

5

TEMPORAL TRENDS

Studying the temporal trends of different types of accidents, comparative analysis hours wise, day wise and month wise can be done and some important /significant conclusions can be drawn.

- Table 5.1 depicts the comparative figures of different severities of accidents by the days of the week. In

case of fatal accidents, it has been observed that total fatal accidents in 2015 have decreased in comparison to year 2014.

- This peculiarity varies on 7 days of the week. **The decrease is maximum of 53 fatal accidents on Sunday but there is increase on Thursday (33) fatal accidents.**

TABLE - 5.1
ACCIDENT TREND ON WEEK DAYS

TYPE OF ACCIDENT	SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY		TOTAL	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
FATAL	250	197	260	243	227	223	217	210	230	263	221	213	224	233	1629	1582
NON-FATAL	1094	913	1058	990	951	957	978	834	977	953	992	953	944	903	6994	6503
TOTAL	1344	1110	1318	1233	1178	1180	1195	1044	1207	1216	1213	1166	1168	1136	8623	8085

If we observe figure No. 5.1(a) viz. time wise fatal accidents, we find that fatal accidents start increasing gradually from 1700 hrs. (62) onwards and its peak reaches by 2300 hrs. (120), the highest figure of fatal accidents.

- Thereafter, it starts decreasing gradually till 0100 hrs. (73). Then, continue to remain lower till 0800 hrs. (60). From 0800 hrs. to 1900 hrs., it remains low with some variations and again starts rising afterwards. The same trend had persisted in the year 2014 also with the marginal variations. The hourly average

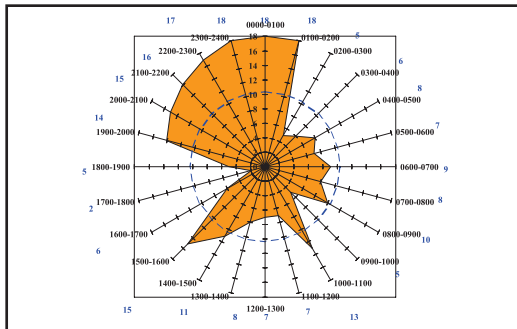
of fatal accidents in the year 2015 was 66, two less than in the year 2014.

- The very reason of recording maximum number of fatal accidents between 1900 hrs and 0100 hrs is that during this time the no-entry time restrictions on commercial vehicles are lifted.
 - It also overlaps with the evening peak hours of traffic. This sudden spurt in different categories of vehicles in maximum numbers creates all the conditions for collisions, knocking downs & mowing downs.

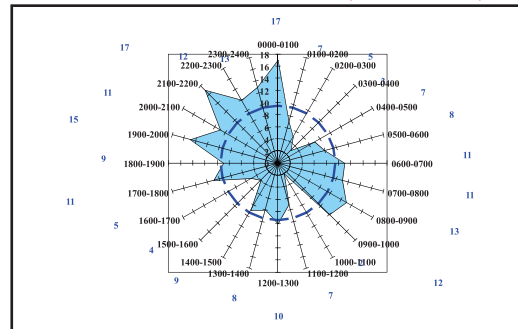
- **The poor light conditions on various roads** and streets also contribute in causing more accidents.
- **Drunken driving is obviously another big factor** of causing more accidents. After 0100 hrs all types of

pedestrians, slow moving vehicles & non-commercial traffic go off road and movements of commercial traffic also become lesser or stabilized. All these factors lead to minimum number of accidents after 0100 hrs.

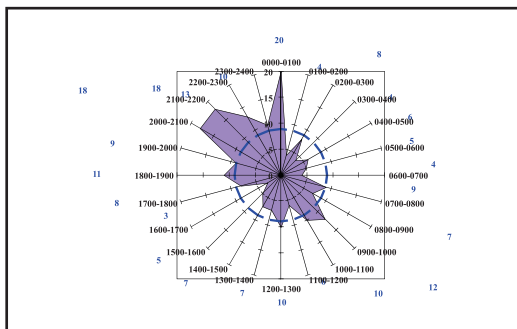
TIME WISE FATALITIES – 2015 (MONDAY-248)



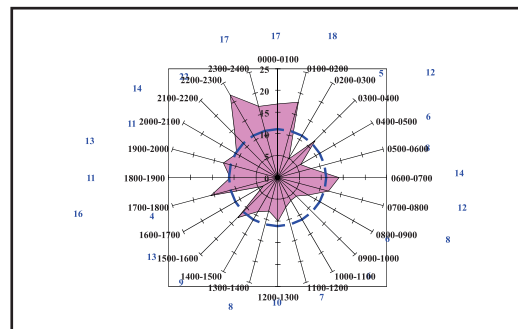
TIME WISE FATALITIES – 2015 (TUESDAY-227)



