg Space Force Base. The staff report will be available to review on the commission's agenda webpage tomorrow afternoon under the Wednesday June 12<sup>th</sup> tab, Item 10a.



**From:** [Kristy Porteous](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Tuesday, June 4, 2024 6:08:16 PM

---

To whom it may concern:

I feel there should be further study of impacts to marine mammals and various bird populations from the sonic booms as well as assess any other potential impacts of the SpaceX flights before granting more flights. This study should Not just be in the Lompoc area but also on the Channel islands where there are large pinniped and bird rookeries.

Sincerely,

Kristy Porteous

Concerned citizen

Sent from my iPhone of the

**From:** [Tod Mesirow](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Tuesday, June 4, 2024 6:10:59 PM

---

Hello. I've been a resident of Southern California since 1987.

Long before SpaceX existed.

I'm in favor of a robust capability to launch rockets, whether payloads are destined for Earth orbit, the Moon, Mars, or beyond.

But - there should not be unfettered access, there should not be a significant increase in launches from Vandenberg - without undertaking the responsible steps any steward of our finite natural resources would take - to study the potential impact on those natural resources of such an aggressive increase in launches, and launch cadence.

Please do not approve the proposed new launch schedule without significant study of the potential impact.

Thank you.

Tod Mesirow

**From:** [Tom Baker](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Tuesday, June 4, 2024 6:19:29 PM

---

Esteemed Commissioners,

I am writing to register my opposition to the proposed launches of Space X rockets. The proposal calls for 36 launches, far too many with so little data on possible harm to wildlife from flame, debris, pollution or sonic boom. The launches are not part of the official government space program and merit no exemptions from required data, which is lacking. Space X rockets have a propensity to explode, which increases risks to wildlife and the public m. There is no reason to accommodate this private company at the expense of the common good and I urge you to deny this proposal.

Sincerely,  
Thomas H. Baker, Jr.

Sent from my iPhone

**From:** [Nancy Weiss](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Tuesday, June 4, 2024 6:20:56 PM

---

Dear Commissioners,

I am writing to support your Staff's recommendation that the increase to the Space X launches has not been thoroughly evaluated re impacts to our Central Coast and ocean wildlife, including noise and pollution. An increase is premature and our communities should have a voice in the decision.

My house rattles and I hear sonic booms in Santa Barbara with every launch. What are the full impacts closer neighboring communities and wildlife?

Please know you have my full support to stand up for our Coast.

Thank you!

Nancy G. Weiss  
Santa Barbara, CA  
she/her/ella

**From:** [Vickie Matthews](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Thursday, June 6, 2024 9:26:57 AM

---

We object to any increase in launches. We are neighbors of the base and this causes us a great deal of fear.

We have had cracks that have appeared in our buildings, doors open and every thing rattles and the animals and birds start running and flying. It has also devalued our property.

We do not see why Space X (a private company) should be allowed to ruin Lompoc without some input from the population.

We most of all worried about an explosion on the pad or in the air which would cause a fire and damage homes and land.

Also the fuel which we can smell at launch is very real and cant be good for the coast line or the people.

Thanks for your time. If you need more information from me please call (805)736-5133  
Vickie Matthews 4314 W. Ocean Ave. Lompoc, Calif.

**From:** [Ted Rhodes](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Friday, June 7, 2024 2:49:40 PM

---

Although a long time supporter of space exploration dating back to the early sixties, I am also a resident of Santa Barbara County with deep concerns about the proposed expansion of Space X launches at Vandenberg.

I am in agreement with the points that the Gaviota Coast Conservancy is making.

