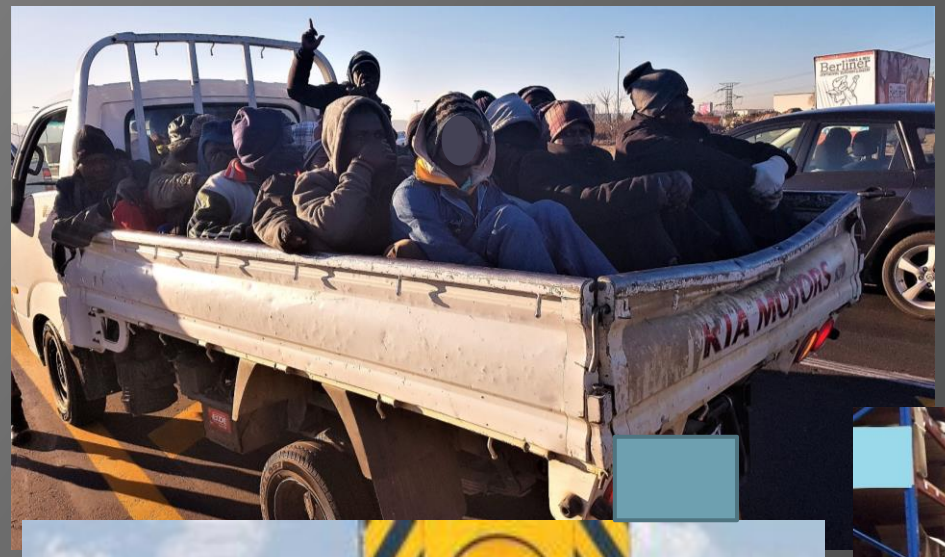
Saiosh South African Institute of Occupational Safety and Health

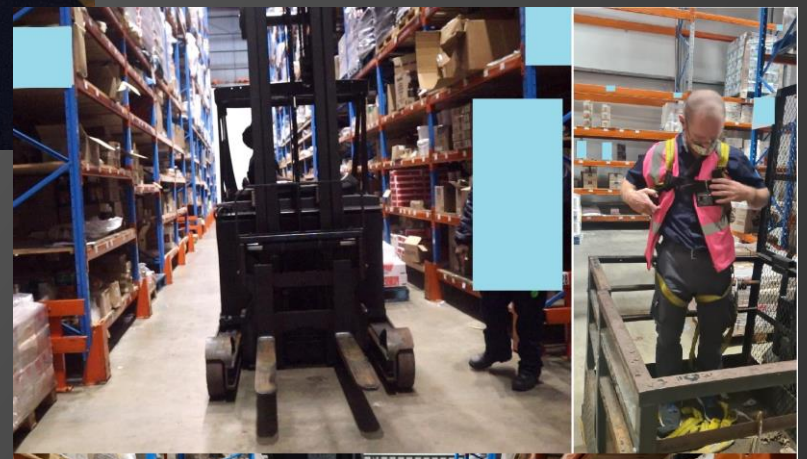
www.accidentspecialist.co.za

Craig Proctor-Parker

VEHICLE CRASH STATS UPDATE, TRENDS & CASE STUDIES

Look familiar – Then this Presentation pertains to you





RUN OFF ROAD / DISTRACTED DRIVING:

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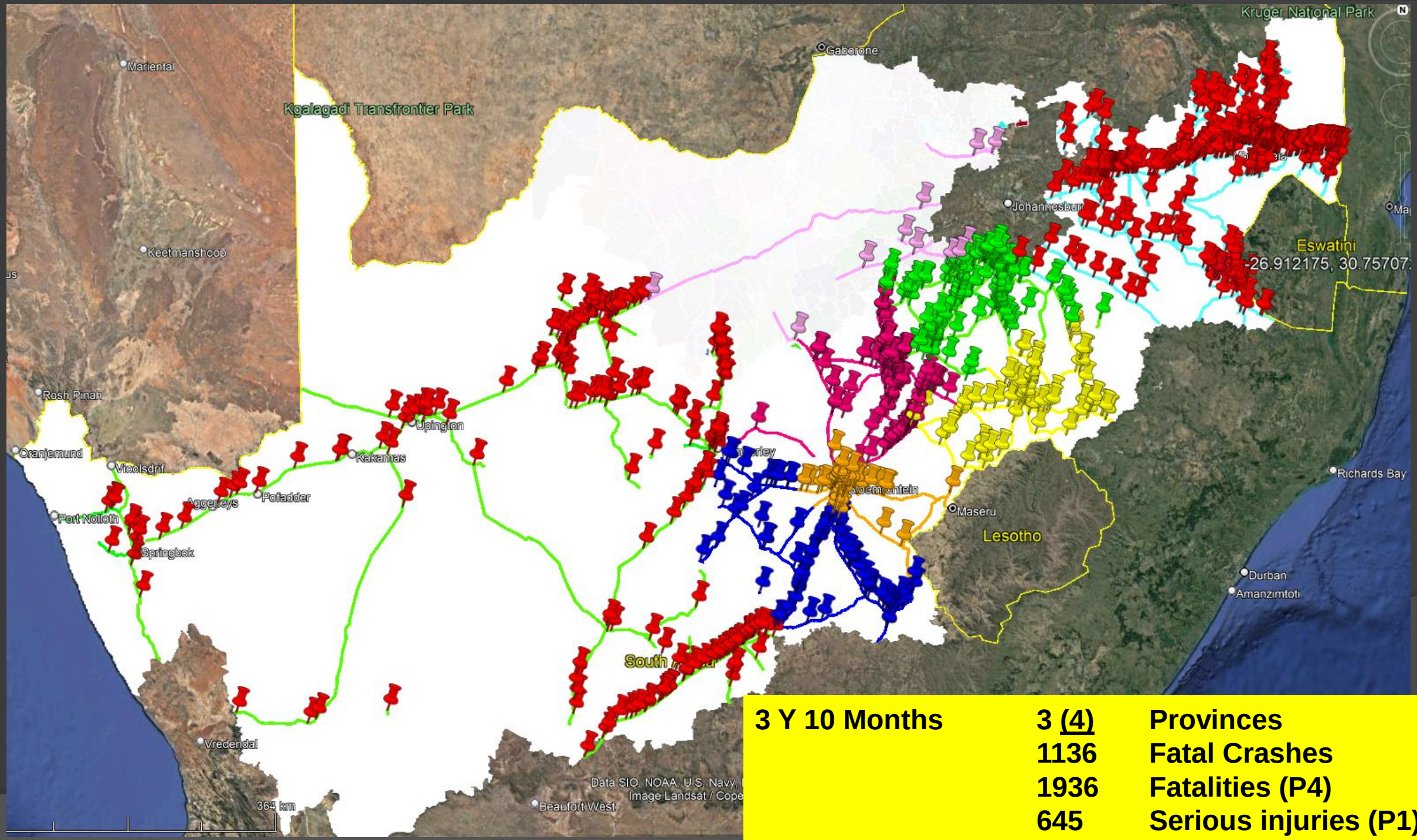
The data (1) AS (RIMS):

* Specific AS crash data collection
* Fatal crash cases only
* Only confirmed data / cases
* Conservative (Reasons ?)



3 Y 10 Months	3 (4)	Provinces
	1136	Fatal Crashes
	1936	Fatalities (P4)
	645	Serious injuries (P1)

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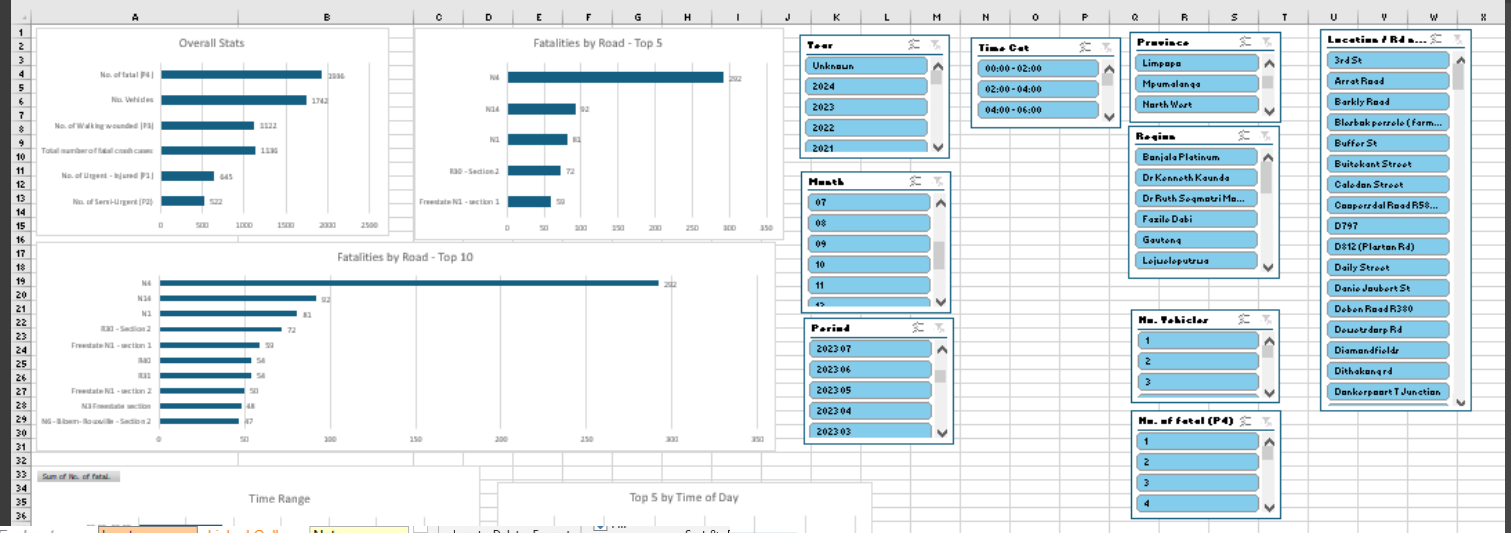
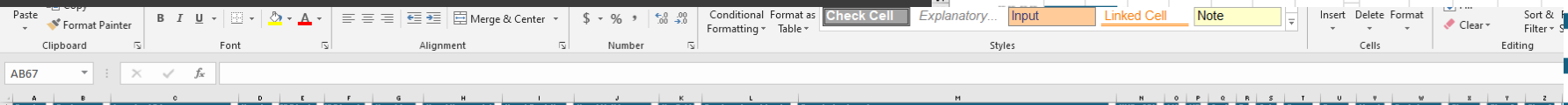
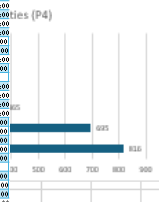




