RUNWAY SAFETY TEAMS
Airport Experiences

Rishi Thakurdin
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54 STATES IN AFRICA
TRUE SIZE OF AFRICA
BY LAND MASS
ACSA OPERATED AIRPORT
RUNWAY SAFETY TEAMS
CURRENT

CAPE TOWN / JUL 11   JOHANNESBURG / JAN 12   DURBAN / OCT 12
PORT ELIZABETH / MAR 13   GEORGE / APR 13   BLOEMFONTEIN / JUL 13

By November 2013 the last of the nine airports established a Local Runway Team.
RUNWAY SAFETY TEAMS – IMPROVEMENTS

- ICAO Hotspot Chart approved and incorporated into the current AIP and in JEPPSESEN

- All Uncontrolled Vehicle Taxiway Crossings clearly marked and signed to improve conspicuity

- All Taxiway/Roadway Intersections received clear signage informing vehicle drivers of instructions “To Proceed Only On Receipt Of ATC Clearance” at these intersections

- HIRA Programme completed for Runway Rehabilitation Programme

- New Radio Telephony Training Manual produced for Vehicle Drivers to utilise, rewritten due to ICAO Severity Classification D Incursions by operational service vehicles

- Airside vehicle colour changed due to inconspicuity from tower

- Radio signal deficiency detected e.g. electrician not hearing tower instructions
# Safety Hazard Identification and Risk Assessment: Effects and Critical Analysis

**Procedure/Operation:** Cape Town International Airport: Runway 01/19 Rehabilitation Project 2012-2013

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Operations</th>
<th>Hazard</th>
<th>Effect</th>
<th>Initial Risk Severity</th>
<th>Severity Rationale</th>
<th>Mitigation</th>
<th>Final Risk Severity</th>
<th>Residual Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vehicle Transiting Arrangements</td>
<td>Collision with Aircraft</td>
<td>Damage to Aircraft</td>
<td>3A</td>
<td>Injury to Passengers</td>
<td>Vehicle escorted at all times to designated area. Works only during Airport Closure. Daily Contractor Brief. RT Comms with ATC. Airside Induction.</td>
<td>2D</td>
<td>Acceptable</td>
</tr>
<tr>
<td>2</td>
<td>Vehicle Transiting Arrangements</td>
<td>Collision with Vehicles</td>
<td>Damage to Vehicles</td>
<td>3B</td>
<td>Injury to Occupants</td>
<td>Vehicle escorted at all times to designated area. Works only during Airport Closure. Daily Contractor Brief. RT Comms with ATC. Airside Induction</td>
<td>2D</td>
<td>Acceptable</td>
</tr>
<tr>
<td>3</td>
<td>Vehicle Transiting Arrangements</td>
<td>Collision with Pedestrians</td>
<td>Injury to Personnel</td>
<td>3A</td>
<td>Injury to Personnel</td>
<td>Vehicle escorted at all times to designated area. Works only during Airport Closure. Daily Contractor Brief. RT Comms with ATC. Airside Induction</td>
<td>2D</td>
<td>Acceptable</td>
</tr>
<tr>
<td>4</td>
<td>Vehicle Transiting Arrangements</td>
<td>Collision with Buildings</td>
<td>Injury to Personnel</td>
<td>3C</td>
<td>Injury to Personnel</td>
<td>Vehicle escorted at all times to designated area. Works only during Airport Closure. Daily Contractor Brief. RT Comms with ATC. Airside Induction</td>
<td>2D</td>
<td>Acceptable</td>
</tr>
<tr>
<td>5</td>
<td>Excavation and General Works</td>
<td>Disruption of services</td>
<td>Electric shock or drain damage</td>
<td>3B</td>
<td>Injury to Personnel. Loss of Navaids</td>
<td>Excavation to specified depth recommended by Project Engineer. Use of CAT Scan prior to excavating. Full Cable Repair Kits available onsite. Use of Cabling Charts to Identify known cabling locations. No excavation 45 minutes prior to aircraft arrival.</td>
<td>2D</td>
<td>Acceptable</td>
</tr>
<tr>
<td>6</td>
<td>Excavation and General Works</td>
<td>Bird activity</td>
<td>Increase on BCU workload. A/c damage.</td>
<td>2B</td>
<td>Increased bird activity possible.</td>
<td>Frequent inspections by BCU. Works during Night only. No FOD left on site. No food to be consumed outside of vehicle onsite</td>
<td>2E</td>
<td>Acceptable</td>
</tr>
</tbody>
</table>
RUNWAY SAFETY TEAMS IMPROVEMENTS

Clearly marked and signed uncontrolled vehicle crossing points, as per ACI recommendations, now at all locations on all service roads and perimeter tracks.

