



Benefits to having a State Runway Safety Programme

Trinidad & Tobago Runway Safety Team







Antigua Regional Runway Safety Seminar

In Collaboration with ICAO's
Runway Safety Programme Partners



Date: 27-29 May 2013

Location: St. John's, Antigua and Barbuda



TTRST's Stakeholders

ATC & Regulator



Airport Operator



Commercial Airlines



General Aviation



Ground Handlers



National Security Services



Issues raised at the meetings

- FOD mitigation
- Wildlife mitigation
- Inclement weather operations
- Markings/Signage
- Installation of visual aids for infrequently used runway
- Analysis of proposed helicopter procedures
- Issues with external lighting system on the ATR72 aircraft





TRINIDAD & TOBAGO RUNWAY SAFETY TEAM

SAFETY RISK ASSESSMENT FORM

No	Activity	Hazard/ Hazardous Event	Possible Consequences	Assessment of risk			Risk Controls	Assessment of risk		
				Likelihood	Severity	Risk Level		Likelihood	Severity	Risk Level
1	HS1- Aircraft crossing THR10 to and from hangars to Bravo	Conflict between landing and crossing traffic	Aircraft collision	3	A	3A	-ATC Manage Traffic -Signage -Markings -HS displayed on AD layout	2	A	2A
2	HS2- Aircraft crossing from A1 to B1 and vice versa	Conflict with landing and departing traffic	Aircraft collision	5	A	5A	-ATC Manage Traffic -Signage -Markings -Lighting -HS displayed on AD layout	2	A	2A
3	HS3- Aircraft entering paved area east of Charlie	Infringing with runway strip i.e. landing & departing traffic	Infraction Near miss	4	C	4C	-ATC Manage Traffic -Signage -Markings -HS displayed on AD layout	2	C	2C
4	HS4- Aircraft entering paved area east of Charlie	Infringing with runway strip i.e. landing & departing traffic	Infraction Near miss	4	C	4C	-ATC Manage Traffic -Signage -Markings -HS displayed on AD layout	2	C	2C
5	HS5- Aircraft entering the restricted north pavement area	Infringing with parked aircraft	Minor damage Inconvenience	3	D	3D	-Signage -Markings -HS displayed on AD layout	2	D	2D

Likelihood	Meaning	Value
Frequent	Likely to occur many times [has occurred frequently]	5
Occasional	Likely to occur sometimes [has occurred infrequently]	4
Remote	Unlikely to occur, but possible [has occurred rarely]	3
Improbable	Very unlikely to occur [not known to have occurred]	2
Extremely Improbable	Almost inconceivable that the event will occur	1

Severity	Meaning	Value
Catastrophic	Equipment destroyed / Multiple deaths	A
Hazardous	Major equipment damage / Serious injury	B
Major	Serious incident / Injury to persons	C
Minor	Minor incident / Nuisance	D
Negligible	Few consequences	E

HS 1 -
proceeding to and
the maintenance
shall seek auth
from ATC before
the runway.



Challenges experienced

- Regular changes of Management Personnel for key stakeholders causing shifting priorities.
- Financial constraints of key stakeholders.
- Follow-up meeting between stakeholders.
- Lack of information of planned runway-related upgrades.
- Time.



TTRST influenced resolutions

- ✎ Taxi edge lines approaching a restricted area.
- ✎ FOD awareness has been enhanced.
- ✎ Changing of operations to a holding point (Delta).
- ✎ Reduction of helicopter movements via the runway.
- ✎ Adjustments to scope of works for planned rehabilitation of a paved area.
- ✎ Trees obscuring ATC visibility of a portion of the runway.
- ✎ Solution for ATR external lighting issues.
- ✎ Runway bleeding issues



TRINIDAD AND TOBAGO RUNWAY SAFETY TEAM

SAFETY RISK ASSESSMENT FORM

No	Activity	Hazard/ Hazardous Event	Possible Consequences	Assessment of risk			Current Risk Controls	Assessment of risk		
				Likelihood	Severity	Risk Level		Likelihood	Severity	Risk Level
1	Runway asphaltic surface 'bleeding' at the ANR Robinson International Airport	Aircraft encountering FOD due to deterioration of the asphaltic surface	Major Aircraft Damage	3	B	3B	-ATC Manage Traffic-use of leading lines and turning bays -Runway Pavement rehabilitation	2 2	B B	2B 2B
2		Sticky bituminous substance rising to the surface and adhering to aircraft tyres	Minor damage Inconvenience	4	D	4D	-ATC Manage Traffic-use of leading lines and turning bays -Conduct bituminous material removal process -Runway pavement rehabilitation	3 2 2	D D D	3D 2D 2D
3		Reduced friction on the runway surface due to soft bituminous residue	Runway Excursion	4	B	4B	-ATC Manage Traffic-use of leading lines and turning bays -Conduct bituminous material removal process -Runway pavement rehabilitation	3 2 2	B B B	3B 2B 2B
4		Hydroplaning in the bleeding areas following a precipitation event	Runway Excursion	4	B	4B	-ATC Manage Traffic-use of leading lines and turning bays -Conduct bituminous material removal process -Runway pavement rehabilitation	3 2 2	B B B	3B 2B 2B
5		Undulation of the runway surface	Runway Excursion	2	B	2B	-Conduct bituminous material removal process -Runway pavement rehabilitation	2 2	B B	2B 2B
Likelihood		Meaning		Value	Severity		Meaning		Value	
Frequent		Likely to occur many times [has occurred frequently]		5	Catastrophic		Equipment destroyed / Multiple deaths		A	
Occasional		Likely to occur sometimes [has occurred infrequently]		4	Hazardous		Major equipment damage / Serious injury		B	
Remote		Unlikely to occur, but possible [has occurred rarely]		3	Major		Serious incident / Injury to persons		C	
Improbable		Very unlikely to occur [not known to have occurred]		2	Minor		Minor incident / Nuisance		D	
Extremely Improbable		Almost inconceivable that the event will occur		1	Negligible		Few consequences		E	

Residue from bituminous material on the runway





Safety Lights and Signals

a Vaughan Safety, Inc. online store

PL-300XJ

Rotating Pattern LED Beacon Light, Battery Operated, Optional AC Power, Magnet Mount

The PL-300XJ battery operated beacon is a versatile safety light suitable for a variety of warning and attention-getting applications. Equipped with two powerful magnets on the base, this beacon can be temporarily mounted on vehicles and other equipment. The rotational pattern of the 20 LED lights simulates the look of a motorized beacon without any moving parts. The rotational speed is easily adjusted with an internal screw. A built-in AC jack allows for the use of an optional plug-in power adapter. On a fresh set of batteries, this beacon can run for as many as 144 hours.



ICAO Runway Incursion Prevention Course Lima, Peru (17-19 Nov 2017) - Participants



THANKS FOR YOUR INFORMATION!



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Gracias!

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