

RadarClass


A390 Grampound Site 2
April 2013
Report
03/05/2013

CORMAC Consultancy
CORMAC Western Region,
Radnor Road, Scorrier, Redruth, Cornwall, TR16 5EH.





Grampound Site 2 April 2013

Route No: A390	 Speed Limit	RadarClass Unit No: RadarClass Unit 8
Column No: A008		Direction(s) of Travel: South-eastbound / North-westbound
Highways Region: West		OS Grid Reference: 193610 / 048285
Date of Deployment 16/04/2013	End of Operation 22/04/2013	Total Period of Operation 7 Days

Speed Statistics	South-eastbound	North-westbound
Number of Observations:	32,973	32,555
Mean Speed (mph):	26.3	27.1
85%ile Speed (mph):	31.0	32.0
Standard Deviation:	5.2	5.0
% ≤30 mph	82.7	78.8
% >40 mph	0.9	1.0

Comments:	
-----------	--

Data Submitted by: Paul Taylor	Data Processed by: Liam Scott
--------------------------------	-------------------------------



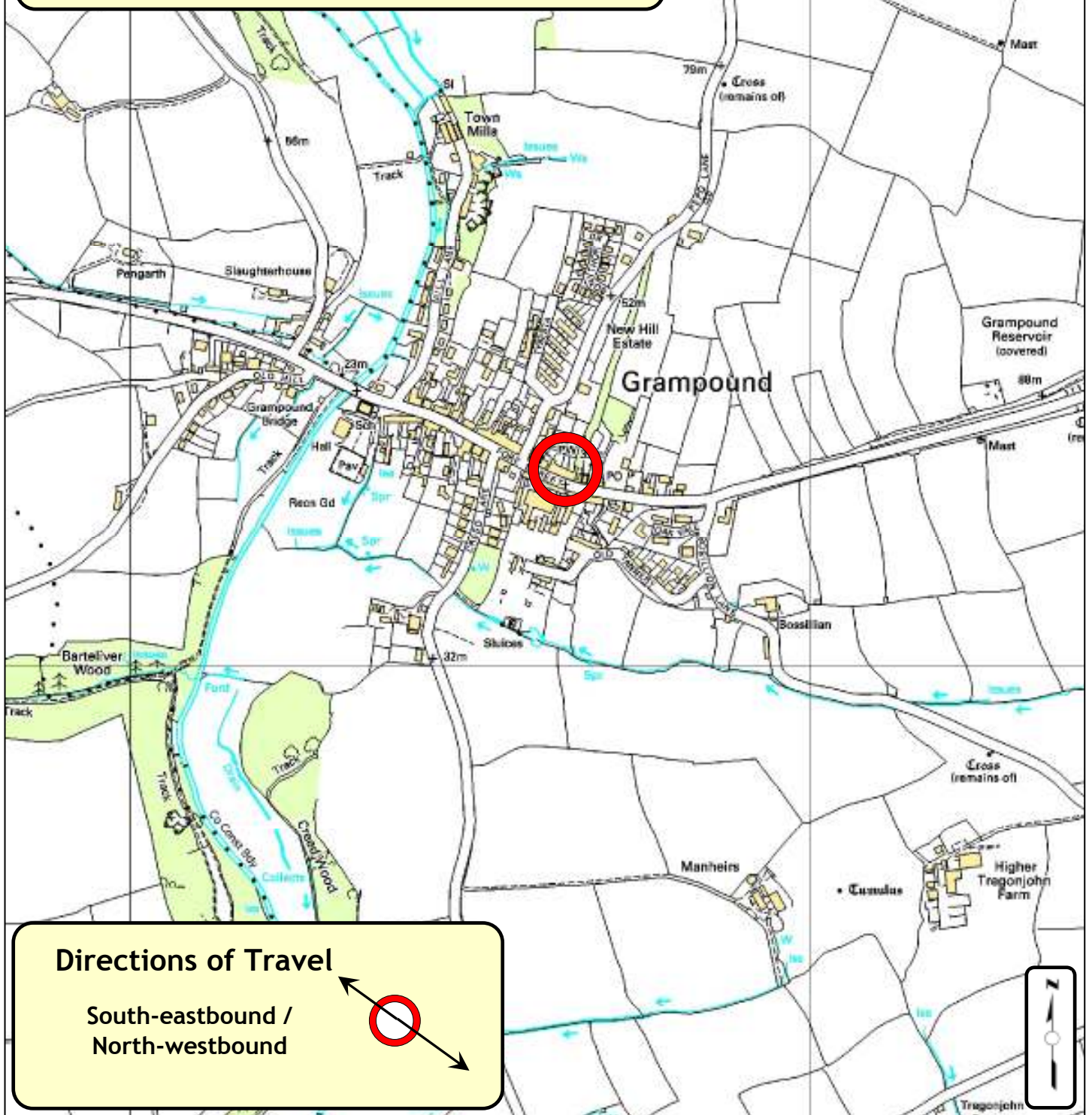
Location of Deployment A390 Grampound

Ordnance Survey
Grid Reference
193610 / 048285



Grampound

one and all
over hag oll
**CORNWALL
COUNCIL**



Directions of Travel

South-eastbound /
North-westbound





RadarClass is a portable radar device that detects and records the speed of passing vehicles. The unit is housed in an unobtrusive rugged grey steel anti-vandal housing which can be mounted on any item of roadside furniture without looking conspicuous.

The principal role of the unit is to detect and count passing vehicles and log the date, time and speed at which they passed. Data collected can be used to determine the volume of traffic flow on the road on which the unit has been deployed.



No of Observations:	The number of readings recorded by the radar. This does not correspond to an exact count of vehicles passing the sign, since vehicles may pass the sign in a tightly packed group (or 'platoon'); the radar will only record data for the 'lead vehicle' that is determining the speed for the remainder of the platoon.
Mean Speed:	The arithmetic average of all the speed values recorded.
85%ile Speed:	The speed at or below which 85% of the vehicles recorded were travelling.
Standard Deviation:	A measure of how widely speeds are dispersed from the Mean Speed.
% ≤ 30 mph:	The percentage of vehicles travelling at speeds of 30 mph or below (i.e. the percentage of vehicles travelling at or within the 30 mph speed limit).
% > 40 mph:	The percentage of vehicles travelling at speeds greater than 40 mph (i.e. the percentage of vehicles travelling at speeds in excess of 10mph above the 30 mph speed limit).



