

APPENDICES

A	HISTORICAL DEMAND AND BENCHMARKING EXAMPLES
B	CONTROL MODELLING (2013/14)
C	OPERATIONAL MODELLING (2013/14)
D	SENSITIVITY MODELLING (2013/14)
E	RATIONALE FOR CLINICAL RECOMMENDATIONS
F	CONTROL AND OPERATIONAL MODELLING (FUTURE YEARS)
G	GLOSSARY

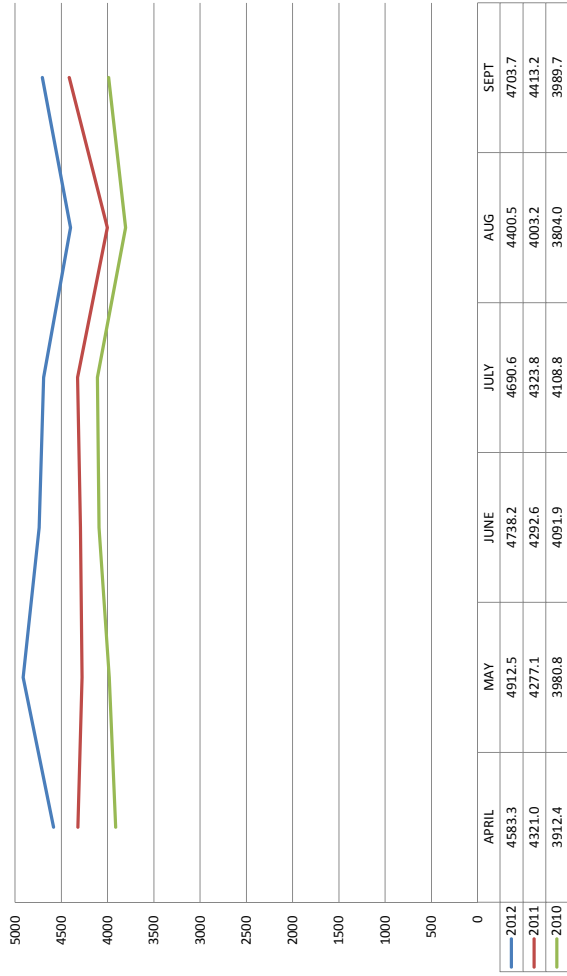
A HISTORICAL DEMAND AND BENCHMARKING EXAMPLES

A1 Historical Demand

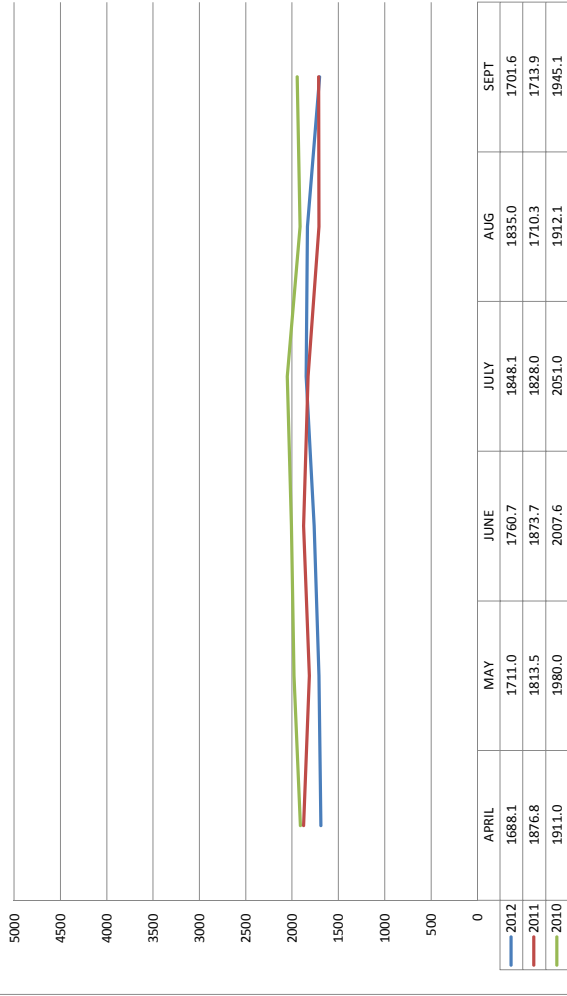
A2 Benchmarking Examples

London Ambulance Service
Historic Demand Trends

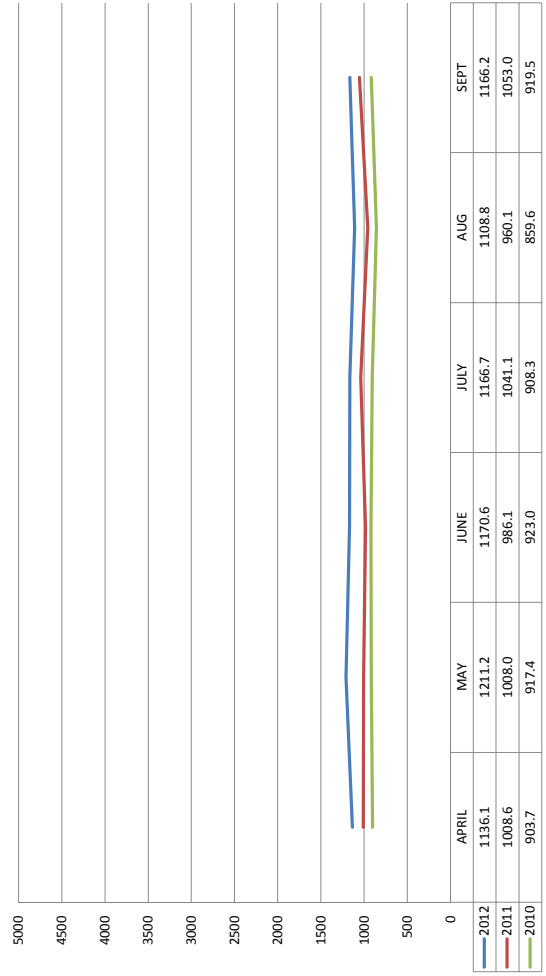
Average Daily 999 calls (inc. MPS)