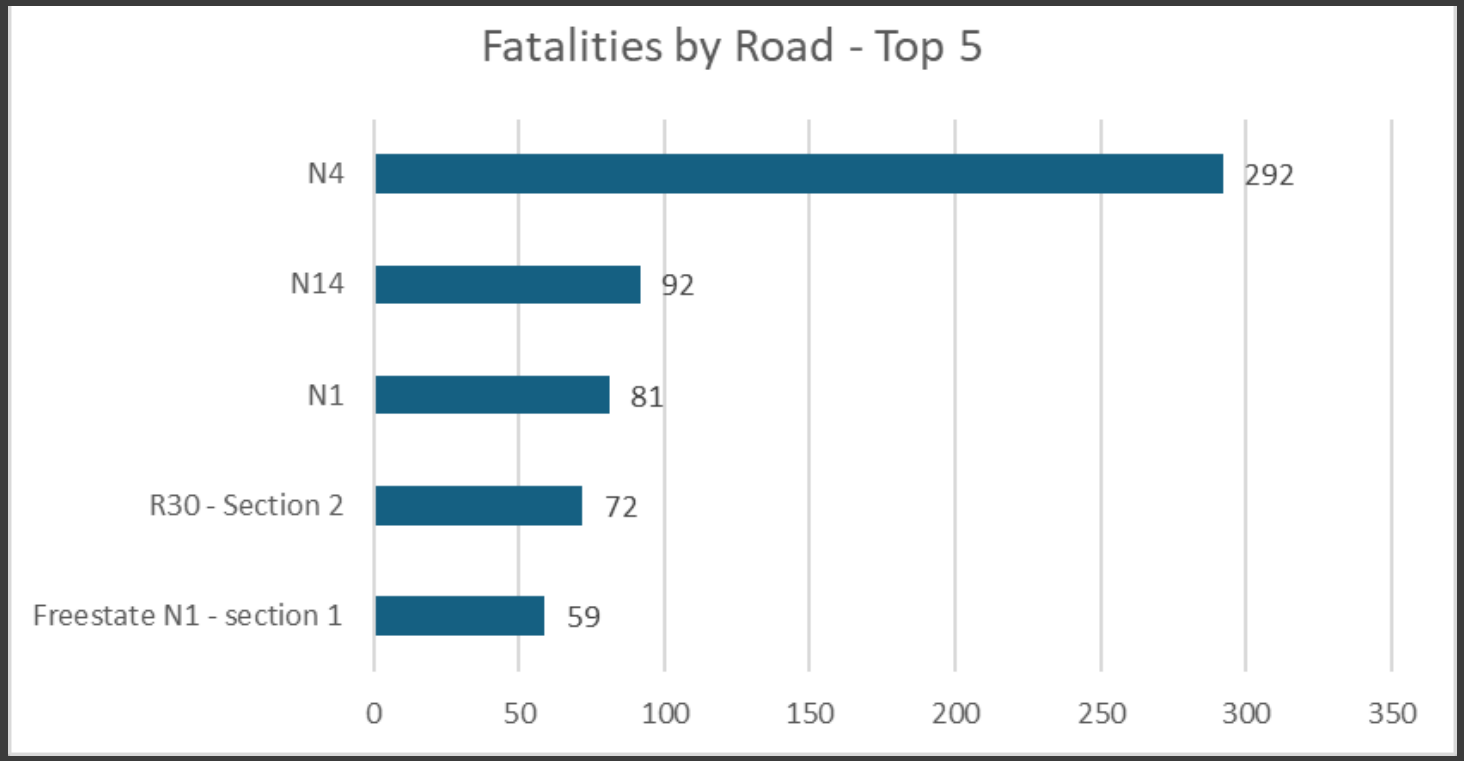
AB67

Province	Region	Location / Rd name	No. of r	GPS Latitude	GPS Longitude	No. of Fatal	No. of Urgent - Inj	No. of Semi-Urg	No. of Walking wou	No. Vehicles	Total number of fatal c	Description / crash type	HMV + 350	LM	MB	Cycl	Ped	Anim	Date	Year	Month	Period	Time	Time Cat	Time Cat
Northern Cape	Northern Cape	N1		-30.900047	24.612478	3	3	-	4	1	1	MVA							29-03-24	2024	03	202403	05h30	3	04:00 - 06:00
Northern Cape	Northern Cape	N1		-31.210542	24.522184	1	1	-	-	3	1	Rear collision truck hit rubble from the back, 2 HMV, 1 LMV	2	1					06-03-24	2024	02	202403	06h00	4	06:00 - 08:00
Northern Cape	Northern Cape	N1		-28.277939	21.315287	1	-	-	-	2	1	Head on collision 1 HMV 1 DMV	1	1					21-02-24	2024	02	202402	21h40	11	20:00 - 22:00
Northern Cape	Northern Cape	N1		-30.934614	24.737142	1	-	2	4	2	1	MVA 2 x LMV		2					03-01-2024	2024	01	202401	22h25	12	22:00 - 00:00
Northern Cape	Northern Cape	N1		-30.854171	24.592543	1	-	1	1	2	1	Head on collision 1 HMV and 1 LMV	1	1					31-12-23	2023	12	202312	02h35	2	02:00 - 04:00
Northern Cape	Northern Cape	N1		-30.770165	25.022641	2	2	2	5	2	1	MVA							24-12-23	2023	12	202312	09h47	9	08:00 - 10:00
Northern Cape	Northern Cape	N1		-30.636404	25.29773	1	1	-	1	2	1	1HMV 1LMV collided	1	1					22-10-23	2023	10	202310	01h00	1	00:00 - 02:00
Northern Cape	Northern Cape	N1		-30.707317	25.110461	1	-	-	-	1	1	PVA pedestrian was hit by a HMV					1		23-09-23	2023	09	202309	16h30	9	16:00 - 18:00
Northern Cape	Northern Cape	N1		-30.670987	25.164723	1	-	-	1	2	1	1HMV 1 LMV head on collision	1	1					21-08-23	2023	08	202308	18h30	10	18:00 - 20:00
Northern Cape	Northern Cape	N1		-31.024231	24.514261	1	1	-	1	1	1	Landcruiser & trailer rollo-over							30-04-23	2023	04	202304	-	Unknown	Unknown
Northern Cape	Northern Cape	N1		-31.626549	23.495323	2	12	-	1	2	1	MVA 1HMV 1 minibus Taxi - truck collide distance of taxi							15-01-23	2023	01	202301	22h41	12	22:00 - 00:00
Northern Cape	Northern Cape	N1		-30.700001	25.126336	1	-	-	-	1	1	PVA 1HMV 1 Pedestrian	1				1		25-12-22	2022	12	202212	19h00	6	18:00 - 20:00
Northern Cape	Northern Cape	N1		-30.796996	24.994075	1	2	-	5	1	1	MVA 1LDV - Driver lost control of the vehicle		1					18-12-22	2022	12	202212	09h30	3	04:00 - 06:00
Northern Cape	Northern Cape	N1		-30.902141	24.507962	1	-	-	2	1	1	MVA							14-12-22	2022	12	202212	05h00	3	04:00 - 06:00
Northern Cape	Northern Cape	N1		-30.70709	25.119806	1	1	-	-	1	1	PVA Pedestrian hit by HMV after which time another HMV drove over the body -	1				1		10-12-22	2022	12	202212	20h30	11	20:00 - 22:00
Northern Cape	Northern Cape	N1		-31.509291	23.419593	1	-	-	-	3	1	MVA 1LDV 1HMV trailer TTaxi	1	2					07-11-22	2022	11	202211	04h40	3	04:00 - 06:00
Northern Cape	Northern Cape	N1		-30.63425	25.24111111	3	-	1	2	1	1	1HMV left the road and overturned							07-10-22	2022	07	202207	02h40	2	02:00 - 04:00
Northern Cape	Northern Cape	N1		-30.83425	24.92066447	1	-	1	-	2	1	2LMV head on collision		2					30-06-22	2022	06	202206	14h00	8	14:00 - 16:00
Northern Cape	Northern Cape	N1		-31.44990278	23.85269556	6	-	-	-	2	1	1 Goychaus & Bus 1 Toyota Hilux	1	1					29-06-22	2022	06	202206	11h20	10	10:00 - 20:00
Northern Cape	Northern Cape	N1		-31.87888889	23.23463889	2	-	-	-	2	1	1HMV 1LMV head on collision	1	1					18-02-22	2022	02	202202	04h00	3	04:00 - 06:00
Northern Cape	Northern Cape	N1		-31.48526111	23.73643889	6	-	7	6	2	1	MVA 1 Taxi 1 International truck - truck drove into taxi parked in yellow line	1	1					15-12-21	2021	12	202112	06h45	4	06:00 - 08:00
Northern Cape	Northern Cape	N1		-30.94525	24.71052778	1	-	-	-	1	1	PVA HMV 1 pedestrian					1		24-10-21	2021	10	202110	-	Unknown	Unknown
Northern Cape	Northern Cape	N1		-30.70861111	25.1075	1	-	-	-	1	1	PVA 1HMV hit pedestrian crossing road	1				1		24-10-21	2021	10	202110	20h40	11	20:00 - 22:00
Northern Cape	Northern Cape	N1		-30.86452778	24.87422222	1	-	-	1	2	1	LDV head on collision with HMV	1	1					30-05-21	2021	05	202105	01h30	1	00:00 - 02:00
Northern Cape	Northern Cape	N1		-31.59858333	23.96930556	5	-	-	-	1	1	Struck loor head on collision		1					12-05-21	2021	05	202105	04h00	3	04:00 - 06:00
Northern Cape	Northern Cape	N1		-31.24986111	24.21622222	1	-	1	-	2	1	MVA 1HMV 8 ambulance head on collision		1					31-03-21	2021	03	202103	02h00	2	02:00 - 04:00
Northern Cape	Northern Cape	N1		-31.24986111	24.21622222	1	-	2	-	1	1	HMV left road 8 overturned	1						30-03-21	2021	03	202103	15h30	8	14:00 - 16:00
Northern Cape	Northern Cape	N1		-30.92358889	24.95241111	1	2	-	-	2	1	MVA 2LMV head on collision		2					02-01-21	2021	01	202101	15h00	8	14:00 - 16:00
Northern Cape	Northern Cape	N1		-31.27888889	24.1755	1	-	-	-	1	1	MVA 1SUV left road and overturned		1					21-12-20	2020	12	202012	15h00	8	14:00 - 16:00
Northern Cape	Northern Cape	N1		-31.41555556	23.48455222	1	-	-	-	1	1	PVA pedestrian hit by LMV		1			1		21-12-20	2020	12	202012	14h45	8	14:00 - 16:00
Northern Cape	Northern Cape	N1		-31.39483889	23.97130556	1	-	-	-	1	1	MVA vehicle left road and overturned							20-12-20	2020	12	202012	14h00	8	14:00 - 16:00
Northern Cape	Northern Cape	N1	1	-30.67777778	24.85062889	1	-	-	-	1	1	MVA 1HMV	1						02-12-20	2020	12	202012	-	Unknown	Unknown
Northern Cape	Northern Cape	N7		-29.44657	17.4329447	1	-	4	-	1	1	Single vehicle left control, left the road and overturned							17-03-24	2024	03	202403	04h15	4	04:00 - 06:00
Northern Cape	Northern Cape	N7		-29.445942	17.8164178	1	-	-	-	1	1	PVA Bakkie hit pedestrian crossing the road		1			1		22-09-23	2023	09	202309	04h15	5	04:00 - 06:00
Northern Cape	Northern Cape	N7		-29.6096617	17.1403598	1	-	-	-	1	1	Vehicle left the road and overturned							19-09-23	2023	09	202309	03h00	9	00:00 - 10:00
Northern Cape	Northern Cape	N7		-29.63497222	17.81913889	1	-	-	-	1	1	PVA					1		23-01-24	2024	01	202401	21h45	11	20:00 - 22:00
Northern Cape	Northern Cape	N7		-29.4876944	17.83702778	1	-	1	-	1	1	MV overturned							04-12-21	2021	12	202112	21h00	11	20:00 - 22:00
Northern Cape	Northern Cape	N7	1	-30.1267778	17.92922222	1	-	-	-	1	1	MV overturned							26-12-20	2020	12	202012	-	Unknown	Unknown
Northern Cape	Nil / LONG STREET	N1	1	-28.744289	24.747713	1	-	-	-	1	1	1 Audi 1 Bicycle - Cyclist Culpable Homicide	1			1			21-11-22	2022	11	202211	16h30	9	16:00 - 18:00
Northern Cape	Nil / OLIVIER ROAD	N1	1	-28.70444444	24.77511111	1	-	-	-	2	1	MVA 1 LDV 1 LMV		2					06-10-22	2022	10	202210	02h00	2	02:00 - 04:00
Northern Cape	Northern Cape	N9		-31.1050353	24.9378411	1	-	-	-	1	1	MVA							25-12-22	2022	12	202212	12h49	7	12:00 - 14:00