Engineering Design Group
RadarClass

South-eastbound

Detailed Statistics

**South-
eastbound**

Daily Summary Table

**A390 Grampound Site 2
April 2013**

Part 1 of 1



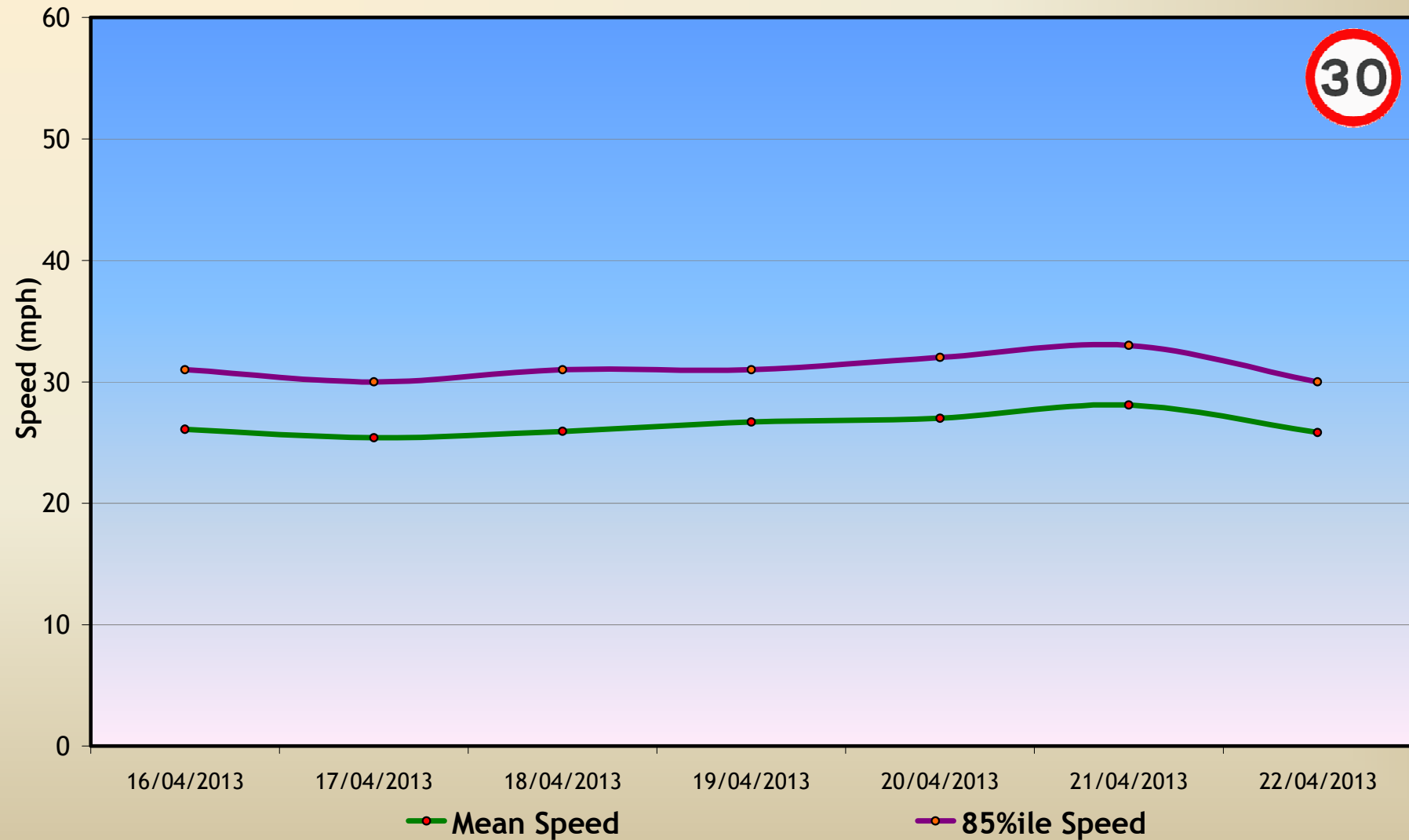
**Speed
Limit**

Date	Mean Speed	85%ile Speed	Standard Deviation	Percentage of Vehicles ≤30mph	Percentage of Vehicles >40mph
16/04/2013	26.1	31.0	5.0	84.1	0.7
17/04/2013	25.4	30.0	5.3	86.5	0.6
18/04/2013	25.9	31.0	5.3	84.3	0.7
19/04/2013	26.7	31.0	4.9	82.1	0.9
20/04/2013	27.0	32.0	5.4	79.0	1.4
21/04/2013	28.1	33.0	5.0	74.4	2.1
22/04/2013	25.8	30.0	4.8	86.3	0.3



Mean & 85%ile Speed

A390 Grampound Site 2
(South-eastbound)