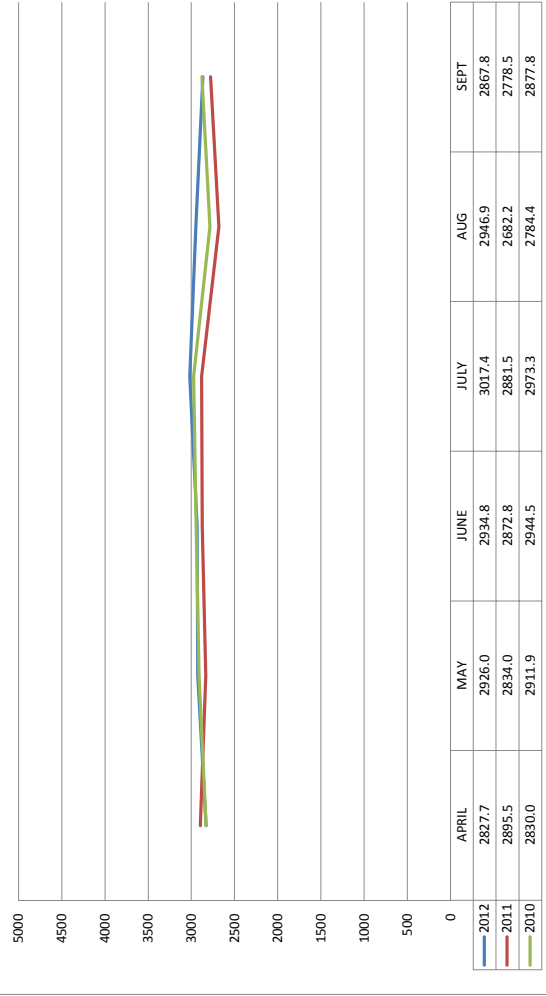
Average Daily Cat B & C Incidents



Average Daily Cat A Incidents

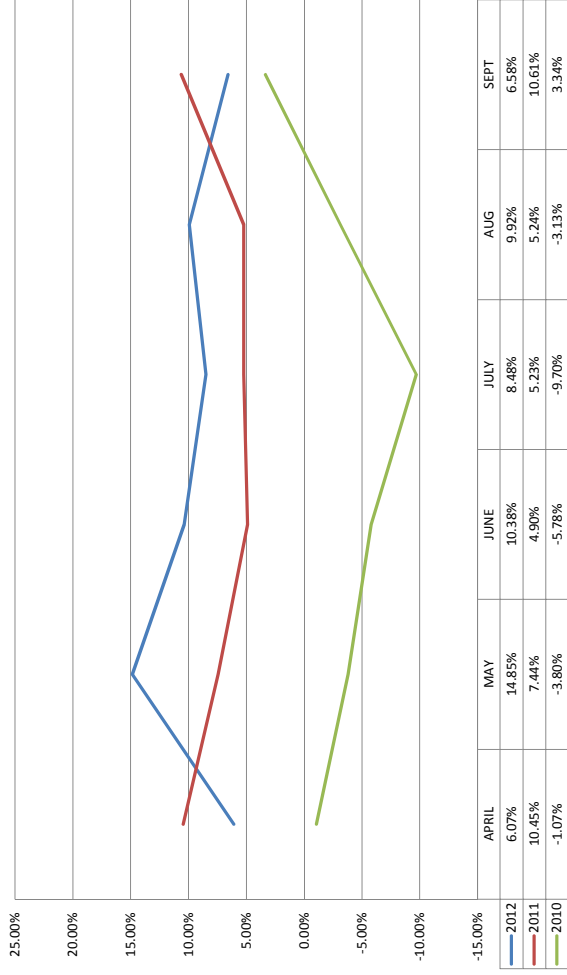


Average Daily Total Demand

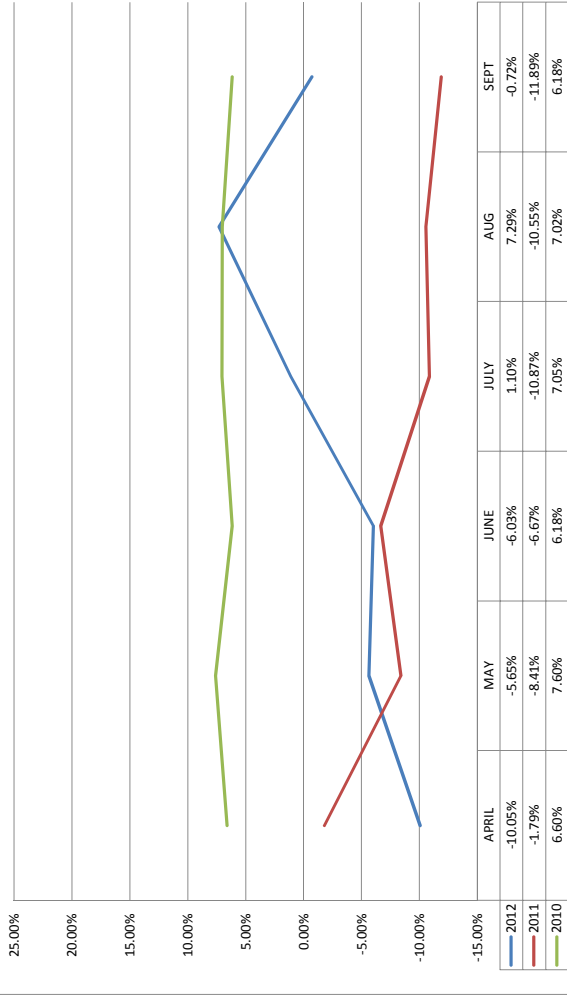


London Ambulance Service
Historic Demand Trends

Percentage Increase 999 calls (Inc. MPS)