Northern Cape	Northern Cape	N9		-31.0119704	24.9194429	1	-	-	-	3	1	1HMV left control and overturned, 2 HMV tyres punctured	1						14-11-22	2022	11	202211	04h00	3	04:00 - 06:00
Northern Cape	Northern Cape	N9	1	-31.151111	24.963219	1	-	-	-	1	1	Single m/v left the road and overturned							25-04-22	2022	04	202204	21h35	11	20:00 - 22:00
Northern Cape	Northern Cape	N10		-26.459545	21.415172	1	1	-	-	2	1	Collision Toyota Auris and Nissan NP200		2					16-01-24	2024	01	202401	06h55		
Northern Cape	Northern Cape	N10		-28.489113	21.619348	4	2	-	-	1	1	Vehicle hit 2 pedestrians last control and overturned, 2 persons got fell out of vehicle					2		30-09-23	2023	09	202309	22h50		
Northern Cape	Northern Cape	N10		-30.019033	24.163209	1	6	-	-	1	1	1 Ford Bakkie turnover and went through the fence		1					30-09-23	2023	09	202309	04h25		
Northern Cape	Northern Cape	N10		-30.81822222	23.96430556	1	-	-	-	1	1	HMV & LDV (Head on collision)	1	1					23-03-22	2022	03	202203	-	Unknown	Unknown
Northern Cape	Northern Cape	N10	1	-30.85991667	23.92342411	1	1	-	-	1	1	MVA							14-02-21	2021	02	202102	07h00		
Northern Cape	Northern Cape	N12		-26.557446	23.5054617	1	-	-	-	1	1	PVA Pedestrian was knocked by LMV		1			1		26-01-24	2024	01	202401	15h40		
Northern Cape	Northern Cape	N12		-23.150109	23.15293	2	-	1	-	2	1	Head on collision between 1 LMV and 1 HMV	1	1					22-12-23	2023	12	202312	03h41		
Northern Cape	Northern Cape	N12		-30.579401	23.510376	1	-	-	-	1	1	PVA Renault Kwid hit a pedestrian		1			1		01-12-23	2023	12	202312	13h40		
Northern Cape	Northern Cape	N12		-30.444645	23.5551935	1	-	-	-	1	1	Vehicle rolled from road into grazing camp							30-09-23	2023	09	202309	19h54		
Northern Cape	Northern Cape	N12		-28.867	24.44926	1	-	-	-	2	1	Head on collision 1 Truck 1 SUV		1					29-09-23	2023	09	202309	03h39		
Northern Cape	Northern Cape	N12		-30.53331	23.5202271	1	-	-	-	1	1	MVA 1LMV							03-09-23	2023	09	202309	07h50		
Northern Cape	Northern Cape	N12		-28.15474	24.1651024	1	-	-	-	1	1	PVA Unknown vehicle (hit & run)					1		30-06-23	2023	06	202306	07h05		
Northern Cape	Northern Cape	N12		-29.6490037	24.6423442	2	-	-	-	1	1	Chevrolet last control & overturned		1					23-07-23	2023	07	202307	23h20		
Northern Cape	Northern Cape	N12		-28.67263	24.777119	1	-	-	-	1	1	PVA Vehicle collide & with pedestrian & fled the scene					1		31-03-23	2023	03	202303	19h35		
Northern Cape	Northern Cape	N12		-31.02452	23.1605595	1	2	-	-	1	1	MVA Driver lost control of vehicle							15-11-22	2022	11	202211	04h45		
Northern Cape	Northern Cape	N12		-29.255106	24.4995002	1	-	-	1	1	1	MVA 1SUV overturned		1					25-03-22	2022	03	202203	21h00		
Northern Cape	Northern Cape	N12		-28.63506111	24.77323889	1	-	-	-	1	1	PVA HMV vehicle collide & with a pedestrian	1				1		28-09-22	2022	09	202209	22h55		
Northern Cape	Northern Cape	N12		-28.64953889	24.77730889	1	-	-	-	1	1	PVA HMV vehicle collide & with a pedestrian	1				1		28-09-22	2022	09	202209	20h55	11	20:00 - 22:00
Northern Cape	Northern Cape	N12		-29.345	24.41403056	1	-	-	1	2	1	HMV & LDV head on collision	1	1					18-09-22	2022	09	202209	04h30	3	04:00 - 06:00
Northern Cape	Northern Cape	N12		-29.75505556	23.94905111	1	-	1	-	2	1	LMV collide head on with a LDV		2					17-06-22	2022	06	202206	17h30	9	16:00 - 18:00
Northern Cape	Northern Cape	N12		-28.64722222	24.77439556	2	-	-	-	2	1	Transversal Road - 2 HMV head on crash	2						01-06-22	2022	06	202206	02h00	2	02:00 - 04:00
Northern Cape	Northern Cape	N12		-31.29913889	23.1215	1	-	1	1	1	1	State vehicle left road		1					22-02-22	2022	02	202202	09h00	5	08:00 - 10:00
Northern Cape	Northern Cape	N14	1	-31.4215	23.19103333	1	-	-	1	1	1	LMV overturned		1					06-12-21	2021	12	202112	04h00	4	04:00 - 06:00
Northern Cape	Northern Cape	N14		-28.3778495	21.4264609	2	-	-	-	2	1	2 vehicles MVA							07-04-24	2024	04	202404	05h00	5	04:00 - 06:00
Northern Cape	Northern Cape	N14		-27.046312	22.995492	2	1	1	2	1	1	Toyota Hilux overturned		1					01-04-24	2024	04	202404	12h10	7	12:00 - 14:00
Northern Cape	Northern Cape	N14		-27.744492	20.9079851	5	3	-	-	2	1	2 LMV collided		2					20-03-24	2024	03	202403	18h20	10	18:00 - 20:00
Northern Cape	Northern Cape	N14		-29.2090464	21.955158	1	-	-	1	2	1	MVA 2 LMV		2					24-03-24	2024	03	202403	23h22	12	22:00 - 00:00
Northern Cape	Northern Cape	N14		-27.920907	22.782966	1	-	-	-	2	1	1 LDV collided with a cyclist		1	1				20-03-24	2024	03	202403	07h40	4	04:00 - 06:00
Northern Cape	Northern Cape	N14		-29.128191	19.1014403	1	-	-	-	2	1	Nissan NP 200 (LDV) left the road and overturned		1					15-03-24	2024	03	202403	16h05	8	14:00 - 16:00
Northern Cape	Northern Cape	N14		-27.977907	22.726202	7	-	-	-	2	1	Rear end collision, 2 in Truck	2						01-03-24	2024	03	202403	12h35	7	12:00 - 14:00
Northern Cape	Northern Cape	N14		-27.074431	22.977204	2	-	2	-	2	1	MVA 1 Nissan NP 200, 1 delivery motorcycle		1	1				25-02-24	2024	02	202402	23h00	11	20:00 - 22:00
Northern Cape	Northern Cape	N14		-26.9853101	23.7569942	1	-	-	-	2	1	Head on Collision between Nissan Mercedes TRUCK and Toyota Fortuner		1					07-02-24	2024	02	202402	05h35	5	04:00 - 06:00
Northern Cape	Northern Cape	N14		-31.085754	24.421979	1	-	-	-	1	1	Hyundai Atar overturned							09-02-24	2024	02	202402	14h45	8	14:00 - 16:00
Northern Cape	Northern Cape	N14		-27.41424	23.453188	1	1	-	-	2	1	MVA Mercedes LMV, Side tipper truck	1	1					04-02-24	2024	02	202402	03h00	2	02:00 - 04:00
Northern Cape	Northern Cape	N14		-27.2362	23.92188	1	-	-	1	1	1	vehicle left road and rolls 4 PVP Pole							15-12-23	2023	12	202312	01h40	1	00:00 - 02:00
Northern Cape	Northern Cape	N14		-27.933911	22.739949	1	-	-	3	1	1	1VW Polo overturned and rolled		1					23-11-23	2023	11	202311	15h55	8	14:00 - 16:00
Northern Cape	Northern Cape	N14		-27.42046	23.5460646	1	-	-	-	1	1	PVA - 2 Children hit by a bus		1			2		20-11-23	2023	11	202311	17h52	9	16:00 - 18:00
Northern Cape	Northern Cape	N14		-27.425711	23.575574	1	-	-	-	1	1	vehicle left road hit the vehicle 1 Truck 1 Pedestrian	1				1		16-11-23	2023	11	202311	11h50	10	10:00 - 20:00
Northern Cape	Northern Cape	N14		-27.425711	23.575574	2	2	-	-	2	1	Head on collision between LDV and LMV		2					15-11-23	2023	11	202311	15h00	8	14:00 - 16:00
Northern Cape	Northern Cape	N14		-27.33542	23.1032201	3	-	1	3	2	1	1 Head, 1 Toyota bus 1 Toyota Quantum 1-2 vehicles collided and taxi collided then rolled over		3					26-09-23	2023	09	202309	03h40	2	02:00 - 04:00
Northern Cape	Northern Cape	N14		-28.2427735	22.10711	4	1	6	-	2	1	Two military trucks rolls over	2						20-09-23	2023	09	202309	18h00	10	18:00 - 20:00
Northern Cape	Northern Cape	N14		-27.3147677	23.1547788	1	-	-	4	1	1	MVA							10-09-23	2023	09	202309	19h44	10	18:00 - 20:00