- I support Staff's recommendation that the Commission object to SpaceX's consistency determination request.
- I ask the Coastal Commission to not give, prematurely, any green light to a project when there are significant outstanding questions about the project's impacts that likely would place the Gaviota Coast at risk. The proposed project comes with Class I, significant, unavoidable impacts especially related to sound & noise; air quality; pollution on land, ocean, & air; and wildlife.
- I support SpaceX needing to return with the additional information requested in the Staff Report, including information on sonic boom activity and its impacts on coastal resources, and monitoring data showing how the recent increase in launch activity has affected sensitive wildlife. More information is also needed regarding protection of sensitive wildlife habitats, how to avoid closures of Jalama Beach County Park, how to compensate for unavoidable marine pollution, and how to ensure the safety of commercial and recreational fishing.

Thank you for your consideration of these critical issues.

Ted Rhodes  
805 705-8393

**From:** [brandon - Dragonette Cellars](mailto:brandon - Dragonette Cellars)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public comment RE: June 12th Agenda item 10 US Space Force / SpaceX  
**Date:** Friday, June 7, 2024 3:33:00 PM

---

Dear Mr. Horn and members of the Coastal Commission,

Thank you for the opportunity to comment in regard to the proposed increase in SpaceX rocket launches from Vandenberg Space Force Base.

As a resident of the Santa Ynez Valley, I have many major concerns to raise with ANY increase in frequency, and I support Staff's recommendation that the Commission object to SpaceX's consistency determination request. In fact, I urge the Commission to significantly restrict future launch quantities, and limit the time of day of launch windows.

Briefly, I would like to point out the difference between launches for official US Government/Military use and those which are launched by a privately owned company on a for-profit basis. While I object to increased military launch frequency, I recognize the potential benefit for both national security and economic benefits to the community and country. The commercial launches simply must be held to a higher level of scrutiny and standards as they are solely for the benefit of private interests, and are often at odds with public health.

One issue which appears to have been overlooked so far is the problem of noise. Rocket launches create a tremendous amount of noise and vibration which disturb humans and wildlife. The extreme levels of noise and vibration often violate all local noise ordinances, and I see no reason why a private company should not be obligated to comply with the noise ordinance. For a full review of Santa Barbara County's noise ordinance, link here: <https://cosantabarbara.app.box.com/s/3yex3g6a5vex3cjpqx1bxg1pgvzp9k1y>

At the very least, SpaceX should comply with the time limits the County applies to construction:

7:00 a.m. – 5:00 p.m., weekdays

9:00 a.m. – 4:00 p.m., Saturdays

Prohibited on Sundays and legal holidays\*

Nighttime launches in particular need severe restrictions due to their noise and vibration impacts. Rocket launches from Vandenberg are extremely disturbing to both humans and animal wildlife in the local area, regardless of time of day, but they cause excess harm if they are launched at night. Nighttime launches disturb the sleep of thousands of citizens, and cause stress, anxiety, and lack of sleep in dogs, coyotes, deer and countless other animals. This needs to be considered seriously when looking at any proposed launch schedule, and nighttime launches should be forbidden for ALL private launches (reserved only for necessary US Government reasons).

I would also like to note that these launches threaten the habitat within both the Gaviota Coast and the proposed Chumash Heritage National Marine Sanctuary. These areas provide critical habitat, provide a sanctuary for humans and must be protected. The safety of both commercial and recreational fishing needs to be addressed more seriously, and launches limited to cause minimal disruption in these areas, and also at Jalama Beach where closures are becoming more and more of an issue with visitors and locals alike.

Finally, further studies of the level of pollutants and their impacts on local residents need to be completed prior to any further launch activity. How does the propellants used impact the health of local residents and

wildlife? How will the impacts of the pollution associated with one-time use weather balloons be dealt with.

It is critical to note the history of neglect and disrespect which both SpaceX and Mr. Musk have shown. Given the level of impunity which already been exhibited, much stricter regulations should be imposed, along with meaningly severe punishments. Mr. Musk himself has mocked regulatory agencies publicly both on his social media platform X and on various podcasts, including the recent Lex Fridman Podcast episode #400. Fines and consequences need to be high enough to impact billionaire behavior. No one should be above the law in California, nor the USA.

