

**BRITTEN-NORMAN  
ISLANDER BN-2A-27,  
VP-MNI**

**John A Osborne  
Airport, Montserrat**

**23 September 2019**

**Accident**

## **Investigation Synopsis**

The aircraft was flying from Antigua to Montserrat, which was experiencing a heavy rain shower. After the shower had passed the aircraft made a normal approach in a light tailwind to Runway 10, which was still wet from the rain. The pilot made a positive touchdown and applied appropriate braking but was unable to stop the aircraft. The pilot steered the aircraft to the right but it skidded through 180° and departed the level surface of the airfield backwards, down a steep incline at the end of the runway, before coming to a stop when the tail caught in the airport security fence. The pilot and passengers were able to exit the aircraft and the airport rescue and firefighting service responded promptly. No aircraft defects were found that would have contributed to the outcome. The touchdown groundspeed was 79 kt, which was higher than appropriate, either because the approach was flown at an airspeed greater than the normal 65 kt, or because of a significant change in windspeed and direction during the approach. This, combined with a wet runway and skidding, resulted in the aircraft requiring more distance to stop than was available on the runway. Three Safety Recommendations are made regarding aircraft operation, access for rescue and firefighting vehicles, and a means of arresting aircraft that overrun the runway.

## **Safety Recommendation 2020-014**

### **Justification**

Local wind variations specific to this aerodrome affect landings.

Therefore, the following safety recommendation was made:

### **Safety Recommendation 2020-014**

It is recommended that Air Safety Support International Ltd ensure that pilots and operators intending to use John A Osborne Airport take account of local wind variations, and require operators to demonstrate how they will achieve this.

**Date Safety Recommendation made:** 13 May 2020

### **LATEST RESPONSE**

**Response received:** 14 May 2020

The runway itself and the associated operating conditions at Montserrat have been the subject of an ongoing monitoring programme by ASSI over a significant period of time. In the past, NOTAMSs have also been issued to advise operators of the adverse runway conditions when wet. A runway refurbishment programme is well underway and this is planned for completion by the end of 2020.

Furthermore, an enhanced Governor's Instruction (MON 004) was issued on 24th February 2020 which required Commercial Air Transport operators to complete safety risk assessments, paying particular attention to the awareness of potential local wind variations including possible significant turbulence, windshear and downdraft during approach and climb out. The Safety Risk Assessment is aimed at mitigating any residual risk and providing flight crew with sufficient guidance to operate at the Aerodrome.

We consider that the combination of runway refurbishment programme and the Governor's Instruction, a copy of which is attached for reference, satisfies the requirements of Safety Recommendation 2020-014.

**Safety Recommendation Status**                      **Closed**

**AAIB Assessment**                                      **Adequate**

**Action Status**                                        **Planned Action Completed**

**RESPONSE HISTORY**

N/A

## **Safety Recommendation 2020-015**

### **Justification**

Difficult terrain in the aerodrome surroundings prevents ready access to emergency services

Therefore, the following safety recommendation was made:

### **Safety Recommendation 2020-015**

It is recommended that the operator of John A Osborne Airport provide adequate access to the Difficult Environs at the east end of Runway 10 to ensure that emergency services can reach expeditiously the location of an aircraft which has overrun the end of the runway.

**Date Safety Recommendation made:** 13 May 2020

### **LATEST RESPONSE**

**Response received:** 05 November 2020

The government received written permission to access the land to ensure that emergency services can reach expeditiously to the location of an aircraft which has overrun the end of the runway. Picture evidence of the four completed trails was sent via email on Tuesday 13th October 2020 for the possible closure of this safety recommendation.

**Safety Recommendation Status** Closed

**AAIB Assessment** Adequate

**Action Status** Planned Action Completed

### **RESPONSE HISTORY**

Response received: 13 October 2020

The Government of Montserrat has been engaging with the private landowner for the past two (2) years in order to obtain approval to establish trails to improve access for the Rescue Fire Fighting Services (RFFS) to the referenced Difficult Environs. This matter is presently being led by the Attorney General's Office. The preferred aim would be to acquire the land and not only to cut the trails but to maintain them after cutting. All areas within our jurisdiction are maintained, keeping them in condition which will not produce any hindrance to RFFS

AAIB Assessment – Partially Adequate Open

## **Safety Recommendation 2020-016**

### **Justification**

Terrain adjacent to the runway ends is hazardous to aircraft that overrun, and prevents ready access by emergency services

Therefore, the following safety recommendation was made:

### **Safety Recommendation 2020-016**

It is recommended that the operator of John A Osborne Airport install a means of arresting the progress of an aircraft that has overrun either end of the runway in order to minimise the risk injury to those onboard and to ensure that emergency services can reach them expeditiously.

