

4th ANNUAL NATIONAL SAFETY SEMINAR

13 OCTOBER 2010

BEYOND
SMS
THEORY

Decision Making
& Managing Risk

South African Airways Case Study

SOUTH AFRICAN



*CIVIL AVIATION
AUTHORITY*

BEYOND SMS THEORY

SAA Aviation Safety KPI's

The following KPI's of the Aviation Safety Program shall apply to all levels in the organisation:

- The prevention of flight and ground, incidents and accidents.
- The identification, evaluation, and correction of hazards before it develops into incidents or accidents.
- To minimise the extent of equipment and property damage and the degree of injuries to personnel as a result of incidents or accidents.
- The elimination of design shortcomings, unsafe practices and unsafe situations.
- The prevention of damage to private and public property and injury to non-SAA personnel as a result of operations.
- The incorporation of aviation safety consideration into all Company business activities.
- The provision of Aviation Safety awareness and training to aircrew and personnel.

SOUTH AFRICAN AIRWAYS AVIATION SAFETY POLICY STATEMENT

People travel all over the world, regardless of political boundaries or cultural differences. They not only want to know if they are going to arrive on time, but now, more than ever before, they also want to know if the airline has a good safety record. Since safety is the inherent primary expectation of our customers, safe airline operations are therefore our priority.

We acknowledge that Aviation Safety and the Risk considerations are an essential and integral part of all our business developments, airline operational and organisational changes. Our commercial objectives should not be to the detriment of our safety standards and objectives. Yet we should be wary not to allow our safety objectives to unnecessarily limit commercial opportunities.

SAA personnel are committed to ensure that all operations are conducted in a safe and efficient manner. A comprehensive and integrated Aviation Safety Management System has been designed and implemented to prevent accidents and to reduce the risk of damage and injuries to SAA resources.

The success of our Aviation Safety Management System depends on our commitment and attitude towards Aviation Safety. Pro-active accident and incident prevention can only be successful if we all adhere to safety regulations and if we make a concerted effort to report all unsafe acts and conditions to the Aviation Safety Department at Tel: 011 978 5528 or e-mail AviationSafetyHazards@flysaa.com. Every manager and employee is therefore encouraged to demonstrate their commitment and involvement in safety by working and acting safely, at all times.

Punitive or disciplinary measures will not be taken against anyone who reports any unsafe act or condition - SAA embraces a "Just Safety Culture". However wilful violations of safety rules and regulations or gross negligence are not acceptable and may be subjected to disciplinary action.

An unwavering commitment to Aviation Safety standards and requirements by everyone is essential for the well-being of our employees, our reputation and business performance.