There are many open questions to investigate, and all of these point to a need to halt launch expansions at Vandenberg.

Sincerely,  
Brandon Sparks-Gillis  
Solvang, CA

brandon sparks-gillis  
Solvang, CA

brandon sparks-gillis  
Dragonette Cellars  
Mobile: (805) 722-0226  
Mailing Address      Tasting Room  
PO Box 1932          2445 Alamo Pintado Ave  
Santa Ynez, CA 93460      Los Olivos, CA 93441



**From:** [leah.andersson](mailto:leah.andersson@coastalenergy.com)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Friday, June 7, 2024 3:35:03 PM

---

Dear Commissioners,

I am a resident of Lompoc who hates the damn rockets.

It is soul-crushing to think of an increase in the number of launches and I beg you, as our last hope, to curtail the launch frequency. Here are just a few examples of the soul-crushing nature of these rockets.

1. They shake the house. Literally. Even after the rocket-cum-future-space junk has soared into invisibility...my house is still shaking. How would you like to live in a town with intermittent small earthquakes? Created by a private company? Cracks are beginning to appear in the stucco of houses all over town, and although there is some type of mitigation fund; I can only imagine the hoops you'd have to jump through to be reimbursed. Literally shaking. Windows rattling. Pictures askew. I've got photographic documentation.

2. Without some kind of early warning siren/signal/warning they have the potential to scare the hell out of us. If you're not constantly monitoring the launch schedule, they can catch you off guard. I don't know if any of you have experienced these rockets from Lompoc, but they feel like the beginning of "the big one" earthquake.

Also I'd like to know if anyone has studied any upticks in cardiac events surrounding these rockets.

And let's not forget our pets. They are totally freaked out, cats and dogs alike. The anecdotal stories about freaked out pets is heartbreaking.

3. If we care about nature, we have to advocate for it. If you could ask our native animals and birds, I bet they would say, "no more rockets please". The Snowy Plovers, in particular, are abhorred by the rockets.

4. Rocket fuel. Even though the suits say that modern rocket fuel is safe, I just don't trust them.

5. Lack of predictability. A great example will be tomorrow at 3:54 in the morning. A rocket is supposedly going off. So, does one just expect to be woken up by the roar of the rocket? Or do you set your alarm and get up to watch it? And even if you do set your alarm, wake up enough to toddle outside, there is no guarantee they're not just going to postpone it until the next morning. Soul. Crushing.

6. No environmental report has been done lately that includes the damn sonic booms. What are these sonic booms doing to our homes and even our bodies? Who knows? We certainly

don't. I double dog dare you to come to Lompoc and experience them first hand. Those bastards actually knock pictures off walls and break windows. Soul crushing and perhaps even deleterious.

7. There is no ability to redress grievances. This cranky old bitch has tried, believe me I'm pretty good at 'speaking to the manager'. No dice on this one. The Space Force Base doesn't care about civilians. And the only thing you can do is write an email. No official complaint form. SpaceX doesn't care about civilians. Our local politicians are more interested in hotel taxes than their citizens. Salud doesn't care, and there's nothing he could do anyway. It's soul-crushing. You are our only hope.

8. Elon Musk is a nasty piece of short bus, South African work who shouldn't be able to just do whatever the hell he wants. And we shouldn't be enabling this guy. Let NASA do the work if they want to shoot off stuff into space.

9. The whole idea of our planet surrounded with delicately balanced yet lethal space junk. Space should be like the Sierras; pack it in, pack it out. I'm no scientist but it seems like it's not a great idea to just keep blasting chunks of metal up there. Metal that can fall back down to our beloved coastline.

10. All the time, energy and money that we're spending on space exploration could be better used de-Anthropocening this planet.

Please do not allow the frequency of rockets to increase.

