

Air Accident Investigation & Prevention Unit



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SAFETY RECOMMENDATIONS

URGENT: **REQUIRES IMMEDIATE ACTION**

ALERT # SA-16-00001

TO: Dudley Pratt – Family Islands / AGA, Chief Maintenance Officer

CC: Keith Major Director of Civil Aviation (Acting)
 Hubert Adderley – Manager Flight Standards Inspectorate

DATE: January 6, 2016

PURPOSE: IDENTIFICATION OF ACTIONS DEEMED UNSAFE AND REQUIRE IMMEDIATE ACTION.

In accordance with Annex 13 to the Convention on International Civil Aviation, Aircraft Accident and Incident Investigation, International Standards and Recommended Practices, Chapter 6, Paragraph 6.8, "At any stage of the investigation of an accident or incident, the accident or incident investigation authority of the State conducting the investigation shall recommend to the appropriate authorities, including those in other States, any preventive action that it considers necessary to be taken promptly to enhance aviation safety."

This office has been made aware of a **hazard** that warrants immediate corrective or mitigating action.

*A **hazard** is a situation that poses a level of threat to life, health, property, or environment. Most hazards are dormant or potential, with only a theoretical risk of harm; however, once a hazard becomes "active", it can create an emergency.*

On January 2, 2016 at around 3:35pm, a Beech 1900 aircraft with 21 souls on board, upon touching down on Runway 10 at the Deadman's Cay Airport at Deadman's Cay, Long Island encountered a situation where a blue Hyundai Accent vehicle crossed the active runway forcing the aircraft to apply all braking and reverse action to avoid a collision with the vehicle.

According to the pilot after applying maximum braking and reverse thrust to avoid the collision with the vehicle, the stopping distance between the vehicle and aircraft was approximately 200 to 300 feet. Had the runway been wet or the aircraft's reverse or braking action been compromised, the potential for a catastrophic event was very high. The **safety risks** associated with this action must be addressed

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

Air Accident Investigation & Prevention Unit

A risk matrix is supplied here to illustrate the probability, likelihood and severity of the hazard identified.

		Potential Consequences					
		L6	L5	L4	L3	L2	
		Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality	
		Not Significant	Minor	Moderate	Major	Severe	
Likelihood	Expected to occur regularly under normal circumstances	Almost Certain	Medium	High	Very High	Very High	Very High
	Expected to occur at some time	Likely	Medium	High	High	Very High	Very High
	May occur at some time	Possible	Low	Medium	High	High	Very High
	Not likely to occur in normal circumstances	Unlikely	Low	Low	Medium	Medium	High
	Could happen, but probably never will	Rare	Low	Low	Low	Low	Medium

The likelihood of the above identified hazard has been rated as **Likely** and the potential consequences as an **L2**, where there is the **very high** likelihood that this hazard is expected to occur at some time and the potential consequence is **severe** with very high possibility that the outcome can result in **fatalities**.

According to the Aeronautical Information Publication (AIP) 2015 for Deadman’s Cay MYLD, AD 2.12.1.23, Additional Information, the following hazards have been identified;

- a) Vehicles crossing runway at random
- b) Wild animals grazing on runway shoulder

It is therefore the recommendation of this unit that the following be either implemented immediately or a plan of action is formulated with a timeline addressing when both identified hazards are mitigated to an acceptable level of safety.

With the mandate of the Flight Standards Inspectorate, all operators that use this airport for scheduled air service **must** be required to establish;

- a) a process to identify actual and potential safety hazards and assess the associated risks;
- b) a process to develop and implement remedial action necessary to maintain an acceptable level of safety; and
- c) provision for continuous monitoring and regular assessment of the appropriateness and effectiveness of safety management activities.
 - a. Such actions by operators can include;
 - i. Supplying their ground staff with radio or other appropriate communication devices where aircraft to ground position can be ascertained.

Air Accident Investigation & Prevention Unit

- ii. During times of published arrivals or departures, aviation personnel can ensure with the aid of police or other authority figure, that all vehicles that cross the runway at the regular spot where this incident occurred, are notified to remain in place until the aircraft have landed and parked safely or departed safely.
 - iii. A runway inspection is accomplished to ensure that animals are not in the immediate vicinity of the active runway when aircraft are expected.
2. Additionally, The Civil Aviation Department with responsibility of out island airports, can as required by Bahamas Civil Aviation Regulation Schedule 21, 21.567 ensure that uncertified aerodromes be subjected to some of the same stringent requirements for ground vehicle and pedestrian usage as those required for certified aerodromes. As this airport in particular (MYLD) is frequented by operators on a scheduled basis, these restrictions should include;
 - (1) limiting access to the aerodrome operational area to those ground vehicles that are necessary for aerodrome and aircraft operations;
 - (2) when an aerodrome control service is in operation at the aerodrome, provide adequate procedures for the safe and orderly access to, and operation on the aerodrome operational area of, ground vehicles and ensure that the procedures provided mandate that -
 - (i) each ground vehicle operating on the aerodrome operational area is controlled by two-way radio communications between the vehicle and the aerodrome control service;
 - (ii) if a ground vehicle has no radio, it is accompanied by an escort vehicle with two-way communications with the aerodrome control service; or
 - (iii) if it is not practical to have two-way radio communications or an escort vehicle, adequate measures such as signs, signals or guards for controlling the vehicle are taken.
 - (3) when an aerodrome control service is not in operation at the aerodrome, provide adequate procedures to ensure that ground vehicles operating on the aerodrome operational area are controlled by signs or prearranged signals;
 - (4) ensure that each employee, tenant, or contractor who operates a ground vehicle on any portion of the aerodrome which has access to the aerodrome operational area is familiar and complies with the procedures for the operation of ground vehicles; and
 - (5) ensure that each employee, tenant or contractor who operates on the aerodrome maneuvering area has training related to the safety precautions to prevent runway incursions.

All of these measures individually or collectively may aid in reducing the associated risks to a safety level that is acceptable (medium or low, illustrated above).

Air Accident Investigation & Prevention Unit

As this report was received from an operator, it has been noted and documented in the incident / accident database as a serious / significant safety concern due to the potential for fatalities as a result of the identified hazard(s). This documentation is required by ICAO to document the Bahamas' compliance to the Convention (Annexes).

As such, you are required to advise this office of any and all action taken to mitigate the risks of the hazard(s) identified. You are to advise this office within 10 days of receipt of this correspondence your actions to address this safety concern.

When responding please quote our reference number on all correspondences for identification purposes. (Our ref: SA-16-00001).

Regards

A handwritten signature in black ink, appearing to be 'Delvin R. Major', with a long horizontal stroke extending to the right.

Delvin R. Major
Investigator in Charge