

BSEE SAFECOM SUMMARY

BSEE Aviation SAFECOM Reports Oct 1, 2017– Sep 30, 2018

The Bureau of Safety and Environmental Enforcement (BSEE) requires safe, dependable air transportation to accomplish our mission, particularly inspections of oil and gas operations on the U.S. Outer Continental Shelf (OCS). BSEE's Aviation Safety Program supports the bureau's mission by identifying potential aviation hazards and effectively mitigating them before an accident occurs. One of the primary tools in the identification of aviation hazards is the Department of the Interior's (DOI) SAFECOM (Safety Communiqué) Program (www.safecom.gov).

What is SAFECOM?

SAFECOM refers to Department of the Interior's voluntary aviation hazard reporting program. DOI agencies, including BSEE, use SAFECOM reports to document any condition, observation, act, maintenance problem or circumstance with personnel or the aircraft that has the potential to cause an aviation-related mishap. SAFECOMs may also be used to document mishap prevention efforts and commendable actions.

A SAFECOM report is not a substitute for "on-the-spot" correction(s) to an immediate safety concern, rather SAFECOM data are used by aviation managers to track hazards, conduct trend analyses and ensure that corrective actions are taken and are effective.

Two key features of SAFECOMs is that they may be submitted anonymously, and may not be used for punitive purposes or administrative actions.

BSEE decreased total flight hours 9.4% in FY 2018 as compared to FY 2017 (-435 hours) while maintaining approximately the same total number of SAFECOMs, for an overall SAFECOM rate in 2018 of 58 to 1¹.

Rate of Flight Hours per SAFECOM Report					
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Flight Hours	6341	8177	8964	7738	7303
SAFECOM Reports	93	75	171	126	127
Rate of Flight Hours per SAFECOM Report	68	109	52	61	58
Note: A lower rate of flight hours per SAFECOM report indicates more frequent reporting.					

¹ For reference, during FY17 the entire Department of the Interior flew 57,817 hours and saw 340 SAFECOMs submitted for a ratio of 170 hours per SAFECOM report.

BSEE SAFECOM TOTALS					
Totals by Region					
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Alaska	0	0	0	0	0
Gulf of Mexico	81	70	167	115	122
Pacific	12	5	4	11	5
TOTAL	93	75	171	126	127
Totals for Gulf of Mexico Districts and Lafayette Measurement Group					
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Houma District	4	3	46	20	23
Lafayette District	13	6	36	20	16
Lafayette Measurement Group	0	0	1	6	9
Lake Charles District	17	31	24	28	25
Lake Jackson District	17	21	36	24	24
New Orleans District	30	9	24	17	25

During FY 2018, BSEE aircraft made 61 precautionary landings (48% of all SAFECOMs). Some of these events were minor maintenance issues, but a number of events had a more serious potential. Examples of serious potential events include:

- Bird Strikes ([18-0024](#), [18-0085](#), [18-0247](#), and [18-0249](#)).
- Aborted landings ([18-0229](#), [18-0253](#))
- Wrong deck landing ([18-0945](#))
- Landed to closed helideck ([18-0084](#))
- Loss of power on approach ([18-0788](#)).
- Helideck unsafe ([18-0607](#))
- Refuel system malfunction ([18-0185](#)).
- Drone (UAS) operating near platform ([18-0958](#)).
- Intercept by Air Force over New Orleans ([18-0782](#)).
- Strap outside cabin ([18-0110](#), [18-0169](#))
- Fuel cap left at fueling facility ([18-0307](#))
- NOTAM overlooked ([18-0084](#))
- Battery door not secured ([18-0002](#))
- Pilot door not secured ([18-0077](#))
- Ground tow bracket not removed ([18-0181](#))
- Incorrect facility info ([18-0229](#)).

Based on the number and types of reports received (most of which were minor mechanical malfunctions), BSEE's pilots and inspectors have demonstrated a willingness to utilize the SAFECOM system in a manner that reflects a positive safety culture.