Thank you for your time and consideration,

Leah Braitman

**From:** [Michelle Sparks-Gillis](#)  
**To:** [Street, Joseph@Coastal](#); [Energy@Coastal](#)  
**Subject:** Public comment RE: June 12th Agenda item 10 US Space Force/SpaceX  
**Date:** Friday, June 7, 2024 3:36:49 PM

---

Dear members of the Coastal Commission,

I'm a long time resident of the Santa Ynez Valley and I'm highly concerned about the proposed increase in SpaceX rocket launches from the Vandenberg Space Force base.

In prior hearings regarding the impact of SpaceX's increased launches, the Commission staff recommended objecting to SpaceX's proposal until more information was provided, which I agree with! Without understanding the risks and impacts with the increased launch activity the Gaviota Coast will be at risk.

SpaceX needs to adhere to requests for additional information requested in the Staff Report, including information on sonic boom activity and its impacts on sensitivity to wildlife. More information is needed about how to protect sensitive wildlife habitats and ways to avoid closures of Jalama Beach County Park, along with how to compensate for unavoidable marine pollution (and is it worth it?) and to ensure safety of commercial and recreational fishing.

There are too many unanswered questions for SpaceX to increase launches from Vandenberg Space Force base.

Thank you for your time,

Michelle Sparks-Gillis  
Solvang, CA

**From:** [Lynn Arneill-Brown](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Agenda Item 10a June Mtg.  
**Date:** Friday, June 7, 2024 3:59:30 PM

---

## USSF/SpaceX Sonic Booms

Dear Coastal Commission, We, the residents of a neighborhood comprising 300 homes in East Ventura, are deeply troubled by the frequent occurrence of sonic booms resulting from SpaceX landings. The impact on our homes is severe, causing damage and significant distress due to the intense noise and concussive sound wave.

While we acknowledge the advancements in SpaceX technology, the frequency and intensity of these sonic booms far exceed what we have previously experienced from military jets or Space Shuttle landings. Approximately one out of every four SpaceX landings produces seismic-like vibrations equivalent to a magnitude 3 earthquake, resulting in structural damage to our homes. (March 18th at 7:38 pm was one of these excessive sound waves). Dual pane windows are failing, roofs and drywall are cracking, and we fear for the integrity of our plumbing.

The lack of consistency in the intensity of these sonic booms across neighborhoods only adds to our frustration. While some may not experience the same level of impact, the sheer number of residents on platforms like Nextdoor expressing concerns about property damage or fear during these events is alarming. We cannot continue to live in uncertainty, wondering if each boom signifies the onset of an earthquake.

We demand answers regarding the specific factors contributing to these excessive sonic booms, whether it be weather conditions, landing times, or the chosen landing site. Despite our efforts to seek clarification from local and federal representatives, including our state representatives who redirected us to federal authorities, our inquiries have been met with silence.

It is unacceptable for the residents of Southern California to endure sleepless nights and property damage due to Elon Musk's operations. We also align ourselves with environmental groups and beachgoers who raise concerns about the potential harm to the environment, wildlife, and recreational activities caused by SpaceX launches from Vandenberg. We urge you to take immediate action to address these issues and compel SpaceX to implement necessary changes to mitigate the adverse effects on our community and the environment.

Sincerely,

Lynn Arneill-Brown

[220 N. Saticoy Ave.](#)

[Ventura, CA](#) 93004

Mike Dodge

Inyo Ave.

Ventura, CA 93004

Ana and David Novak

[265 Nevada Ave,](#)

[Ventura, Ca](#) 93004

Jane Meyer

[172 N. Saticoy Ave,](#)

[Ventura, CA](#) 93004

From: Joy Jacobsen <joyacjacobsen@gmail.com>  
Sent: Friday, June 7, 2024 4:23 PM  
To: ExecutiveStaff@Coastal <ExecutiveStaff@coastal.ca.gov>  
Subject: Public Comment 10 a - SpaceX

Please see below for my public comment-

I'm writing to express my concern of SpaceX launches/landings. As a homeowner in the City of Ventura, the noise pollution following SpaceX launches is very disturbing to my area. The loud booms wake my sleeping infant and dogs. My neighbors' dogs also start barking and car alarms are often triggered. This is very disruptive to our otherwise peaceful community. The noise pollution is also concerning for our fragile coastal ecosystem.