Aviation Safety is no Secret



Ms. Siza Mzimela
Chief Executive Officer: SAA
14 July 2010

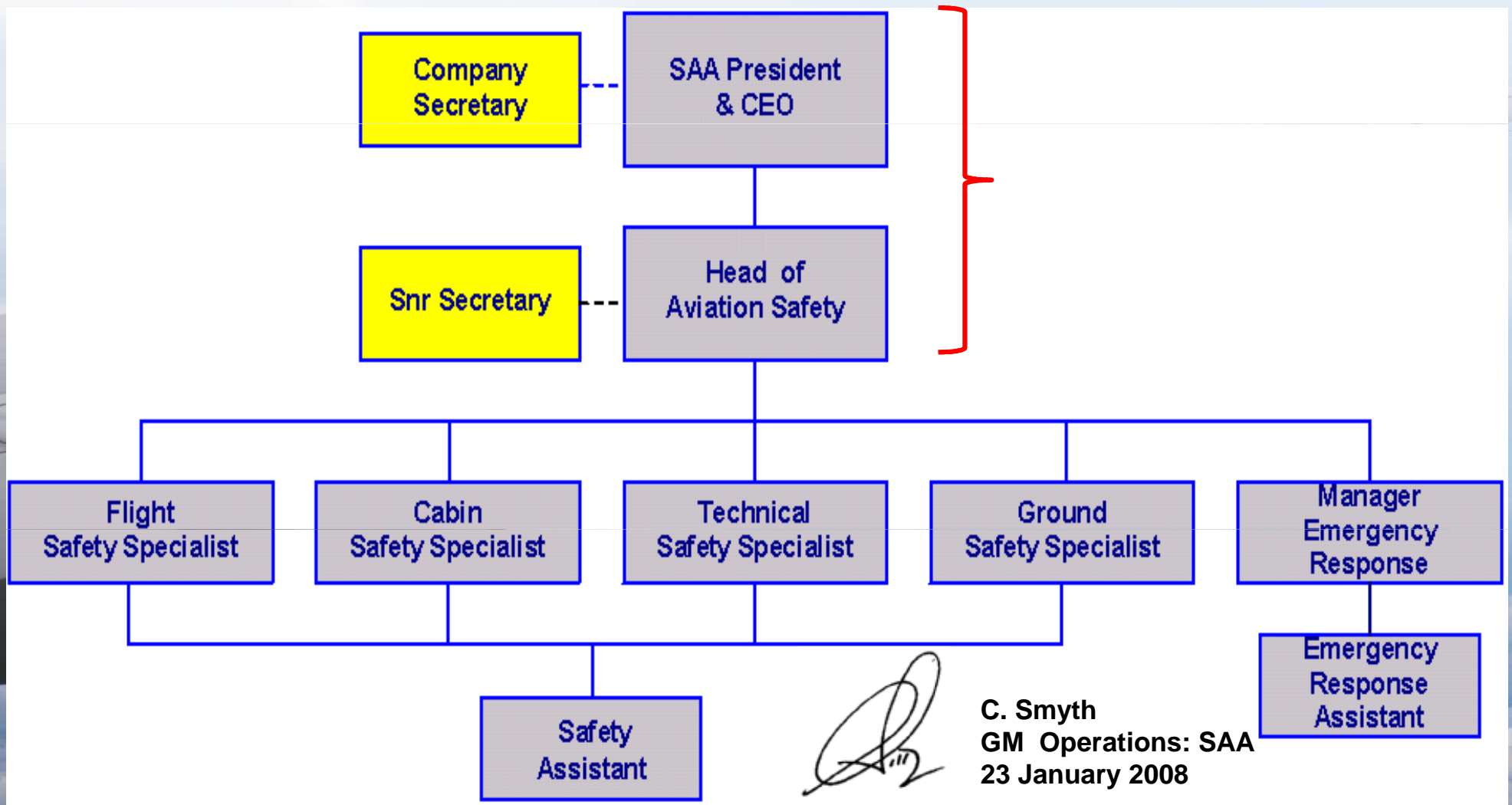


BEYOND SMS THEORY

AVIATION SAFETY POLICY

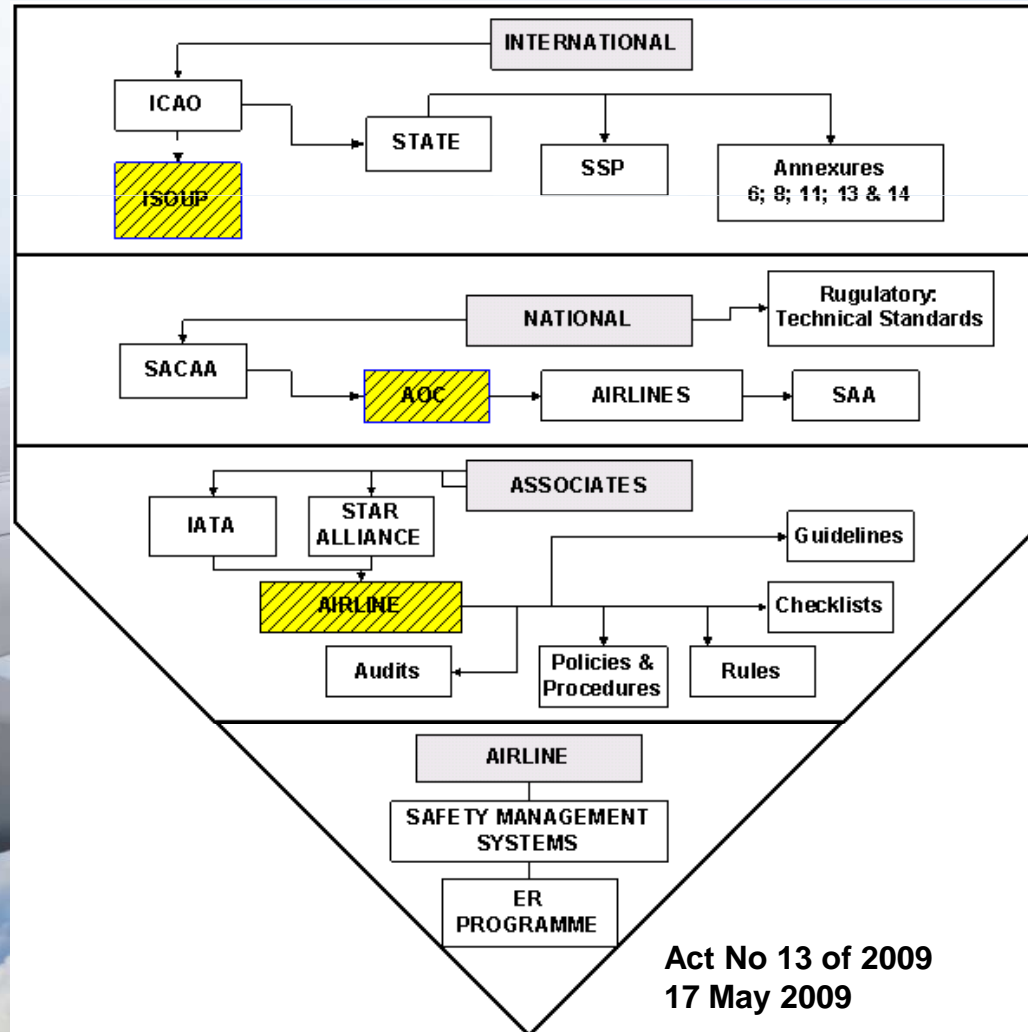
BEYOND SMS THEORY

Organisational Structure

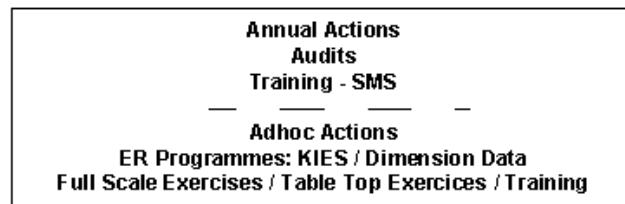


BEYOND SMS THEORY

AVIATION REGULATORY



Act No 13 of 2009
17 May 2009



BEYOND SMS THEORY

Risk Matrix

Risk Probability	Risk Severity				
	Negligible E	Minor D	Major C	Hazardous B	Catastrophic A
Frequent 5	5E	5D	5C	5B	5A
Occasional 4	4E	4D	4C	4B	4A
Remote 3	3E	3D	3C	3B	3A
Improbable 2	2E	2D	2C	2B	2A
Extremely Improbable 1	1E	2E	3E	4E	5E

