

# Runway Safety Team

## From Inception to Implementation

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# The ATC journey

## 2005

- First infant steps towards Safety Management Systems
- Drafted our own Runway Safety Action Plan for KLIA operations loosely based on the European Runway Safety Action Plan
- Operated in a “silo” environment

## 2006

- Took the first steps in engaging other stakeholders in a formal manner through the establishment of the Malaysian Flight Safety Forum
- Runway safety at Subang Airport was discussed as one of the items

# The ATC journey

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## 2007

- Runway safety for other airports specifically Kuching and Kota Kinabalu airports were discussed during the Flight Safety Forum
- A joint investigation on a runway incident in Kota Kinabalu was conducted by MAS and DCA

## 2008

- The Flight Safety Forum was still the only platform where runway safety issues are discussed
  - A joint investigation on a runway incursion incident in Kuching was conducted by MAS, AXM and DCA
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# The ATC journey

## 2009

- Still no dedicated Runway Safety Teams
- The Flight Safety Forum was into her 4<sup>th</sup> year
- Wham! – 4 runway incursions at KLIA in one year

Active player/reason	Number
Pilot due distraction	1
Pilot misunderstood conditional clearance Controller did not correct incorrect readback	1
Vehicle Driver due miscommunication in the local language	1
Ground engineer error due loss of situation awareness	1

# Where did we go wrong?

Compared against ICAO Doc 9870 Manual on the Prevention of Runway Incursions

## AIR TRAFFIC CONTROL BEST PRACTICES

Whenever possible, an en-route clearance should be passed to an aircraft before the start of taxi.	Yes
Taxi instructions issued by a controller must always contain a clearance limit. For departing aircraft, the clearance limit will normally be the runway-holding point of the runway in use.	Yes
It is strongly advised, when practicable, to use standard taxi routes.	Yes
“Stop bars shall be switched on to indicate that all traffic shall stop and switched off to indicate that traffic may proceed.”	Yes
ATC should always use a clear and unambiguous method on the operating console to indicate that a runway is temporarily obstructed.	Yes

## AIR TRAFFIC CONTROL BEST PRACTICES contd

English is used throughout.	No
Hotspots identified and displayed on a chart	Yes
Care should be taken to ensure that the phraseology employed during the taxi manoeuvres cannot be interpreted as a take-off clearance.	Yes
To ensure that the complete traffic situation is included in a position handover, the use of a standardized handover checklist should be considered.	Yes
When conditional clearances are used, specific training should be provided to ensure that such clearances are used strictly according to ICAO provisions.	Yes
Procedures requiring controller to listen to pilot readback	Yes

Yet, in spite of having done quite a bit, 4 (probably more?) incursions still occurred.

# The ATC journey

## 2010 – 2011

- Still no dedicated Runway Safety Teams
- The Flight Safety Forum was into her 5<sup>th</sup> and 6<sup>th</sup> year
- 2 runway incursions at KLIA in 2010
- 1 runway incursion at KLIA in 2011

## 2012

- National Runway Safety Committee established
- Runway Safety Team for KLIA established
- No runway incursion

