



Road Transport Management System

# RTMS

Driver Wellness • Safety • Loading • Productivity

## **“Road Transport Management System, A Key Component to Measure, Mitigate, Monitor and Manage Operational Risk in the Industry ”**

2017 SABOA Conference and Exhibition

24&25 May 2017

CSIR International Convention Centre



**Kathy Bell  
Standard Bank**



# RTMS Basics

- RTMS certification requires an operator to demonstrate compliance to the standard, SANS 1395
- It's main purpose is to encourage operators to implement a **structured management system** – as per the requirements of the standard
- This management system enables operators to **safely & effectively manage operations**, whilst embracing the philosophy of continual improvement

- RTMS Standard
- Safety/

<ul style="list-style-type: none"> <li>• <b>Loading</b></li> <li>• <b>Control</b></li> <li>• - Fleet Inventory</li> <li>• - Control of loading</li> <li>• - Prevent Overloads</li> <li>• - Optimise Payload</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Compliance</b></li> <li>• Vehicle Maintenance             <ul style="list-style-type: none"> <li>• Basic Roadworthiness</li> </ul> </li> <li>• Minimising breakdowns</li> <li>• Speeding Controls</li> <li>• Accident Analysis</li> <li>• Traffic violations</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Driver Wellness</b></li> <li>• Medical Fitness</li> <li>• Chronic illness Management             <ul style="list-style-type: none"> <li>• Fatigue Management</li> </ul> </li> <li>• Driving hours</li> <li>• Wellness Initiatives (Nutrition etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Training</b></li> <li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li> </ul>
--	---	---	---

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement

- RTMS Standards

- Safety/

<ul style="list-style-type: none"> <li>• Loading</li> <li>• Control             <ul style="list-style-type: none"> <li>• - Fleet Inventory</li> <li>• Control of loading</li> <li>• - Prevent Overloads</li> <li>• - Optimise Payload</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Compliance             <ul style="list-style-type: none"> <li>• Vehicle Maintenance</li> <li>• Basic Roadworthiness</li> <li>• Minimising breakdowns</li> <li>• Speeding Controls</li> <li>• Accident Analysis</li> <li>• Traffic violations</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Driver Wellness             <ul style="list-style-type: none"> <li>• Medical Fitness</li> <li>• Chronic illness Management</li> <li>• Fatigue Management</li> <li>• Driving hours</li> <li>• Wellness Initiatives (Nutrition etc.)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Training             <ul style="list-style-type: none"> <li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li> </ul> </li> </ul>
--	--	--	--

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement

# • RTMS Standards

## • (ARP 067/ SANS 1395/SANS 10399)

<ul style="list-style-type: none"><li>• Loading</li><li>• Control</li><li>• - Fleet Inventory</li><li>• -Control of loading</li><li>• - Prevent Overloads</li><li>• - Optimise Payload</li></ul>	<ul style="list-style-type: none"><li>• Compliance<ul style="list-style-type: none"><li>• Vehicle Maintenance<ul style="list-style-type: none"><li>• Basic Roadworthiness</li></ul></li><li>• Minimising breakdowns</li><li>• Speeding Controls</li><li>• Accident Analysis</li></ul></li><li>• Traffic violations</li></ul>	<ul style="list-style-type: none"><li>• Driver Wellness</li><li>• Medical Fitness</li><li>• Chronic illness Management</li><li>• Fatigue Management</li><li>• Driving hours</li><li>• Wellness Initiatives (Nutrition etc.)</li></ul>	<ul style="list-style-type: none"><li>• Training</li><li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li></ul>
--	--	---	---

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement

# • RTMS Standards

## • (ARP 067/ SANS 1395/SANS 10399)

<ul style="list-style-type: none"> <li>• Loading</li> <li>• Control</li> <li>• -</li> <li>• Fleet Inventory</li> <li>• Control of loading</li> <li>• - Prevent Overloads</li> <li>• - Optimise Payload</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance</li> <li>• Vehicle Maintenance             <ul style="list-style-type: none"> <li>• Basic Roadworthiness</li> </ul> </li> <li>• Minimising breakdowns</li> <li>• Speeding Controls</li> <li>• Accident Analysis</li> <li>• Traffic violations</li> </ul>	<ul style="list-style-type: none"> <li>• Driver Wellness</li> <li>• Medical Fitness</li> <li>• Chronic illness Management</li> <li>• Fatigue Management</li> <li>• Driving hours</li> <li>• Wellness Initiatives (Nutrition etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Training</li> <li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li> </ul>
---	--	--	--

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement

# • RTMS Standards

## • (ARP 067/ SANS 1395/SANS 10399)

- **Loading**
- **Control**
- - Fleet Inventory
- Max Seated & Standing
- - 68kg average weight
- - Driver monitoring of passenger numbers
- - Census on

### Compliance

- Vehicle Maintenance
- Basic Roadworthiness
- Minimising breakdowns
- Speeding Controls
- Accident Analysis
- Traffic violations

### Driver Wellness

- Medical Fitness
- Chronic illness Management
- Fatigue Management
- Driving hours
- Wellness Initiatives (Nutrition etc.)