Clearly signed vehicle roadway entrances that lead to taxiways and which give clear instructions to seek ATC clearance before the vehicle can proceed onto the taxiway.
LOCAL RUNWAY SAFETY
TEAMS HOTSPOT CHARTS

Due to LRST
Not all positive news….

- The Airfield Operations Management team has not shown strong passion in both maintaining and chairing the LRST
- Very few members of the Senior Management Team have attended any of the scheduled LRST meetings
- Loss of momentum due to change in management
- Dilution of agenda for example i.e. PPE and delegation to junior management
- Agenda items not resolved i.e. long term Capex issues
- Sustaining interest of pilots and airline representatives
- Capacity of chairperson
- Lack of passion
- More case studies and training
Bird and Wildlife

Kimberley Airport (KIM) is located in an arid semi-desert region of South Africa. A local mammal species of nocturnal Anteater, known as an Aardvark (Earth Pig), burrowing under the airport perimeter fence.

Although there is an active Bird and Wildlife committee and regular meeting held, no Pilots attend such meetings.
Bird and Wildlife

On 16th July 2010, a South African Express Airways, De Havilland Canada DH8-300 operating a scheduled flight, soon after touchdown the aircraft struck an Aardvark on the runway.

Similar incident occurred a week later but with minor damage to aircraft rotor blade.
ACSA Case Study 2 – Upington Airport

Between 22\textsuperscript{nd} April and 28\textsuperscript{th} June 2013, i.e. a two month period, UTN experienced 12 Runway Excursions, all of ICAO Severity Classification C or D. Of these 12 excursions, 10 of them were committed by Microlight and Light Sport aircraft.

A complicated 3 Runway layout and Microlight Pilots who are unfamiliar with operating within an ATC controlled airport and controlled airspace were the main transgressors. Improved Markings and Signage resulted in no further incursions.
George Airport

On 7\textsuperscript{th} December 2009, an Embraer 135, made a landing in wet conditions. The aircraft failed to stop within the runway distance, and left the runway before the RESA and broke through the perimeter fence before coming to a halt on a road. There were no serious injuries to anyone on-board. No mention of LRST in accident report.

Major debate around use of fog spray, friction testing and RESA’s
BA INCIDENT
22 DECEMBER 2013

- Accident BA034 G-NLL, B747-400, 22 December 2013, O R Tambo International Airport (FAOR) – Republic of South Africa Operated British Airways
THE AIRCRAFT ROUTE

- Taxiway BRAVO
- Cat 2 Holding Point
CL INSTALLED ON BRAVO

- X10 CL Lights
- CL Lights – Green Apron to India
- Edge Lights - Blue
INCORRECT TAXIWAY

Approximate final position
SAFETY RECOMMENDATIONS

- CAA to intensify ramp inspections on all foreign operators to South Africa, ensure compliance
- AAIB to address aeronautical data revision status issue with BA third party service provider – Navtech
- ATNS to fully commission the A-SMGCS system, it will help to assist with safety and efficiency of aerodrome surface movement control in low visibility operations (LVO’s) area
- ACSA to remove the BidAir Service building on Mike
- ACSA to address lack of maintenance to lighting and signage on Bravo
- ARFF to address runway and taxiway inspection issue
RUNWAY SAFETY TEAMS

Airport Experiences - Conclusion

• Each Airport is unique and no need for fully fledged LRST as needs great effort

• The LRST meetings do not have to be separate meetings on their own. If it helps you, simply add them to your existing Airside Safety Committee meetings

• Drive to set up LST not to be a tick-box exercise, lot of interest and enthusiasm especially CANSO, ALPA but …to be chaired and driven by Aerodrome Management

• Helps to focus on many improvements not given attention to previously…e.g. driver training, focus on construction activities

• The skill levels required to keep a LRST going can be a challenge – reality check on skills and experience of personnel

• Use of technical jargon especially by some professionals and tendency to dominate meetings by some sectors also challenging for smaller aerodromes

• LRST and effectiveness not assessed by SACAA