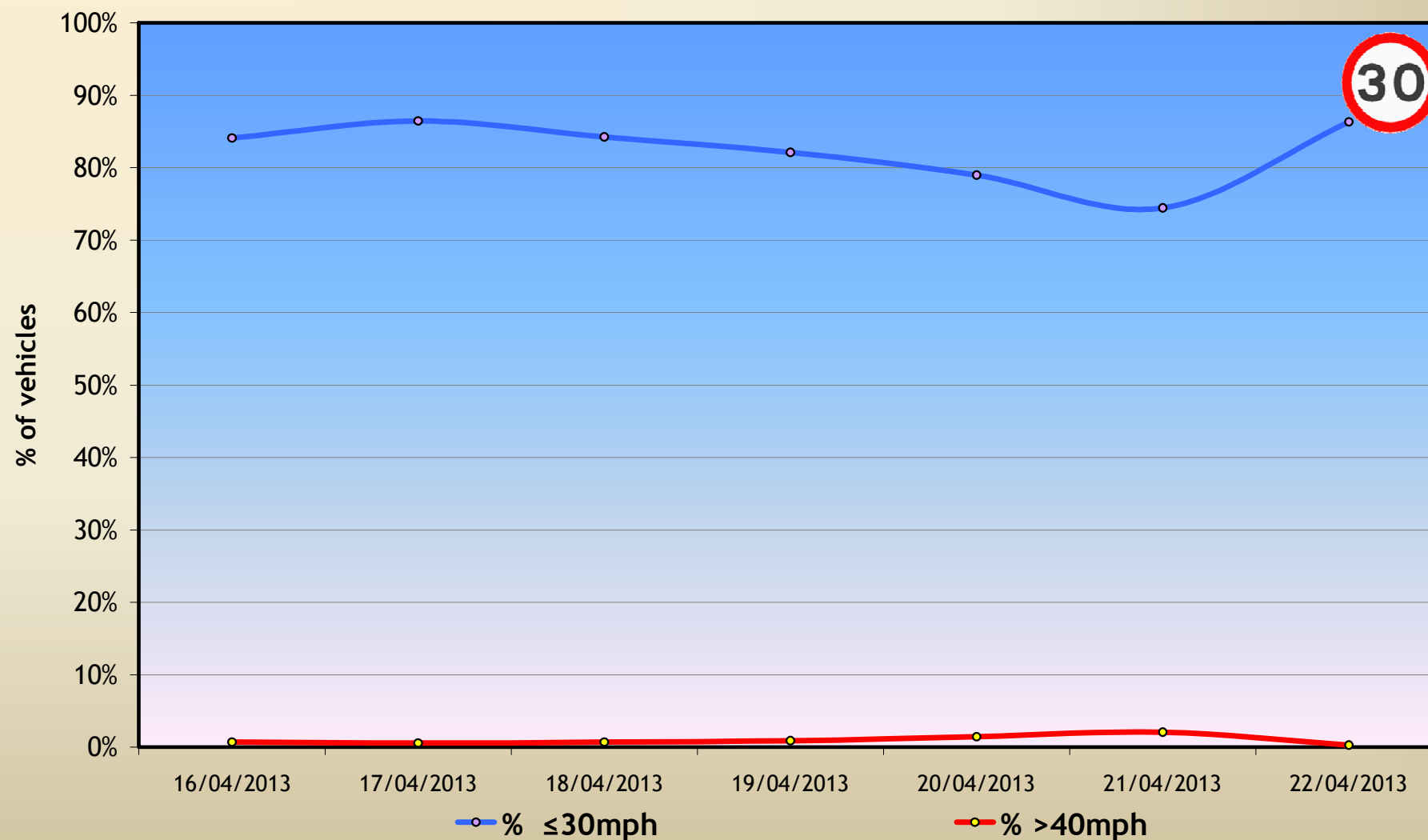




Percentage of Vehicles $\leq 30\text{mph}$ & $>40\text{mph}$

A390 Grampound Site 2

(South-eastbound)



**South-
eastbound**

Speed Frequencies

**A390 Grampound Site 2
April 2013**



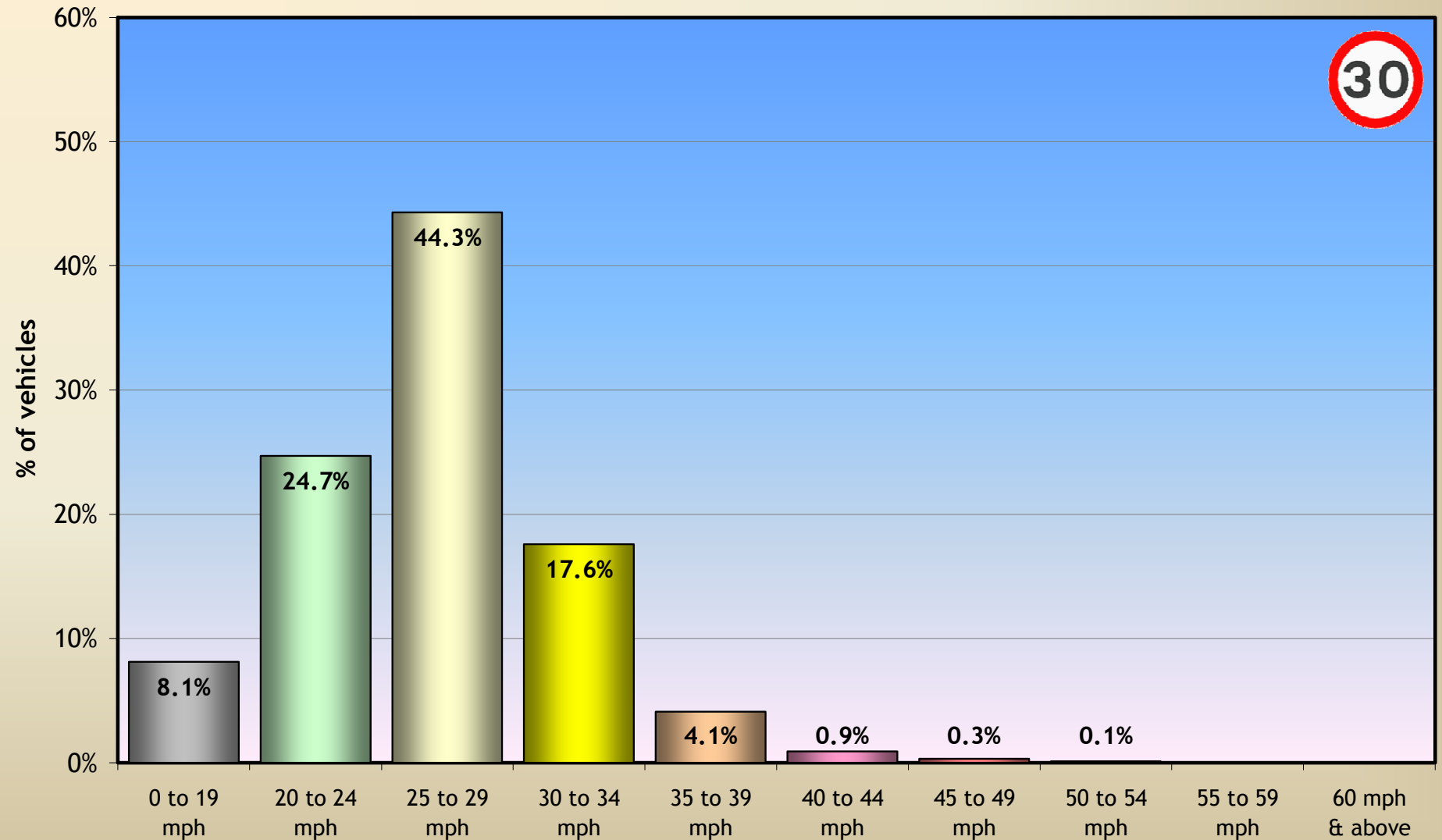
**Speed
Limit**

Speed Class	Percentage of Observations
0 mph to 19 mph	8.1
20 mph to 24 mph	24.7
25 mph to 29 mph	44.3
30 mph to 34 mph	17.6
35 mph to 39 mph	4.1
40 mph to 44 mph	0.9
45 mph to 49 mph	0.3
50 mph to 54 mph	0.1
55 mph to 59 mph	0.0
60 mph & above	0.0
Total	100.0