The evening launches are particularly concerning and I understand SpaceX often has an approved window to launch that goes until close to midnight.

For the above reasons, I ask the California Coastal Commission object to the proposed increase in launch activity by SpaceX.

Sincerely,  
Joy Jacobsen  
Resident of Ventura, CA

**From:** [Jean Camp](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Comments re SpaceX Launches at Vandenberg Space Force Base  
**Date:** Monday, April 15, 2024 11:22:32 AM

---

To Whom It May Concern,

Thank you for reviewing the proposed, increased launches proposed by SpaceX at Vandenberg. I believe that some changes and considerations should be made to the application in order to minimize impacts to all neighbors, near and further away.

I live in Santa Barbara - off Highway 192/East Valley Road, just North of Summerland.

I am aware of the launch dates and times, but the impacts from the launches and mainly the re-entries can be quite significant at my house and in Santa Barbara generally. (as I have read and continue to see on Nextdoor after launches.)

My house is masonry construction with a solid foundation. Unfortunately, the windows are single pane glass. When there is a launch with re-entry, not only do we hear and feel a major sonic boom, but the windows shake significantly and the framed pictures on the walls are shaken off center. Of course the dog is shaken and upset, never mind the outdoor animals. This is not a minor issue to me and my husband.

I would hope that the Coastal Commission can review the application and determine / ask / demand the following as appropriate:

- 1) Do we really need the increased launches and if so, is Vandenberg the best location for all of them?
- 2) Can you have SpaceX only launch when the weather conditions minimize noise carry? They should provide noise studies for various weather/humidity cases and launch only when it is best for minimizing other impacts.
- 3) Can you have SpaceX keep payloads as low as possible as to minimize the booms/noise/impacts?
- 4) Has SpaceX done a survey to determine the impacts of their launches throughout the region and come up with technical and operating solutions that will help appease the neighbors? I have never been asked for feedback, nor have my neighbors. Can you please have them do this - if it was not already part of their Environmental Assessment.
- 5) Does SpaceX have to do/update an EA for these increased launches?
- 6) What is the impact to wildlife for these additional launches?
- 7) When I have tried to contact Vandenberg action commander, the website doesn't allow the comments to be entered and after calling both customer service and leaving a message on the Action Commanders' line, I never received feedback. They obviously don't care. Can you please make sure there is a way to get feedback to them and to you.



8) Shouldn't the FAA have some say in this whole matter? It appears to currently be out of their domain, but why?

Thank you for considering my thoughts and input. I appreciate your time and concern regarding this important matter.

Sincerely,

Jean Camp  
760-442-5854

**From:** Patty Schwartzkopf <[patty@pattyinsb.com](mailto:patty@pattyinsb.com)>  
**Sent:** Friday, June 7, 2024 4:38 PM  
**To:** ExecutiveStaff@Coastal <[ExecutiveStaff@coastal.ca.gov](mailto:ExecutiveStaff@coastal.ca.gov)>  
**Subject:** Item 10a Weds 6-12-24

June 7, 2024

Dear Commissioners,

I am a volunteer at the Carpinteria Harbor Seal Rookery, an area protected by the Marine Mammal Protection Act. We count seals during pupping season, record and attempt to prevent intrusions by humans or dogs into the Rookery, monitor newborn pups as they bond and nurse, and we educate the viewing public at our Overlook.

I attended the May Coastal Commission Meeting, during which VAB made a presentation. One of VAB's experts asserted that, after flushing, seals normally return to shore within a few hours - at most, within 24 hours. That may be true, but Harbor Seals, unlike sea lions, MUST spend large portions of the day resting and digesting ON the shore. The VAB expert did not consider the harm done to the pups and the adults during the hours they are off the shore.