**Date Safety Recommendation made:** 13 May 2020

### **LATEST RESPONSE**

**Response received:** 19 February 2021

With the support of ASSI we have conducted further, extensive research into addressing the recommendation. Our intention was to ascertain the availability and practicalities of installing such a system however, the second review supported our original stance that a suitable, approved system is not available and the environment at the John A. Osborne Airport would not allow for effective installation and efficient operations due to the length of the runway and difficulties with the surrounding environs.

John A. Osborne Airport is located on what is, effectively, a small plateau and as such, there is insufficient space to install any type of barrier / net or an 'EMAS-type' system which could provide any appreciable deceleration or restraint in the event of a runway excursion. For example, approved barriers come with large hydraulic systems and robust stanchions which are simply too large for the available area. The adoption of an ad-hoc, untried 'fence' is, in our opinion fraught with uncertainty and could actually introduce more risk than currently exists. Any locally installed catch-fencing would likely be supported by non-frangible posts, set into concrete with all the dangers of airframe and undercarriage damage and the potential risk of ruptured fuel tanks and uncontrolled fires that represents.

That said, we fully support the view that the risks of injury to those on board an aircraft which has overrun either end of the runway must be minimised to As Low As Reasonably Practicable (ALARP) and therefore, it may be helpful to make you aware of the additional mitigations which we are putting in place. New markings on the edge of the runway are intended as aiming point markers or (more simply put) 'throw-away' indicators. Their purpose is self-explanatory in that pilots who have not positively touched down by those points must execute a missed approach. Thus far, the feedback from the pilots has been very supportive. Secondly, the runway re-surfacing project has been approved and the work to provide a new, grooved surface with a significantly improved friction level, will be completed during the first quarter of 2021 which should significantly reduce the risk of hydroplaning.

The additional measures which both the Airport and ASSI have put in place (including a revised Governors instruction ensuring competent and current pilots who take account of wind variations) are robust, pragmatic, and proportionate for an operation of this size and with this level of traffic. They will provide significant safety enhancements in the longer term whilst we continue our search for an arrestor system and ensure that the runway remains compliant with accepted international standards.

**Safety Recommendation Status**

**Closed**

**AAIB Assessment**

**Partially Adequate**

**Action Status**

**Planned Action Completed**

**Feedback rationale**

The AAIB acknowledges the Airport operator's response to the Safety Recommendation and the action it has taken to explore suitable mitigations. It has not installed a means of arresting the progress of an aircraft that has overrun the runway, and the associated hazards remain, but the response includes other action to reduce the likelihood of overruns and to improve access for emergency services. (EU Regulation 996/2010 article 18 refers).

**RESPONSE HISTORY**

Response received: 05 November 2020

The Government / John A Osborne Airport with support from our regulator ASSI were researching all possible arresting system for use at the airport.

The review concluded that a suitable system is not available on the market that are appropriately tested and accredited and the environment at the John A Osborne Airport would not allow for effective installation and efficient operations due to the length of the runway and difficulties with the surrounding environs.

Therefore, we [request] information on any specific arrester [recommended] or whether a suitable system is available for our operation, or if [there is] another aerodrome that has such a system installed. [From] our research and enquiries to date, we do not believe this proposal is viable.

AAIB Assessment – Not Adequate Open

Response received: 13 October 2020

The Government/ John A Osborne Airport with support from our regulator ASSI are researching all possible arresting system for use at the airport. It is recognised that an arresting system is very expensive to set up and that there are no testing mechanisms for such systems. Additionally, most if not all arresting systems are one time use only and such systems require additional space to set up. Space is a premium at the John A. Osborne Airport as there are two drop offs at either end of the runway virtually precluding the installation of an arresting system. However, as mentioned before the Government is looking into how best it can implement this recommendation. Based on the nature of this system in will take some time to research, manufacture and implement.

As mitigation measures, our Government is looking into the prospect of restarting Twin Otter operations utilising the STOL (Short Takeoff and Landing) capable aircraft for which the airport was originally designed. The Request for Proposal (RFP) for the Twin Otter operation will be sent out by August 2020. Additionally, the Government will be embarking on a runway resurfacing project to be undertaken by the 31st March 2021. The new surface will maintain the present camber and in addition the surface will be grooved and will have the additional mitigation measure of touch down zone markings. Presently, the Airport is entering consultations with the stakeholder to implement nonstandard aiming point markings. Also the John A Osborne Airport is exploring the possibility of utilizing pre-existing structures to serve in an arresting capability for example the pre-existing fence being modified under guidance of the manufacturer by December 2021. At present the airport is also conducting more frequent friction tests. Additionally, the Instructions for the use of the John A Osborne Airport has been amended since the accident as mentioned in the Safety Recommendation 2020-014.

Therefore, the Ministry of Communications, Works, Energy and Labour of the Government of Montserrat confirms its desire to ensure the safety of air navigation on island.

AAIB Assessment – Partially Adequate Open