Speed Frequencies

A390 Grampound Site 2
(South-eastbound)



South-
eastbound

Daily Speed Frequencies

A390 Grampound Site 2
April 2013

Part 1 of 1



Speed
Limit

Date	Number of Observations										Total
	0 to 19 mph	20 to 24 mph	25 to 29 mph	30 to 34 mph	35 to 39 mph	40 to 44 mph	45 to 49 mph	50 to 54 mph	55 to 59 mph	60 mph & above	
16/04/2013	250	838	1,356	543	104	21	5	0	0	0	3,117
17/04/2013	669	1,655	2,338	793	195	37	10	2	0	0	5,699
18/04/2013	571	1,449	2,445	965	195	51	12	0	0	0	5,688
19/04/2013	340	1,305	2,585	1,016	235	43	18	5	0	0	5,547
20/04/2013	324	992	2,088	894	248	61	19	5	3	1	4,635
21/04/2013	113	606	1,696	847	225	78	17	5	0	0	3,587
22/04/2013	411	1,297	2,095	731	145	14	6	1	0	0	4,700
Total	2,678	8,142	14,603	5,789	1,347	305	87	18	3	1	32,973

**South-
eastbound**

Hour of Day Summary Table

**A390 Grampound Site 2
April 2013**



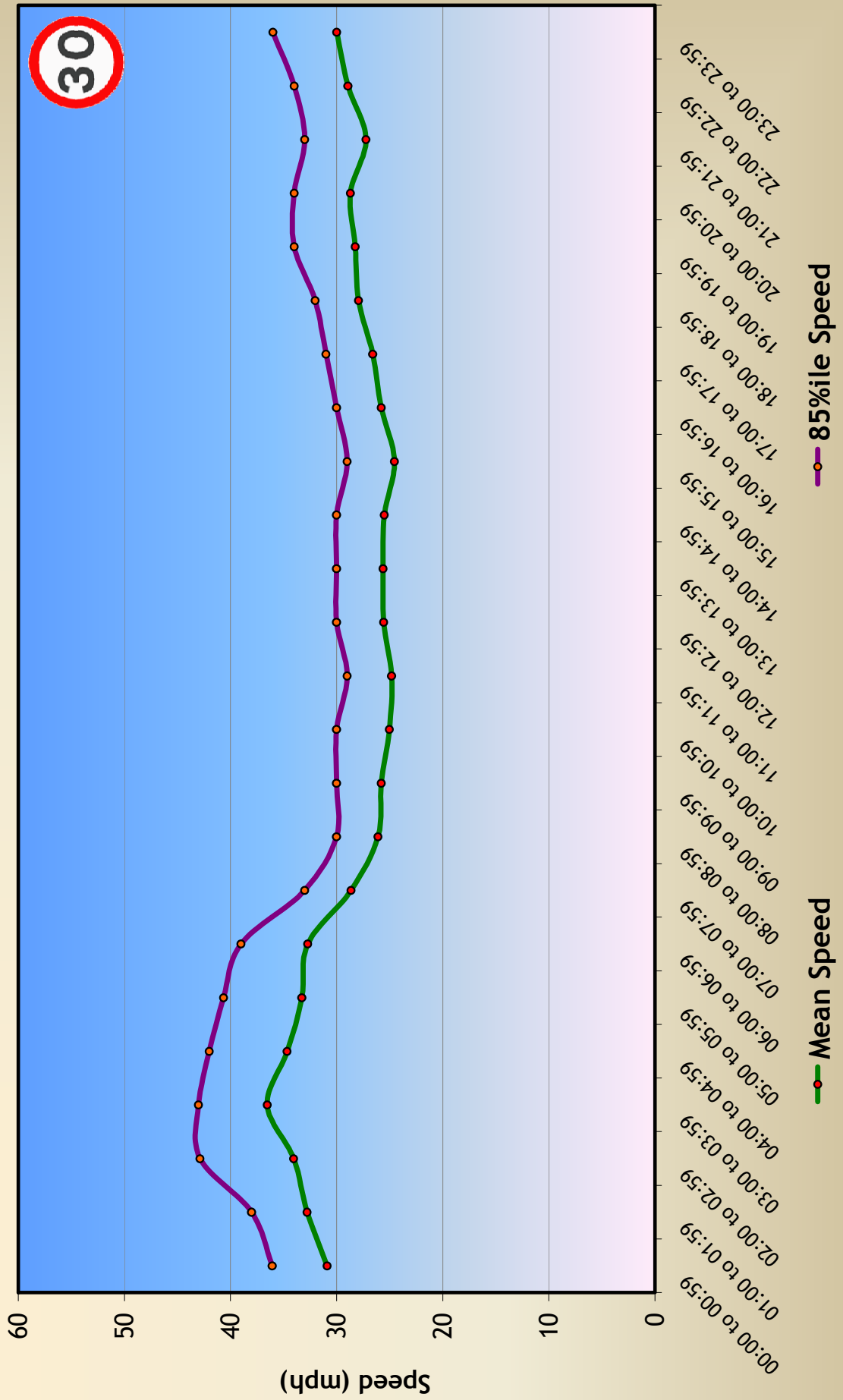
**Speed
Limit**

Hour of Day	Mean Speed	85%ile Speed	St. Dev	% ≤30 mph	% >40 mph
00:00 to 00:59	30.9	36.1	5.6	51.3	3.9
01:00 to 01:59	32.8	38.0	5.4	35.8	8.6