BEYOND SMS THEORY

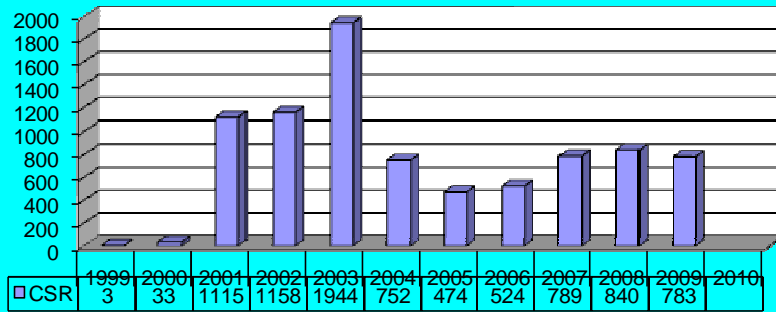
BEYOND SMS THEORY

BEYOND SMS THEORY

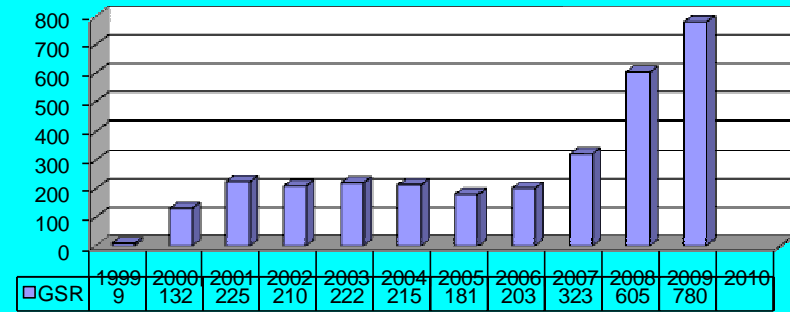
Specialist Annual Totals

1999 -2009

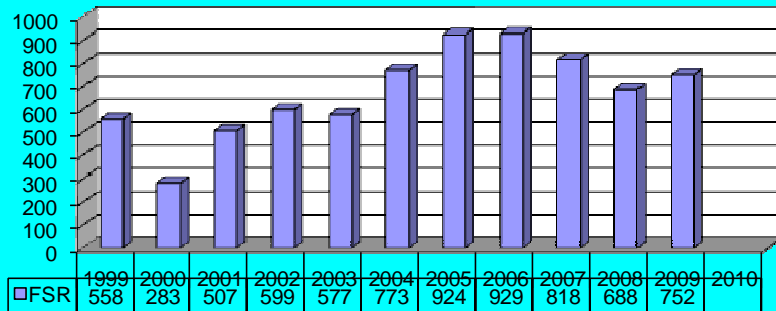
CABIN SAFETY TOTALS



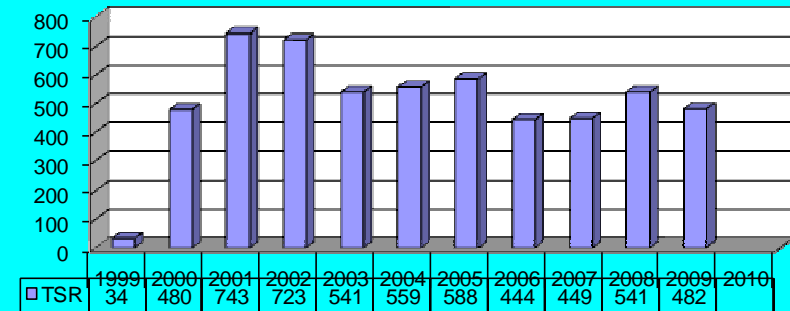
GROUND SAFETY TOTALS



FLIGHT SAFETY TOTALS



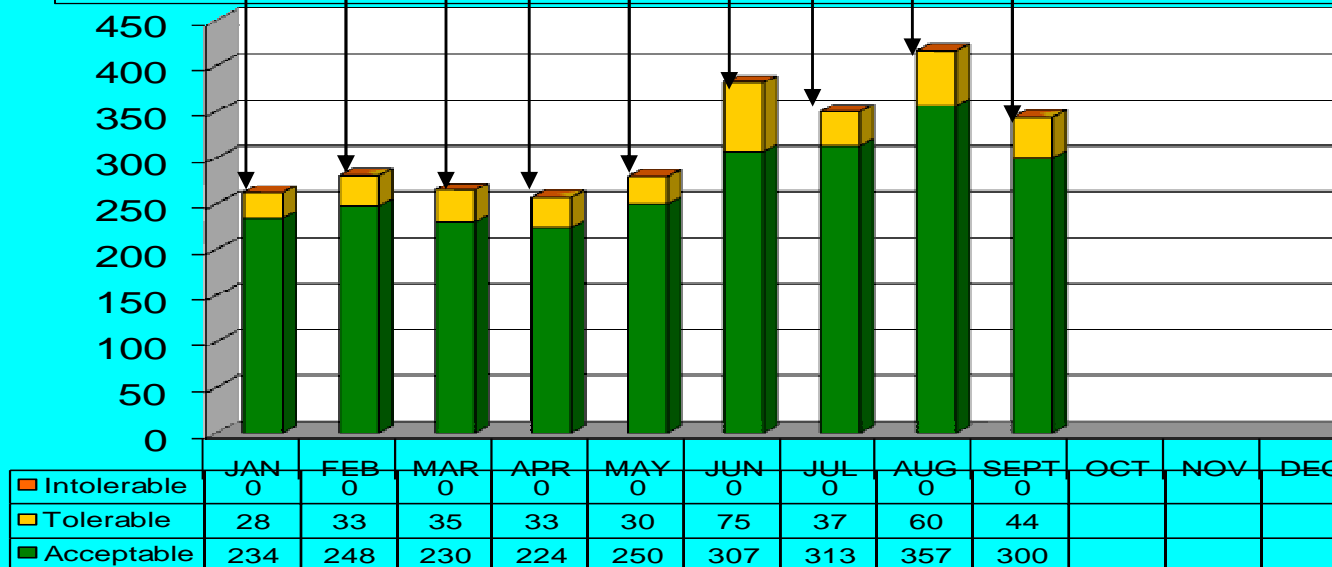
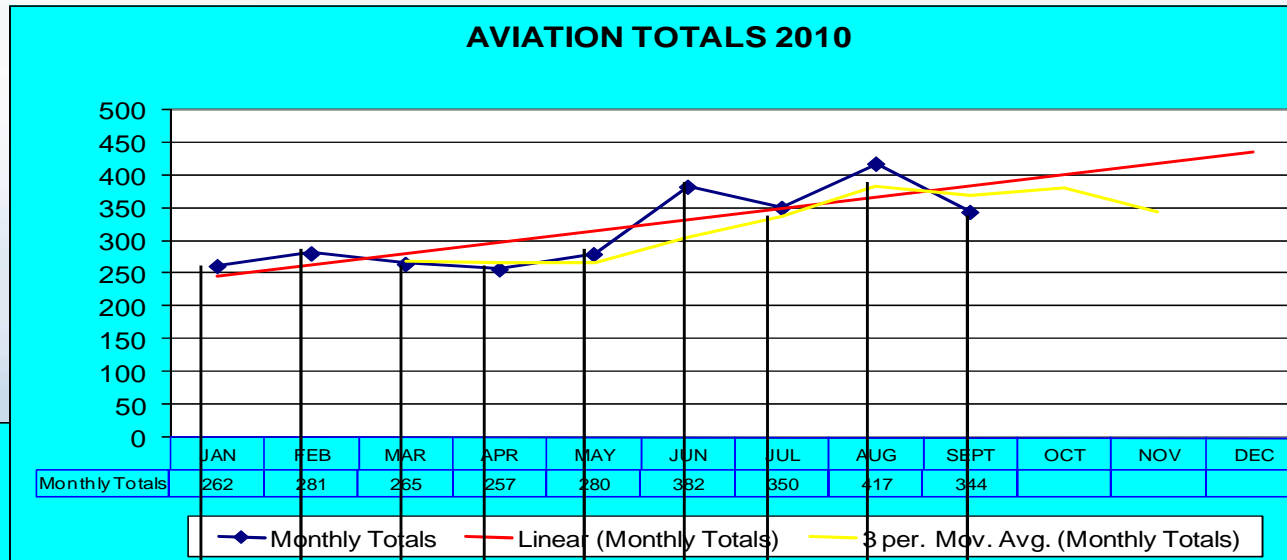
TECHNICAL SAFETY TOTALS