Percentage Increase Cat B & C Incidents



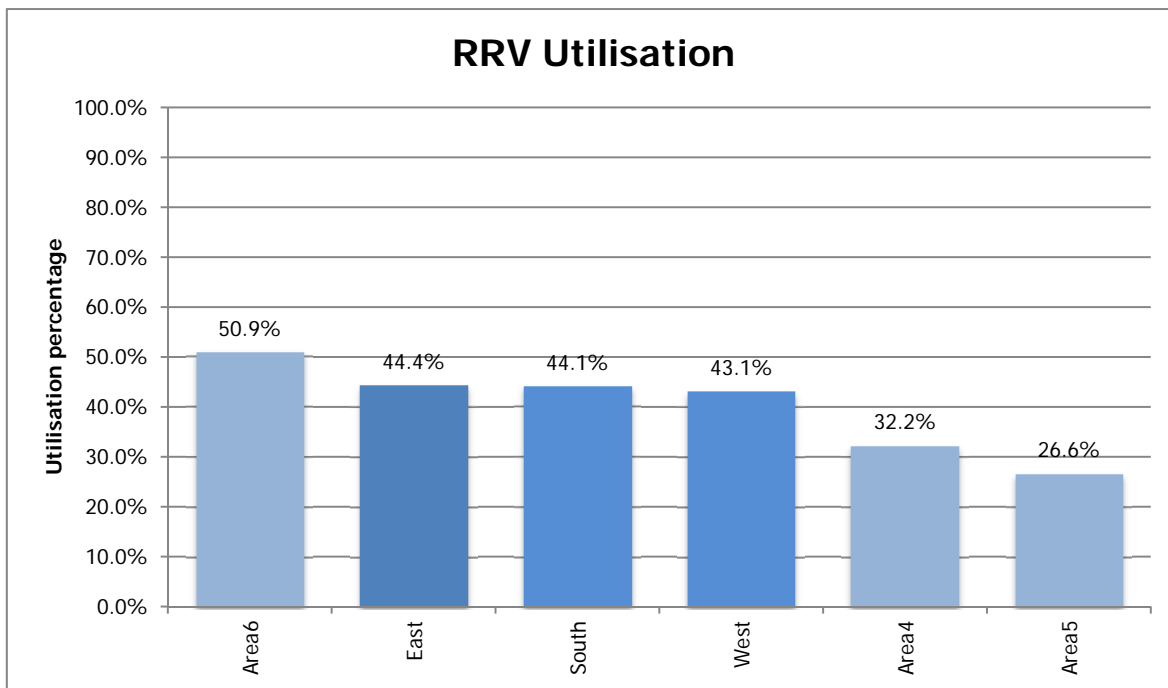
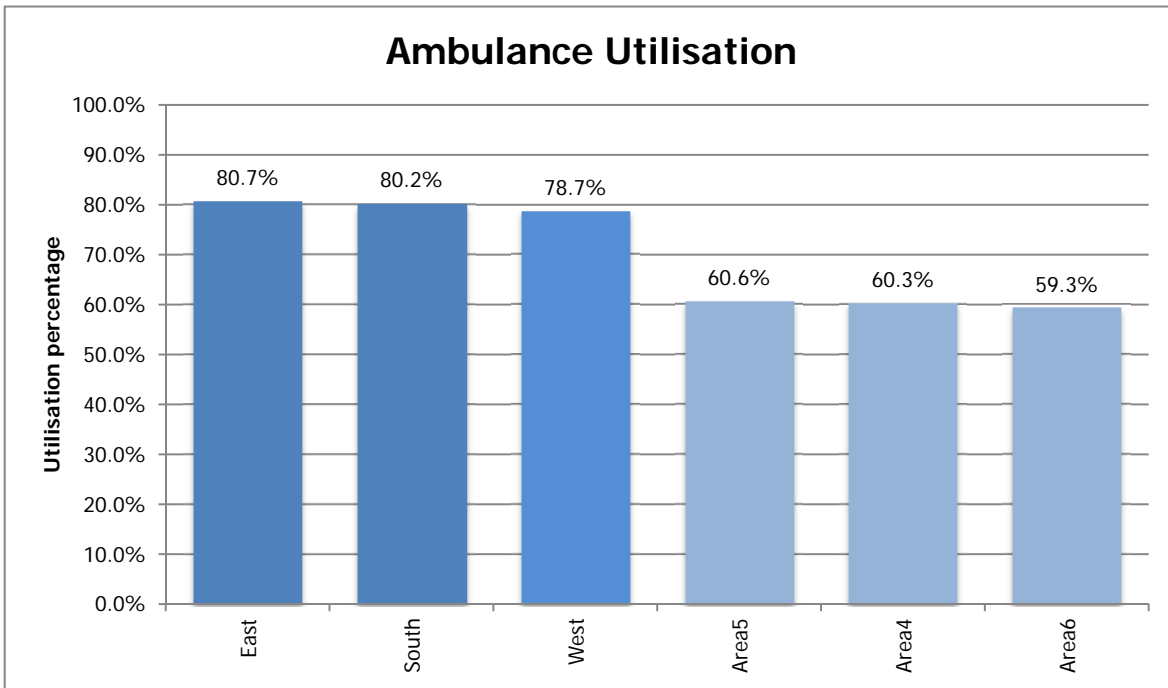
Percentage Increase Cat A Incidents