02:00 to 02:59	34.0	42.9	7.4	39.0	18.3
03:00 to 03:59	36.5	43.0	7.4	21.3	32.8
04:00 to 04:59	34.6	42.0	6.8	26.2	21.4
05:00 to 05:59	33.3	40.7	7.0	35.5	15.5
06:00 to 06:59	32.7	39.0	6.4	36.2	10.0
07:00 to 07:59	28.6	33.0	5.2	66.8	1.3
08:00 to 08:59	26.1	30.0	4.9	86.7	0.9
09:00 to 09:59	25.8	30.0	4.7	86.9	0.2
10:00 to 10:59	25.0	30.0	4.9	89.6	0.2
11:00 to 11:59	24.8	29.0	4.7	90.7	0.1
12:00 to 12:59	25.6	30.0	4.7	87.8	0.1
13:00 to 13:59	25.6	30.0	4.6	88.2	0.3
14:00 to 14:59	25.5	30.0	4.7	88.5	0.3
15:00 to 15:59	24.5	29.0	4.9	91.2	0.1
16:00 to 16:59	25.8	30.0	4.5	88.0	0.2
17:00 to 17:59	26.6	31.0	4.7	82.5	0.5
18:00 to 18:59	27.9	32.0	4.8	74.6	1.1
19:00 to 19:59	28.2	34.0	5.8	67.2	1.8
20:00 to 20:59	28.7	34.0	5.5	67.6	2.6
21:00 to 21:59	27.2	33.0	5.2	76.6	1.2
22:00 to 22:59	28.9	34.0	5.5	67.7	3.4
23:00 to 23:59	30.0	36.0	5.8	58.3	3.9



Mean & 85%ile Speed by Hour

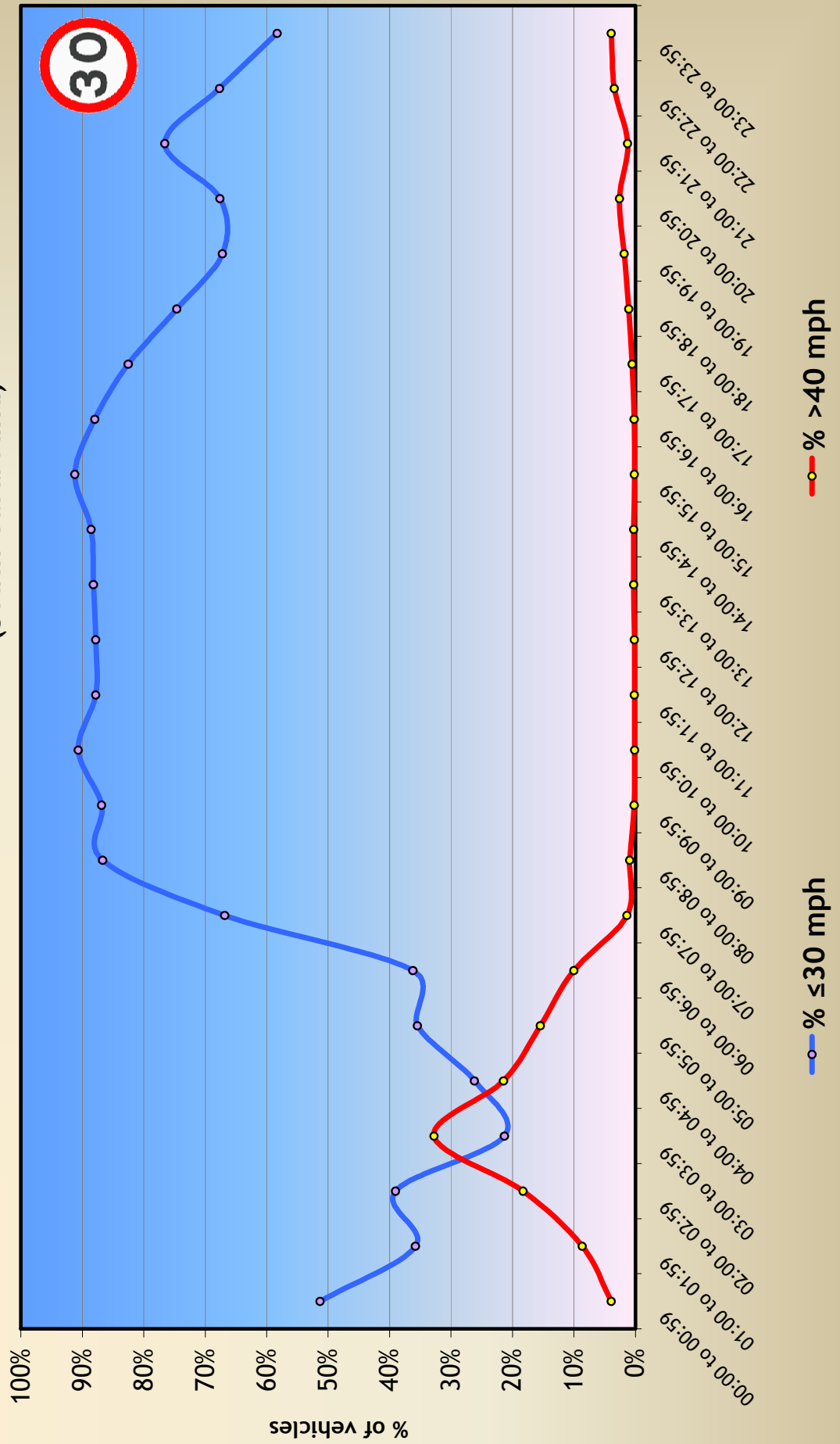
A390 Grampound Site 2
(South-eastbound)





Percentage of Vehicles ≤ 30 mph & >40 mph by Hour

A390 Grampound Site 2
(South-eastbound)