Spreadsheet data
Active pivot tables

Summary | Overall Stats Workings | Stats per road | Stats per time | Types of crash | Period | Province Region | Total Fatalities | sample | Count of Roads | Data | Time Ref



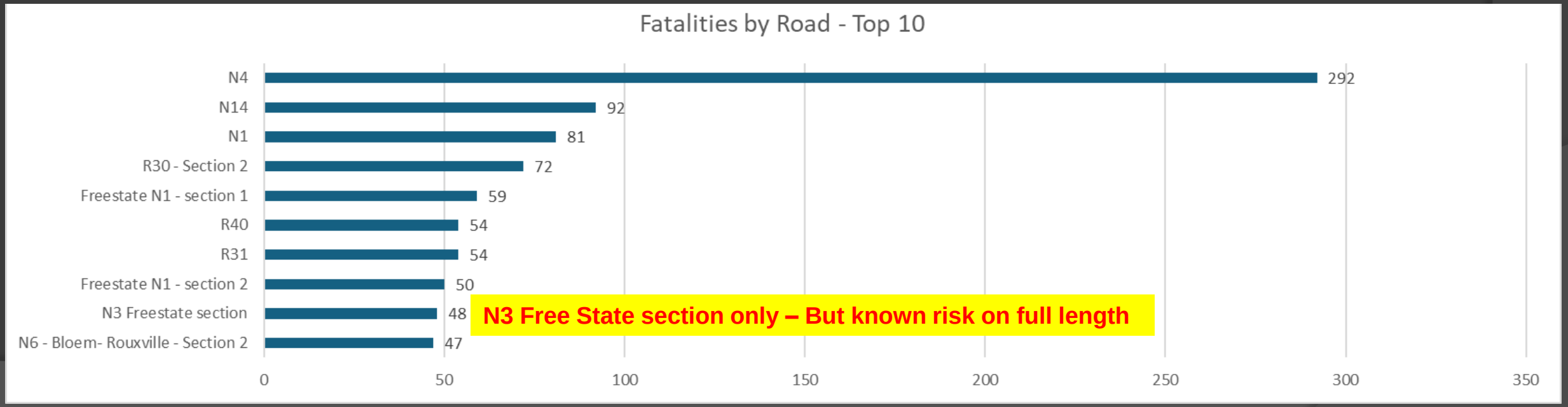
Mpumalanga

N/Cape

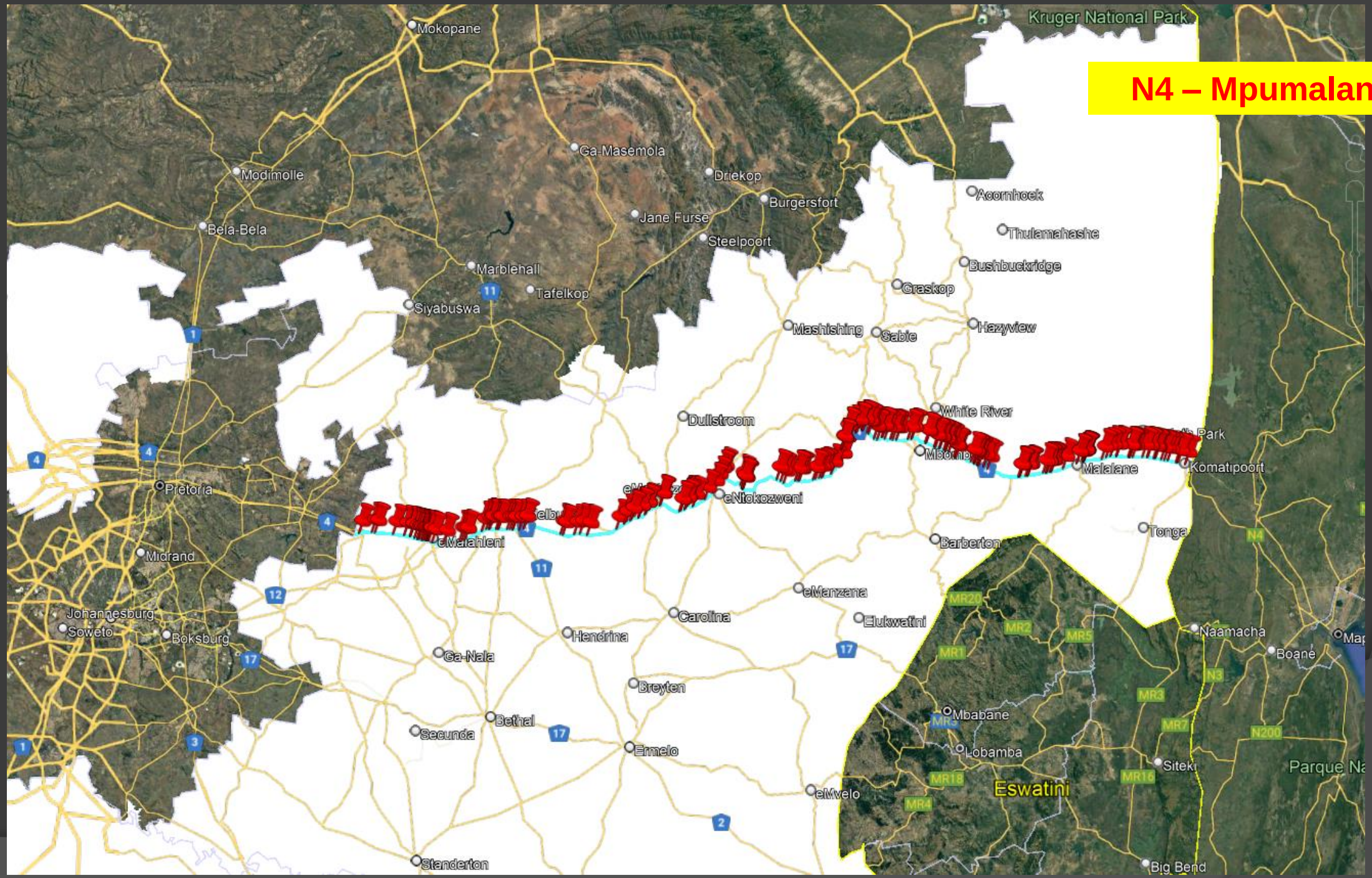
Free State / N/Cape

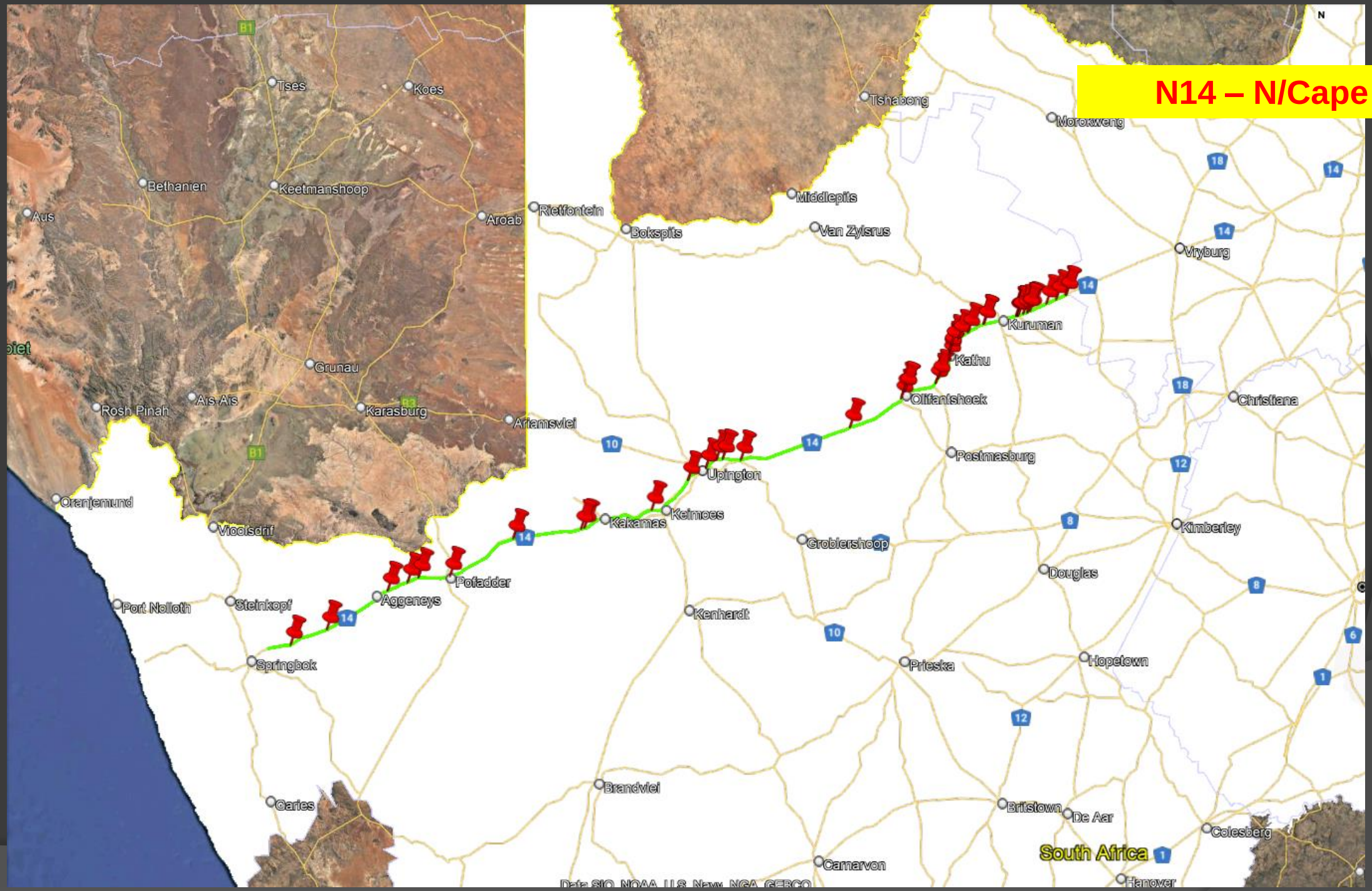
Free State

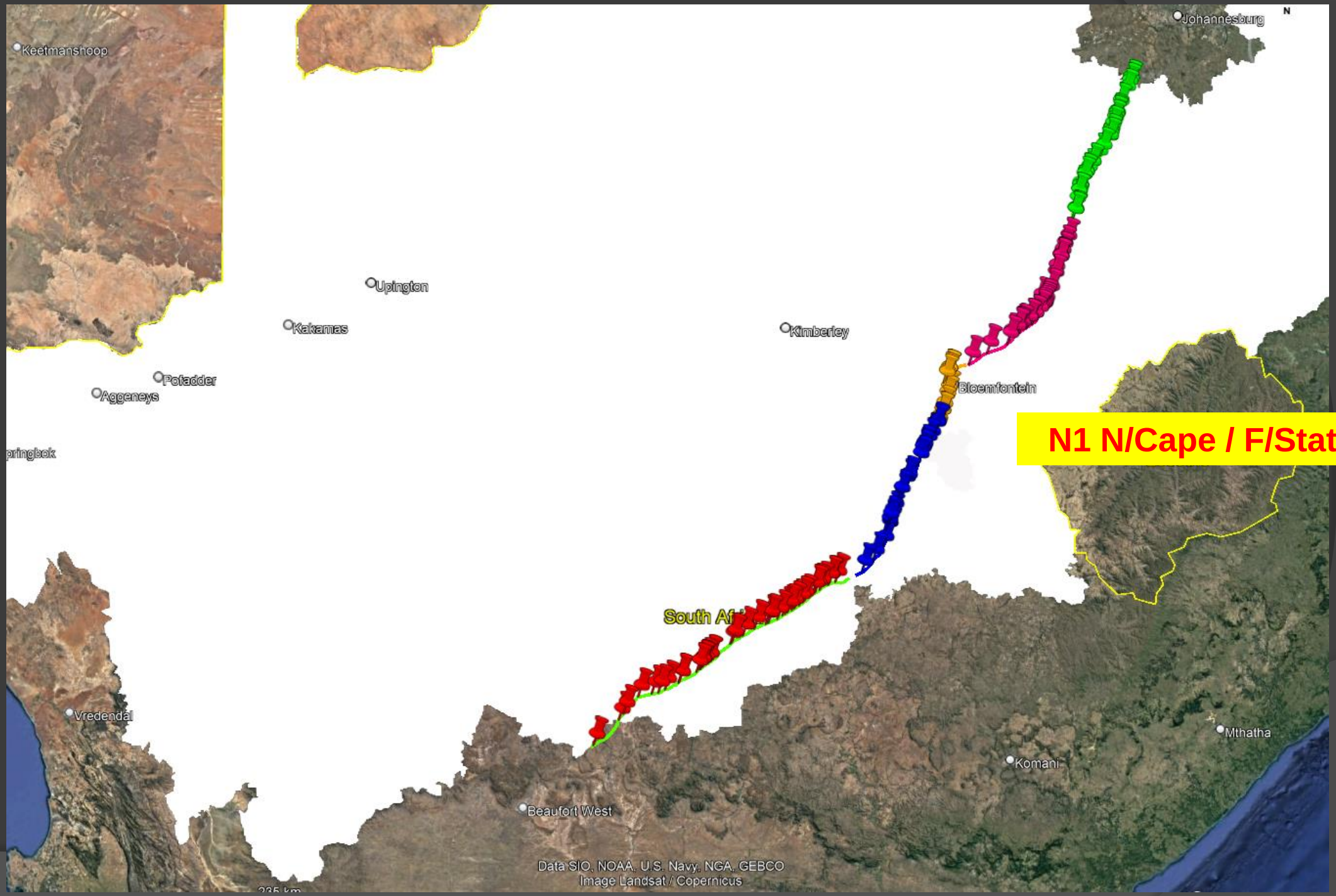
Free State !!!!!!



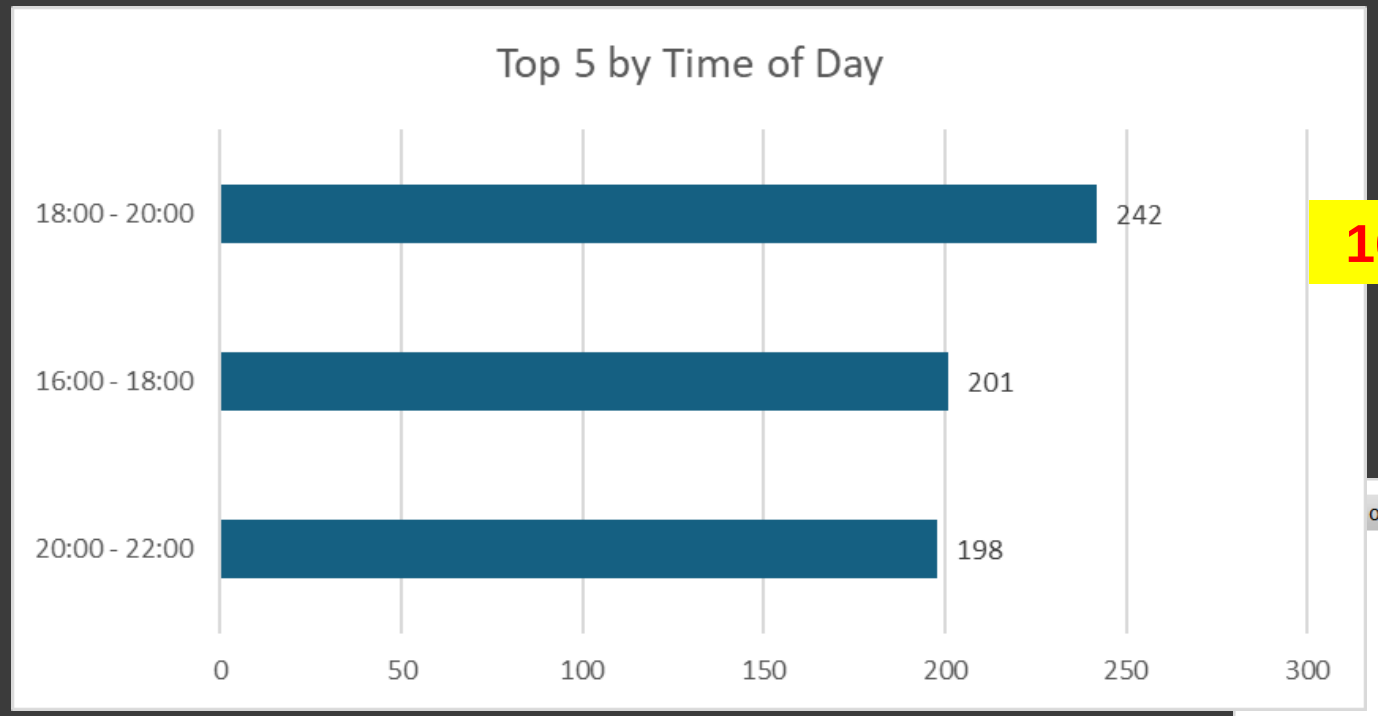
N3 Free State section only – But known risk on full length


N4 – Mpumalanga
Kruger National Park
Mokopane
Ga-Masemola
Modimolle
Driekop
Acornhoek
Burgersfort
Jane Furse
Thulamahashe
Bela-Bela
Steelpoort
Bushbuckridge
Marblehall
Graskop
Tafelkop
Siyabuswa
Mashishing
Sabie
Hazyview
White River
Dullstroom
Malalane
Komatipoort
Pretoria
eNtokozweni
eMalahleni
Barberton
Tonga
Midrand
eManzana
Johannesburg
Soweto
Boksburg
Carolina
Elukwatini
Hendrina
Naamacha
Ga-Nala
Boane
Breyten
Mbabane
Bethal
Secunda
Lobamba
Ermelo
Siteki
Eswatini
eMvelo
Standerton
Big Bend


N14 – N/Cape
Tses
Koes
Tshabong
Morokweng
Bethanien
Keetmanshoop
Middelpits
Aus
Rietfontein
Aroab
Bokspits
Van Zylsrus
Vryburg
Kuruman
Kathu
Grunau
Olifantshoek
Rosh Pinah
Ais Ais
Karasburg
Christiana
Ariamsvlei
Postmasburg
Upington
Oranjemund
Kakamas
Keimoes
Vioolsdrif
Kimberley
Groblershoop
Douglas
Pofadder
Aggeneys
Port Nolloth
Steinkopf
Kenhardt
Springbok
Prieska
Hopetown
Brandvlei
Carnarvon
Britstown
De Aar
Colesberg
South Africa
Hanover


Johannesburg
Keetmanshoop
Upington
Kakamas
Kimberley
Potadder
Aggeneys
Springbok
Bloemfontein
N1 N/Cape / F/State
South Af
Vredendal
Mthatha
Komani
Beaufort West
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat / Copernicus


R30 – Free State
Lichtenburg
Coligny
Sannieshof
Delareyville
Ottosdal
Hartbeesfontein
Potchefstroom
Klerksdorp
Orkney
Vryburg
Schweizer-Reneke
Wolmaransstad
Leeudoringstad
Viljoenskroon
Makwassie
Bothaville
Heilbron
Bloemhof
Kroonstad
Allanridge
Christiana
Hoopstad
Wesselsbron
Welkom
Hennenman
Lindley
Virginia
Ventersburg
Hertzogville
Bultfontein
Senekal
Theunissen
Winburg
Dealesville
Kimberley
Soultpan
Winnie Mandela
Marquard
Phuthaditjhaba
Ficksburg
Petrusburg
Bloemfontein
Mangaung
Tevatevaneng
Johannesburg
Soweto
Boksburg
Carletonville
Vereeniging
Vanderbijlpark
Sasolburg
106 km
Image Landsat / Copernicus
Google Earth