### Training

- Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement

Inspections

# • RTMS Standards

## • Safety/

### • Loading

### • Control

- - Fleet Inventory
- - Control of loading
- - Prevent Overloads
- - Optimise Payload

### Compliance

- Vehicle Maintenance
- Basic Roadworthiness
- Minimising breakdowns
- Speeding Controls
- Accident Analysis
- Traffic violations

### • Driver Wellness

- Medical Fitness
- Chronic illness Management
- Fatigue Management
- Driving hours
- Wellness Initiatives (Nutrition etc.)

### • Training

- Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement



# Inventory of RTMS vehicles

## ABC Bus Lines

### FLEET INVENTORY

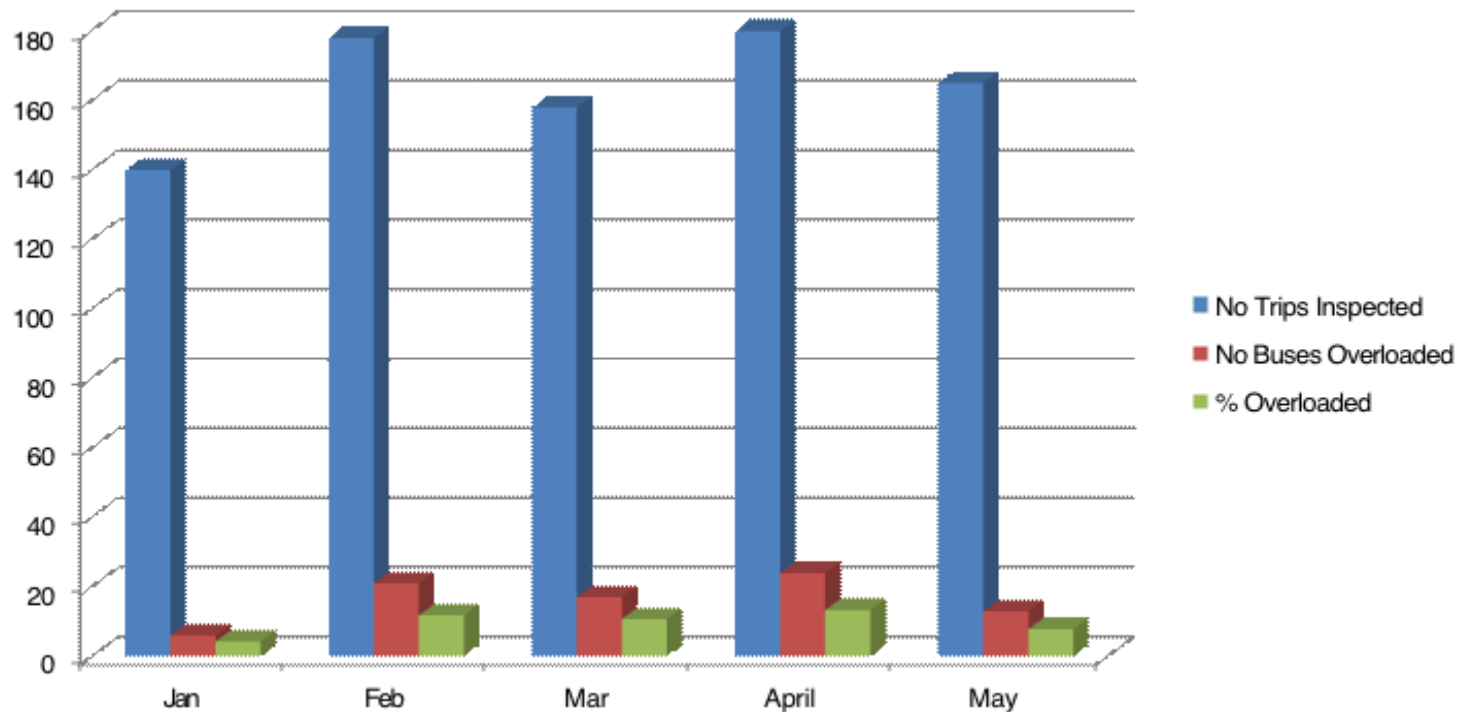
NO	Fleet No.	Reg No	Year	Make	Chassis No	Engine No	Type	Seated	Standing	GVM	Tare	COF Date	Licence Exp
1	F125	4566788	2009	HINO	AAMHB40076JB00425	50515520051354	Rigid	78	28	26,000	13,320	11/30/2012	11/30/2012
2	F124	4566788	2009	HINO	AAMHB40080JB00438	50515800051381	Articulated	78	28	26,000	13,320	2/28/2015	2/28/2015
3	F125	4566788	2007	SCANIA	AAMHB40031PX18169	50515600481565	Luxury Coach	78	28	26,000	13,320	2/28/2015	2/28/2015
4	F126	4566788	2012	HINO	AAMHB40030PX18168	50515600251565	Rigid	78	28	26,000	13,320	1/31/2015	1/31/2015
5	F127	4566788	2010	TATA	AAMHB40145PX18237	50515680031573	Rigid	78	28	26,000	13,320	11/30/2012	11/30/2012
6	F128	4566788	2007	MAN	AAMHB40032PX18181	5051590181565	Rigid	78	28	26,000	13,320	12/31/2012	12/31/2012
7	F129	4566788	2009	HINO	AAMHB40192PX19175	50516380291642	Articulated	78	28	26,000	13,320	12/31/2012	12/31/2012
8	F130	4566788	2012	HINO	AAMHB40229PX19292	50516670041668	Luxury Coach	78	28	26,000	13,320	1/31/2015	1/31/2015
9	F131	4566788	2012	MAN	AAMHB40225PX19269	50516640091668	Rigid	78	28	26,000	13,320	1/31/2015	1/31/2015
1	F132	4566788	2010	MAN	AAMHB40111JB00550	50514520081459	Articulated	114	32	35,000	18,630	2/28/2015	2/28/2015
2	F133	4566788	2007	MAN	AAMHB40106JB00539	50514450171451	Rigid	114	32	35,000	18,630	10/31/2012	10/31/2012