BEYOND SMS THEORY

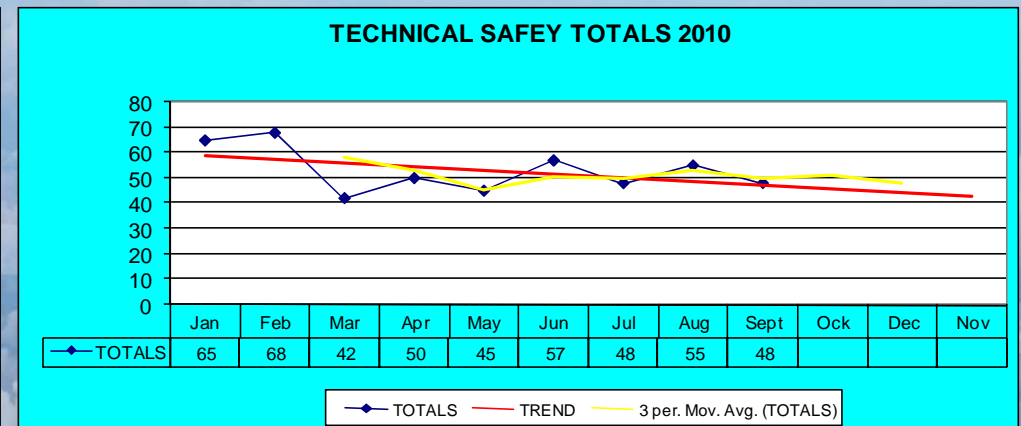
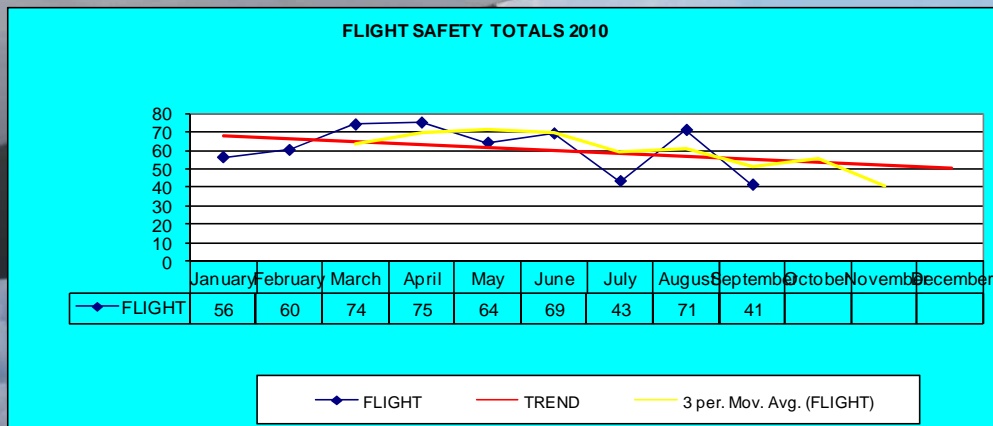
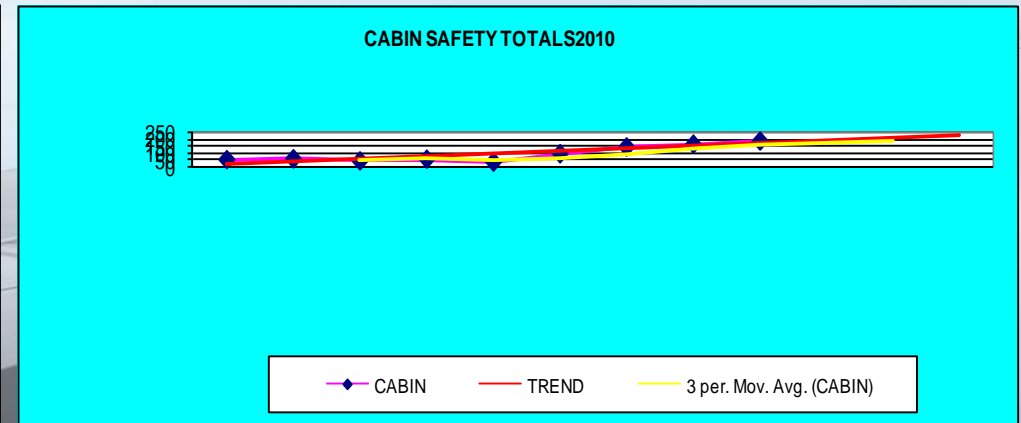
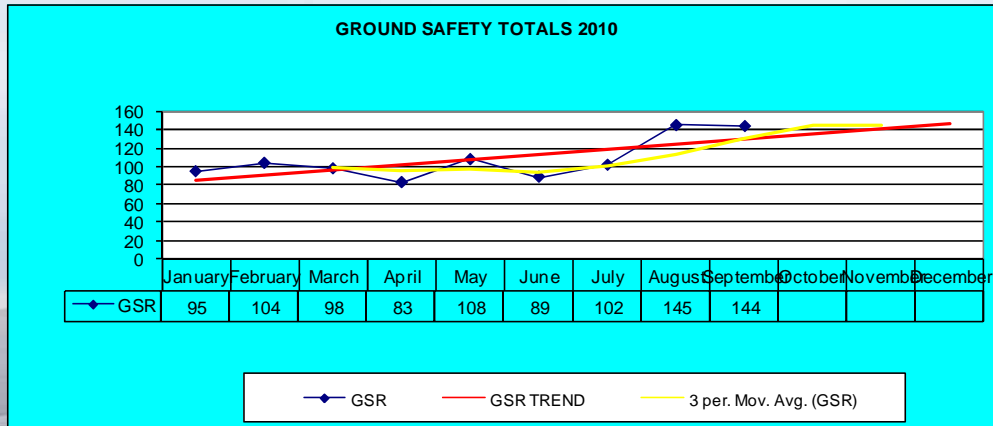
DEPARTMENTAL TOTALS

2010



BEYOND SMS THEORY

SPECIALIST MONTHLY TOTALS 2010



BEYOND SMS THEORY

HAZARDS / INCIDENTS

GROUND

2009

Jan - May 10

Aircraft Damage (Ramp)

48

26

No Ground Engineer to meet A/C

156

154

No Ground Staff to meet A/C

96

71

Excess Hand Luggage

156

72



BEYOND SMS THEORY

AUDITS & REPORTS GROUND

AIRPORTS (Ground Operations)

RISK

Source

FIH (Kinshasa)

Med

Audit

Management System
Training
Equipment

GBE (Gaborone)

Elevated

Audit / Reports

Management System
Ground Operations

WDH (Windhoek)

Med

Audit

Management Systems
Training
Equipment

CPT (Cape Town)

Med

Reports

Load planning
A/C Marshalling

JNB (O. R. Tambo)

