

## RISK INSIGHTS

OCTOBER 2020



## THIS ISSUE

*Introduction to  
Risk Management*

*Part 1:  
Risk Management Overview*

## RISK

A risk is a threat or opportunity.

ISO:31000 defines risk as the effect of uncertainty on objectives (positive or negative).

Objectives can be financial, operational, health & safety, or related to environmental targets.

## RISK MANAGEMENT

Risk Management (RM) is the coordinated activities to direct and control an organization with regard to risk. Risk Management supports strategic planning and the achievement of organizational goals. The main objective of the RM process is to monitor for, eliminate and mitigate hazards and risks (Embry-Riddle Aeronautical University, 2020).

BUSINESS CONTEXT  
RISK AND AVIATION

## SAFETY RISKS

The elimination of aircraft accidents and/or serious incidents is the ultimate goal of the aviation system.

The aviation system however, cannot be completely free of hazards and associated risks. Human activities and human-built systems cannot be guaranteed to be absolutely free from operational errors and their consequences. Being perfectly safe would require stopping all aviation activities and grounding all aircraft, as not all risks can be removed and not all possible risk mitigation measures are economically practical.

Therefore, SAFETY is a DYNAMIC characteristic of the aviation system, whereby safety risks must be CONTINUOUSLY mitigated. Safety Risk Management is the vehicle for managing and controlling safety risks. The Safety & Compliance Department carries this mantle for the ANS Division and Flight Safety Department oversees safety risk as regulator.

## BUSINESS RISKS

The Jamaica Civil Aviation Authority (JCAA) operates in a wider context and engages in operational activities which are external to core aviation imperatives. The organization is therefore susceptible to other risks which are not directly related to safety. All departments within the JCAA must contend with varying hazards and risks. The COVID-19 Pandemic for example impacts human capital, health & safety, supply chain (procurement) among others, and pervades all functional areas across the Authority.

ENTERPRISE RISK MANAGEMENT enables us to manage a wide array of risks in an integrated, enterprise-wide fashion. It facilitates consistency in determining risk levels and therefore is also a means by which risk can be compared across functional areas.





# Safety Risks

Real Events



## GLOBAL AVIATION SAFETY SNAPSHOT

### Accidents

2020 vs 2019  
Global Year-to-Date

27 (-99)

Scheduled commercial  
flights on airplanes above  
5.7t only

Last updated: 2020-10-02

### Accident Rate

2020 vs 2019  
Global Year-to-Date

1.70 (-1.57%)

Scheduled commercial  
flights on airplanes above  
5.7t only

Last updated: 2020-10-02

### Fatal Accidents

2020 vs 2019  
Global Year-to-Date

5 (-1)

Scheduled commercial  
flights on airplanes above  
5.7t only

Last updated: 2020-10-02

### Fatalities

2020 vs 2019  
Global Year-to-Date

293 (+86)

Scheduled commercial  
flights on airplanes above  
5.7t only

Last updated: 2020-10-02

(ICAO, 2020)

## AVIATION RISK TRENDS 2020

### The Insurers Perspective

- Pilot Shortage and fatigue
- Over-reliance on automation
- Increasing exposures at flight schools
- More turbulence from climate change
- Drone disruption
- Cyber threats
- On-the-ground accidents caused by congested airports (runway safety)

(AGCS, ERAU, 2020)

Even with a record number of passengers, statistics show that flying has never been safer. Efforts to continuously improve aviation safety is paying off. Aviation organizations are paying attention to the development and improvement of safety systems.

Despite the progress made in reducing the number of fatal accidents, insurers observe a growth in the enormity of insurance claims linked to engine repairs, damage from foreign objects, ground collision incidents, and slips and falls, to name a few.

According to ICAO, **runway safety** is a well established safety issue and remains **aviation's number one safety challenge** for the past 20 years. They report that approximately **half (50%) of all reported aviation accidents is tied to runway safety**.

## RUNWAY SAFETY RISK CATEGORIES

- Runway Excursion \*
- Abnormal Runway Contact
- Bird Strike
- Ground Collision
- Ground Handling
- Runway Incursion \*
- Loss of Control on the Ground
- Obstacle Collision
- Undershoot / Overshoot
- Aerodrome

\*Runway excursions & runway incursions are the leading runway safety risk categories.

A runway excursion is defined as a "veer off or overrun of the runway surface", which can happen during landing or take off. One of the main contributing factors is adverse weather that results in the runway surface being contaminated by snow, ice, slush or water, with a potentially negative impact on an aircraft's braking, acceleration or controllability.