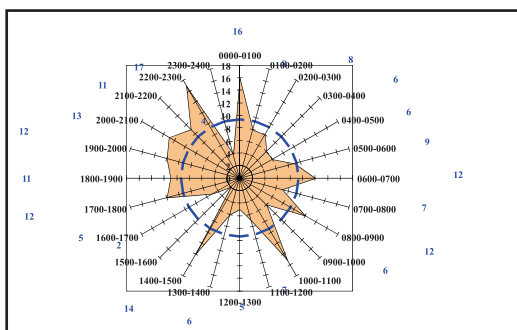
TIME WISE FATALITIES – 2015 (WEDNESDAY-214)



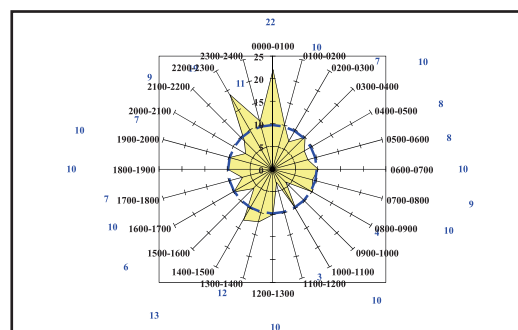
TIME WISE FATALITIES – 2015 (THURSDAY-267)



TIME WISE FATALITIES – 2015 (FRIDAY-224)



TIME WISE FATALITIES – 2015 (SATURDAY-235)



TIME WISE FATALITIES – 2015 (SUNDAY-207)

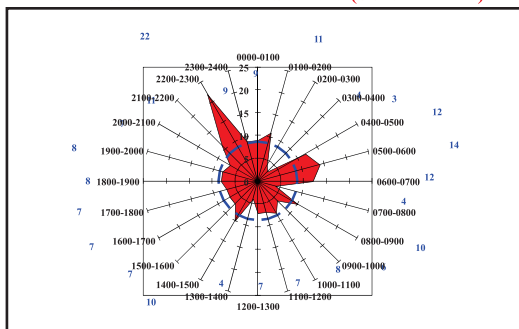
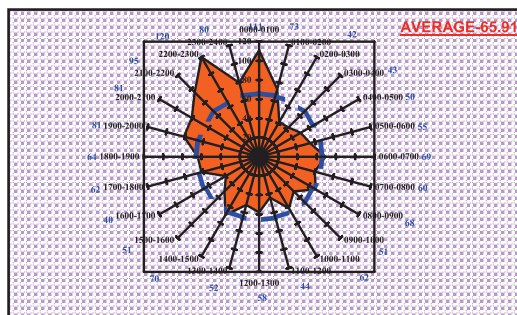


FIGURE 5.1(a) TIME -WISE FATAL ACCIDENTS 2015



In 2014, July, October & February months showed least number of fatal accidents. Though, there is no apparent link of factors for January & December months except extreme cold and foggy days.

- In the year 2015, there were maximum fatal accidents in April (161), November (148) and January (143) while least in

February (106) and June (111). Fatal accidents have been lesser during months in 2015 except January, April, July, October and November month when these are higher in 2015 in comparison to 2014, fatal accidents have been lesser every month while same trend in case of non-fatal accidents.

TABLE- 5.2
MONTH WISE TRENDS FATAL OF ACCIDENTS IN- 2014 & 2015

MONTH	FATAL		INJURY		NON-INJURY		TOTAL	
	2014	2015	2014	2015	2014	2015	2014	2015
JANUARY	126	143	536	504	27	19	689	666
FEBRUARY	125	106	588	481	16	9	729	596
MARCH	157	142	652	577	24	16	833	735
APRIL	126	161	511	477	10	15	647	653
MAY	157	119	517	500	20	16	694	635
JUNE	137	111	544	493	20	11	701	615
JULY	123	133	499	550	9	18	631	701
AUGUST	133	123	614	540	18	11	765	674
SEPTEMBER	148	134	612	540	20	13	780	687
OCTOBER	126	138	569	565	11	8	706	711
NOVEMBER	143	148	557	532	21	11	721	691
DECEMBER	128	124	586	584	13	13	727	721
TOTAL	1629	1582	6785	6343	209	160	8623	8085

Accident classifications according to day and night shows that in 2015, 784 fatal accidents occurred during day time whereas 798 occurred during night time (Table 5.3).

- These figures in 2014 were 804 fatal accidents during day time and 825 during night time. Fatal accidents in day time were uniformly higher than those in night time all the years from 1992 to

2011 but, for the fourth time the no. of fatal accidents during day were recorded lesser than during night in 2012, 2013, 2014 and 2015. This shows the good effect of presence and working of the traffic police during day hours. In case of simple accidents also, the day time figures are higher than night time figures but, this difference is much more.