Elevated

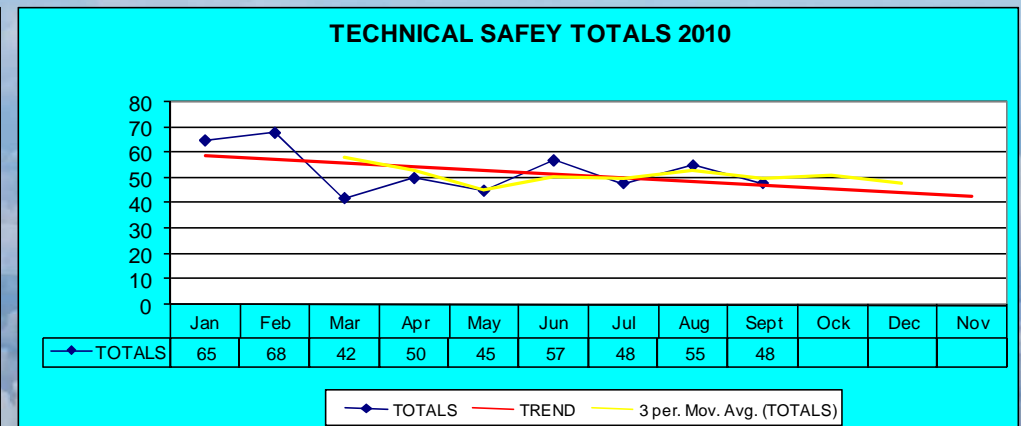
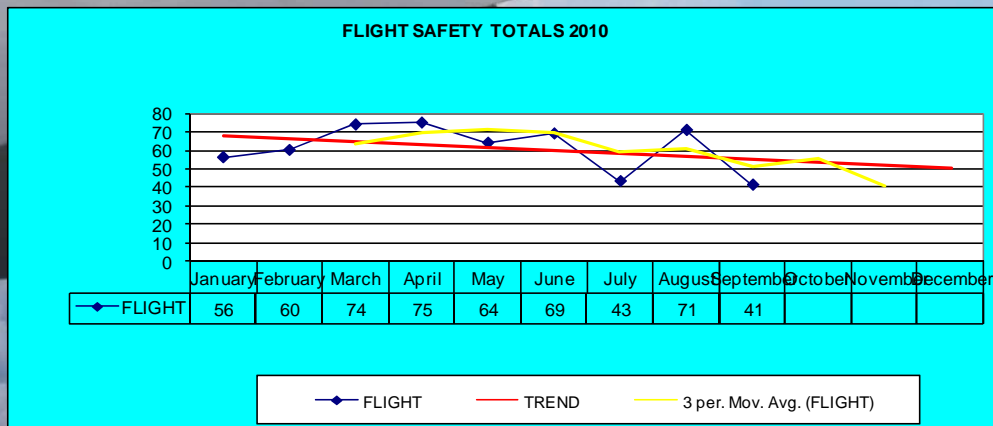
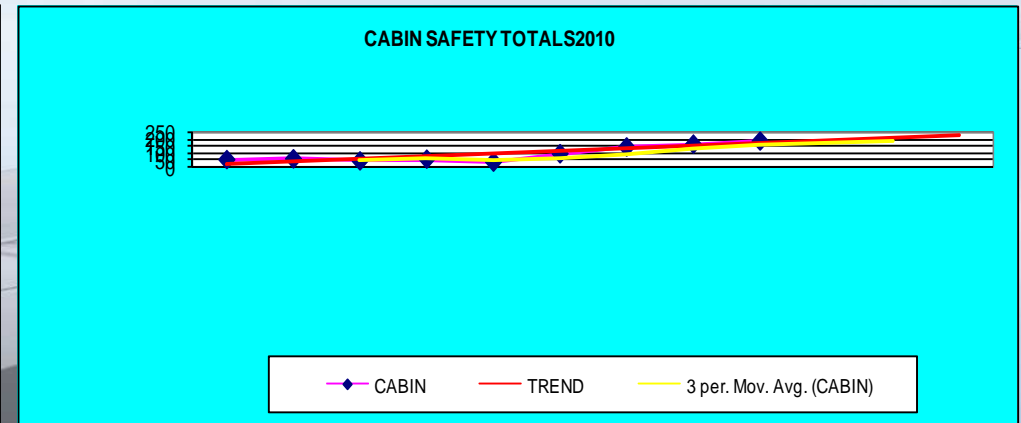
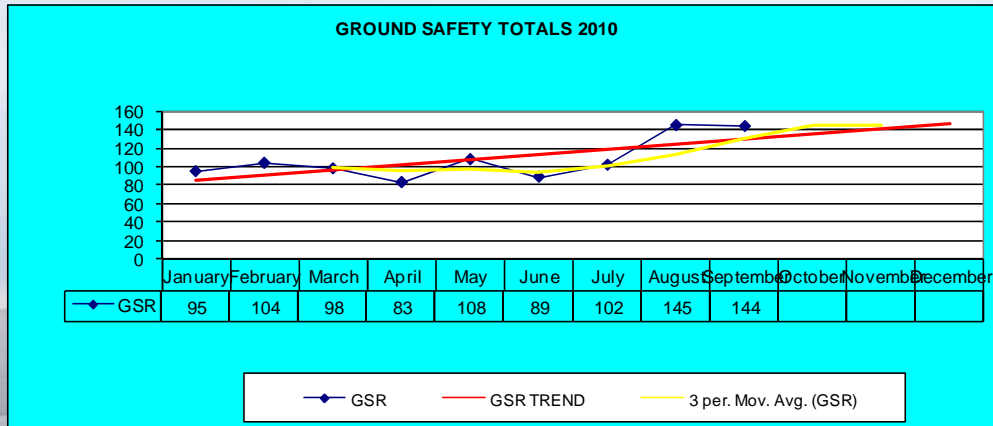
Reports