Lessons Learned

Bird Strikes. Although bird strikes are virtually unavoidable given the geographic area in which BSEE operates, HSAC² RP 2010-3 outlines 11 recommended practices to minimize the risk. One mitigation tool immediately available to BSEE, which is not covered in HSAC's RP, is to wear your helmet's visor in the down position.

Landing Safety. Landing on the wrong helideck or on a closed helideck occurs infrequently, but is always preventable. To avoid such occurrences, pre-mission planning should be viewed as the first step. Conducting a thorough recon to identify the helideck marking before landing is also an important step. HSAC RP's 2016-1 and 2016-2 explain the proper markings for a helideck while HSAC RP 92-5 describes how a closed helideck is to be marked. Understanding and actively checking these markings will help prevent landing on a wrong or closed helideck.

Implementation of Lessons Learned: *Alaska's Regional Aviation Manager uses the SAFECOMs, and implements lessons learned, during monthly safety meetings. He specifically used SAFECOM 18-0110 to reinforce situational awareness and crewmember responsibilities among enforcement staff and others that travel on BSEE missions.*

Aborting a landing, also known as making a go-around, is not necessarily a problem if done for the right reason. As reported in SAFECOM 18-0229, a pilot was using incorrect information about the facility given to him by BSEE and aborted the landing only when he saw a crane moving; aborting the landing was definitely warranted. In the case of SAFECOM 18-0253, the pilot made proper radio calls and performed a proper recon before attempting to land; however, the pilot wisely aborted the landing when the inspectors called out an active crane.

Helideck Safety. Helidecks, including helideck refueling systems, are integral to the safety of BSEE's mission. Ensuring helidecks are in safe and serviceable condition is a shared responsibility of the facility operator and each crew that visits the facility. In SAFECOMs 18-0185 and 18-0607, it was the pilot and inspectors who brought safety issues to the attention of the operator.

Unmanned Aerial Systems (UAS). Use of UAS (aka drones) is increasing beyond the ability of the FAA to regulate them. As demonstrated by SAFECOM 18-0958, the best (and maybe only) defense is for the pilot and all passengers to actively scan for air traffic and to communicate any sightings to the other members of the crew.

Air Defense Identification Zone (ADIZ). BSEE missions on the OCS

² All Helicopter Safety Advisory Conference Recommended Practices (HSAC RP) can be downloaded at www.hsac.org/library

frequently operate in ADIZ airspace. Our pilots are trained on the proper identification and communication procedures, but any breakdown in those procedures, whether caused by mechanical, environmental, or human factors, can result in an intercept by military jets. SAFECOM 18-0782 reminds us of the importance of following the procedures and ensuring our equipment is functioning properly on every flight.

Human Error / Human Performance. Human Error is a very broad category and is widely recognized as the most common causal factor in aviation mishaps. As demonstrated by SAFECOMs 18-0110, 0169, 0307, 0084, 0002, 0077, 0181, and 0229, the most common factor is inattention or diverted attention. In most cases the pilot is the key figure, but others – such as passengers, managers, supervisors, maintenance, or flight operations personnel – can be involved. Inattention can involve distractions in the cockpit, fatigue, task saturation, or a host of other factors. It is up to everyone involved in aviation to stay focused on the task at hand, be alert to inattention in others, and understand the factors that contribute to inattention and other human factors.

Conclusion

Keeping our people safe requires unrelenting effort on the part of every member of BSEE's aviation team. Areas of emphasis for FY 2019 are (1) be alert to hazards in your environment (e.g. helideck, refueling, birds, UAS), (2) continue to use crew resource management procedures (communication, teamwork), (3) document even minor aviation hazards, (4) encourage reporting by BSEE employees, and (5) improve the implementation of lessons learned.

The Outer Continental Shelf is a challenging environment, especially for helicopter operations, yet BSEE (inclusive of its predecessor agency) has achieved an impressive 44 years flying in this environment without suffering an aircraft accident. This achievement is unparalleled in the Department of the Interior (see figure at right), and reflects an attitude of vigilance and professionalism on the part of BSEE's pilots and inspectors.



To learn more about BSEE's SAFECOM Program, contact Susan Dwarnick, (703) 787-1565. A printable version of this report can be found [HERE](#).

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