What happens to pups during a flush? Newborn pups not fully bonded with their mother stand little chance of survival after a flush, because when the mother flees, she doesn't wait for the newborn. If the newborn has not bonded to the mom, they won't find each other. Other mothers will not nurse a strange pup. Those pups starve to death.

Our volunteers count the adults and pups every half hour from 7 AM to 5 PM, January through May. Due to the sonic booms occurring almost weekly, we regularly witness the seals "flush" in a panic. Of new concern, we recorded dozens flushing over 30-60 minutes immediately following a launch, even though we didn't hear a sonic boom. We did hear an ongoing low rumbling, however.

The number of Harbor Seals at the Carpinteria Harbor Seal Rookery has been declining already. I fear these new and frequent disruptions to the Harbor Seal Rookery will cause further decline.

SpaceX has been getting away with **violating the Marine Mammal Protection Act** by disturbing protected species for private gain. This isn't right.

I applaud the Staff's recommendation to decline VAB's request. Further study should be done on the impact on wildlife, and compliance with the number of launches should be enforced.

Thank you for your work.

**Patty Schwartzkopf**

**p:** 805 883-8578

[Patty@PattyinSB.com](mailto:Patty@PattyinSB.com)

**From:** [Nancy Tubiolo](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** SpaceX, agenda item 10  
**Date:** Friday, June 7, 2024 4:39:57 PM

---

(I have used this email address because the submission link on the agenda did not work)

Dear Coastal Commissioners,

It is alarming that SpaceX will increase its launches. Already each launch poses risks to wildlife and the natural environment, as well as human health and activities.

Consider the impacts of sonic booms, which has not been studied. Simply because we cannot see the debris left in the ocean, or the fuel gases in the air, we should not give SpaceX free rein to ramp up their launches. The Coastal Commission must be allowed to oversee SpaceX activity as a private entity, because they are not a federal entity even though they are conducting their business at Vandenberg.

Please hear the public concerns about these impacts to the natural environment, as well as impacts to human health and the fishing industry. We support the Coast Commission's objection to SpaceX's proposal to increase its activities without regard to these impacts.

Thank you-

Nancy Smith-Tubiolo

[nasmitub@hotmail.com](mailto:nasmitub@hotmail.com)

**From:** [Leslie Purcell](#)  
**To:** [Energy@Coastal](mailto:Energy@Coastal)  
**Subject:** Public Comment on June 2024 Agenda Item Wednesday 10a - CD-0003-24 (United States Space Force).  
**Date:** Friday, June 7, 2024 4:58:23 PM

---

To the CA Coastal Commission and Staff:

I would like to commend the Commission Staff on this Report which brings up many concerns and issues that need to be addressed by the US Space Force in regard to this proposed increase in SpaceX rocket launches. There are significant environmental issues that need more analysis and monitoring, which the Report details. The question of federal and/or state jurisdiction is also complex, and is raised in the Report as well. As the Staff recommends, I would urge the Commission not to concur as to consistency at this time. Again, I would like to thank the Staff for their work on these issues at Vandenberg, particularly as there will undoubtedly be further rocket launch activities proposed in the future. Cumulative impacts must be considered on the overall environment--land, sea, water, and air--and the affected communities, both human and other species. Further environmental studies need to be performed.

Sincerely,  
Leslie Purcell  
Ventura, CA

**From:** [Rebecca Stebbins](#)  
**To:** [Deppe, Walt@Coastal](mailto:Deppe.Walt@Coastal)  
**Subject:** FW: June 2024 CD-0003-24 (United States Space Force).  
**Date:** Friday, June 7, 2024 8:26:28 PM

---

Here are the comments I attempted to send earlier that bounced back to me.

Dear Coastal Commission Staff,

I had some trouble with the website and I understand that it is now past 5:00 PM on the Friday before the next meeting, but I am hopeful that this email will find its way to the commissioners to be included in the discussion regarding Space-X and the extreme uptick in the requested amount of rocket launches from Vandenberg Space Force Base.