Engineering Design Group
RadarClass

North-westbound

Detailed Statistics

North-
westbound

Daily Summary Table

A390 Grampound Site 2
April 2013

Part 1 of 1



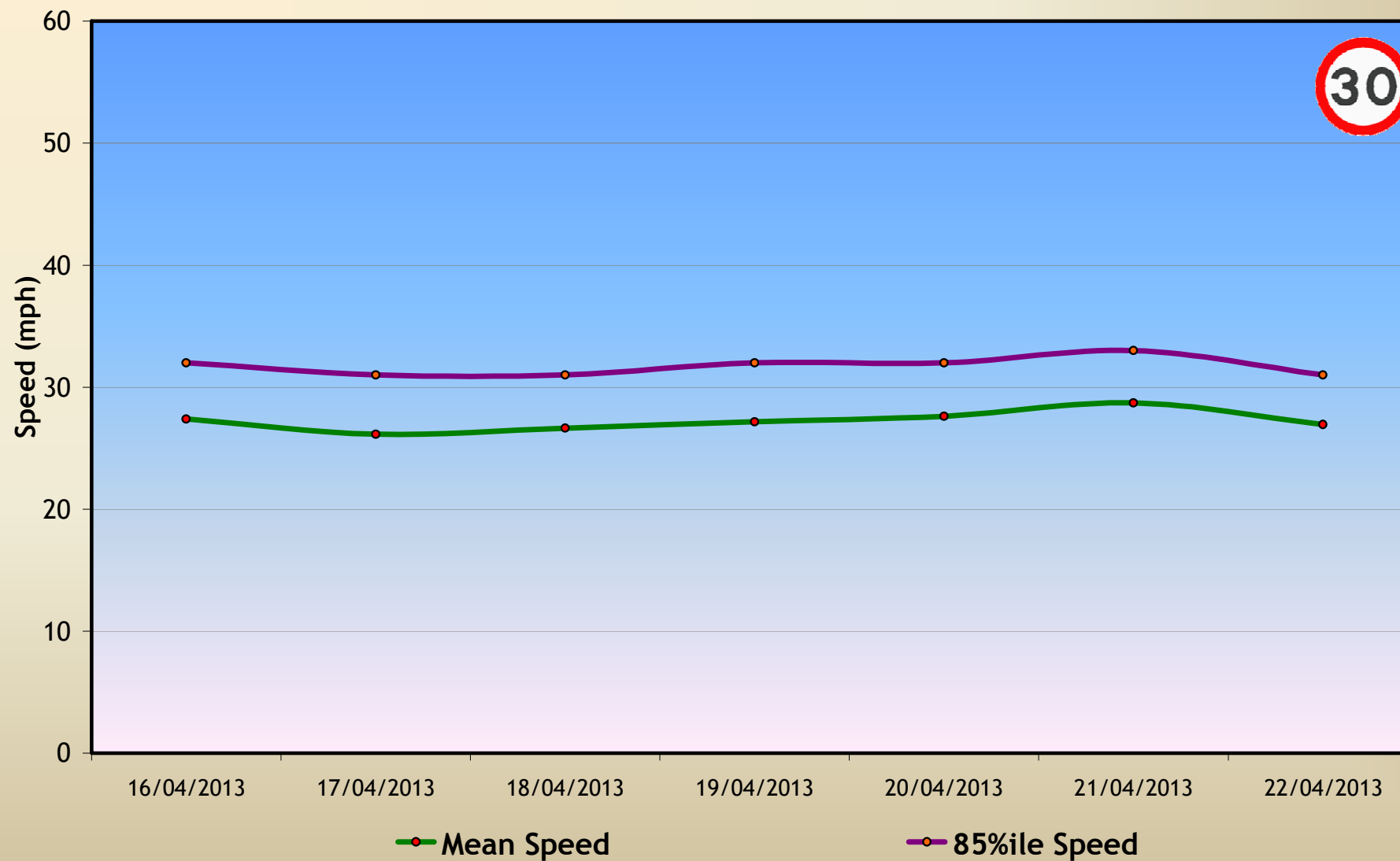
Speed
Limit

Date	Mean Speed	85%ile Speed	Standard Deviation	Percentage of Vehicles ≤30mph	Percentage of Vehicles >40mph
16/04/2013	27.4	32.0	4.9	78.3	0.9
17/04/2013	26.1	31.0	5.1	83.5	0.8
18/04/2013	26.6	31.0	5.0	80.3	0.7
19/04/2013	27.2	32.0	5.0	78.4	0.9
20/04/2013	27.6	32.0	5.1	75.6	1.2
21/04/2013	28.7	33.0	4.9	69.1	1.9
22/04/2013	26.9	31.0	4.5	82.5	0.6



Mean & 85%ile Speed

A390 Grampound Site 2
(North-westbound)

