



Jalama Beach Emergency Response Plan

Covering
Launch Inflight Anomalies

Release 1.6
May 2024

Change Summary

Revision #	Date	Sections	Change Summary
1.0	June 2023	All	Initial Release
1.1	August 2023	3.	Updated Sheltering Visual
1.2	March 2024	1 & 2	Added new section for proactive measures (now section 1) and updated reactive measures (now section 2)
1.3	April 2024	1 & 3	Removing wording regarding toxics and including wording for pamphlets to be distributed upon park entry
1.4	April 2024	All	Updates to align waiver and emergency response plan
1.5	April 2024	All	Updates to clarify roles and responsibilities
1.6	May 2024	All	SLD30/SB County Feedback Incorporated

Introduction

This Jalama Emergency Response Plan prescribes procedures for SpaceX and Jalama Beach Park Rangers to follow in the event of a launch anomaly that causes debris to impact the beach. While this event is very unlikely, the intent of this document is to outline the plan for an emergency response for a worst case scenario. Under no circumstance will SpaceX attempt a launch unless it meets the public safety criteria defined in [14 CFR § 417.107\(b\)](#).

1. Proactive Measures to Increase Public Safety at Jalama Beach

SpaceX will implement proactive measures to improve the speed and effectiveness of responses following an in-flight anomaly with the potential to affect Jalama Beach.

1. SpaceX will call the Jalama Beach Park Rangers prior to flight to ensure they are able to be present at Jalama Beach, familiar with the proactive measures listed below, and are prepared to take reactive measures in event of an anomaly. Park Ranger(s) will provide any updates at this time that may impact the ability of the Park Ranger/EMT team to respond to an emergency at Jalama Beach during and immediately after a launch. A minimum of one Park Ranger to provide public announcement services at Jalama Beach is required. Verification that this mitigation has been performed with all requirements met will be tracked via SpaceX electronic procedures (eProcs).
2. SpaceX will provide signage to be posted around the Jalama Beach County Park with assistance of local Park Rangers. This signage will be a permanent fixture and therefore installation of the signage is not a repeatable step by SpaceX. The posted information will consist of information about upcoming launches as well as identifying the various shelters around the park (see Map in Section 4) for use in case of an anomaly. SpaceX will confirm signage is in place by contacting Jalama Beach State Park Rangers to confirm prior to flight. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
3. SpaceX will provide an option for beachgoers to opt-in to receive text messages about upcoming launches for higher awareness at the beach, in tandem with the signage that will be available. This account has been instantiated and will be provided at no cost to subscribers. (Text "LAUNCH" to (866) 513-2545). Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
4. SpaceX will include American Medical Response (AMR) (or primary EMS provider) in official government Launch Requests for information on upcoming launches as well as any associated changes to initial requests. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
5. SpaceX will provide a launch notice/pamphlet available via website to the Park Rangers to provide to park visitors upon entry of the park as well as additional information via social media for any impacts to Jalama Beach. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).

6. If the beach is open to visitors during a launch with overflight or near-overflight of Jalama Beach, SpaceX will ensure there is an EMT present on-site prior to liftoff to ensure that this service and quality of response is available if a mishap occurred. This EMT may be a Park Ranger or may be provided by SpaceX. One EMT is the minimum requirement. Confirmation that the EMT is on-site or the beach is closed to visitors will be held as launch commit criteria for the specified launches. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
7. For at least the first two launches utilizing this waiver, SpaceX will provide personnel that will spread awareness of the launch and provide opportunities to educate visitors of emergency procedures alongside Park Rangers. SpaceX will evaluate this approach to see if additional presence is needed. Verification that this mitigation has been performed for at least two launches will be tracked via SpaceX electronic procedures (eProcs).

2. Reactive Measures to Launch Inflight Anomaly

SpaceX will monitor the Falcon 9 launch vehicle during the flight for nominal operation. In the event that an anomaly is detected with potential debris impact to Jalama Beach, SpaceX will immediately perform the following in conjunction with Jalama Beach Park Rangers and local emergency response forces.

1. SpaceX Range Coordinator (RC) or a delegate will immediately notify Jalama Beach Park Rangers by calling the Range Supervisor via their emergency hotline: (805) 736-6890. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
2. Jalama Beach Park Rangers will perform a post-anomaly loop around the park and notify all campers and visitors to shelter in place and remain sheltered until further notification via mobile Public Announcement system attached to their vehicles. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
 - a. Visitors should shelter in the nearest structure or vehicle and standby for further instructions
 - b. Park Ranger(s) will use vehicle PA's address public with instructions; example notification: "There has been a mishap during today's launch operation, please immediately shelter in place in structures or vehicles until further notice."
3. SpaceX will immediately notify County's Office of Emergency Management Officer at 805-696-1194 and American Medical Response (AMR/GMR) at 805-694-8301 (or the current primary EMS provider for Santa Barbara County). AMR is the current clearinghouse for all local EMS response to streamline communications pathway to coordinate emergency services in the event of an anomaly. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).