It is not plausible that there are no impacts on wildlife species due to Space-X launches. I, along with thousands of other residents of the South Coast, am significantly impacted with each launch, including being woken up from a deep sleep on occasion, while my dogs are terrified, my house shakes, and we feel the sonic booms physically, with a deep resonance in the chest.

I keep close track of the launch schedule and at times have changed my work schedule in order to be with my dogs so they are not alone in the house when there is a sonic boom.

The Federal Aviation Administration (FAA) sets regulations relating to United States airspace. Current rules prohibit commercial airplanes from flying at supersonic speeds over land because of the noise levels associated with sonic booms and the negative impacts to humans and animals. I do not understand why these regulations should not apply to Space-X launches, given that they produce the same impacts.

I draw your attention to this excerpt (below) from an article entitled "The Impact of Helicopters on Blue Mountains Wildlife and other World Heritage Values." If helicopters are that damaging, then I imagine rocket launches are at least equally detrimental, if not more.

2 Noise: knows no boundaries; protected areas do not guarantee animals or recreationists refuge from its effects; chronic noise exposure may occur even in remote wilderness sites. Noise from aircraft overflights has the potential to affect a wide range of habitats.

2.3 **A combination of loud noise and sudden and rapid movement** of aircraft causes the greatest negative effects on wildlife with helicopters having a greater impact than fixed wing planes. While birds and other animals can habituate to regular human impact, **sudden, noisy intermittent helicopter intrusions would constitute bursts of alarm-filled harassment.**

2.4 Helicopters are particularly associated with lethal rotor downwash and brownouts: high velocity wind vortices are generated by helicopter blades when the machine is hovering above a runway or bushland. This generates smothering blankets of airborne dust particles, reduces habitat values and exposes vegetation and wildlife to lethal wind velocities.

2.5 Impacts of noise, sudden rapid movement and rotor downwash include:

- Direct physical damage such as to hearing or being shredded by rotor downwash
- Triggering of the animals 'fight or flight' response – this is characterised by a number of

physiological changes brought on by the release of stress hormones into the blood stream. The animal's metabolism, heart rate and respiration rate all increase, blood flow is diverted away from the digestive system and skin to the muscles, brain and heart, while blood temperature and blood sugar levels also increase. Repeated exposure to noise and triggering of this response can lead to chronic stress. The health of affected animals may be compromised by suppressing immune function, making them more susceptible to infection and parasites, altering growth, and by slowing recovery from food shortages.

Individual mammal responses range from the mild (including normal signs of noise detection such as ear twitching or increased vigilance), through to a range of increasingly intense reactions. Animals may alter their activity by walking slowly away, freezing, crouching, making an intention to run, engaging in mild aggression, or increasing flocking or herding behaviour. The most intense responses are associated with more extreme behaviours, such as panicking, urinating or defecating, and running blindly at high speed.

Birds show a similar range of responses to mammals from being alert at the mildest level, to showing an intention to fly, pecking at each other, broken-wing displays (to act as a distraction to protect nestlings) and walking, swimming or flying short distances.

Changes in the acoustic environment may impact severely on birds, frogs and other animals that rely on their hearing to receive information about their surroundings, or who use vocalisations to coordinate a range of activities including feeding, mating and courtship. Bats that use echolocation for navigation are particularly vulnerable to acoustic environment changes, as are social animals that rely on vocal communication for the cohesiveness of their group.