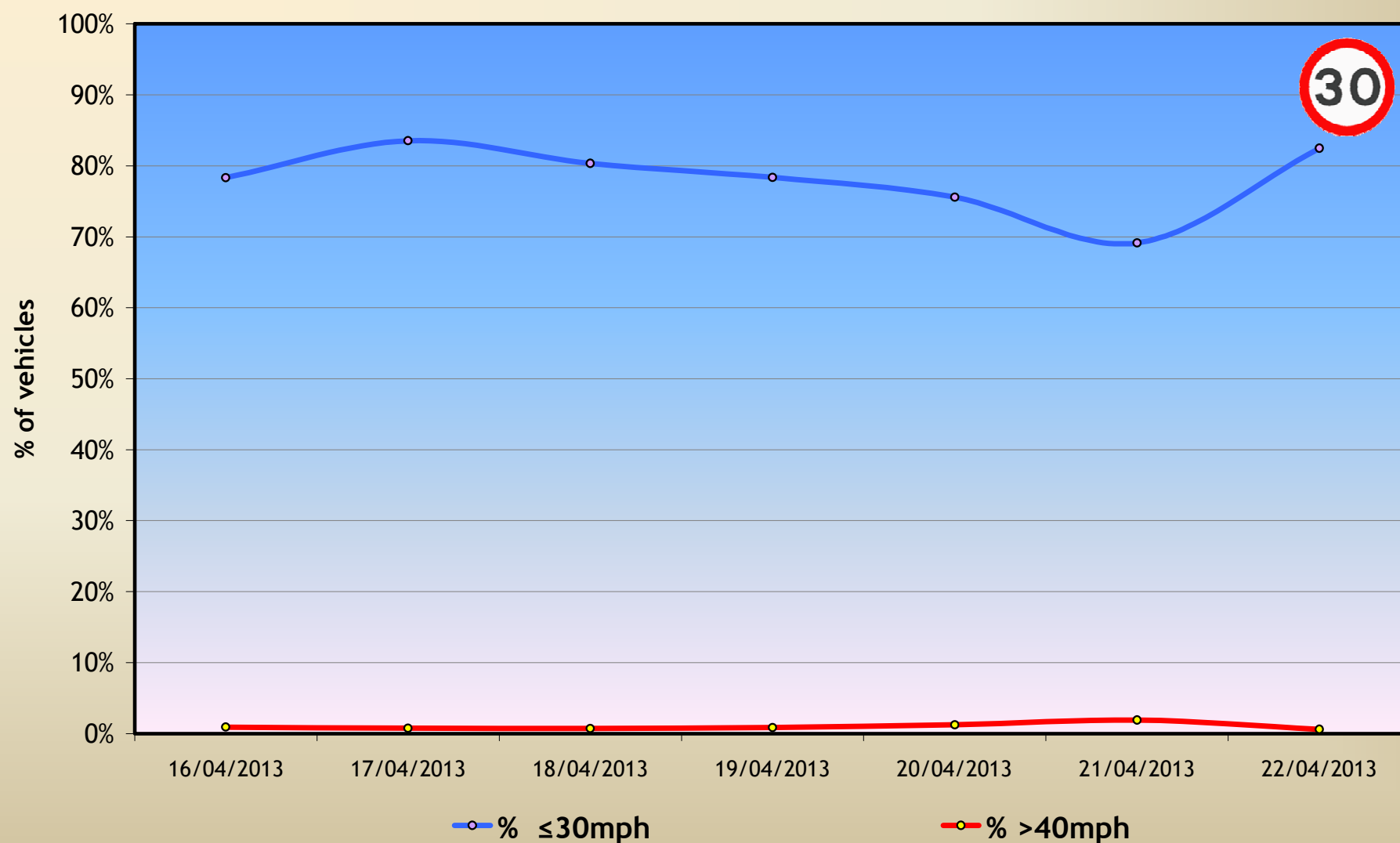




Percentage of Vehicles $\leq 30\text{mph}$ & $> 40\text{mph}$

A390 Grampound Site 2

(North-westbound)



**North-
westbound**

Speed Frequencies

**A390 Grampound Site 2
April 2013**



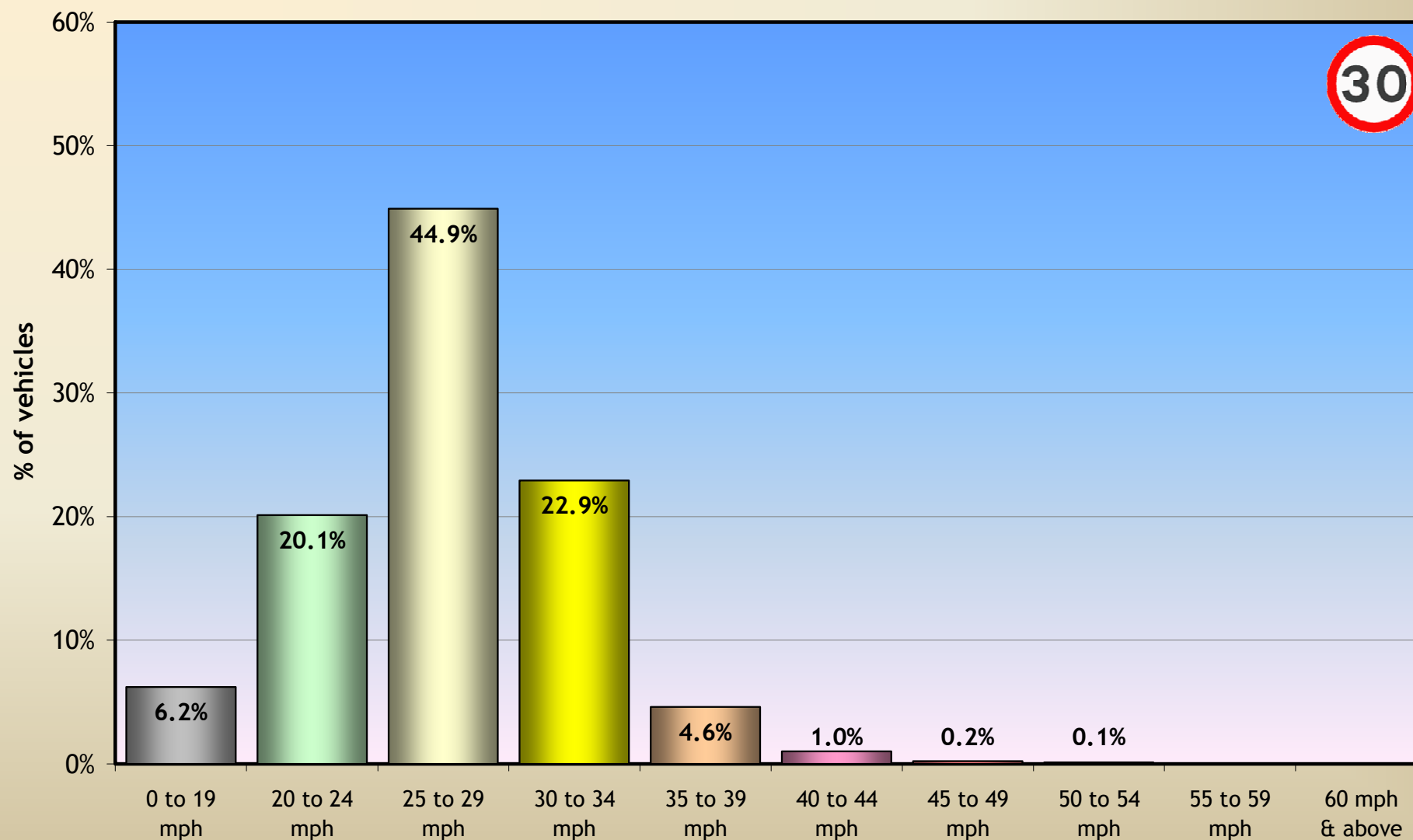
**Speed
Limit**

Speed Class	Percentage of Observations
0 mph to 19 mph	6.2
20 mph to 24 mph	20.1
25 mph to 29 mph	44.9
30 mph to 34 mph	22.9
35 mph to 39 mph	4.6
40 mph to 44 mph	1.0
45 mph to 49 mph	0.2
50 mph to 54 mph	0.1
55 mph to 59 mph	0.0
60 mph & above	0.0
Total	100.0



Speed Frequencies

A390 Grampound Site 2
(North-westbound)



North-
westbound

Daily Speed Frequencies

A390 Grampound Site 2
April 2013

Part 1 of 1



Speed
Limit

Date	Number of Observations										Total
	0 to 19 mph	20 to 24 mph	25 to 29 mph	30 to 34 mph	35 to 39 mph	40 to 44 mph	45 to 49 mph	50 to 54 mph	55 to 59 mph	60 mph & above	
16/04/2013	139	399	1,124	605	116	20	2	1	1	0	2,407
17/04/2013	497	1,440	2,459	1,029	206	36	16	0	1	0	5,684
18/04/2013	441	1,349	2,465	1,235	234	46	10	2	1	0	5,783
19/04/2013	326	1,151	2,469	1,310	260	63	8	2	1	0	5,590
20/04/2013	267	795	2,110	1,144	276	51	15	11	1	0	4,670
21/04/2013	106	436	1,600	1,092	275	61	18	2	1	0	3,591
22/04/2013	241	969	2,389	1,052	142	33	2	1	1	0	4,830
Total	2,017	6,539	14,616	7,467	1,509	310	71	19	7	0	32,555