4. SpaceX will send immediate crisis team comprised of safety personnel to Jalama Beach to assist in identifying any hazards to the local public. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
5. SpaceX RC or delegate will send follow-on text to subscribers to launch text list-serve if any anomaly occurs in-flight. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
6. SpaceX will notify Jalama Beach Park Rangers when all debris has fallen and there is no imminent danger from falling debris. Expected debris fall time is up to 15 minutes although SpaceX may request a longer shelter time if necessary. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
7. Park Rangers and visitors should not at any time move or disturb debris. The SpaceX crisis team will work closely with the Jalama Beach Park Rangers to identify any hazards and isolate them for the public. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
8. Jalama Beach Park Rangers should identify any personnel that need medical attention – all Park Rangers are trained as first responders, and the site will have 1 EMT trained available. SpaceX crisis team and stationed EMT (provided by SpaceX through either contractor or SpaceX personnel) will assist Park Rangers with any immediate needs. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
9. Jalama Beach Park Rangers may take additional actions that may include but are not limited to the following and are dependent on the type of situation or emergency. Verification that this mitigation has been performed will be tracked via SpaceX electronic procedures (eProcs).
 - a. Evacuate members of the public
 - b. Extinguish fires
 - c. Secure the site to ensure no members of the public enter, with the exception of emergency services

3. Launch Vehicle Hazards

Launch vehicle anomalies, Falcon 9 included, could present hazards associated with sharp objects, flammable materials, or components with stored energy. It is important that the public and Park Rangers do not disturb any debris and keep a safe distance until the SpaceX crisis team can identify the objects. The SpaceX crisis team will be responsible for debris and hazardous materials, identified by 49 CFR 172.101, collection and disposal to keep all personnel safe.

Sharp Object Hazards

Falcon 9 is comprised mostly of inert materials, such as carbon fiber, aluminum and other metals. While these are not innately dangerous, debris could be sharp and pose a cutting hazard.

Fire Hazards

- Li-Ion Batteries
 - Falcon 9 uses Li-Ion batteries to power electronics in flight. These could present a fire risk if the batteries are compromised.
- TEA-TEB
 - TEA-TEB is a starter fluid used to provide spark to start engines in flight. This is distinguishable with a green flame and will start a fire if exposed to air.
- RP-1 (Rocket Propellant-1)
 - RP-1 is a high-grade kerosene and is less toxic than diesel or gasoline-based fuels. While RP-1 has a low vapor pressure making it generally safe, it could be a fire hazard under the presence of a spark or ignition.

Explosive Hazards

- Flight Termination System (FTS)
 - Falcon 9 has a small shape charge packaged inside an electrical box. It is recommended to stay away from all electronics and leave in place to not disturb the FTS system or Li-Ion batteries.
- Composite Overwrapped Pressure Vessel (COPV)
 - These contain high pressure helium and nitrogen during flight. Everyone should remain clear of any storage vessel until determined safe by the SpaceX team.
- Components and Mechanisms
 - Some components like valves have high energy springs. Similar to all other debris, everyone should remain clear until identified and examined by SpaceX for safety.

4. Safe Areas to Shelter in Place

In the case of an in-flight anomaly, there are multiple locations to shelter in place throughout the Jalama Beach County Park. Identified below are solid structures and homes spread throughout the beach as well as concrete bathrooms available for sheltering. Upon PA Notification by the Park Rangers, any and all of these options are all potential areas for sheltering the local population. The

bathrooms (red), store (blue), and housing/offices (orange) are all marked in the visual below. Personal vehicles are also another acceptable shelter in the event of an anomaly.



Appendix 1 — Contact Information

SpaceX			
Name	Cell Phone	Work Ext.	email
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Santa Barbara County / Rangers			
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Beach Park Ranger Gate	+1 (805) 736 3504		N/A
Beach Park Ranger Emergency	+1 (805) 736-6890		N/A
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VSBF/Range			
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Jay Reid	+1 (805) 606-3605		verne.reid@spaceforce.mil

Local Emergency Services			
Name	Cell/Work Phone	Work Ext.	email
AMR/GMR	+1 (805) 694-8301		emsdutyofficer@sbcphd.org
Lompoc Fire Department	+1 (805) 736-4513		
Santa Barbara County EMS	+ 1 (805) 681-5274		
Lompoc Valley Medical Center	+1 (805) 737-3300		
Santa Ynez Cottage Hospital	+1 (805) 688-6431		