Percentage Increase Total Demand

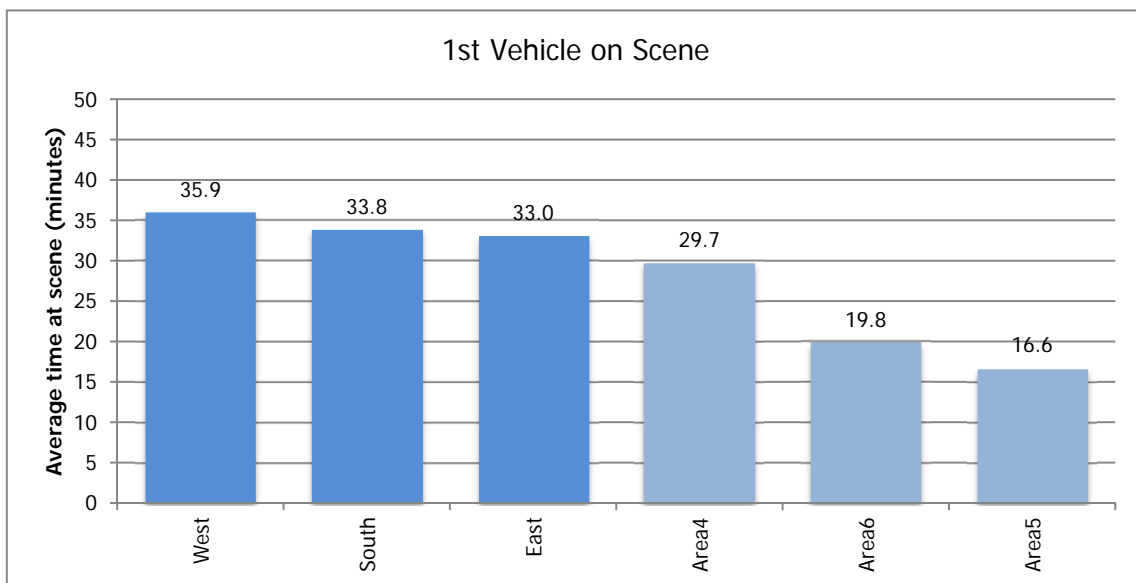
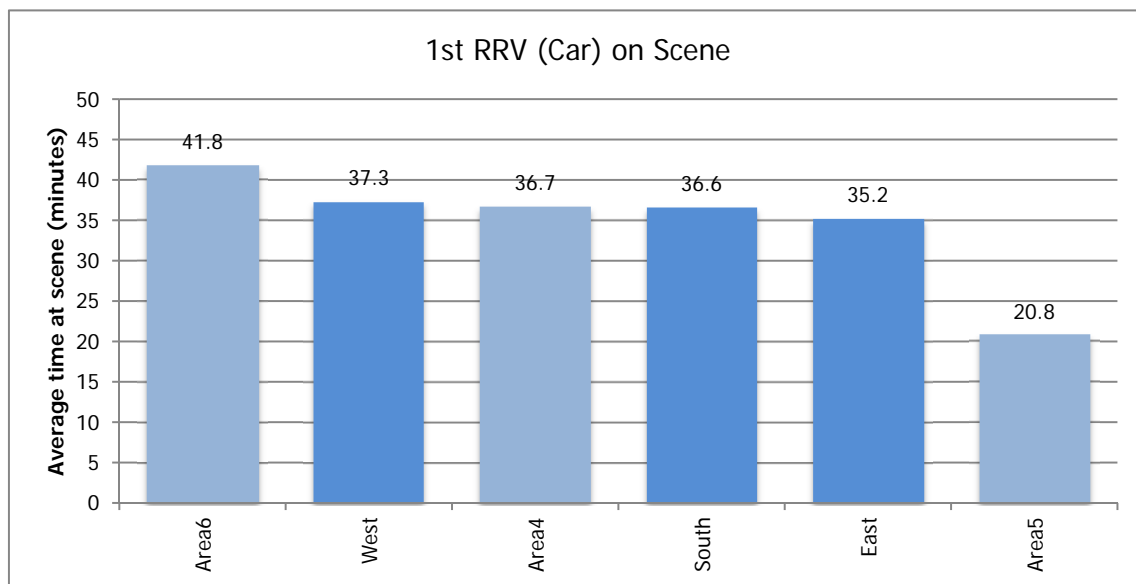
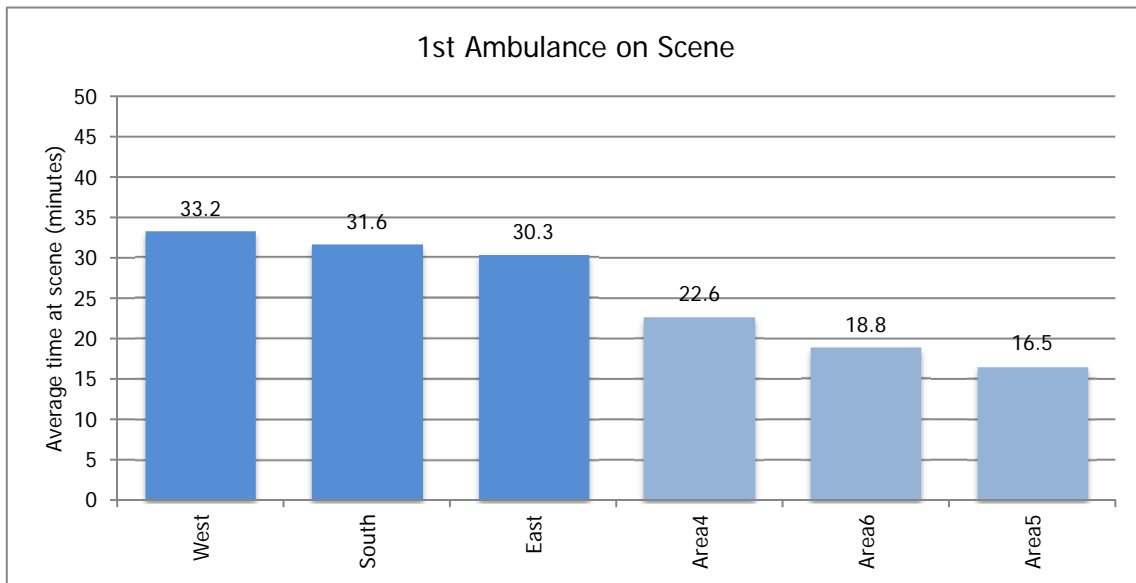


London Ambulance Service
Benchmarking : Utilisation



London Ambulance Service

Benchmarking : Average Time at Scene(minutes)



B CONTROL MODELLING (2013/14)

B1 Calibrated Position: 2012/13 Call Taker Modelling

B2 Results: 2013/14 CallTaker Modelling

B3 CHUB Modelling

B3a G3 Demand: 2013/14

B3b Results: 2013/14

B4 CTA Modelling

B4a G4 Demand: 2013/14

B4b Results: 2013/14 CTA Modelling

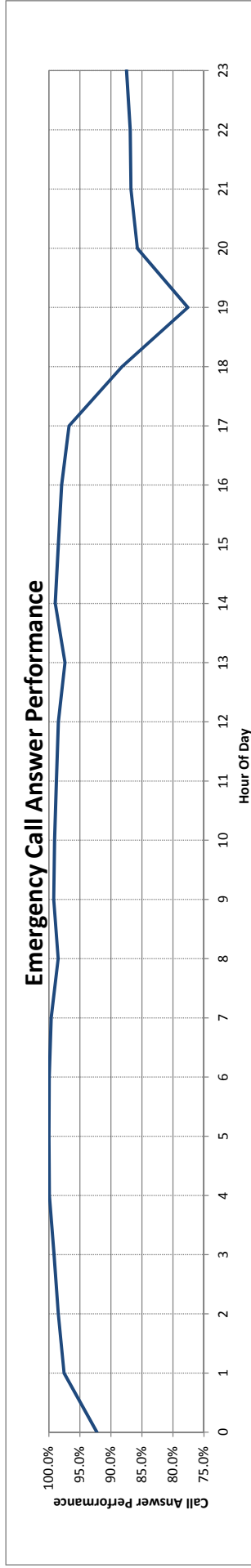
B5 Relief Rate Calculation

London Ambulance Service
Current Regular Call Taker Performance for Answering ALL 999 Calls - 2012/13 - With Meal Breaks
 Sample Period: 18 Jun to 15 Jul 12