2.6 Behavioural and physiological responses as outlined above may result in a decline in individual numbers through collisions with aircraft and the rapid flushing of alarmed birds from nests (impacting on reproduction rates), feeding areas or cliff edges. Short-term avoidance of sections of habitat may become long-term habitat displacements which results in competition for resources including food, roosting branches and nesting hollows and **an eventual loss of individuals and even species.**

**The full article, along with references to source studies, can be found here:**

<https://www.bluemountains.org.au/hutnews/hut-news-1907-impact-of-helicopters.pdf>

In addition to the negative impacts on wildlife from the launches and booms, question the impact on the environment in general from the extreme amount of **toxic chemical emissions that are released with every launch.** It seems to me that the extraction, production, and usage of rocket fuel must contribute exponentially to the plaque of climate change that is now upon us, and we should be doing everything possible to mitigate and minimize the impact of these emissions. Significantly increasing the number of launches will take us in the wrong direction with regard to this existential threat.

I urge the Commission to do whatever possible to reduce or eliminate the launch impacts not only to local wildlife and beaches, but to the many thousands of people, including myself, who are impacted negatively. An increase in the number of launches is simply not acceptable.

**Rebecca Stebbins**

**Carpinteria, CA**



**From:** [Penny](#)  
**To:** [Luster, Tom@Coastal](#); [Teufel, Cassidy@Coastal](#); [Street, Joseph@Coastal](#); [Horn, Wesley@Coastal](#); [Engel, Jonna@Coastal](#)  
**Cc:** [Huckelbridge, Kate@Coastal](#); [Hart, Caryl@Coastal](#)  
**Subject:** VSF/SpaceX item to be heard Wednesday  
**Date:** Sunday, June 9, 2024 10:53:57 AM

---

Good morning, All -

My apologies for missing the deadline on Friday to submit comments on this important item so that I could strongly support your objection. This is totally outrageous on so many levels.

I will do my best to speak on Wednesday and am anxious to see the comments that were submitted by the deadline. The public should be up in arms big time about this, but then again, there is so much to be up in arms about right now that I'm not sure how we are all managing to deal with the ongoing assault on our democracy and our country as a whole.

Thank you for standing strong and being the one agency we can always count on that actually cares about our environment, AND does something about pushing back on big money. Please, don't back down an inch.

All my best -

Penny Elia

**From:** Penny  
**To:** Luster, Tom@Coastal; Teufel, Cassidy@Coastal; Street, Joseph@Coastal; Horn, Wesley@Coastal; Engel, Jonna@Coastal  
**Cc:** Huckelbridge, Kate@Coastal; Hart, Caryl@Coastal  
**Subject:** Re: SpaceX - providing connectivity "to the vast majority of the Earth's oceans and seas"  
**Date:** Sunday, June 9, 2024 11:07:19 AM

---

If Mr. Musk is able to:

Starlink **bills itself** as the “world’s first and largest satellite constellation using a low Earth orbit to deliver broadband internet capable of supporting streaming, online gaming, video calls and more.” **It also says that it can provide connectivity “to the vast majority of the Earth’s oceans and seas.”**

Then how about he assist the Coastal Commission and other environmental agencies and NGOs with some of these capabilities versus fighting us at every step? Might give him something positive to add to his mission statement if he really has one.

Here is the complete article that involves a man that cannot be trusted.

<https://www.nbcnews.com/news/world/musk-stopped-ukraine-attack-russian-fleet-starlink-rcna104019>

Obviously this is an issue that really upsets me. Thank you for allowing me to vent. Please, don't back down.

On Sun, Jun 9, 2024 at 10:53 AM Penny <[penelopeelia537@gmail.com](mailto:penelopeelia537@gmail.com)> wrote:

Good morning, All -

My apologies for missing the deadline on Friday to submit comments on this important item so that I could strongly support your objection. This is totally outrageous on so many levels.

I will do my best to speak on Wednesday and am anxious to see the comments that were submitted by the deadline. The public should be up in arms big time about this, but then again, there is so much to be up in arms about right now that I'm not sure how we are all managing to deal with the ongoing assault on our democracy and our country as a whole.

Thank you for standing strong and being the one agency we can always count on that actually cares about our environment, AND does something about pushing back on big money. Please, don't back down an inch.

All my best -

Penny Elia