As far as the analysis of Time vs. Victim in fatal accidents is concerned, most pedestrians succumbed to these accidents from 1900 – 2300 hrs.

- These hours are most vulnerable for scooterists / motor cyclists also. Most ‘Self’ accidents are occurring during the time slot of 2100-0200 hrs. But, in case of cyclist victims, the most vulnerable time is 1900- 2300 hrs. (Table 5.5).

Table 5.6 shows the distribution of impacting vehicles (At fault) with the time slots.

- From the view point of vehicles at fault, 623 (39.4%) vehicles were unknown which implies that they were hit & run cases. This unknown vehicles’ category was 40.6 % in 2014. The accidents by ‘unknown vehicles’ were recorded in all 24 hours though the number became

TABLE – 5.3
ACCIDENTS CLASSIFIED ACCORDING TO DAY AND NIGHT

YEAR	FATAL ACCIDENTS		INJURY ACCIDENTS		NON-INJURY ACCIDENTS		TOTAL ACCIDENTS	
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
1996	937	639	4281	2670	287	171	5505	3480
1997	1025	618	4590	2720	324	179	5939	3517
1998	951	727	3861	2633	303	212	5115	3572
1999	967	740	3652	2862	289	223	4908	3825
2000	894	705	4076	2759	355	256	5325	3720
2001	876	601	3761	2516	290	216	4927	3333
2002	853	563	3996	1891	265	165	5114	2619
2003	924	605	3937	1958	251	173	5112	2736
2004	1026	657	4042	1831	299	219	5367	2707
2005	1042	646	4342	1891	280	166	5664	2703
2006	1100	818	4151	2105	195	139	5446	3062
2007	1045	858	3604	2175	260	263	4909	3296
2008	882	825	3559	1945	151	201	4592	2971
2009	1143	1042	3207	1713	75	51	4425	2806
2010	1044	1041	3098	1811	31	31	4173	2883
2011	1040	1005	3271	1865	33	34	4344	2904
2012	886	906	2973	1814	54	60	3913	2780
2013	841	937	3600	2015	76	97	4517	3049
2014	804	825	4266	2519	102	107	5172	3451
2015	784	798	3895	2448	66	94	4745	3340
DAY HOURS	-	8AM TO 9PM.						
NIGHT HOURS	-	9 PM TO 8AM.						

TABLE 5.4
ACCIDENTS CLASSIFIED ACCORDING TO THE TIME OF OCCURRENCE

S.NO.	TIME SLOT	SIMPLE ACCIDENTS					FATAL ACCIDENTS				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
1	0000-0100	177	163	187	237	292	114	98	114	78	111
2	0100-0200	101	158	122	176	174	73	70	71	68	73
3	0200-0300	76	91	106	123	127	62	51	60	46	42
4	0300-0400	80	62	88	105	88	43	51	48	53	43
5	0400-0500	69	74	79	102	95	47	42	52	46	50
6	0500-0600	110	96	83	135	141	73	67	64	54	55
7	0600-0700	135	116	149	180	156	76	60	69	71	69
8	0700-0800	181	165	207	239	241	70	66	60	65	60
9	0800-0900	239	183	200	258	241	84	56	59	65	68
10	0900-1000	268	217	291	318	300	75	61	62	63	51
11	1000-1100	203	221	232	277	273	75	70	57	57	62
12	1100-1200	249	204	248	304	279	75	65	70	53	44
13	1200-1300	253	208	251	300	274	75	52	62	63	58
14	1300-1400	242	220	267	316	269	74	74	56	56	52
15	1400-1500	256	206	297	363	293	74	64	65	53	70
16	1500-1600	245	235	279	327	328	77	63	54	61	51
17	1600-1700	273	245	328	363	322	83	56	66	59	40
18	1700-1800	245	248	293	335	293	72	75	59	58	62
19	1800-1900	256	292	315	375	330	77	70	68	59	64
20	1900-2000	277	259	289	412	349	88	80	64	84	81
21	2000-2100	298	289	386	420	410	111	100	99	73	81
22	2100-2200	357	348	377	459	442	128	132	116	107	95
23	2200-2300	332	344	407	497	419	171	158	147	120	120
24	2300-2400	281	257	307	373	367	148	111	136	117	80
25	UNK. TIME	30	214	0	0	0	2	30	0	0	0
TOTAL		5233	5115	5788	6994	6503	2047	1822	1778	1629	1582