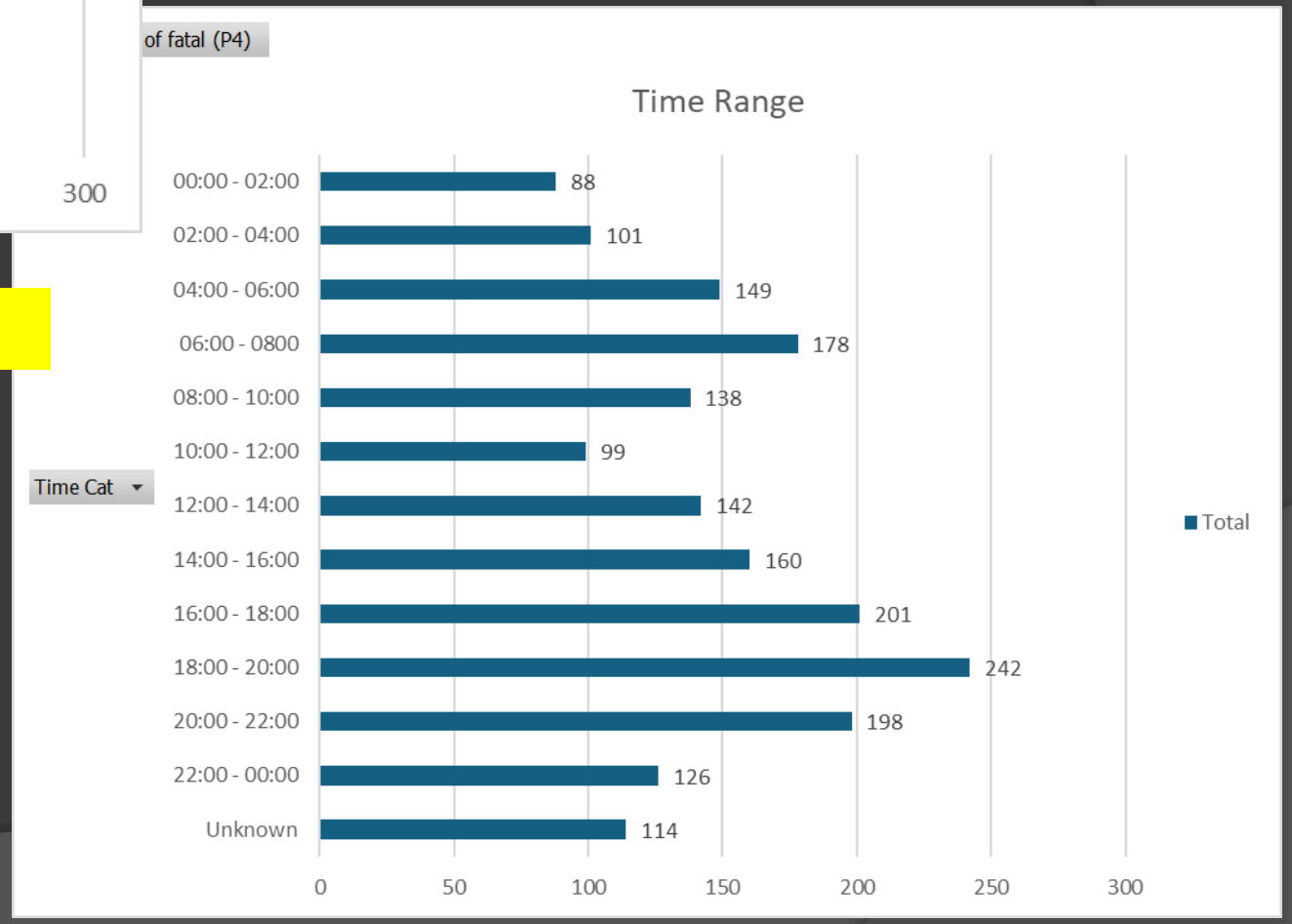


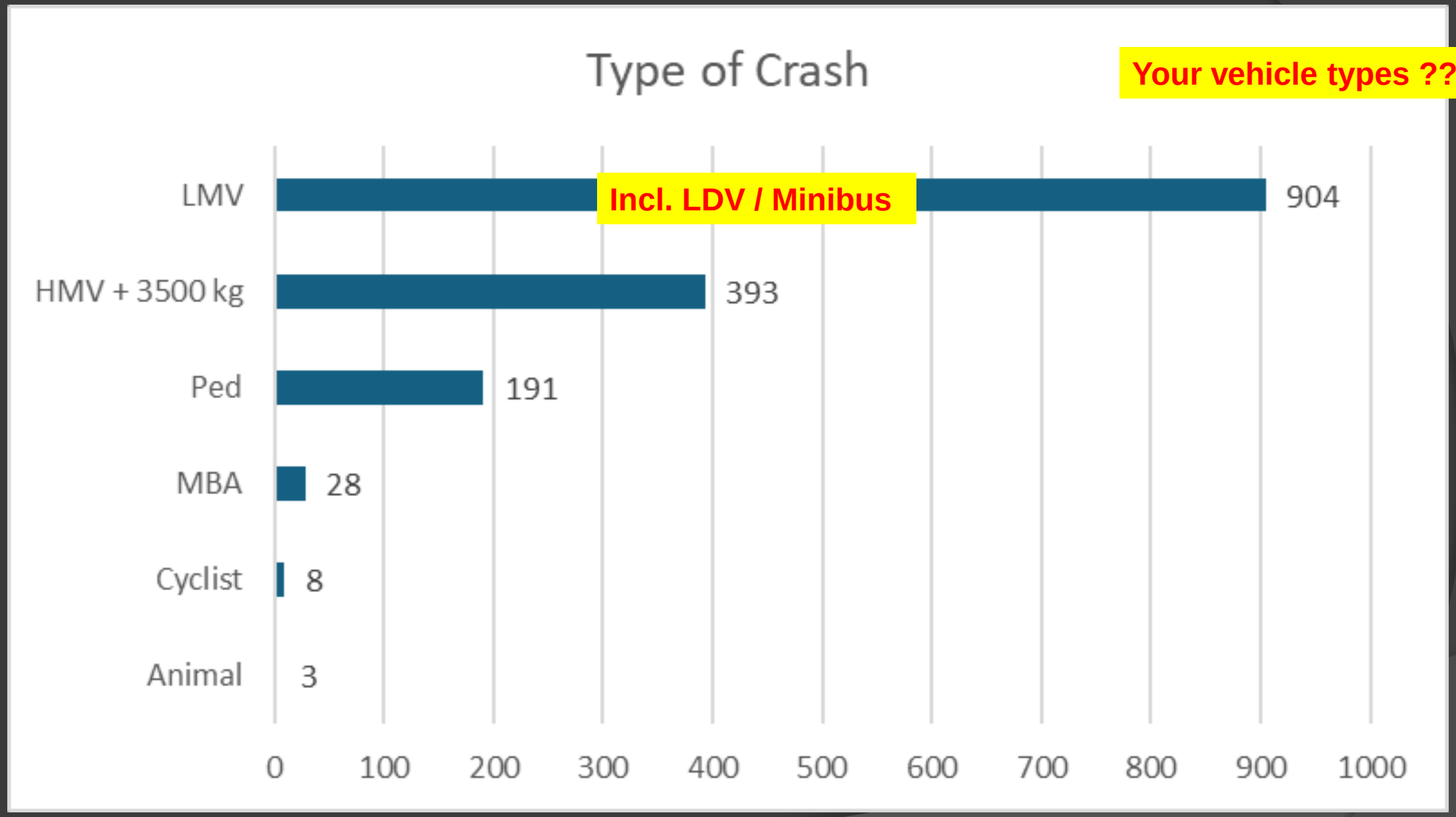
Your times of operation ????

16:00 – 22:00

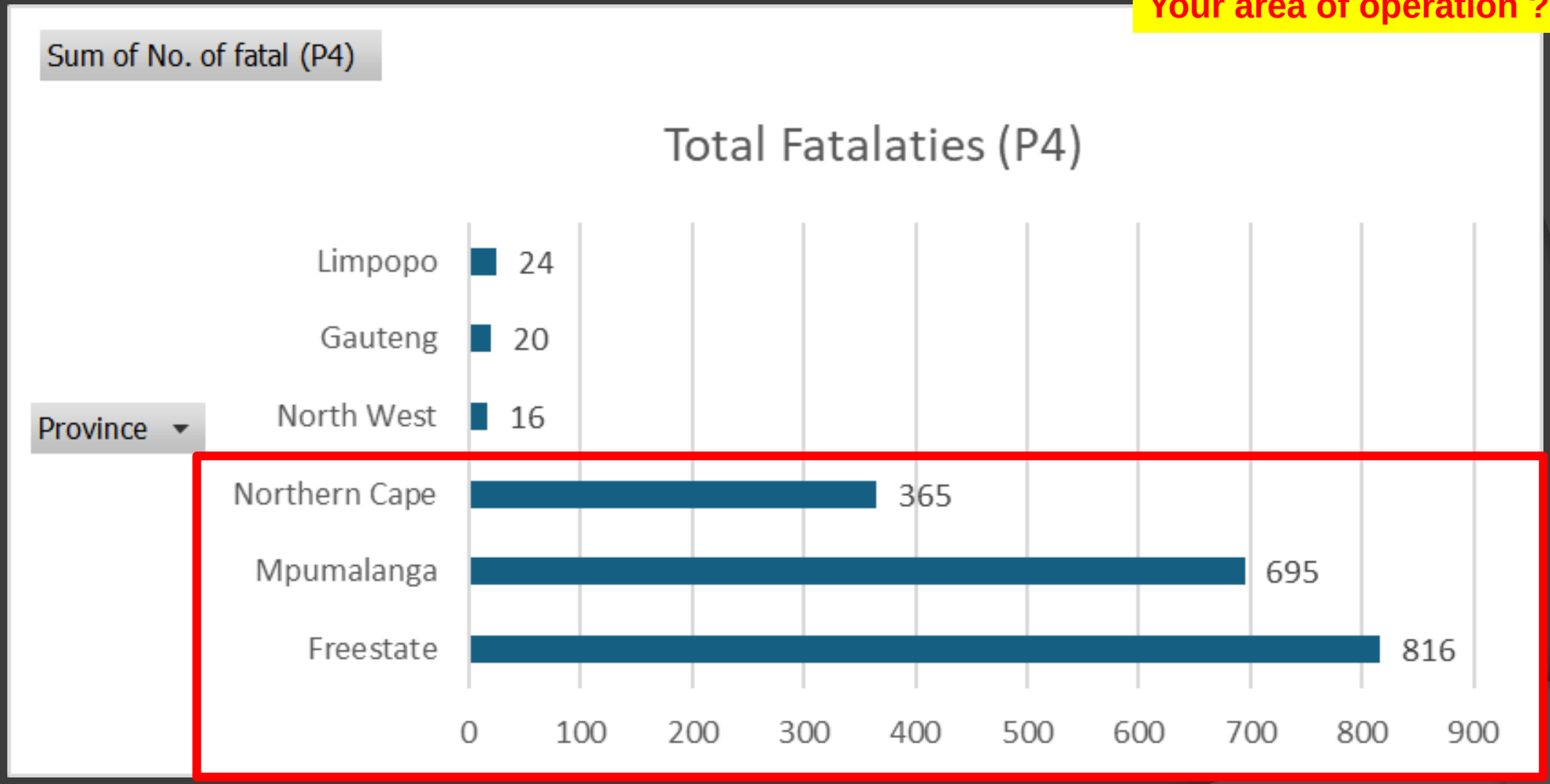
04:00 – 08:00

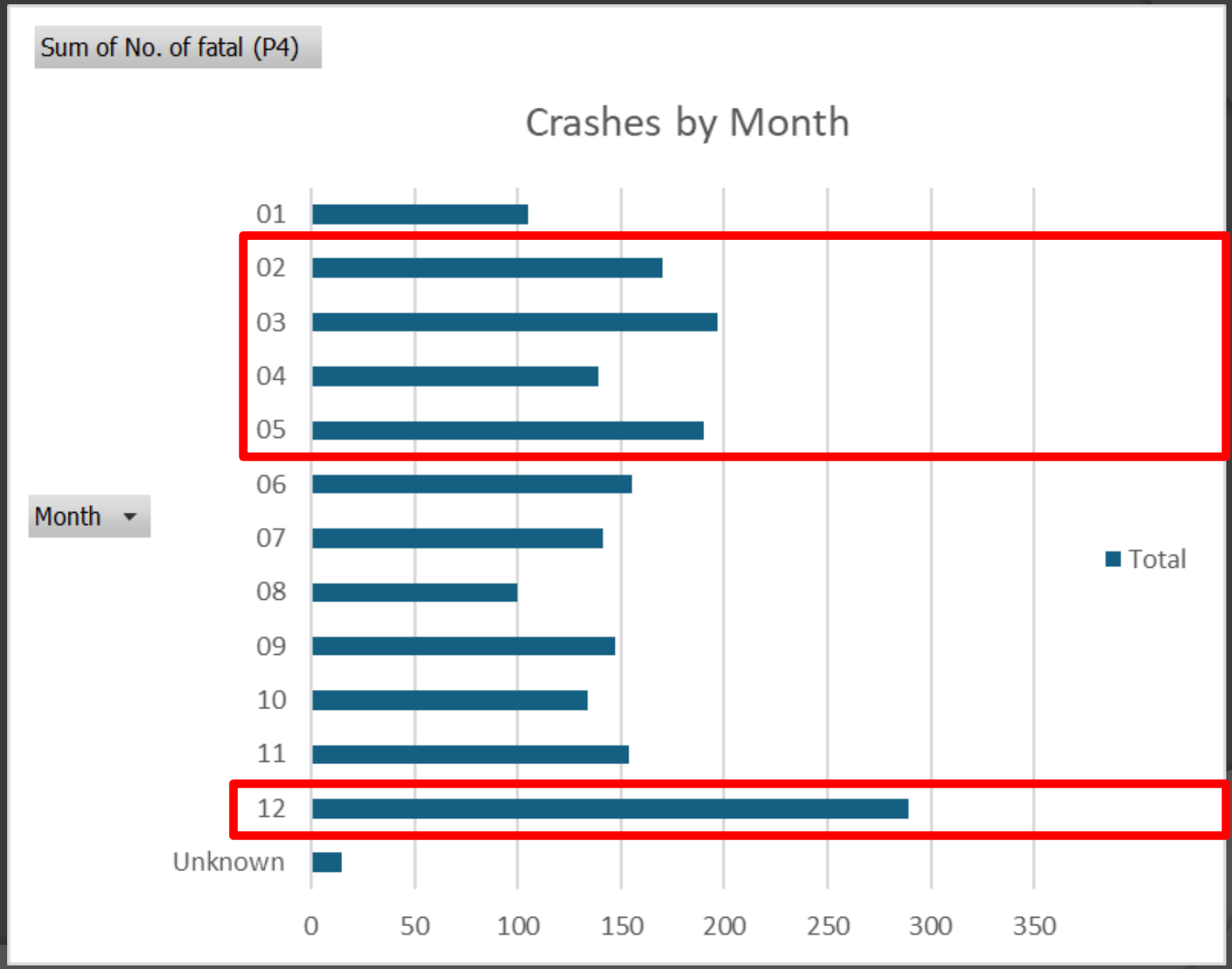
Circadian rhythm !!!!




Type of Crash
Your vehicle types ????
Incl. LDV / Minibus
LMV
904
HMV + 3500 kg
393
Ped
191
MBA
28
Cyclist
8
Animal
3
0
100
200
300
400
500
600
700
800
900
1000

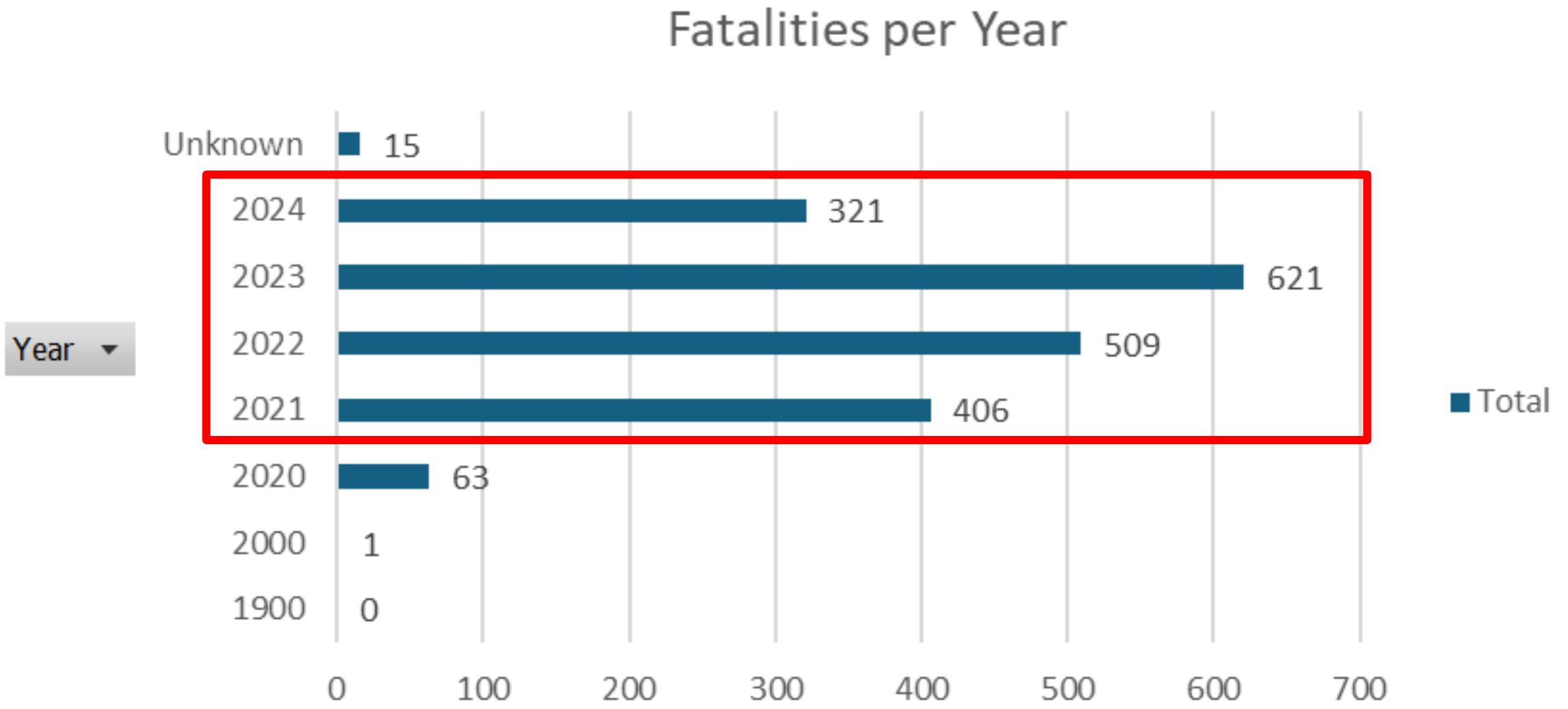
Your area of operation ????




