2nd African / Indian Ocean Aviation Safety Symposium

20th – 21st May 2015

Harry Nelson

Loss of Control – In flight LOC-I

"Gather the low hanging fruit"

Accident category - Loss Of Control (In flight)

Loss of Control
is the No 1 Cause of fatalities
in aviation

Accident category - Loss Of Control (In flight)

Loss of Control In-flight

2014 6 Accidents

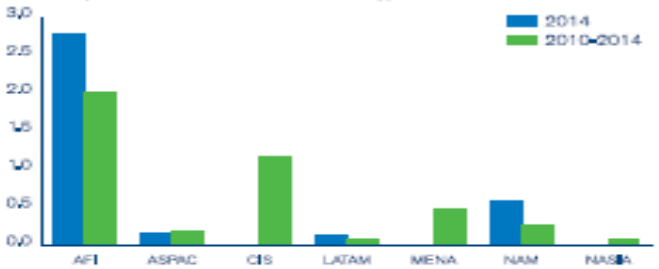
2010–2014 38 Accidents

	2014	'10-'14
IATA Members	0%	13%
Hull Losses	100%	97%
Fatal	100%	97%
Accident Rate	0.16	0.21

	Passenger	Cargo	Ferry	Jet	Turboprop
2014	50%	50%	0%	33%	67%
2010-2014	68%	32%	0%	34%	66%

Accident Rates per Operator Region

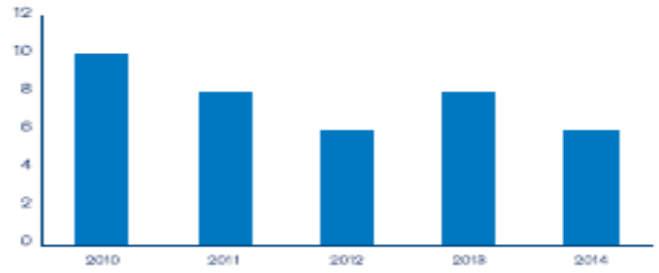
Accidents per million sectors flown for all aircraft types



Accidents per Phase of Flight, 2010–2014

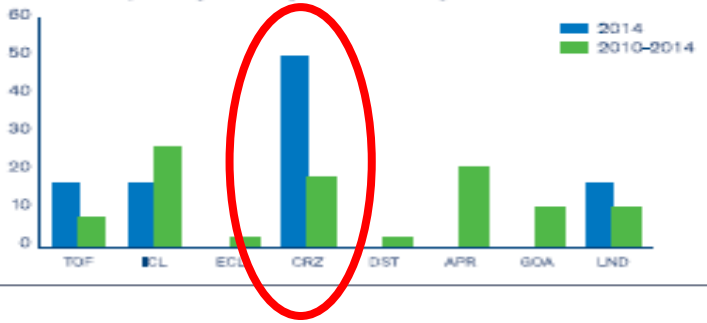
See Annex 1 for "Phase of Flight" definitions

Accidents per Year



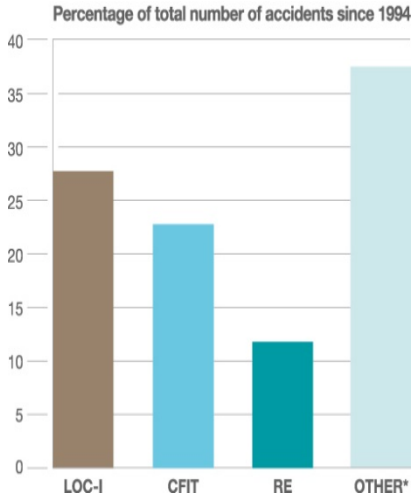
Accidents per Phase of Flight

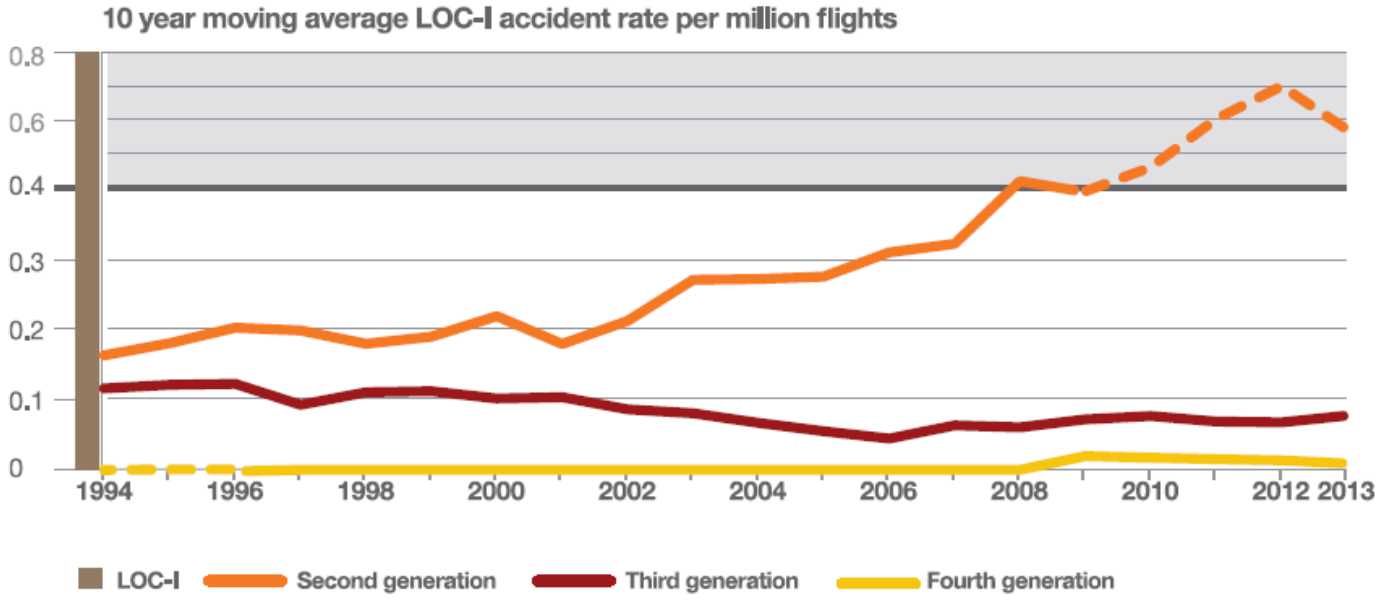
Accidents as a percentage of total flights for the time range