Ground Engineers
Ground Staff
Excess Luggage

BEYOND SMS THEORY

SPECIALIST MONTHLY TOTALS

2010



BEYOND SMS THEORY

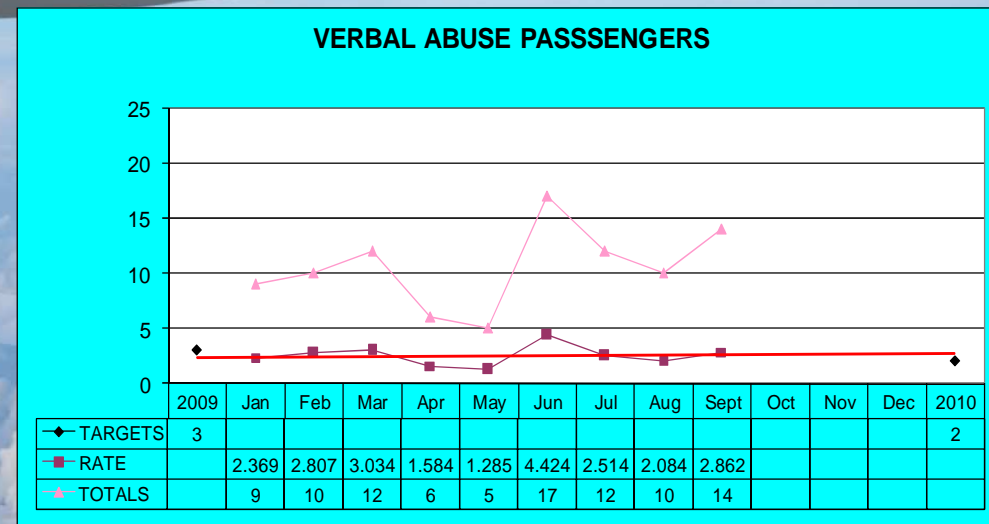
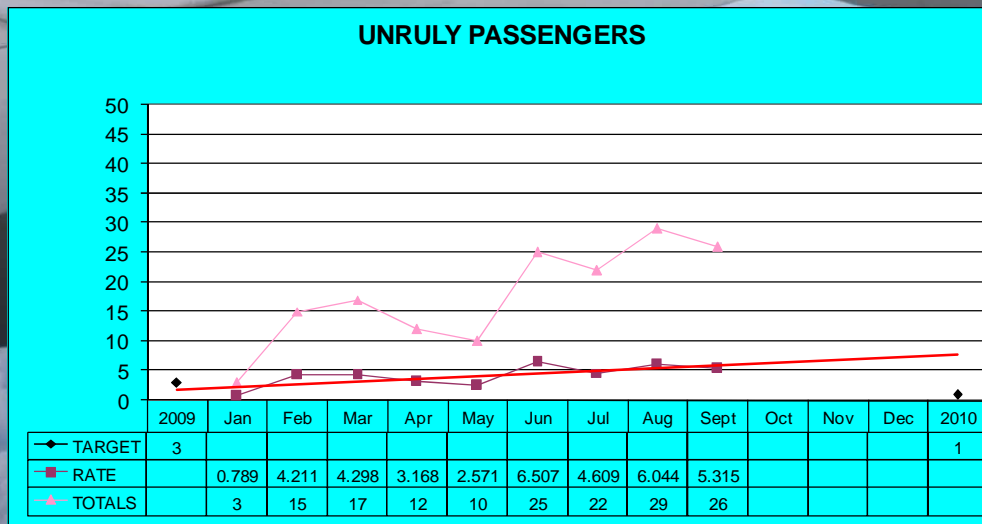
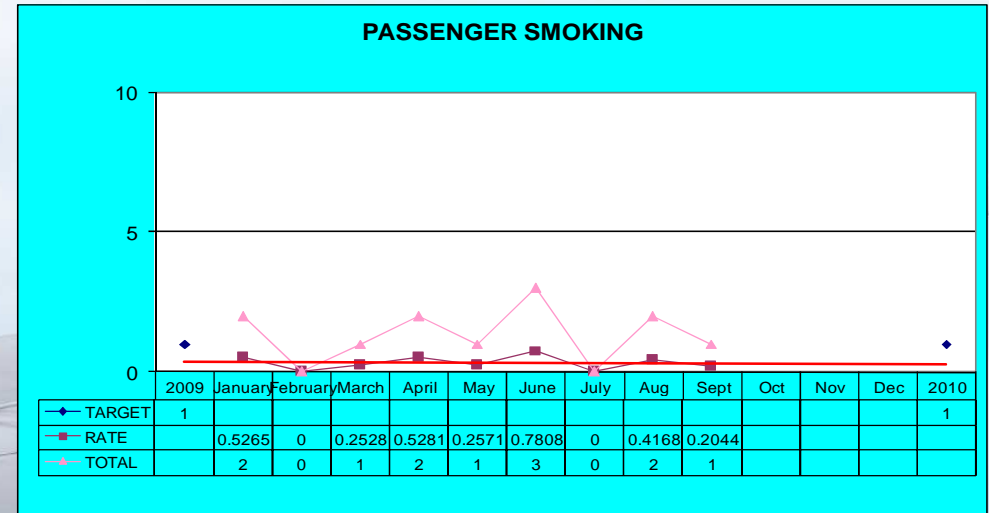
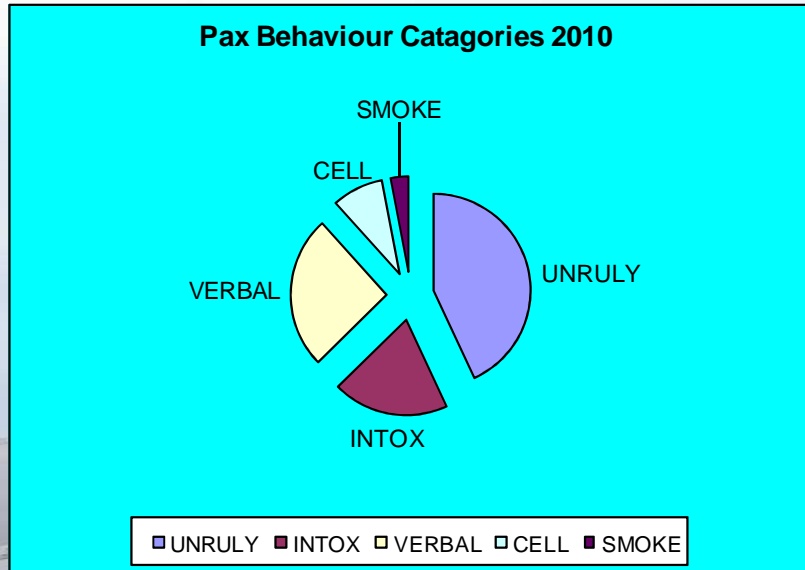
HAZARDS / INCIDENTS

CABIN	2009	Jan - May 10
Passengers Behavior (Cell phones, Intoxication, Unruly, Smoking, etc)	259	121
Excess Hand Luggage (Totals as per Ground Safety)	156	72
Cold Galley's - A343	18	57
Loading of Catering Equipment	12	11