# Loading Control (Buses)

- Driver Training – Prevent Overloading
- Permissible number of seated and standing passengers
- Use of various tools e.g
  - » electronic ticketing system
  - » census results
  - » random inspections

# Random Inspection Results - Overloading

2013	No Trips Inspected	No Buses Overloaded	% Overloaded
Jan	140	6	4.3
Feb	178	21	11.8
Mar	158	17	10.8
April	180	24	13.3
May	165	13	7.9



# • RTMS Standards

## • (ARP 067/ SANS 1395/SANS 10399)

<ul style="list-style-type: none"> <li>• Loading</li> <li>• Control             <ul style="list-style-type: none"> <li>- Fleet Inventory</li> <li>- Max Seated &amp; Standing</li> <li>- 68kg average weight</li> <li>- Driver monitoring of passenger numbers</li> <li>- Census on</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Safety/</li> <li>• Compliance             <ul style="list-style-type: none"> <li>• Vehicle Maintenance</li> <li>• Basic Roadworthiness</li> <li>• Minimising breakdowns</li> <li>• Speeding Controls</li> <li>• Accident</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Driver Wellness             <ul style="list-style-type: none"> <li>• Medical Fitness</li> <li>• Chronic illness Management</li> <li>• Fatigue Management</li> <li>• Driving hours</li> <li>• Wellness Initiatives (Nutrition etc.)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Training             <ul style="list-style-type: none"> <li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li> </ul> </li> </ul>
--	--	--	--

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement

inspections











Public Feedback

# Vehicle Maintenance

## SERVICE SCHEDULE/PLANNER

fleet no.	Date of last service	Tachometer readings KM	Planned Service KM	Difference (KM)	Kilometres Current	Service KM interval	Service Hours interval
60015	2009-09-21	320000	330000	6924	323076	10000	N/A
60016	2009-09-18	330000	340000	4743	335257	10000	N/A
60017	2009-09-03	370000	380000	8638	371362	10000	N/A
60018	2009-09-14	320000	330000	1376	328624	10000	N/A
60019	2009-09-09	350000	360000	7917	352083	10000	N/A
4961	2009-08-25	880000	890000	8321	881679	10000	N/A
12209	2009-08-31	1030000	1040000	6635	1033365	10000	N/A
12213	2009-08-18	380000	390000	1276	388724	10000	N/A
Type of service				KM			
	A Service			10 000			
	B Service			30 000			
	C Service			90 000			
	Close to service						

# Daily Roadworthy Check

<b>12. Foot Brake</b> (Working)										<b>28. V Belt</b> (Working)								
<b>13. Handbrake</b> (Operational)										<b>29. Tip Deck</b>								
<b>14. Clutch</b> (Operational)										<b>30. Gears</b>								
<b>15. Hooter</b> (Working)										<b>31. Fire Extinguisher</b>								
<b>16. Emergency Kit</b> (Available & Condition)										<b>32. Machine Condition</b>	Before Shift :	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty	<input type="checkbox"/> Damaged				
<b>Supervisor Signature</b>											After Shift :	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty	<input type="checkbox"/> Damaged				
											<b>Critical - if found sub standard, vehicle may not be operated!</b>							

# Speed Monitoring

**Satellite Tracking Systems**

**Tachograph Charts**

**Random Inspections**

# Compliance to Speed Regulations

Driver	No. Overtaking Incidents	Longest duration (s)	Highest speed
Musa	26	188	92.0
Petrus	34	107	87.0
Moloi	45	125	88.0
Henry	33	84	90.0
Vilakazi	27	99	96.0
Mdunge	38	245	87.0
Mahlangu	41	17	88.0
Vuyani	17	64	106.0

overspeeding = >80km/h for more than minute  
 > 20 violations per week = counselling  
 > 40 violations per week = disciplinary  
 > 50 violations/>100km/h = final written warning