## 2013

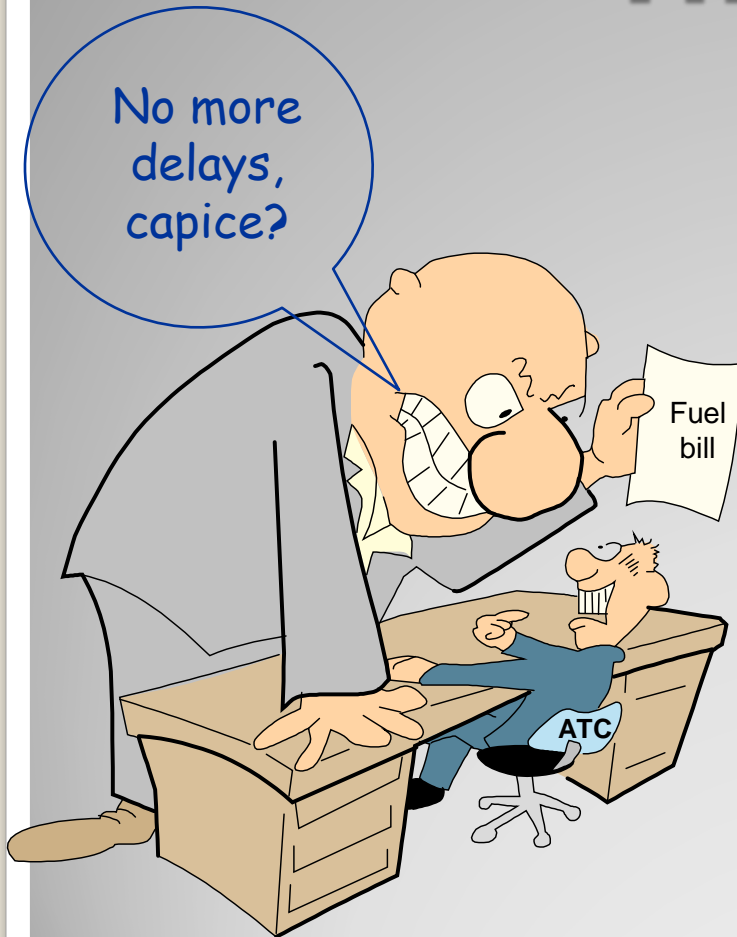
- 2 runway incursions at KLIA

# KLIA Growth

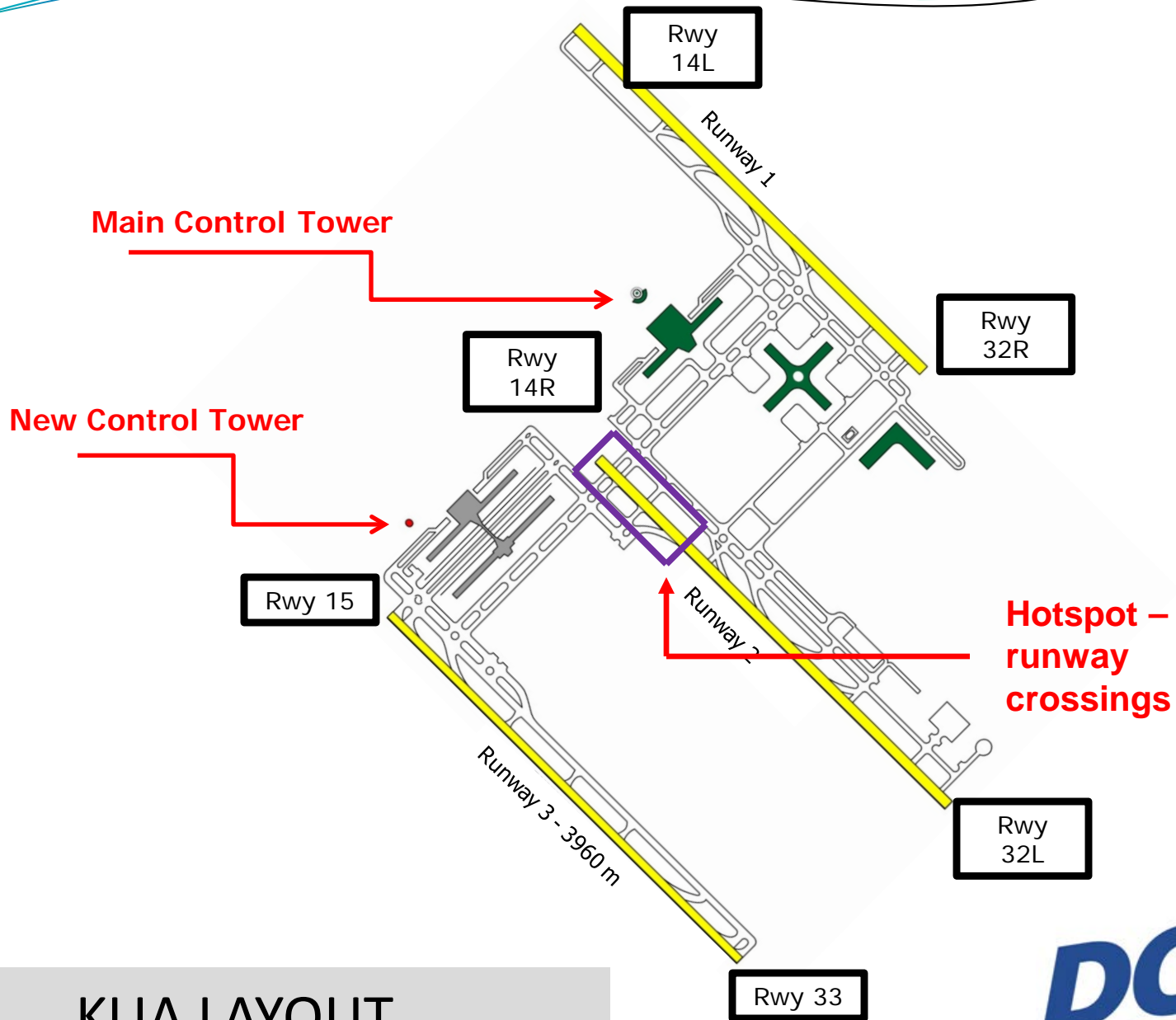
Year	Pax	Aircraft Movements	Runway Incursions
2004	21,058,572	165,115	0
2005	23,213,926	182,537	0
2006	24,129,748	183,869	0
2007	26,453,379	193,710	0
2008	27,529,355	211,228	0
2009	29,682,093	226,751	4
2010	34,087,636	245,650	2
2011	37,704,510	269,509	1
2012	39,887,866	283,352	-
2013	45,000,000	320,000	2



# The challenge



- According to a Transport Canada report (Sep 2000): as traffic volume increases, the likelihood of a runway incursion increases more rapidly when capacity-enhancing procedures are in effect than when they are not.



KLIA LAYOUT

# Lessons you can take from our experience

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- use any platform
- start with a group of like-minded individuals from the various stakeholders
- the regulator can be a catalyst
- forming the RST is just the beginning...to meet new challenges
- runway safety incidents will still occur!



# Your journey?



Starting point?



Destination

But to arrive there, you have to



Thank You.