TABLE-5.5
TIME Vs VICTIM (FATAL ACCIDENTS) – 2015

TIMESLOT	VICTIMS													
	HTV'S	LGV'S	BUSES	CAR/TAXI	TSR	SC/MC	E_RICKSHAW	CYCLE RICKSHAW	CYCLIST	PEDESTRIAN	SELF	PASSENGERS	OTHERS	TOTAL
0000-0100	0	1	1	10	3	39	1	3	3	37	12	0	1	111
0100-0200	3	1	0	8	3	24	0	0	1	24	9	0	0	73
0200-0300	0	1	1	7	0	18	0	0	0	12	3	0	0	42
0300-0400	2	3	0	3	2	12	0	0	0	17	4	0	0	43
0400-0500	1	0	0	7	1	14	0	1	1	18	7	0	0	50
0500-0600	2	0	0	7	3	12	0	0	3	22	6	0	0	55
0600-0700	0	4	0	4	2	22	0	2	3	29	2	0	1	69
0700-0800	0	1	1	4	0	20	0	0	1	30	2	1	0	60
0800-0900	0	1	0	3	0	18	0	1	3	36	5	1	0	68
0900-1000	0	1	0	2	1	14	0	0	5	26	2	0	0	51
1000-1100	0	0	0	2	2	20	0	0	5	30	2	1	0	62
1100-1200	1	0	0	0	0	16	0	0	3	22	1	0	1	44
1200-1300	0	0	0	1	0	25	0	0	4	25	2	1	0	58
1300-1400	0	1	0	0	3	19	0	0	1	26	1	1	0	52
1400-1500	0	1	1	1	2	32	0	3	1	24	4	1	0	70
1500-1600	0	1	0	1	1	12	1	0	4	25	5	1	0	51
1600-1700	0	1	2	1	2	13	0	0	0	18	3	0	0	40
1700-1800	0	0	1	1	2	19	0	1	0	34	3	1	0	62
1800-1900	0	0	0	0	1	24	0	4	2	30	1	2	0	64
1900-2000	0	1	0	1	3	24	0	2	6	42	2	0	0	81
2000-2100	0	0	0	1	1	31	0	0	6	39	3	0	0	81
2100-2200	0	2	0	3	1	37	0	2	10	36	4	0	0	95
2200-2300	1	2	0	1	2	49	0	0	6	51	6	0	2	120
2300-2400	0	0	0	4	2	39	0	2	1	26	5	1	0	80
TOTAL	10	22	7	72	37	553	2	21	69	679	94	11	5	1582

TABLE-5.6
TIME Vs VEHICLE AT FAULT (FATAL ACCIDENTS) – 2015

TIMESLOT	VEHICLE AT FAULT									
	HTV'S	LGV'S	BUSES	CAR/TAXI	GRAMIN SEWA	TSR	SCOOTER/MC	UNKNOWN	OTHERS VEHICLE	TOTAL
0000-0100	15	8	3	22	1	0	11	50	1	111
0100-0200	8	5	3	15	0	0	6	34	2	73
0200-0300	9	1	1	4	0	0	3	23	1	42
0300-0400	10	2	2	8	0	1	2	17	1	43
0400-0500	9	3	0	7	0	0	3	26	2	50
0500-0600	14	5	2	9	1	1	4	19	0	55
0600-0700	14	5	6	9	0	2	1	32	0	69
0700-0800	9	5	9	13	1	0	1	20	2	60
0800-0900	6	5	5	12	0	0	9	29	2	68
0900-1000	9	3	7	5	1	0	8	18	0	51
1000-1100	9	3	6	16	0	0	10	17	1	62
1100-1200	6	3	2	8	0	0	7	16	2	44
1200-1300	12	5	3	16	0	1	2	17	2	58
1300-1400	13	2	4	11	3	2	3	14	0	52
1400-1500	11	7	7	15	0	1	5	24	0	70
1500-1600	8	3	5	9	0	1	7	18	0	51
1600-1700	2	2	5	7	1	0	7	14	2	40
1700-1800	4	5	6	19	1	3	4	20	0	62
1800-1900	7	3	9	10	0	0	10	25	0	64
1900-2000	8	4	11	16	0	5	8	28	1	81
2000-2100	7	6	8	11	0	1	13	35	0	81
2100-2200	16	11	8	11	0	2	9	36	2	95
2200-2300	25	3	3	27	0	0	11	49	2	120
2300-2400	18	2	2	12	0	0	3	42	1	80
TOTAL	249	101	117	292	9	20	147	623	24	1582

higher from 1700 – 0100 hrs. The trend of non-reporting of accused vehicle on all times may show the apathy of general public/eye witnesses to report the accidents.

- **HTVs committed fatal accidents** in all hours by and large maintaining their average with maximum between 2100 and 0100 hrs.

- **Cars also committed fatal accidents all day & night with higher numbers during night hours.** These Cars even caused most accidents in time period of 2100-0100 hrs.

- Buses caused most fatal accidents from 1800 – 2200hrs. **Two wheeler riders cause most accidents from 1800- 2300 hrs.** (Table 5.6).

• • •