Sum of No. of fatal (P4)
Crashes by Month
Month
01
02
03
04
05
06
07
08
09
10
11
12
Unknown
Total
0
50
100
150
200
250
300
350

Sum of No. of fatal (P4)

To improve as data grows



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The data (2) – RAF / Claims:

* RAF – Published – Most dangerous roads in RSA (Claims)

Road Accident Fund data: (Claims)

Most dangerous roads in SA:

Position	Road	Route	Distance	Province
1	N2	East London - Umtata	231 Km	EC
2	N2	Umtata - Kokstad	188 Km	EC
3	N1	Mokopane - Polokwane	58.4 Km	LM
4	N1	Polokwane - Makhado	109 Km	LM
5	N4	Middelburg - Belfast	71.6 Km	MP
6	N2	Durban - Tongaat	48.4 Km	KZN
7	N12	Springs - Witbank	101 Km	GP
8	R573	Pretoria - Kwamhlanga	73.8 Km	GP
9	N1	Naboomspruit - Mokopane	44.3 Km	LM
10	R71	Polokwane - Tzaneen	94.9 Km	LM

* RAF Data – Online IOL 2021

N2 – East Lond. To Umtata – 230 kms

N2 – Umtata to Kokstad – 188 kms

N1 – Mokopane – Polokwane – 58.4 kms

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The data (3) – AS CASES:

* AS Historical cases over 23 years

* To include RTMC MCI

(7 years only 5 or more fatal)

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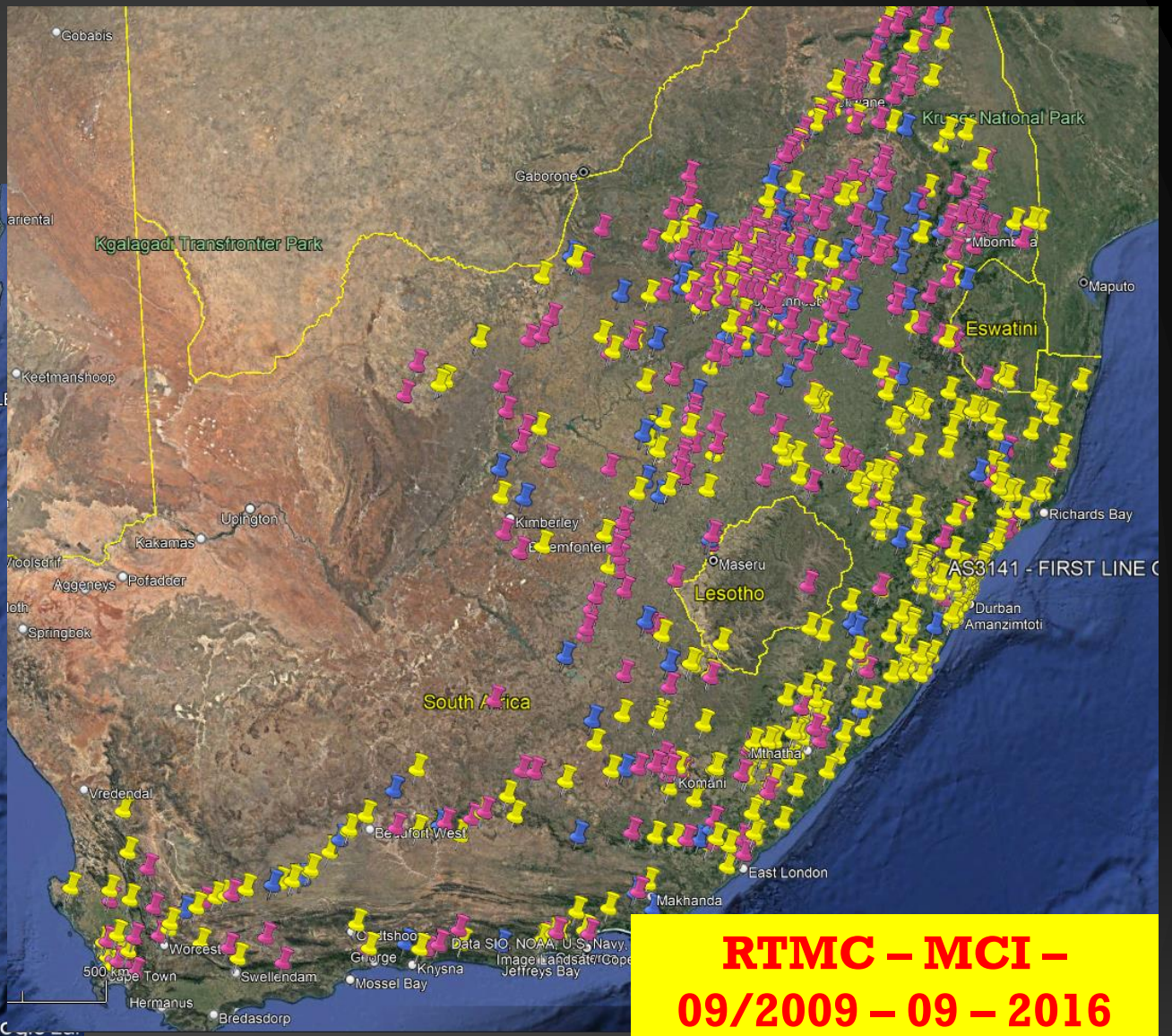
AS Private cases – all – 3000 plus cases

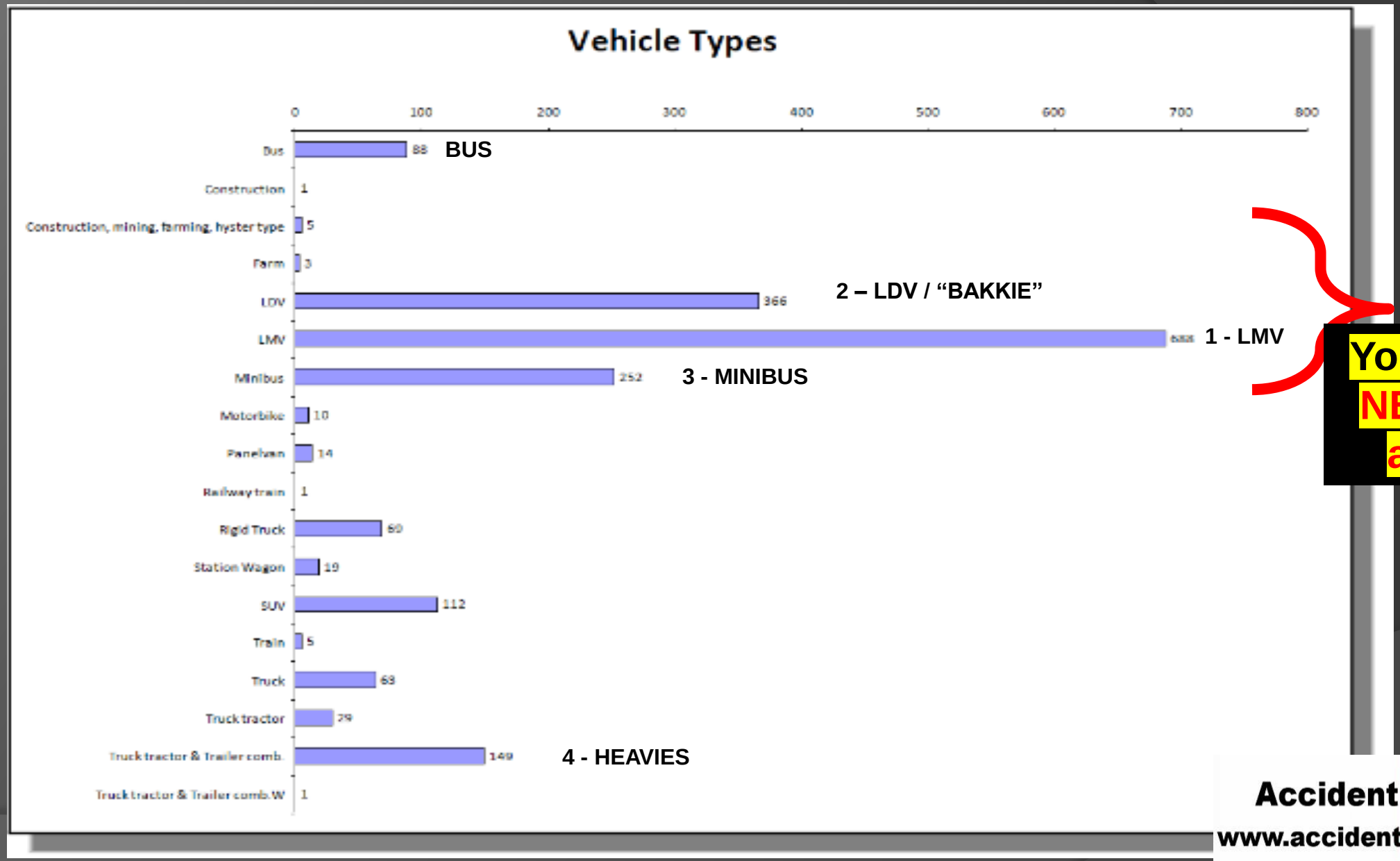


RTMC – MCI – 09/2009 – 09 – 2016 (1001 – fatal cases)

Accident Specialist

www.accidentspecialist.co.za

Vehicle Cat. Our Data: (23 Years!)



You / Your ?

NB – Same as RIMS

Vehicle Cat. National Data: (NDOT / RTMC)

Published - Jan 2019 – 30th June 2021

1. **Light passenger vehicles (less than 12 people)**
2. **Light Load (Delivery) vehicles (3500 kg and less)**
3. **Heavy passenger (12 or more people)**
4. Heavy load vehicles (Commercial)

You / Your ?
NB – Same as RIMS

Crash Type - OVERALL:

* 1 Pedestrians

* 2 Single vehicle

  - Leave road – Roll
  - Leave road - Strike object

* 3 Opposite direction (leave lane) head-on

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Overarching data indication:

- "Distracted driving"

  - Cell / Fatigue / music / other occupants / external distraction /& others

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Just what is the cost:

Table 9: Unit RTC costs by cost category and cost element

Cost Element	Unit Cost per RTC (Rand)				
	Fatal	Major	Minor	Damage only	Any severity
Human Casualty					
Lost productivity	2 878 177	217 253	29 504	2 094	55 331
Pain, grief, suffering and lost quality of life	2 123 994	287 173	47 509		49 842
Medical treatment	147 143	110 656	32 681		12 509
Funeral	16 613				222
Work place re-occupation	68 638	2 949			1 061
Sub-total: Human Casualty Cost	5 234 565	618 031	109 694	2 094	118 965
Vehicle Repair					
Vehicle repair	19 604	20 171	21 887	26 822	25 618
Sub-total: Vehicle Repair Cost	19 604	20 171	21 887	26 822	25 618
Incident					
Emergency response	3 042	2 765			174
Legal	101 623	101 623			6 258
Vehicle related	3 107	3 197	3 469	4 251	4 060
RTC management	10 176	5 101	2 030	2 030	2 287
Infrastructure damage	1 596	1 637	2 023	2 508	2 376
Delay congestion and emissions	61 547	13 140	13 140	10 829	11 987
Sub-total: Incident Cost	181 092	127 462	20 662	19 618	27 143
Total Unit Cost	5 435 261	765 664	152 244	48 533	171 727

Cost per fatal crash:

R5,435,261.00

- RTMC Cost of Crashes in South Africa: Research and Development Report

HEAD - REAR

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Case Study 1:

“Someone threw a stone at my vehicle”

Speed / DUI / Lying / Fatigue etc ..!!!

The vehicle: - VW Golf GTi

Clients version:

Travelling at NIGHT, I think someone threw a BRICK / ROCK through my window, travelling at a normal speed

The damage:

Relatively serious - Writer`s immediate comments to the supplied image:

CAUTION - *Client is talking @#%$! .. that's definitely NOT a Brick or Rock! – This is a pedestrian*

The Damage:

Blood ?
Material / clothing transfer ?