(ICAO, 2020)



(Canva, 2020)

## FLIGHT 9363







Willow Run Airport,  
Ypsilanti, Michigan,  
U.S.A.

March, 2017

NTSB, 2017

A Boeing MD-83 (Ameristar Air Cargo Jet), overran the departure end of runway 23L at Willow Run Airport (YIP), Ypsilanti, Michigan, after the captain executed a rejected take-off. The 110 passengers and 6 flight crew members evacuated the airplane via emergency escape slides

EVENT	YEAR	LOCATION	DESCRIPTION
Pegasus Airlines Flight 2193	2020	 Sabiha Gökçen International Airport, Istanbul, Turkey	A <a href="#">Boeing 737-800</a> overran the runway while landing in heavy rain and high winds, and broke into several pieces. 3 of the 183 people aboard were killed.
Pegasus Airlines Flight 8622	2018	 Trabzon Airport, Trabzon, Turkey	A <a href="#">Boeing 737-800</a> ran off the left side of the runway during landing and slid down a cliff, stopping short of the water. No one was killed, but the aircraft was destroyed.
Caribbean Airlines Flight 523	2011	 Cheddi Jagan International Airport, Georgetown, Guyana	A <a href="#">Boeing 737-800</a> overran the runway while attempting to land in rainy weather. All occupants survived, but the aircraft was irreparably damaged and seven people were injured.
American Airlines Flight 331	2009	 Norman Manley International Airport, Kingston, Jamaica	A Boeing 737-800 landing in rain and a tailwind touched down at 4,100 feet down the runway. Unable to stop before clearing the remaining 4,811 feet of runway, the aircraft broke through the perimeter fence, and came to an abrupt stop in the rocks across the road. The fuselage broke into three sections. No one was killed, however 14 people suffered serious injuries.





# Enterprise Risks



# ENTERPRISE RISK MANAGEMENT

## JCAA'S RISK IMPERATIVES

01

STRATEGY

OPERATIONS

PROJECTS

FINANCES

HUMAN  
CAPITAL

LEGAL

INFORMATION

ENVIRONMENT

## OPERATIONS

Operations is a vast area for most organisations. Whilst, at the JCAA our core services relate to Regulatory Oversight and Air Navigation Services, a significant amount of work happens behind the scenes in order to deliver those services in a safe and efficient way.

Operational risk is the potential for harm or loss resulting from employee error, inadequate or failed procedures, systems or policies.

Some of the key functions which occur "behind the scenes" are:

- Security Management
- Facilities Management
- Office Management
- Communication, Navigation & Surveillance
- Training
- Information Technology
- Finance
- Public Procurement
- Aeronautical Information Management
- Human Resource Management

68%

Operational risks as a percentage of total organizational risks at the JCAA.

# ENTERPRISE RISK MANAGEMENT

## BRINGING IT TOGETHER



### Everyone has a role in the risk process.

The work carried out by the supporting departments of the JCAA, impacts our operational performance and how well we manage risks. Risk events in one area has implications for other units and departments across the authority. Each department therefore has responsibility for managing the risks attendant to their scope of operations.

#### How have you been managing risk?

You manage risks everyday within your special area of the operations. It is demonstrated when obstacles are removed from the work environment, when walk ways are paved, when systems are upgraded , when we insure our assets, when sites are secured, and even when failures are reported into management. Reporting risk helps with Risk Identification, which is the first step towards addressing the risk.



Some departments have specific risk roles:

**Flight Safety and Safety & Compliance** focus on aviation safety specific risks in accordance with Annex 19 (Safety Management) and the ICAO Safety Management Manual (Doc. 9859) .

As required by JCAA's Risk Management Policy;

**Employee Relations** focuses on staff health and safety risks

**Research Planning and Risk Assessment Department** takes a comprehensive view of interdependent risks across the organization ensuring the performance of the risk process.

2%

Percentage of operational risks which reached the threshold for escalation. (JCAA, 2020).

Enterprise Risk Management is important because the achievement of organizational targets depend on its success.

As we navigate the active hurricane season  
Let us identify the risks together: Have you experienced a hurricane?  
Share your story; tell us how you were impacted at work.  
Respond by October 31, 2020 to [planningriskandresearch@jcaa.gov.jm](mailto:planningriskandresearch@jcaa.gov.jm)

#### IN THE NEXT ISSUE:

We share your stories and hurricane hazards and risks identified  
Research Planning and Risk Assessment