IATA Annual report for 2014

Technology as an efficient safety net





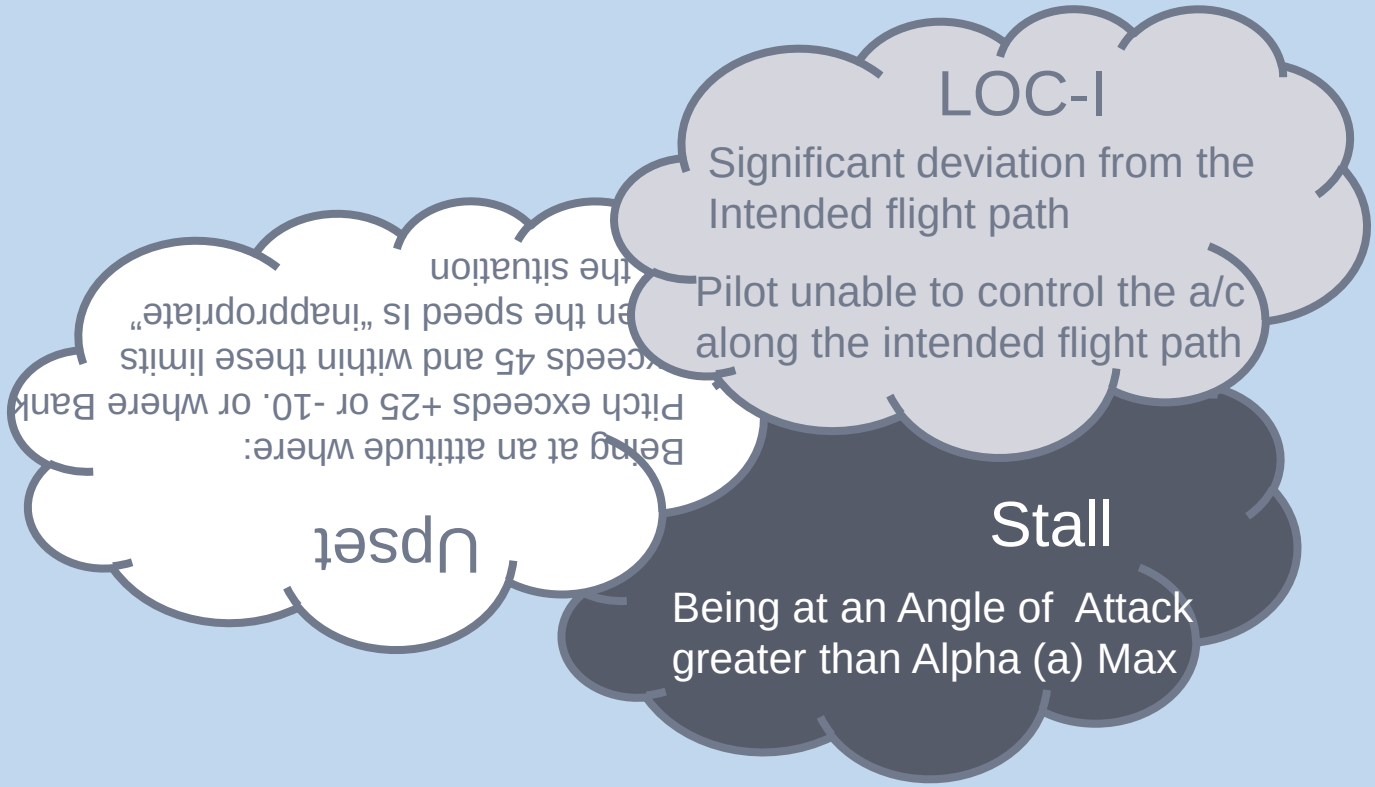
Technology to address Loss Of Control type of accident:

☑ Flight By Wire a/c / Flight Envelope Protection
(applicable only to 4th generation of a/c)

AIRBUS

Definitions - We tend to mix up three phenomena

.... and it's not always helpful in our understanding of causes..



Notes :

Upset → Loss of Control → Upset

A Stall always has to be dealt with first

3 Key Messages

1. Avoidance :

   Know when they are likely and what to do to avoid

2. Recognition :

   Know what to look for as one approaches these conditions

3. Recovery :

   Acknowledge and accept that you are in one of those conditions and then take action

1. Avoidance – How they can occur

Flight situations

1. Manoeuvering with large control inputs
2. Violent weather
3. Low and decreasing speed
4. Low visibility
5. Unexpected go-arounds
6. Dealing with abnormal or emergency procedures

Crew situations

1. High workload
2. Crew surprised / distracted
3. Crew fatigued
4. Low situational awareness
5. Crew communication poor

LOC-I

So let us now hear what our panelists have to tell us on this topic