Call Taker Utilisation	51.8%
Call Taker Availability	92%

Modelled Call Takers

Day	Hour of Day																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	23	23	23	22	21	20	20	22	22	26	28	29	30	30	30	28	27	27	26	24	27	25	25	25	606
Tuesday	25	24	23	23	23	23	24	24	24	27	29	30	30	30	30	28	27	27	27	25	28	26	26	25	633
Wednesday	25	24	24	25	25	24	23	23	23	27	29	29	29	29	29	27	26	25	24	24	26	25	25	24	621
Thursday	24	24	24	24	24	23	22	23	23	26	27	29	29	29	29	29	29	28	27	24	26	25	25	23	617
Friday	22	22	22	21	21	20	24	24	24	26	28	29	30	30	30	30	28	27	27	27	28	28	27	26	621
Saturday	26	26	25	23	23	22	23	21	21	27	28	28	28	28	29	29	28	27	27	24	26	26	26	25	616
Sunday	24	24	23	22	22	22	23	18	19	27	28	28	28	28	28	27	26	24	19	24	23	23	23	23	581
Total	169	169	165	160	159	157	157	154	156	186	197	202	204	204	205	204	197	189	183	167	185	178	177	171	4295



Emergency Calls; Modelled Performance

Day	Hour of Day																							Total		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23	
Monday	92.6%	98.2%	99.9%	99.9%	99.9%	100.0%	100.0%	99.7%	99.3%	95.5%	98.5%	97.8%	97.3%	97.2%	99.0%	99.0%	97.7%	94.8%	93.9%	83.5%	61.4%	79.7%	78.7%	92.5%	94.3%	92.1%
Tuesday	99.7%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.2%	99.2%	99.5%	99.6%	99.1%	98.8%	98.9%	98.9%	96.8%	91.0%	90.0%	94.0%	97.5%	92.2%	99.4%	97.4%	
Wednesday	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%	99.9%	99.5%	98.5%	98.2%	99.0%	99.0%	97.9%	98.7%	94.7%	78.2%	72.5%	80.3%	76.8%	90.3%	92.6%	92.6%	
Thursday	98.1%	99.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.1%	99.1%	98.8%	98.0%	98.2%	90.9%	98.1%	98.2%	98.3%	97.5%	86.9%	74.6%	89.8%	90.1%	89.2%	92.1%	94.4%	
Friday	95.6%	99.5%	99.5%	100.0%	100.0%	100.0%	99.9%	99.8%	99.0%	98.3%	98.8%	99.1%	99.0%	99.5%	99.2%	99.1%	98.9%	97.4%	96.6%	94.2%	92.9%	90.0%	85.0%	92.4%	96.5%	
Saturday	98.6%	98.6%	99.8%	99.1%	99.8%	100.0%	100.0%	99.2%	98.8%	100.0%	99.8%	99.7%	99.1%	97.2%	99.1%	99.2%	96.8%	98.9%	94.2%	79.0%	86.6%	90.0%	76.4%	93.5%	93.5%	
Sunday	73.0%	91.2%	93.5%	96.7%	99.8%	99.9%	99.9%	99.1%	98.7%	100.0%	99.9%	99.5%	98.0%	98.6%	99.7%	98.3%	99.8%	98.6%	88.8%	74.3%	78.0%	86.9%	85.1%	78.4%	91.7%	
Total	92.3%	97.6%	98.5%	99.1%	99.9%	100.0%	99.9%	99.6%	98.5%	99.2%	99.1%	98.8%	98.5%	97.4%	99.0%	98.5%	97.9%	96.7%	88.2%	77.6%	85.7%	86.8%	86.9%	87.5%	94.0%	

London Ambulance Service

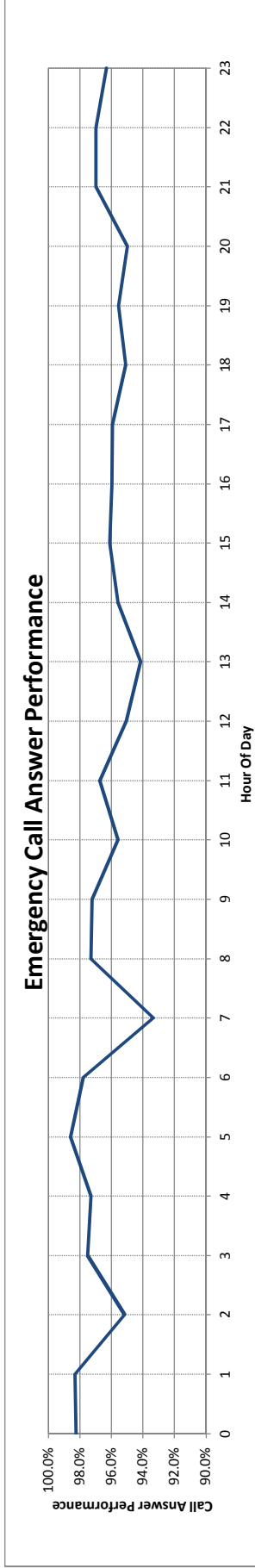
Rostered Call Takers required to Achieve 96% Calls Answered in 5 Seconds - 2013/14 - With Meal Breaks

Sample Period: 18 Jun to 15 Jul 12

Call Taker Utilisation	55.8%
Call Taker Availability	92%

Modelled Call Takers

Day	Hour of Day																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	26	26	16	16	16	16	16	16	25	25	25	29	29	29	29	29	29	29	29	31	31	31	31	26	605
Tuesday	26	26	16	16	16	16	16	16	25	25	25	28	28	28	28	28	28	28	28	31	31	31	31	24	598
Wednesday	24	24	16	16	16	16	16	16	25	25	25	28	28	28	28	28	28	28	28	31	31	31	31	26	596
Thursday	26	26	16	16	16	16	16	16	25	25	25	28	28	28	28	28	28	28	28	31	31	31	31	26	600
Friday	26	26	16	16	16	16	16	16	25	25	25	28	28	28	28	28	28	28	28	31	31	31	31	31	605
Saturday	26	26	26	26	17	17	17	17	26	26	26	26	26	26	26	26	26	26	26	31	31	31	31	31	609
Sunday	31	26	26	26	17	17	17	17	26	26	26	26	26	26	26	26	26	26	26	28	28	28	28	28	596
Total	185	180	132	132	114	114	114	114	159	177	177	193	193	193	193	193	193	193	212	214	214	214	214	192	4209