# Compliance to Speed Regulations

## Speed Policy

The following speed limits will apply:

Maximum speed limit – 80km/h

Exceptions tolerated:

Speeds of up to 85km/h under 60 seconds tolerated

Speeds of up to 90km/h under 30 seconds tolerated

Maximum no of exceptions per driver per month = 5

## Corrective action

The following corrective action will apply:

More than 5 exceptions per month – counselling session

91 km/h or higher. Immediate disciplinary action

# Accident Investigation & Analysis

## Light Condition

Daylight

**Night: lit by street lights**

Night: unlit

Dawn/dusk

Other (specify)

## Weather Conditions and Visibility

Clear

Overcast

Rain

Mist/fog

Hail/Snow

Dust

Fire/Smoke

Severe wind

Unknown

## Road Surface Type

Concrete

Tarmac

Gravel

Dirt

Other (specify)

## Quality of Road Surface

Good

Bumpy

Pothole

Cracks

Corrugated

Other (specify)

## Road Surface

Dry

Wet

Wet in areas

Ice

Snow

Loose gravel or sand

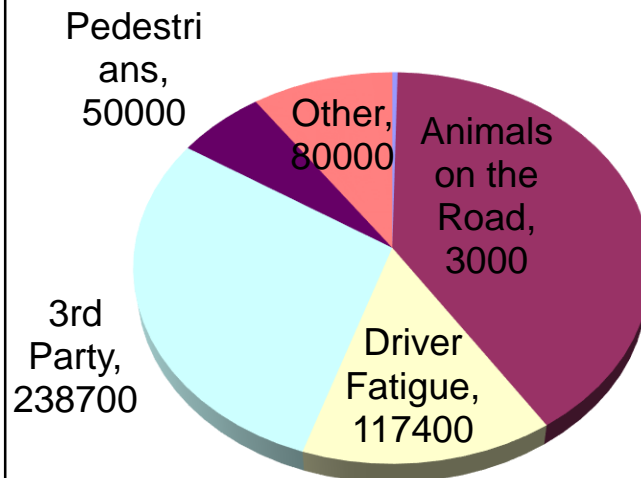
Slippery

Water standing or moving

Other (specify)