The telemetry / data:

Tracking (aftermarket system) - **SUPPLIED / SOURCED**

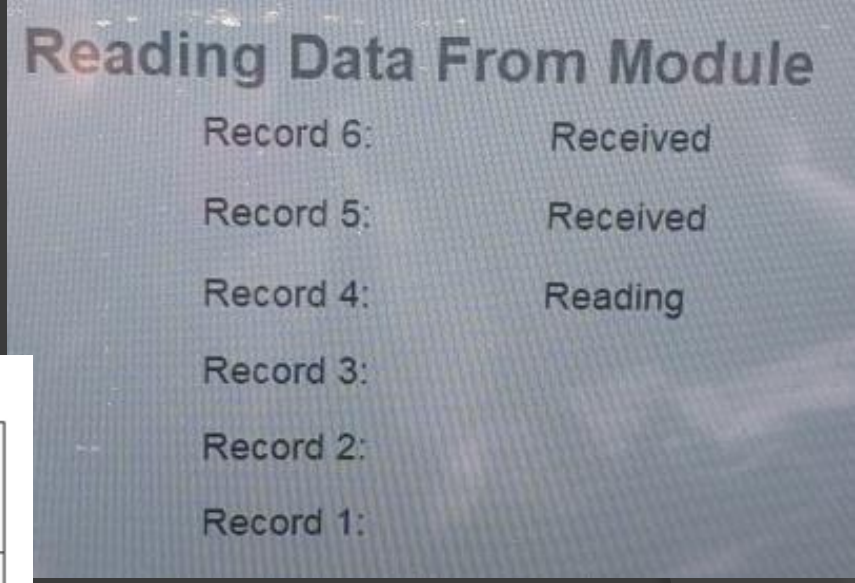
<u>This allowed a detailed analysis of time (second by second) / times, pre crash movement / speed / post crash movement etc.</u>

15	110 kmh	02-05-22	6:06:53	22927	-29.8117	31.0174			
15	110 kmh	02-05-22	6:06:54	22927	-29.8117	31.01709			
15	111 kmh	02-05-22	6:06:55	22927	-29.8118	31.01678			
16	111 kmh	02-05-22	6:06:55	22927	-29.8118	31.01678			
16	111 kmh	02-05-22	6:06:56	22927	-29.8118	31.016	Crash Sense with GPS data		
16	109 kmh	02-05-22	6:06:57	22927	-29.812	31.01618	Harsh Cornering		
16	111 kmh	02-05-22	6:06:57	22927	-29.8119	31.01648	Harsh Braking		
16	111 kmh	02-05-22	6:06:57	22927	-29.8119	31.01648			
16	109 kmh	02-05-22	6:06:58	22927	-29.812	31.01619			
16	104 kmh	02-05-22	6:06:59	22927	-29.8121	31.0159			
16	100 kmh	02-05-22	6:07:00	22927	-29.8122	31.01564			

Tracking data plotted:

The telemetry / data:

Vehicle Onboard - Crash Data - **AS IMAGED**



Pre-Crash Data -5 to 0 sec (Record 1, Most Recent)

Time (sec)	Engine RPM (Combustion Engine) (RPM)	ABS Activity	Stability Control	Steering Input (deg)	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal (%)	Service Brake Activation
-5.0	2,688	No ABS Activity	No ESC Activity	14	71 [115]	46	Off
-4.5	2,688	No ABS Activity	No ESC Activity	16	72 [116]	27	Off
-4.0	2,688	No ABS Activity	No ESC Activity	12	71 [115]	30	Off
-3.5	2,688	No ABS Activity	No ESC Activity	14	72 [116]	40	Off
-3.0	2,752	No ABS Activity	No ESC Activity	14	73 [117]	61	Off
-2.5	2,752	No ABS Activity	No ESC Activity	10	74 [119]	41	Off
-2.0	2,816	No ABS Activity	No ESC Activity	10	75 [120]	61	Off
-1.5	2,816	No ABS Activity	No ESC Activity	8	76 [122]	36	Off
-1.0	2,816	No ABS Activity	No ESC Activity	2	76 [122]	28	Off
-0.5	2,816	No ABS Activity	No ESC Activity	0	76 [122]	0	Off
0.0	2,304	No ABS Activity	No ESC Activity	-10	74 [119]	0	On (Driver)

9.2.2 The evident steering of 14 – 8 degrees (counter clockwise steering), consistent wi
VW cornering left. Evasive action steering appears where the change in steering ar
sudden and from a positive steering through a negative steering of -10 degrees (cloc

The aftermarket tracking data to onboard Crash Data, vehicle damage, scene all considered:

* Excessively high speed (119 – 122 km/h) / MATCHED almost identical to aftermarket tracking data (**60 km/h zone),** and in various other key respects

* Damage does NOT suggest a brick / rock, a PEDESTRIAN (Body)

* **Culpable homicide / hit & run / defeating ends of justice / fail to stop / concealing etc**

Criminal case located – body located (throiw at roadside)

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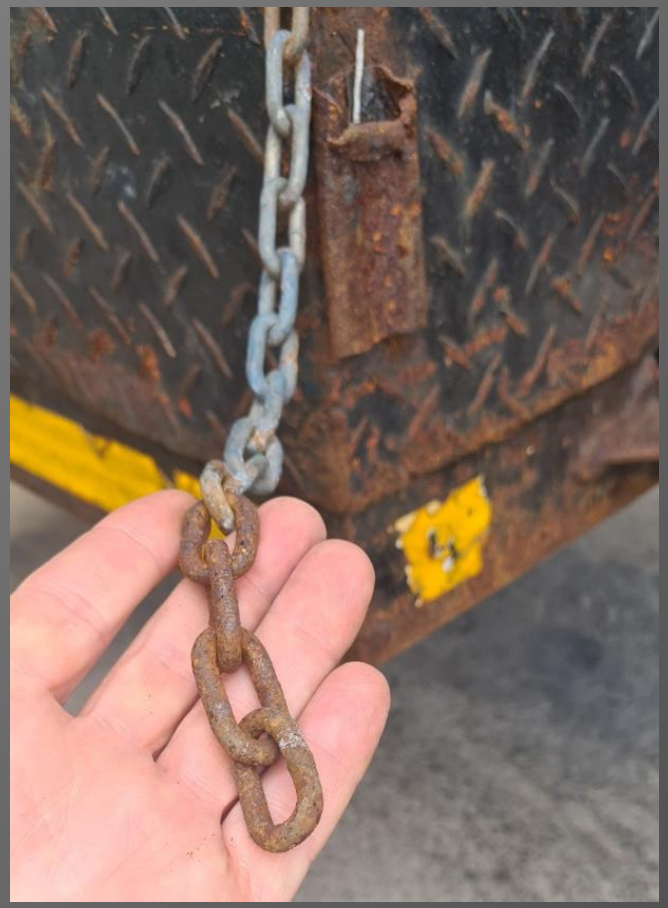
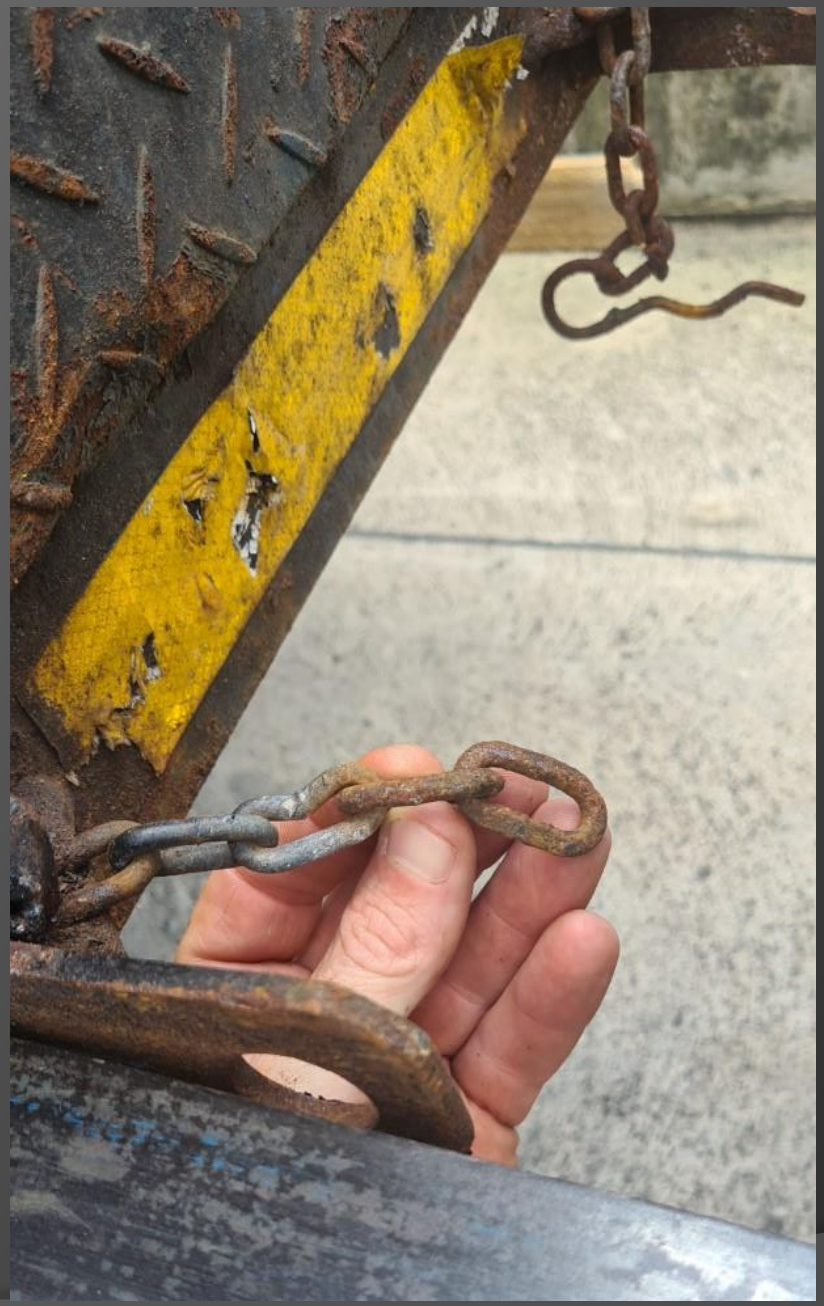
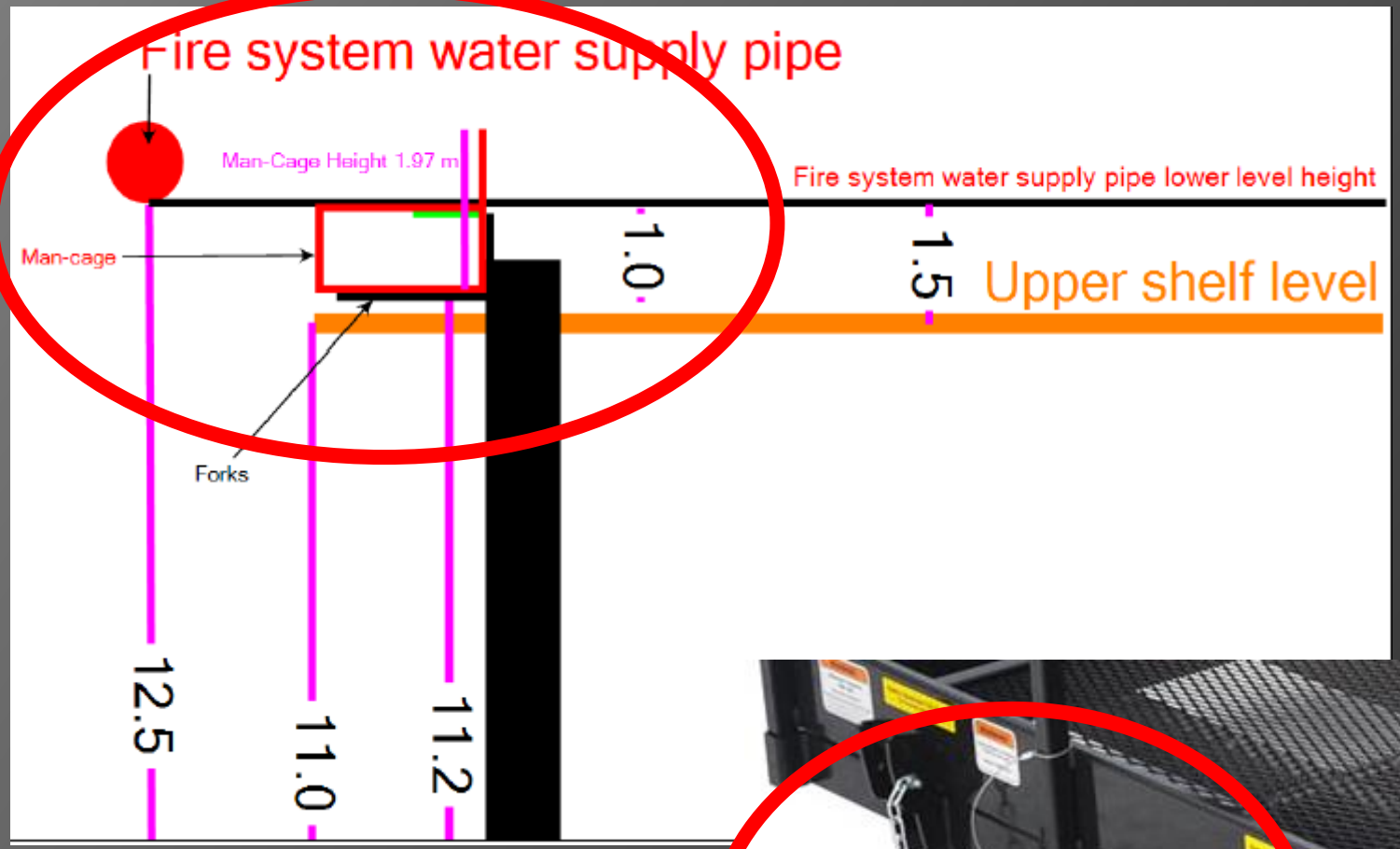
Case Study 2:

