



**Annual Report of Marine Mammal Monitoring at Ugak Island**

**Compliance with National Marine Fisheries Service Final Rule  
(50 CFR Par 217, Subpart H)**

**31 May 2014 through 31 May 2015**

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### Attachments

- Attachment 1 (3Q CY14 Ugak Quarterly Monitoring Report (3 Jul 2014))
- Attachment 2 (4Q CY14 Ugak Quarterly Monitoring Report (30 Oct 2014))
- Attachment 3 (1Q CY15 Ugak Quarterly Monitoring Report (26 Jan 2015))
- Attachment 4 (2Q CY15 Ugak Quarterly Monitoring Report (23 Apr 2015))

## Introduction

The Alaska Aerospace Corporation (AAC) owns and operates the Kodiak Launch Complex (KLC) at Narrow Cape, Kodiak Island, Alaska. AAC is licensed by the Federal Aviation Administration to launch rockets from KLC. KLC is adjacent to the Pacific Ocean, and marine mammals are known to occupy land on Ugak Island. Therefore AAC is subject to the Marine Mammal Protection Act and oversight by the National Marine Fisheries Service (NMFS) for harassment and incidental take of marine mammals. NMFS has issued a final rule which will govern AAC mitigation, monitoring and reporting requirements from 2011 to 2016. These reporting requirements include an annual report summarizing the annual activities at KLC with regards to rocket launches and marine mammal monitoring. This document is the annual report for May 2014 through May 2015.

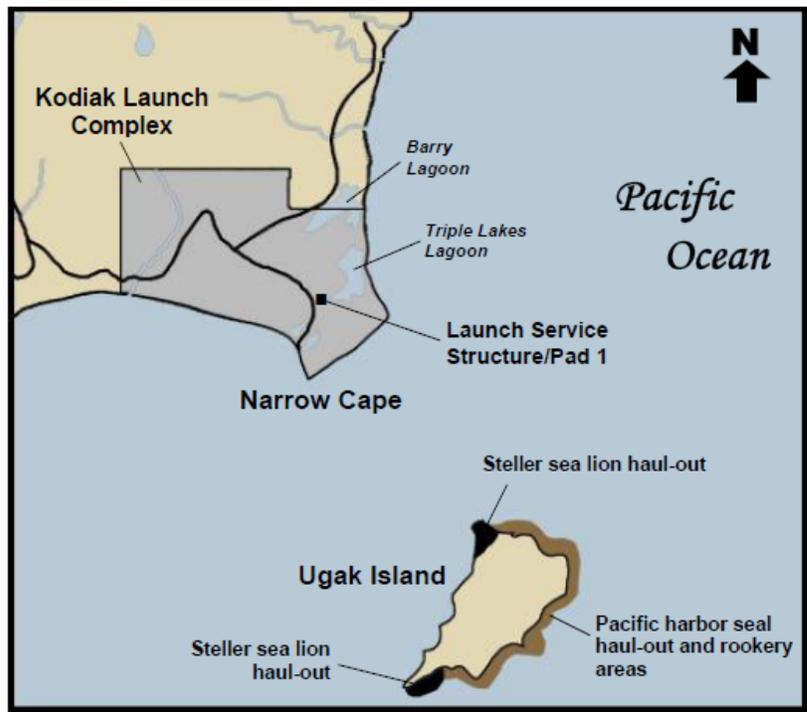
## Overview

The Alaska Aerospace Corporation (AAC) owns and operates the Kodiak Launch Complex (KLC) at Narrow Cape, Kodiak Island, Alaska. KLC is a spaceport that launches both orbital and suborbital rockets on a southern trajectory for government and commercial customers. KLC can launch up to eight rockets a year.

AAC monitors the effects of launch operations on the environment. For marine mammals, the main focus is on the pinniped population on Ugak Island, about 3.5 miles south of the

launch pad along the flight azimuth. Rockets are usually eight miles in altitude when they pass over the island. Ugak Island is a known haul-out area for both Stellar sea lions and harbor seals.

According to the Marine Mammal Protection Act, Regulations Governing Small Takes of Marine Mammals Incidental to Specified Activities, and the conditions of previous Letters of Authorization (LOA), AAC must perform the following monitoring activities for the NMFS in accordance with the final rule (50 CFR Part 217, Subpart H):



Source: Modified from USASMDC, 2003

Figure 1: Narrow Cape and Ugak Island site overview.

- Deploy a remote camera system designed to detect pinniped responses to rocket launches for at least the first five launches.
- Conduct visual monitoring of pinniped response two hours before launch, during launch, and two hours after launch.
- Conduct visual monitoring of harbor seal rookery if the launch is during pupping season.
- Conduct quarterly aerial surveys of haulout sites.
- Monitor sound pressure and exposure time for new classes of rockets.

A summary of these monitoring activities follows.

### Launch Operations and Monitoring

There was one launch during this reporting period (May 2014 – May 2015). This launch occurred during night time hours on 25 August 2014. Due to the time of the launch, no direct observation of the seals could be made using the Ugak Island camera system.

There was an in-flight anomaly during this mission, resulting in the detonation of the rocket shortly after liftoff. The explosion was over the launch pad at low altitude (under 1000 feet). Marine mammals on the north side of Ugak Island would have been exposed to this explosion, whereas seals on the south side of the island would be shielded by the mass of the island. No observations of the marine mammal population were made after the anomaly until the 30 October quarterly survey. There have been no reports of any affect to the marine mammal population from this incident.

### Pupping Season Monitoring

There were no launches during seal pupping season (15 May – 30 June).

### Quarterly Aerial Surveys

The following aerial surveys of Ugak Island were performed this last year:

Quarter	Date	Time (local)	# Sea Lions	# Harbor Seals	Notes
3 <sup>rd</sup> (Jul-Sep)	03 Jul 2014	1110-1239	0	513	Results Typical
4 <sup>th</sup> (Oct-Dec)	30 Oct 2014	1100-1207	0	810	Results Typical
1 <sup>st</sup> (Jan-Mar)	26 Jan 2015	1100-1200	0	312	Results Typical
2 <sup>nd</sup> (Apr-Jun)	23 Apr 2015	1230-1330	0	631	Results Typical

See Attachments 1, 2, 3, and 4 for the full quarterly monitoring reports.

### New Vehicle Sound Pressure

No new launch vehicles were launched from KLC this year.

## Contact

For additional information regarding this report, please contact Mr. Jeffrey Roberts at (907) 561-3338 or email [jeffrey.roberts@akaerospace.com](mailto:jeffrey.roberts@akaerospace.com).