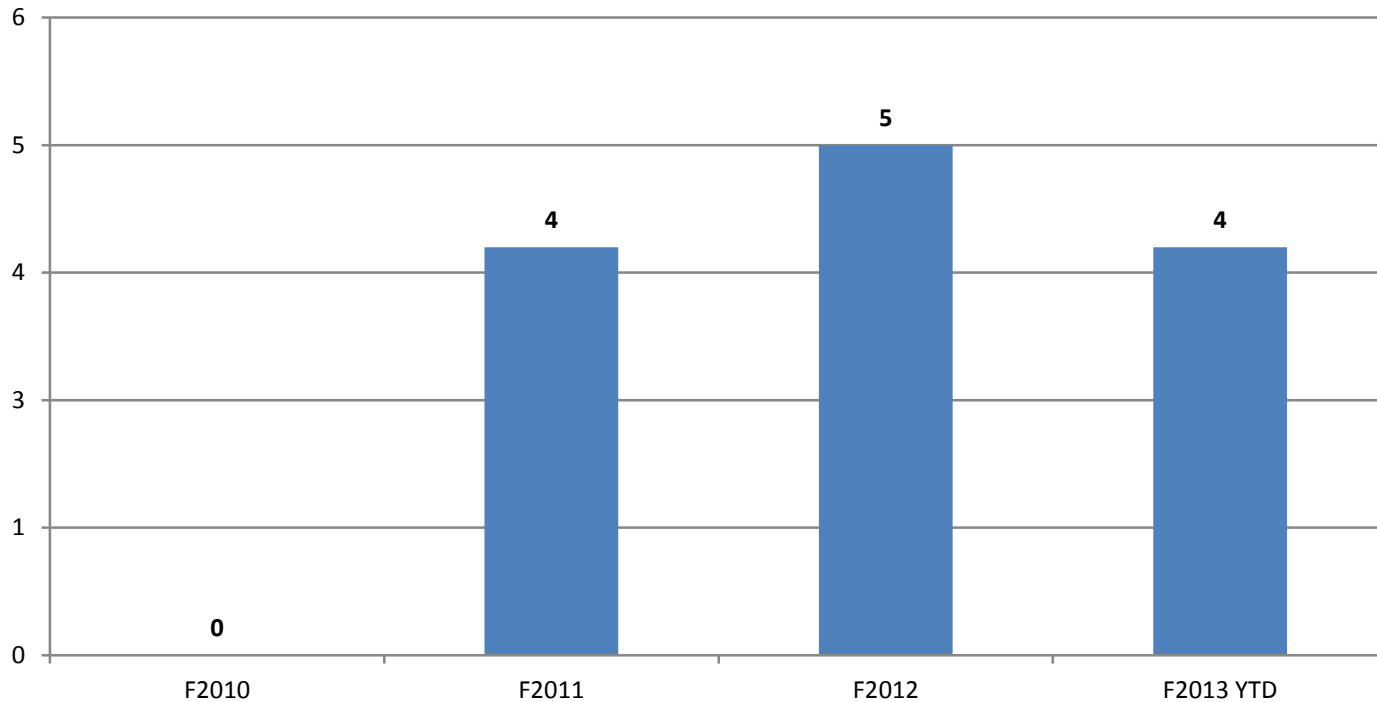
# Accident Investigation & Analysis

## Root cause analysis / costs - summary of incidents 2011



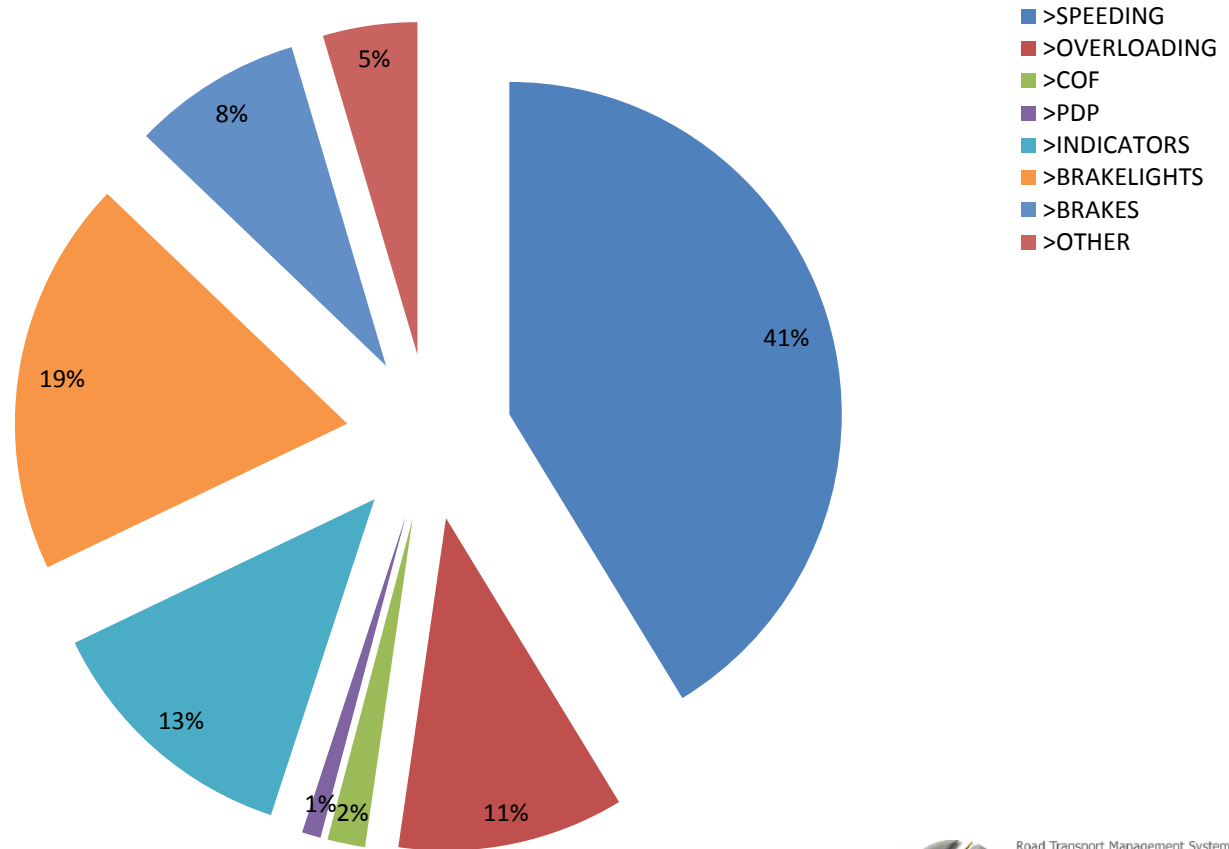
# Accident Investigation & Analysis

## Major - Accidents



# Traffic Infringements/Violations

## Traffic Fine Analysis



# Alcohol Screening

# • RTMS Standards

## • (ARP 067/ SANS 1395/SANS 10399)

<p><b>Loading</b></p> <ul style="list-style-type: none"> <li>• <b>Control</b></li> <li>• - Fleet Inventory</li> <li>• Max Seated &amp; Standing</li> <li>• - 68kg average weight</li> <li>• - Driver monitoring of passenger numbers</li> <li>• - Census on</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Safety/ Compliance</b></li> <li>• Vehicle Maintenance</li> <li>• Basic Roadworthiness</li> <li>• Minimising breakdowns</li> <li>• Speeding Controls</li> <li>• Accident Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Driver Wellness</b></li> <li>• <b>Medical Fitness</b></li> <li>• <b>Chronic illness Management</b></li> <li>• <b>Fatigue Management</b></li> <li>• <b>Driving hours</b></li> <li>• <b>Wellness Initiatives (Nutrition etc.)</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Training</b></li> <li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li> </ul>
--	---	--	---

**Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement**

Inspections

# Driver Wellness

- **Medical Fitness**
  - Annual medical fitness certificates
  - Identification of chronic conditions (e.g diabetes, hypertension, defective vision)
- **Fatigue Management**
  - Shift schedule/Driver Roster – Rest Day Allocation
  - Monitoring of driving hours – Long Haul
  - Fatigue evaluation



# • RTMS Standards

## • (ARP 067/ SANS 1395/SANS 10399)

<ul style="list-style-type: none"><li>• Loading</li><li>• Control<ul style="list-style-type: none"><li>• - Fleet Inventory</li><li>• Max Seated &amp; Standing</li><li>• - 68kg average weight</li><li>• - Driver monitoring of passenger numbers</li><li>• - Census on passenger</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Safety/ Compliance<ul style="list-style-type: none"><li>• Vehicle Maintenance</li><li>• Basic Roadworthiness</li><li>• Minimising breakdowns</li><li>• Speeding Controls</li><li>• Accident Analysis</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Driver Wellness<ul style="list-style-type: none"><li>• Medical Fitness</li><li>• Chronic illness Management</li><li>• Fatigue Management</li><li>• Driving hours</li><li>• Wellness Initiatives (Nutrition etc.)</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Training<ul style="list-style-type: none"><li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li></ul></li></ul>
---	--	--	--

Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement

# Training

- **Training Plan**
- **Planned training interventions**
- **Defensive driving, specific route risks and operational risks**
- **Verification Records to be available (certificates, registers)**
- **Feedback from Operations – included in training interventions**
- **Does not need to be formal, classroom based in all cases**
- **Training to assert positive driver behaviour**
  - **Awareness Posters**
  - **Newsletters**
  - **Driver Rating System**

# • RTMS Standards

## • (ARP 067/ SANS 1395/SANS 10399)

<ul style="list-style-type: none"><li>• Loading</li><li>• Control<ul style="list-style-type: none"><li>• - Fleet Inventory</li><li>• Max Seated &amp; Standing</li><li>• - 68kg average weight</li><li>• - Driver monitoring of passenger numbers</li><li>• - Census on passenger</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Safety/ Compliance<ul style="list-style-type: none"><li>• Vehicle Maintenance</li><li>• Basic Roadworthiness</li><li>• Minimising breakdowns</li><li>• Speeding Controls</li><li>• Accident Analysis</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Driver Wellness<ul style="list-style-type: none"><li>• Medical Fitness</li><li>• Chronic illness Management</li><li>• Fatigue Management</li><li>• Driving hours</li><li>• Wellness Initiatives (Nutrition etc.)</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Training<ul style="list-style-type: none"><li>• Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</li></ul></li></ul>
---	--	--	--

**Responsibilities + Records + Trend Analysis + Corrective Actions + Performance Assessment = Continual Improvement**

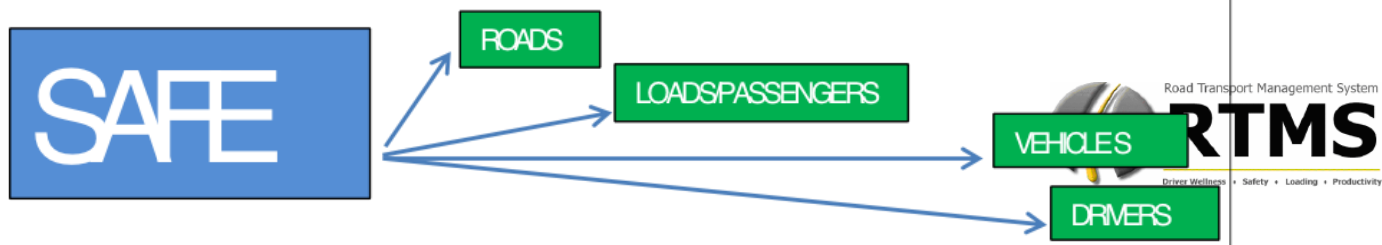
# Document & Records

- **RTMS Procedures – RTMS Manual**
- **Supporting documents**
- **Standard Does not prescribe the specific mechanism by which compliance is achieved**
- **Principle of corrective actions**
- **Goal of continual improvement so that objectives are achieved**
  - ✓ Preserve road infrastructure
  - ✓ Improve road safety
  - ✓ Prioritise vehicle roadworthiness
  - ✓ Ensure responsible driving behaviour
  - ✓ Promote driver health and wellness
  - ✓ Minimise crashes – reduce fatality/injury rate