BEYOND SMS THEORY

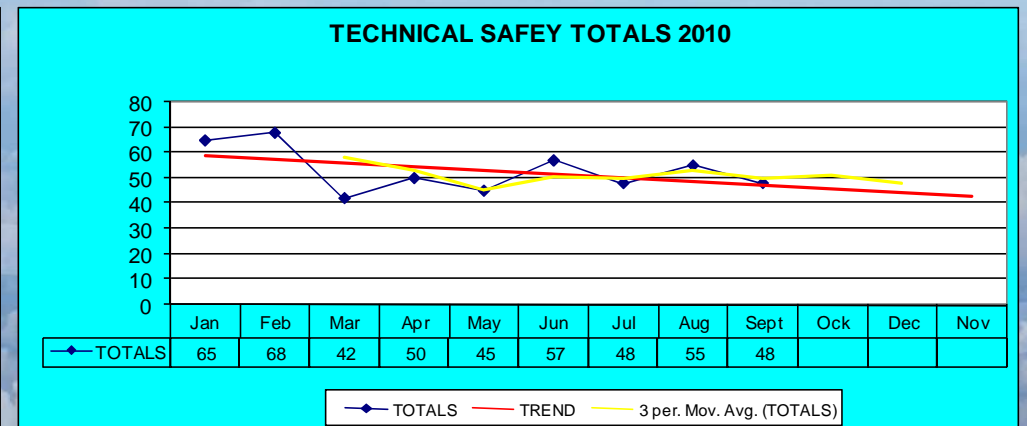
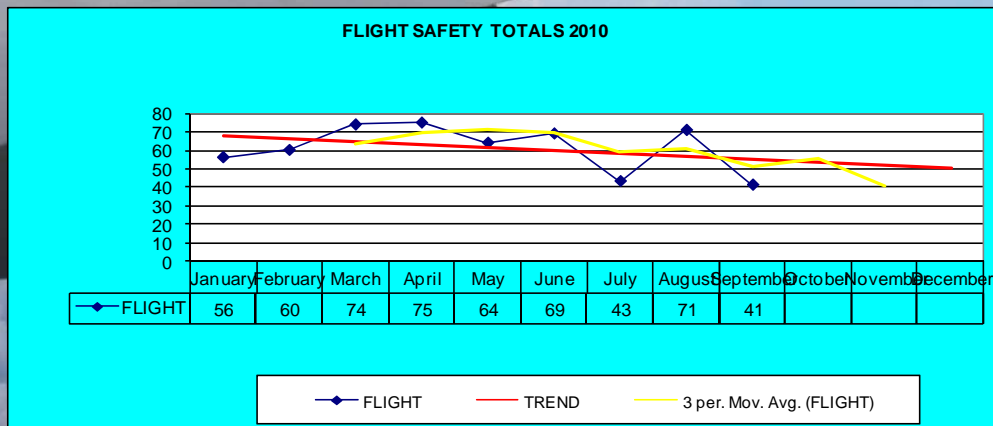
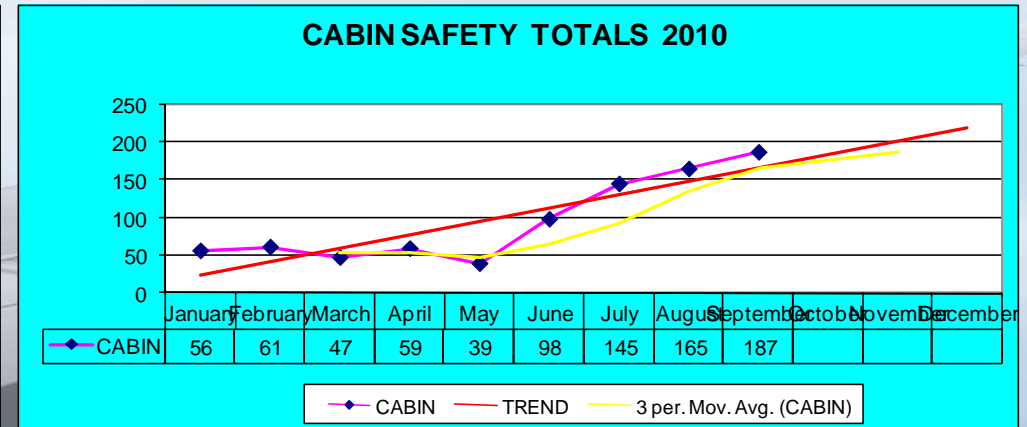
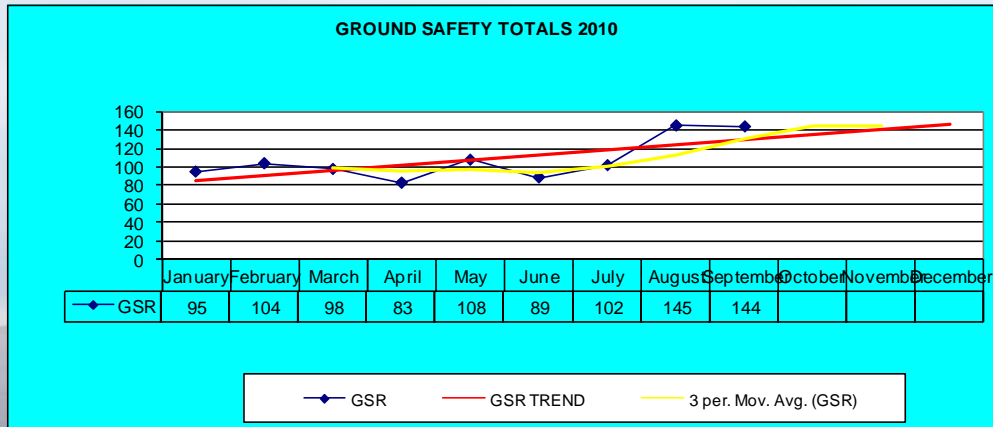
ANALYSIS PAX BEHAVIOUR



Beyond SMS Theory

Specialist Monthly Totals

2010



BEYOND SMS THEORY

HAZARDS / INCIDENTS

FLIGHT SAFETY

	2009	Jan - May 10
Communications	204	80
Operations	70	46
Weather related	36	13
Other external factors	16	13
ATS / ATC	32	21
Aerodrome	34	14
Airprox events	8	2