Emergency Calls; Modelled Performance

Day	Hour of Day																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	97.1%	99.9%	92.5%	93.7%	98.6%	98.2%	94.8%	86.3%	98.9%	95.0%	90.0%	95.7%	91.5%	96.9%	96.5%	95.5%	96.4%	95.2%	92.5%	91.0%	93.5%	96.3%	99.1%	98.0%	95.0%
Tuesday	99.7%	100.0%	93.6%	96.0%	98.7%	99.2%	93.4%	99.4%	99.4%	96.5%	94.1%	98.0%	96.4%	95.1%	94.0%	94.2%	97.0%	97.6%	96.4%	97.6%	94.2%	99.5%	98.7%	99.3%	96.8%
Wednesday	99.9%	100.0%	98.4%	99.8%	99.9%	99.7%	98.5%	94.3%	99.9%	98.8%	95.7%	95.3%	95.3%	97.7%	97.8%	96.2%	96.5%	94.5%	92.8%	95.5%	94.5%	97.8%	98.9%	93.7%	96.6%
Thursday	98.8%	99.7%	90.5%	94.7%	98.2%	99.7%	98.5%	96.5%	99.7%	96.0%	95.7%	95.2%	96.4%	86.2%	92.8%	96.9%	94.9%	95.1%	94.1%	95.7%	97.8%	98.8%	98.7%	96.7%	95.8%
Friday	98.9%	100.0%	91.6%	97.7%	98.3%	98.3%	98.3%	91.9%	98.2%	96.2%	96.5%	97.7%	94.5%	95.7%	94.9%	96.3%	93.9%	94.7%	98.9%	97.1%	96.6%	94.9%	96.4%	98.6%	96.4%
Saturday	97.7%	98.3%	99.2%	99.9%	94.7%	98.8%	98.9%	95.5%	88.5%	100.0%	98.9%	98.1%	97.4%	92.4%	95.8%	96.6%	95.0%	97.6%	97.5%	95.4%	96.2%	95.9%	92.2%	93.7%	96.2%
Sunday	97.1%	93.4%	98.1%	99.7%	95.0%	97.2%	97.4%	97.1%	95.0%	99.5%	99.8%	97.9%	94.6%	96.7%	97.8%	97.5%	98.4%	97.7%	93.9%	97.4%	92.2%	96.2%	96.1%	96.1%	96.6%
Total	98.2%	98.3%	95.2%	97.5%	97.3%	98.6%	93.4%	97.3%	97.2%	95.6%	94.1%	95.6%	96.0%	96.0%	96.1%	96.1%	96.0%	96.0%	95.1%	95.6%	95.0%	97.0%	97.0%	96.3%	96.2%

London Ambulance Service
MTS Calls & Calls Managed Outside MTS By Day & Hour (G3 calls NOT including HCP or MPS calls) - 2013/14 (3.2% Demand Uplift)
 Sample Period: 18 Jun to 15 Jul 12

MTS Calls: 40% of (G3 Attends & PSIAM NO SENDS)
 Managed Outside MTS: G3 SENDS Minus MTS Calls

Total

Weekday	Hour																								TOTAL
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Monday	33.0	38.2	15.5	21.7	23.7	24.8	17.5	26.8	40.2	40.2	28.9	24.8	24.8	36.1	31.0	28.9	43.3	34.1	37.2	39.2	51.6	50.6	37.2	43.3	792.6
Tuesday	32.0	36.1	16.5	36.1	19.6	22.7	14.4	26.8	39.2	38.2	37.2	34.1	38.2	32.0	34.1	38.2	45.4	41.3	36.1	41.3	42.3	46.4	46.4	37.2	831.8
Wednesday	24.8	21.7	23.7	23.7	20.6	15.5	17.5	24.8	34.1	40.2	42.3	34.1	34.1	39.2	39.2	35.1	47.5	40.2	48.5	35.1	45.4	41.3	37.2	38.2	782.3
Thursday	36.1	32.0	22.7	29.9	26.8	22.7	18.6	20.6	37.2	39.2	32.0	25.8	36.1	45.4	37.2	34.1	45.4	33.0	43.3	42.3	45.4	42.3	27.9	32.0	808.1
Friday	24.8	23.7	26.8	20.6	23.7	28.9	17.5	31.0	29.9	35.1	31.0	42.3	22.7	33.0	31.0	47.5	42.3	34.1	39.2	40.2	53.7	46.4	37.2	33.0	795.7
Saturday	38.2	41.3	21.7	36.1	32.0	26.8	20.6	27.9	25.8	34.1	23.7	39.2	26.8	34.1	25.8	29.9	35.1	33.0	43.3	37.2	50.6	35.1	41.3	35.1	797.7
Sunday	37.2	32.0	22.7	35.1	24.8	25.8	23.7	21.7	19.6	33.0	26.8	34.1	36.1	27.9	42.3	41.3	26.8	36.1	33.0	42.3	36.1	23.7	47.5	40.2	769.9
TOTAL	226.0	225.0	149.6	203.3	171.3	167.2	130.0	172.3	216.7	253.9	219.8	242.5	218.8	245.6	240.5	254.9	285.9	251.8	280.7	277.6	325.1	285.9	274.5	259.0	5578.0

Daily Calls
199.2

MTS Calls

Weekday	Hour																								TOTAL
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Monday	13.6	12.4	5.8	7.4	8.3	9.5	5.8	9.9	15.7	15.3	10.7	9.9	10.3	13.2	12.4	9.9	16.5	11.6	14.9	12.4	19.4	17.3	13.2	15.3	290.6
Tuesday	10.3	12.8	5.8	11.1	5.8	8.3	5.4	10.7	15.3	13.6	13.6	12.8	13.2	12.0	12.8	14.0	16.5	12.8	14.0	14.9	13.2	17.3	16.1	14.0	296.4
Wednesday	9.1	7.0	8.3	8.3	7.8	5.8	6.6	7.8	8.7	12.4	16.1	16.9	13.2	12.4	15.7	13.2	18.2	13.6	15.7	13.2	16.1	11.6	12.4	12.0	281.9
Thursday	12.0	9.1	7.4	10.7	10.3	8.3	7.0	7.8	12.8	15.3	12.4	9.5	14.4	16.5	12.8	13.6	16.1	12.4	15.7	16.5	16.5	14.9	9.5	12.0	293.5
Friday	10.3	7.0	8.3	8.3	9.1	10.3	7.0	12.8	10.3	15.7	10.7	17.3	9.5	12.4	11.6	17.3	14.9	12.8	16.1	13.6	18.6	16.5	14.0	13.2	297.6
Saturday	12.4	15.3	7.8	11.6	11.1	9.9	8.7	10.3	10.7	12.4	9.1	14.4	9.9	14.4	10.3	11.6	12.4	12.4	14.9	14.9	16.5	12.4	12.4	13.6	289.4
Sunday	11.1	10.7	7.8	10.7	9.5	9.9	9.5	9.1	7.8	13.2	9.5	13.6	13.6	10.3	16.1	15.7	10.7	13.6	12.8	16.1	11.1	9.1	15.7	12.8	280.3
TOTAL	78.8	74.3	51.2	68.1	61.9	61.9	49.9	68.5	81.3	97.8	82.1	94.5	84.2	91.2	91.6	95.4	105.3	89.2	104.0	101.5	111.5	99.1	93.3	92.9	2029.7