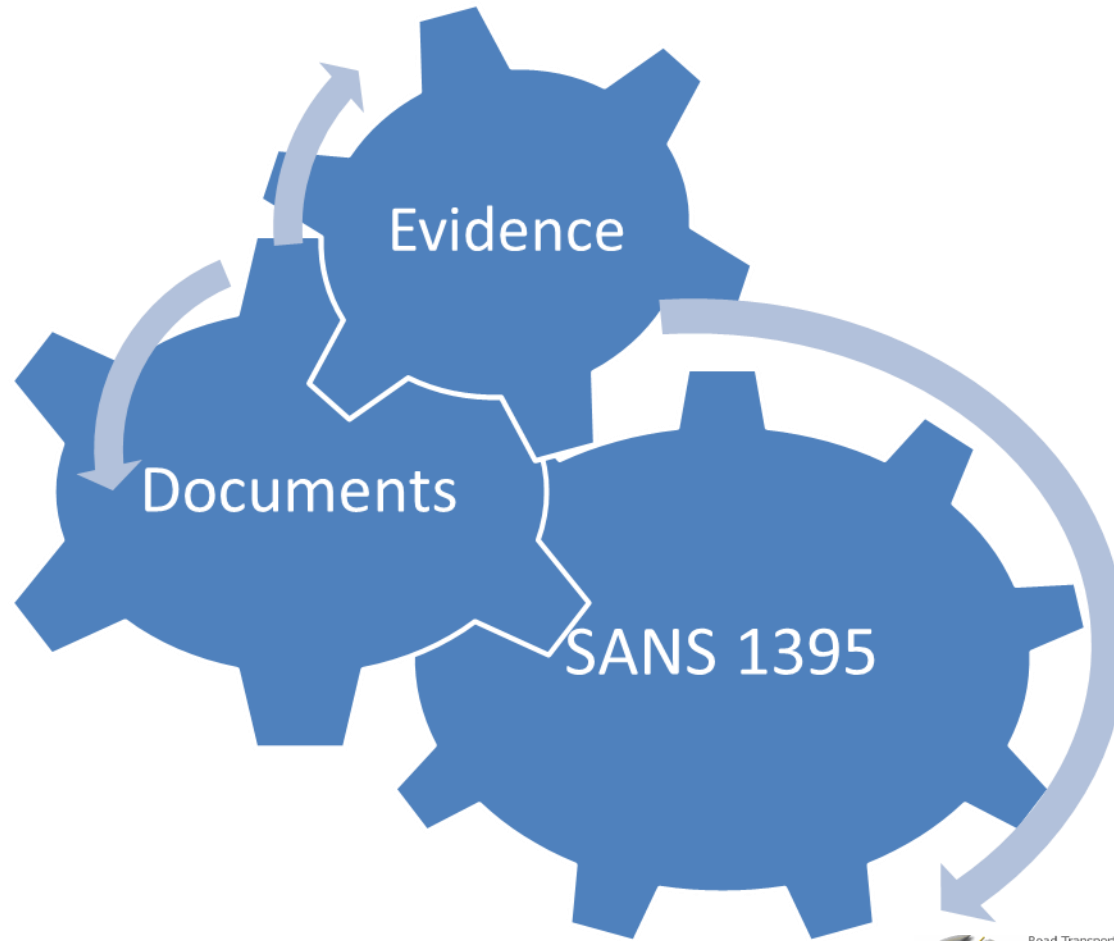
## RTMS STANDARD SANS 1395-1– MAJOR CRITERIA

LOADING CONTROL	SAFETY & COMPLIANCE	DRIVER WELLNESS	TRAINING & DEVELOPMENT
<ul style="list-style-type: none"> <li>✓ Payload Optimisation with minimisation of overloading</li> <li>✓ Compliance with dimensional limits</li> <li>✓ Safe Loading to prevent incidents</li> <li>✓ Compliance with legal loading limits and/or applicable permit</li> </ul>	<ul style="list-style-type: none"> <li>✓ Daily Roadworthy verification</li> <li>✓ Preventive Maintenance Process</li> <li>✓ Tyre Management</li> <li>✓ Prevent habitual speed exceedances</li> <li>✓ Prevent excessive driving hours</li> <li>✓ React to Accidents/Incident</li> <li>✓ Monitor Traffic Offences</li> <li>✓ Route Risk Analysis</li> <li>✓ Active Promotion of Road Safety</li> </ul>	<ul style="list-style-type: none"> <li>✓ Medical Fitness verification</li> <li>✓ Management of Chronic Conditions</li> <li>✓ Driver Resting Period monitoring</li> <li>✓ Driving Hours Monitoring</li> <li>✓ Risk Awareness</li> </ul>	<ul style="list-style-type: none"> <li>✓ Annual Training Plan</li> <li>✓ Focus on defensive driving, legal loading, fatigue management, with emphasis on the promotion of safe driving behaviour</li> <li>✓ Mentoring, monitoring, counselling, awareness and education</li> <li>✓ Training Records</li> </ul>