Fatality
Material Handler

Operator / user negligence – Poor judgement







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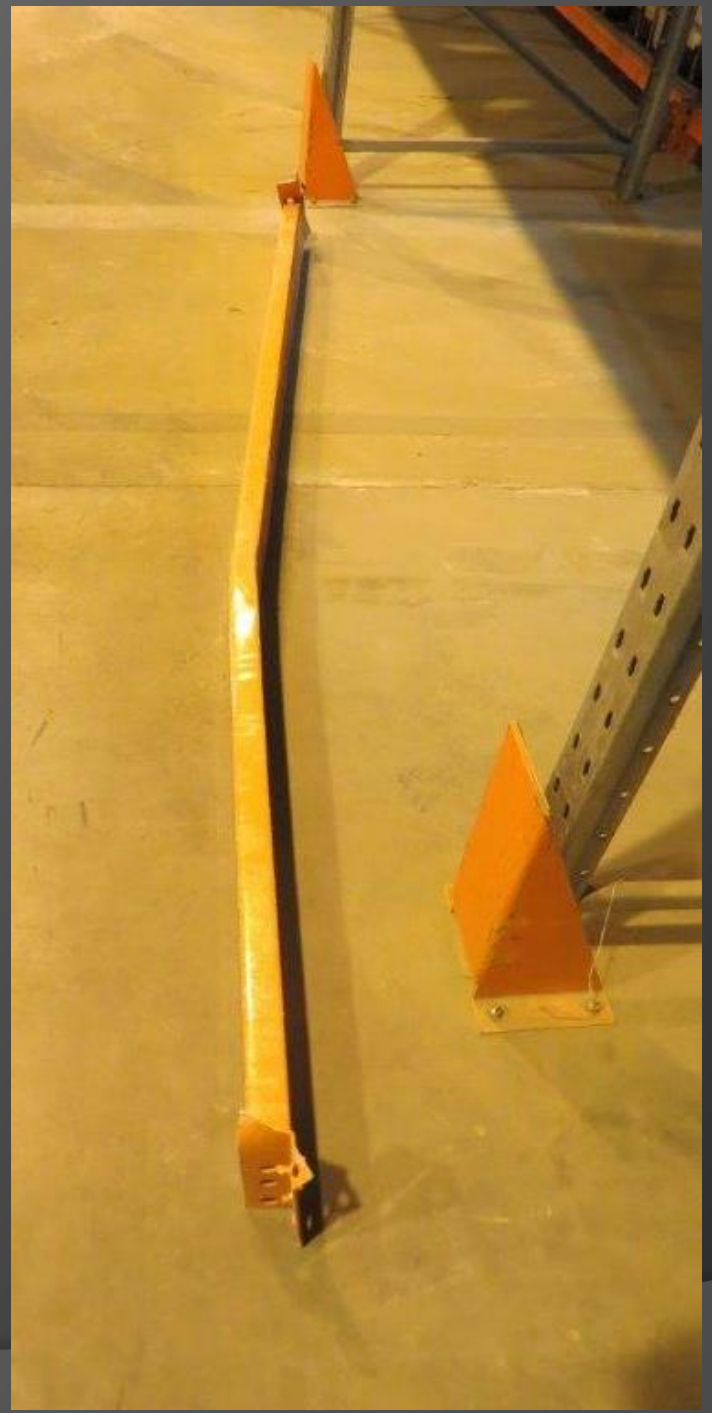
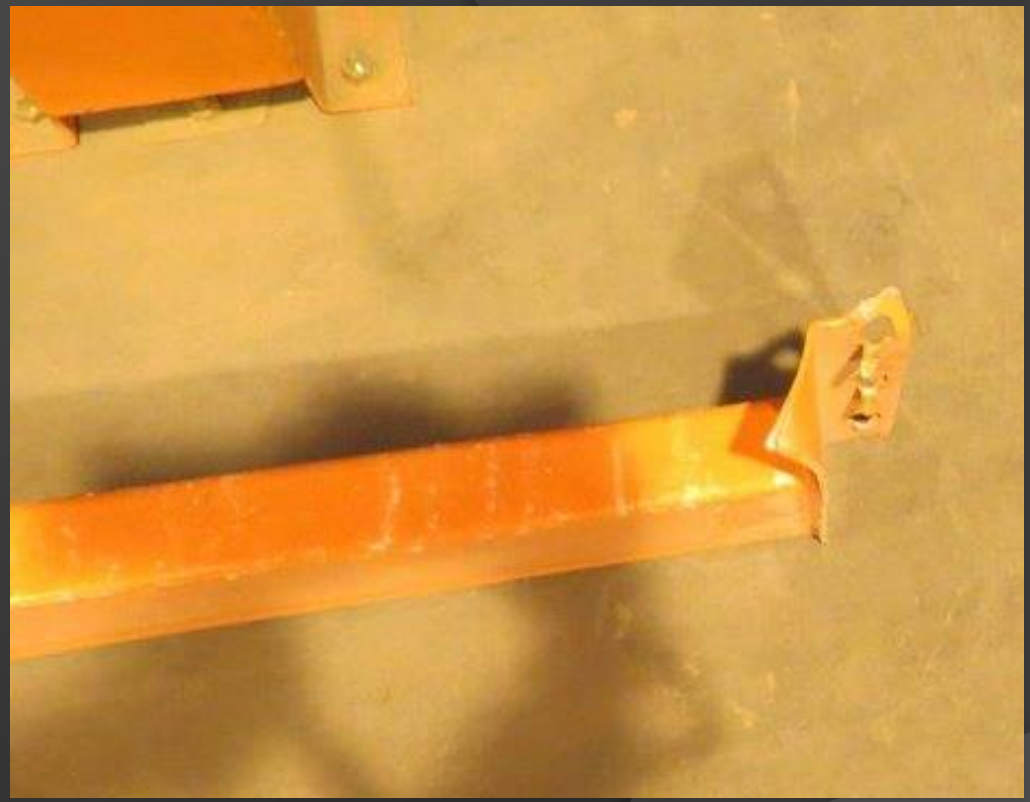
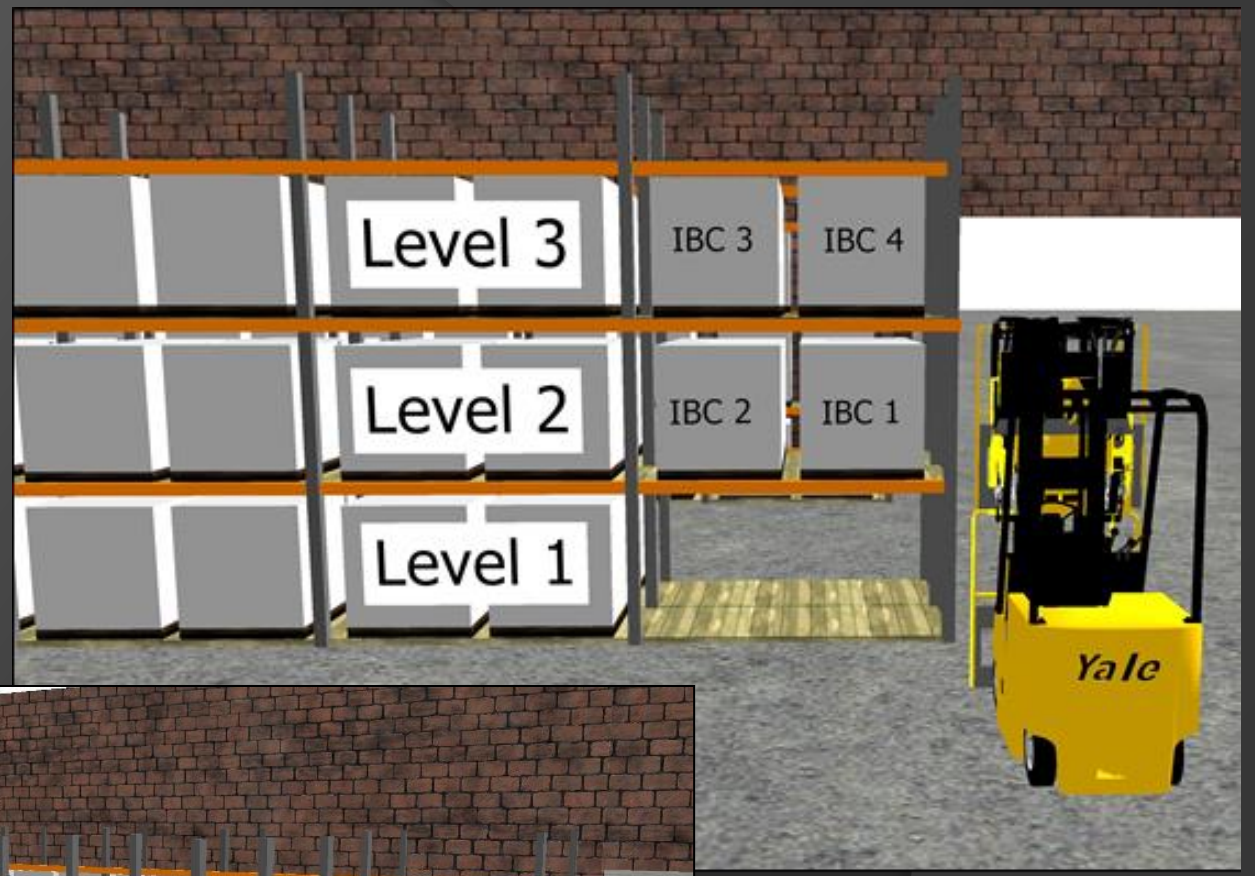
Case Study 3:

Chemical spill, damage & injury
Forklift / Handler

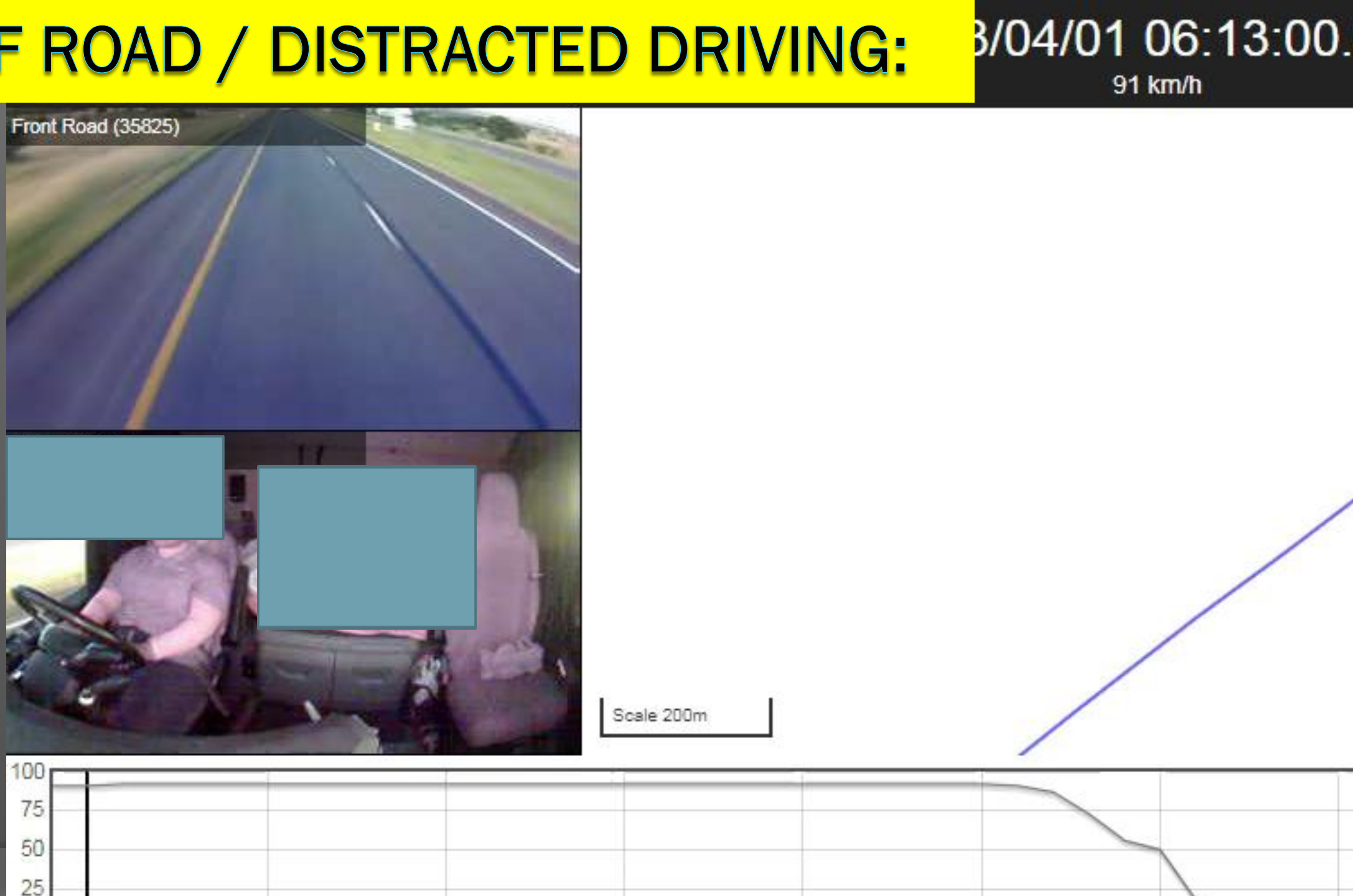
Operator negligence – Poor judgement







RUN OFF ROAD / DISTRACTED DRIVING:



Overall findings:

- **Human error / Human factor**
  - Distracted / fatigue (RoR / Cross over / Rear End)
  - Speeding (too high for situation)
  - Impatient (Overtaking- blind rise / solid lines)
  - Tyres / Mechanical fitness
- **Lack of oversight / monitoring & Education**

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It is not if, it`s when?

LETS BE PRO-ACTIVE,

SOME POINTERS…..

- You need to be far more pro-actively involved in and/or have greater insight in all aspects of the vehicle / transport, we find this sorely lacking during our audits
- Do you have tracking / IVM?
  - Is this actively monitored or reviewed?
  - Geofencing (HIGHLIGHTED RISK ROUTES)
  - "Second-by-second"
  - IVM - camera
- Do you have proper driver training & review – Independent if Necc. (All drivers!)
  - Is this actively monitored or reviewed?
- Minimum driver standards – Written SOP?
  - Pre drive inspection?
- Vehicle maintenance & review
  - Written SOP?

- Route planning/risk analysis - project management?
  - Particularly when the **HIGHLIGHTED RISK ROUTES** are used
- Driving time crashes 16:00-22:00 / 04:00-08:00
  - Plans / management / specific drivers battle / extra calls and monitoring – alarms
- Tyres
  - Proliferation of tyre issues (Potholes)
    - Lack of regular inspection
- Do you know your staff
  - Pre work habits and interests (**Fatigue / distracted / pre-occupied**)

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www.accidentspecialist.co.za

THANK YOU