Daily Calls
72.5

Managed Outside MTS

Weekday	Hour																								TOTAL
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Monday	19.4	25.8	9.7	14.2	15.5	15.3	11.8	16.9	24.6	25.0	18.2	14.9	14.4	22.9	18.6	19.0	26.8	22.5	22.3	26.8	32.2	33.2	23.9	28.1	502.0
Tuesday	21.7	23.3	10.7	25.0	13.8	14.4	9.1	16.1	23.9	24.6	23.5	21.3	25.0	20.0	21.3	24.1	28.9	28.5	22.1	26.4	29.1	29.1	30.3	23.1	535.4
Wednesday	15.7	14.7	15.5	15.5	12.8	9.7	10.9	9.7	16.1	21.7	24.1	25.4	20.8	21.7	23.5	21.9	29.3	26.6	32.8	21.9	29.3	29.7	24.8	26.2	500.3
Thursday	24.1	22.9	15.3	19.2	16.5	14.4	11.6	12.8	24.4	23.9	19.6	16.3	21.7	28.9	24.4	20.4	29.3	20.6	27.7	25.8	28.9	27.5	18.4	20.0	514.6
Friday	14.4	16.7	18.6	12.4	14.7	18.6	10.5	18.2	19.6	19.4	20.2	25.0	13.2	20.6	19.4	30.1	27.5	21.3	23.1	26.6	35.1	29.9	23.1	19.8	498.0
Saturday	25.8	26.0	13.8	24.6	20.8	16.9	12.0	17.5	15.1	21.7	14.7	24.8	16.9	22.7	15.5	18.4	22.7	20.6	28.5	22.3	34.1	22.7	28.9	21.5	508.4
Sunday	26.0	21.3	14.9	24.4	15.3	15.9	14.2	12.6	11.8	19.8	17.3	20.4	22.5	17.5	26.2	25.6	16.1	22.5	20.2	26.2	25.0	14.7	31.8	27.5	489.6
TOTAL	147.2	150.7	98.5	135.2	109.4	105.3	80.1	103.8	135.4	156.0	137.7	148.0	134.6	154.4	148.8	159.5	180.6	162.6	176.7	176.1	213.6	186.8	181.2	166.2	3548.2

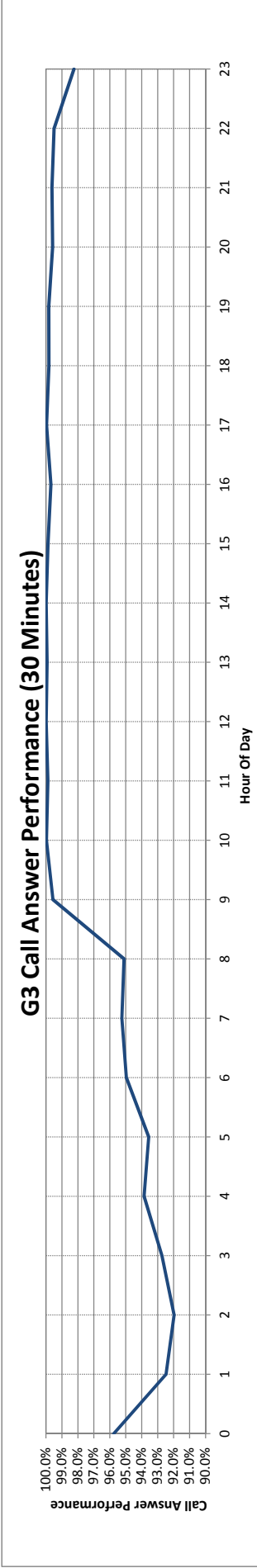
Daily Calls
126.7

London Ambulance Service
 Rostered CHUB Agent Requirements by Day by Hour, 2013/14 Demand with 2013/2014 Triage Targets - Meal Breaks Included
 Sample Period (18 Jun to 15 Jul 12)

CHUB Agent Utilisation	36.7%
CHUB Agent Availability	75%

Modelled CHUB Agents

Day	Hour of Day																								Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Monday	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	55
Tuesday	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	55
Wednesday	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	55
Thursday	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	55
Friday	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	55
Saturday	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	55
Sunday	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	2	55
Total	14	14	14	14	14	14	14	14	14	14	14	14	14	14	21	21	21	21	21	21	21	14	14	14	385



G3 Calls; Modelled Performance (% Calls Answered in 30 Minutes)