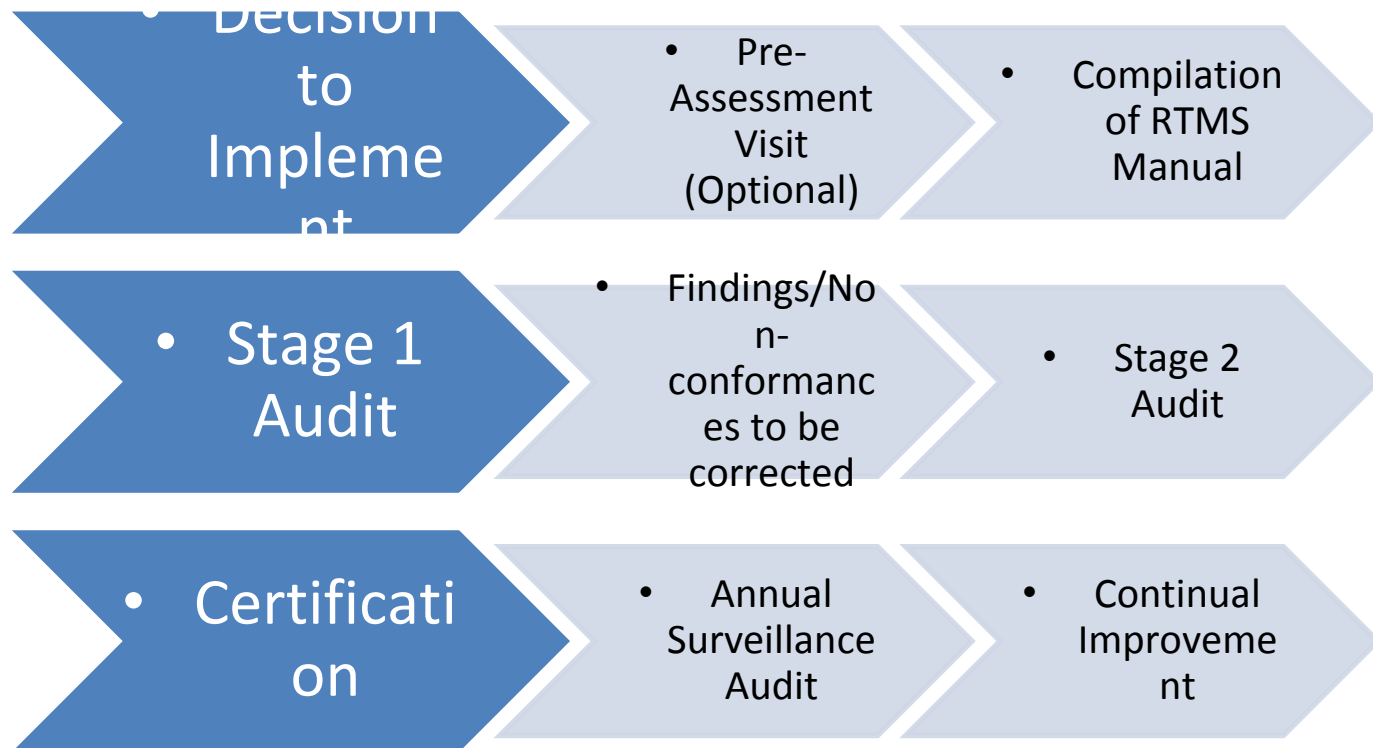
EFFECTIVE IMPLEMENTATION REQUIRES DEFINED PROCESSES/PROCEDURES, WITH HISTORICAL RECORD OF CONSISTENT COMPLIANCE



# Audit Process



# The Certification Process









- HOME
- WHAT IS RTMS?
- SUCCESS STORIES
- RTMS STANDARDS
- NEED CERTIFICATION?
- WORKSHOPS
- CONTACT

### RTMS Workshop...

Vereeniging Workshop  
Tuesday, 18 June 2013  
Time : 08h00 - 13h00  
Venue : ...

[Read more](#)

### Information Pack

Request the RTMS Info Pack..

[Read more](#)

### RTMS Standards

View RTMS Standards...

[Read more](#)

### Certified Companies

List of ...

[Read more](#)

[View](#) [Edit](#)

- + My Company Information
- + SUBMIT Quarterly Report
- + Download Tools

#### RTMS Basics...

In order to become RTMS accredited a company must demonstrate that it has adequately implemented all the requirements of the RTMS national draft standard. RTMS compliance does not involve "rocket science", rather it requires that a company demonstrate that it manages its transport operations with due consideration to road safety, compliance and operational risks. The RTMS processes are developed so that procedures are compiled and consistently implemented to minimize the risks identified. The

# Thank you

[www.rtms-sa.org](http://www.rtms-sa.org)

For information on RTMS audits, please contact the  
SANAS-accredited certification body as ff:

JC Auditors – [oliver@jcauditors.com](mailto:oliver@jcauditors.com) / 082 577 8494