BEYOND SMS THEORY

FLIGHT SAFETY

Communication

Luanda

Tripoli

Ezeiza

Mumbai

ATS / ATC

Luanda

Lagos

Kinshasa

Dakar

NAV & Airfields

Luanda

Lagos

Kinshasa

Blantyre

Other

Laser Illumination at JNB / DUR / CPT

FDA Flight Data Analysis

LOSA Line Operation Safety Audits

BEYOND SMS THEORY

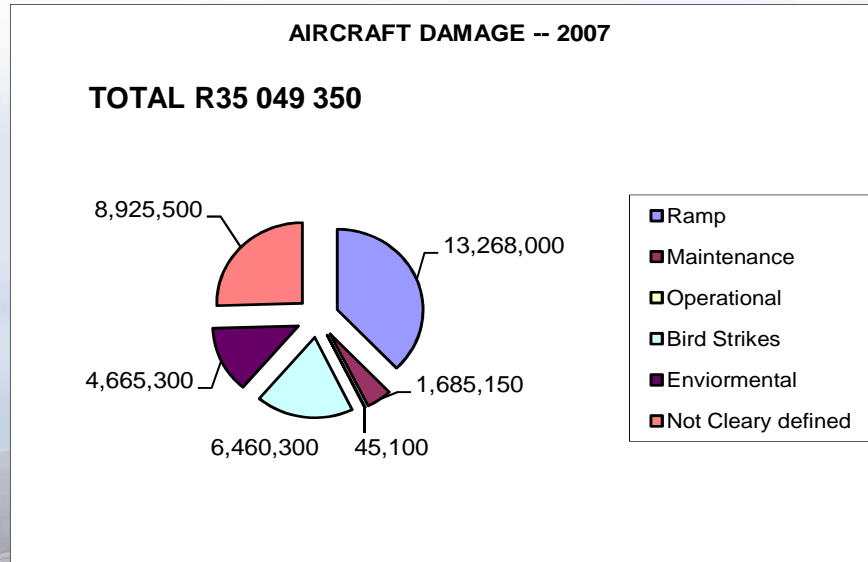
Performance & Targets

SAFETY PERFORMANCE / 1000 Departures
Sectors flown 2009 = 57654

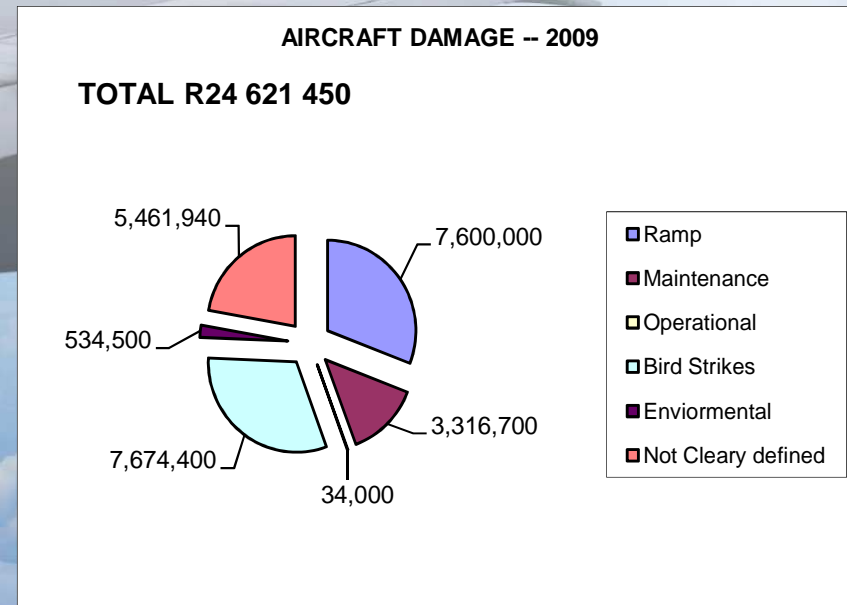
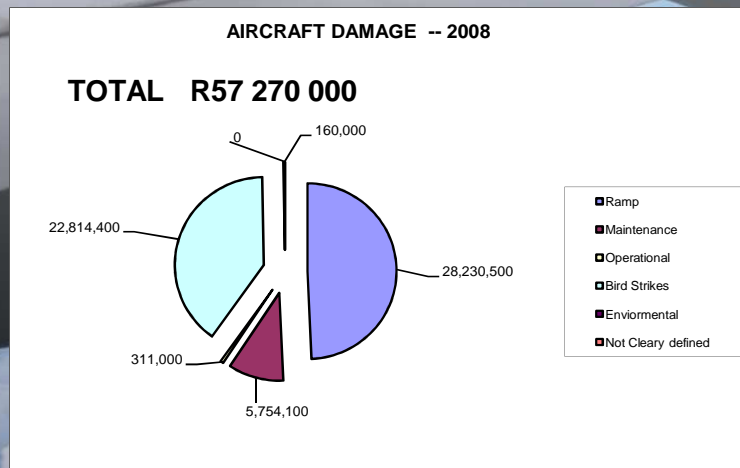
	2009	Rate/1000 sectors	2010 - Target	
Pax Behavior	295	5.1	3.5	30%
Excess hand luggage	156	2.7	1.4	30%
No Ground Engineer to meet A/C	156	2.7	1.4	50%
No Ground Staff to meet A/C	96	1.6	0.8	50%
A/C Damage Airside	48	0.8	0.4	50%
A/C Damage SAAT	26	0.45	0.22	50%

BEYOND SMS THEORY

AIRCRAFT DAMAGE COST

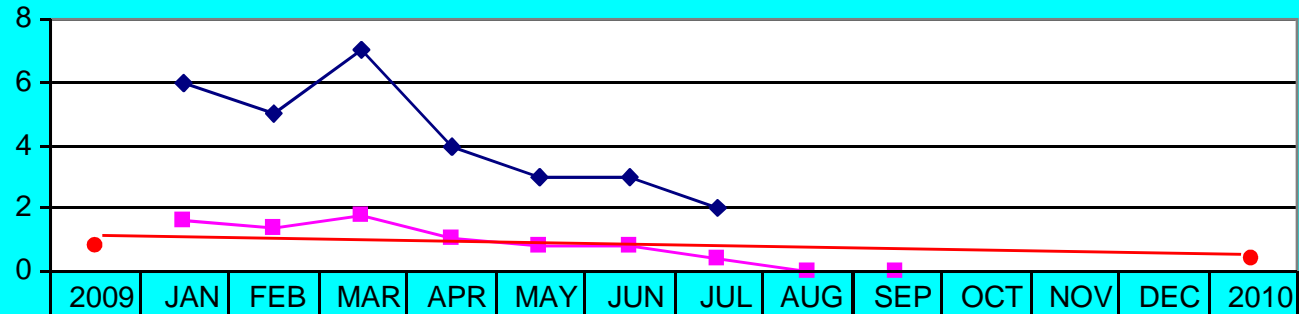


Cost reflects only: DIRECT COST,
Excludes: INDIRECT & ANCILLARY COSTS



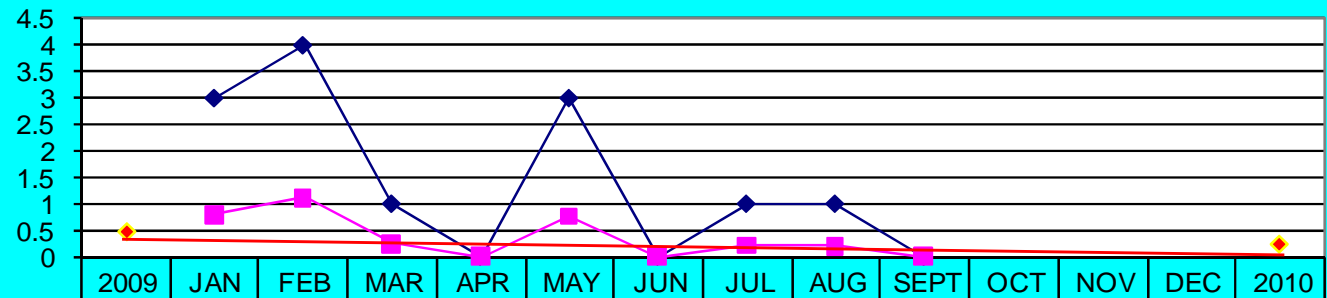
BEYOND SMS THEORY

Aircraft Damage Airside 2010



	2009	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2010
◆ TOTAL		6	5	7	4	3	3	2						
■ RATE		1.58	1.404	1.77	1.056	0.771	0.781	0.419	0	0				
● TARGET	0.8													0.4

Aircraft Damage Maintenance 2010



	2009	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	2010
◆ TOTAL		3	4	1	0	3	0	1	1	0				
■ RATE		0.79	1.12	0.25	0	0.77	0	0.21	0.20	0				
● TARGET	0.45													0.22

BEYOND SMS THEORY

SAA CURRENT STATUS

ATO (Airline Training Organisation)

SAA Aviation Safety has completed a GAP analysis end July 2010 .

Gant chart for the re-formatting and inclusion of the outstanding elements into the SMSM is near completion and will be submitted end November 2010.

BEYOND SMS THEORY

CLOSURE

The SMS does not only belong to the Safety Office and Officers.

Be honest to yourself when doing your GAP Analysis.

Employ qualified knowledgeable Safety Officers, just don't fill the position. That can be your biggest hazard!!

A SMSM and SMS is not a recipe book where you can select the mixes you like.

BEYOND SMS THEORY

Thanks for your attention