North-
westbound

Hour of Day Summary Table

A390 Grampound Site 2
April 2013



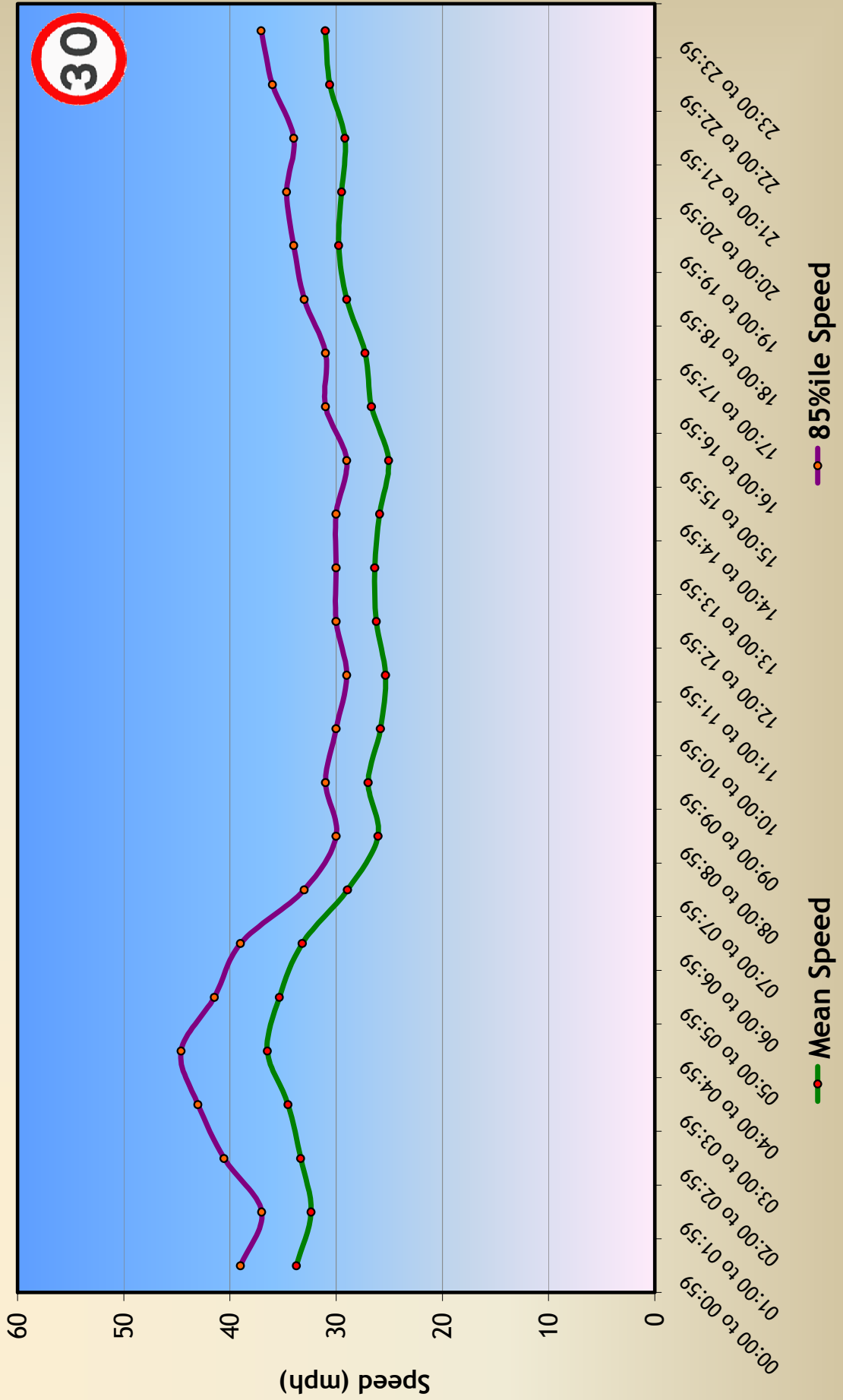
Speed
Limit

Hour of Day	Mean Speed	85%ile Speed	St. Dev	% ≤30 mph	% >40 mph
00:00 to 00:59	33.7	39.0	6.6	33.3	12.8
01:00 to 01:59	32.4	37.0	5.6	40.9	10.2
02:00 to 02:59	33.3	40.6	7.1	39.1	15.6
03:00 to 03:59	34.5	43.0	9.7	27.7	23.4
04:00 to 04:59	36.5	44.6	8.5	28.1	29.8
05:00 to 05:59	35.3	41.5	6.7	27.8	19.0
06:00 to 06:59	33.2	39.0	5.4	30.9	9.6
07:00 to 07:59	28.9	33.0	4.8	65.1	1.4
08:00 to 08:59	26.1	30.0	4.9	85.1	0.5
09:00 to 09:59	27.0	31.0	4.4	81.2	0.0
10:00 to 10:59	25.8	30.0	4.3	88.9	0.2
11:00 to 11:59	25.3	29.0	4.4	90.8	0.0
12:00 to 12:59	26.2	30.0	4.6	87.3	0.2
13:00 to 13:59	26.4	30.0	4.3	85.8	0.1
14:00 to 14:59	25.9	30.0	4.5	87.4	0.2
15:00 to 15:59	25.1	29.0	4.5	90.0	0.1
16:00 to 16:59	26.7	31.0	4.3	83.3	0.2
17:00 to 17:59	27.3	31.0	4.6	77.9	0.3
18:00 to 18:59	29.0	33.0	4.5	64.9	0.8
19:00 to 19:59	29.8	34.0	4.8	57.4	0.9
20:00 to 20:59	29.5	34.7	5.0	63.5	1.9
21:00 to 21:59	29.2	34.0	5.4	63.7	2.8
22:00 to 22:59	30.6	36.0	5.3	54.3	5.4
23:00 to 23:59	31.0	37.1	6.6	46.9	6.2



Mean & 85%ile Speed by Hour

A390 Grampound Site 2
(North-westbound)





Percentage of Vehicles $\leq 30\text{mph}$ & $> 40\text{mph}$ by Hour

A390 Grampound Site 2
(North-westbound)