Day	Hour of Day																								Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Monday	99.6%	89.4%	89.9%	90.9%	94.4%	89.5%	93.5%	90.1%	87.9%	98.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.8%	99.9%	100.0%	100.0%	99.3%	99.5%	100.0%	98.5%	
Tuesday	99.7%	99.3%	96.0%	87.7%	84.6%	92.7%	97.8%	97.9%	99.7%	100.0%	100.0%	100.0%	100.0%	99.8%	100.0%	100.0%	99.3%	99.9%	100.0%	100.0%	100.0%	99.5%	99.3%	99.1%	
Wednesday	95.1%	94.8%	92.3%	91.9%	93.3%	95.4%	97.3%	99.1%	97.5%	100.0%	99.8%	99.7%	100.0%	100.0%	100.0%	100.0%	99.2%	99.9%	100.0%	100.0%	99.8%	99.5%	98.7%	98.8%	
Thursday	85.9%	74.4%	82.5%	85.3%	87.0%	89.8%	92.8%	95.2%	91.8%	98.4%	100.0%	99.9%	100.0%	99.8%	100.0%	99.7%	100.0%	100.0%	99.9%	99.8%	99.6%	100.0%	99.7%	91.2%	
Friday	88.3%	85.8%	84.2%	91.3%	95.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	99.8%	100.0%	100.0%	99.0%	99.0%	99.1%	99.4%	100.0%	
Saturday	99.9%	99.8%	100.0%	99.8%	99.8%	94.9%	95.7%	91.4%	94.5%	100.0%	100.0%	100.0%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	100.0%	99.6%	100.0%	100.0%	99.7%	
Sunday	100.0%	99.9%	100.0%	100.0%	100.0%	91.7%	89.3%	92.4%	98.2%	100.0%	100.0%	99.6%	100.0%	100.0%	99.9%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%	99.4%	
Total	95.8%	92.5%	92.0%	92.7%	93.8%	93.6%	95.0%	95.2%	95.1%	99.6%	100.0%	99.9%	100.0%	99.9%	100.0%	99.9%	99.7%	100.0%	99.8%	99.8%	99.6%	99.6%	99.5%	98.2%	

London Ambulance Service
PSIAM Calls, NHS & Calls Managed Outside PSIAM By Day & Hour (G4 calls NOT including HCP or MPS calls) - 2013/14
 Sample Period: 18 Jun to 15 Jul 12

PSIAM Calls: 80% of (G4 Attends & PSIAM No Sends)
 Calls Managed Outside PSIAM: G4 SENDS Minus PSIAM Calls

Total

Weekday	Hour																							TOTAL	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	103.4	109.7	62.0	66.1	68.4	59.4	76.8	120.9	164.9	153.3	162.1	148.6	129.1	138.9	121.5	129.0	129.1	116.0	121.7	132.4	145.1	112.8	117.1	100.5	2788.7
Tuesday	72.2	83.5	74.9	100.9	76.1	46.9	67.4	106.0	120.9	149.0	118.8	126.0	136.5	158.7	124.2	124.9	125.8	109.4	128.7	136.3	126.3	115.6	119.4	67.1	2615.5
Wednesday	60.4	67.3	58.7	60.0	62.9	62.7	77.0	103.2	126.8	151.8	144.4	135.6	110.5	150.7	128.7	130.4	138.7	115.2	134.7	144.2	145.6	174.9	112.5	102.5	2699.5
Thursday	88.6	85.7	58.1	46.6	45.2	74.6	81.1	132.3	145.7	155.0	134.4	111.8	147.1	118.9	111.5	148.4	135.7	145.4	120.5	147.1	116.0	99.3	104.3	89.2	2555.3
Friday	71.4	78.4	58.1	53.7	52.3	80.4	91.3	119.9	127.3	133.5	123.9	134.2	116.0	138.5	119.2	92.0	125.2	122.0	109.0	140.2	131.9	132.4	137.4	127.2	2615.5
Saturday	98.1	86.1	67.3	82.6	60.4	54.8	84.5	92.2	128.2	134.4	146.6	124.3	161.7	143.5	118.9	142.0	133.9	131.9	118.2	135.2	87.9	96.7	97.1	78.7	2405.6
Sunday	68.7	66.1	50.0	48.5	46.4	74.1	56.9	83.1	98.6	158.9	157.2	125.1	119.8	136.5	123.2	104.0	96.5	132.7	107.3	131.1	113.4	126.7	113.0	137.9	2675.0
TOTAL	562.8	576.9	429.0	458.3	411.7	452.7	555.1	709.8	899.0	1026.6	1008.1	928.1	885.5	1013.8	854.7	833.8	894.6	847.8	866.8	935.3	862.7	858.3	800.8	703.2	18355.2

Daily Total
655.5

Calls Managed Outside PSIAM

Weekday	Hour																							TOTAL	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	19.0	29.1	16.3	13.4	16.9	16.3	17.1	30.3	43.3	44.0	40.7	33.8	33.4	30.3	33.8	33.6	40.0	27.7	19.0	42.5	36.9	38.8	36.3	27.0	719.9
Tuesday	22.9	20.2	16.7	31.0	21.3	13.8	14.2	26.8	38.6	34.9	35.1	25.6	30.1	45.4	27.5	31.6	33.6	25.6	32.0	45.2	34.3	32.2	35.7	19.4	693.7
Wednesday	20.6	22.9	16.7	18.6	13.2	14.9	14.7	21.9	30.3	32.6	29.9	30.8	28.5	35.5	30.8	32.8	34.9	29.3	34.9	40.7	37.2	52.0	32.6	29.5	685.7
Thursday	22.7	22.1	14.4	12.2	8.0	17.1	16.7	22.7	30.8	35.1	37.6	36.3	33.6	36.7	31.4	29.1	37.2	30.5	40.0	31.0	29.7	27.2	28.5	21.3	652.0
Friday	16.7	23.9	15.5	14.2	13.6	24.1	21.9	26.0	31.8	33.4	30.3	43.3	35.1	31.6	26.4	26.2	33.6	32.2	26.6	31.4	35.7	29.9	33.4	31.8	668.9
Saturday	20.0	21.9	15.1	17.5	13.8	12.6	18.0	23.5	34.1	31.8	37.2	28.3	35.3	39.0	27.2	44.8	33.6	36.7	26.4	30.8	22.9	27.0	21.5	29.3	648.3
Sunday	26.6	21.5	16.7	12.6	13.2	15.5	12.0	21.7	25.2	37.4	46.2	32.4	32.2	30.5	32.2	22.1	25.6	36.9	23.9	36.1	27.2	30.1	29.5	38.8	646.2
TOTAL	148.6	161.6	111.5	119.5	100.1	114.3	114.6	173.0	234.1	249.1	257.0	230.5	228.3	249.1	209.3	220.2	238.6	219.0	202.9	257.6	223.9	237.4	217.5	197.1	4714.8

Daily Total
168.4

PSIAM Calls

Weekday	Hour																							TOTAL	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	32.2	42.9	29.9	34.5	28.4	26.1	33.0	59.0	76.7	79.0	93.5	75.9	62.9	78.2	68.2	67.5	72.1	56.7	59.0	58.3	64.4	52.1	46.8	46.8	1343.9
Tuesday	23.8	33.0	31.4	38.3	33.0	24.5	33.7	53.7	62.9	87.4	72.8	79.7	73.6	80.5	71.3	75.1	75.1	64.4	65.2	64.4	54.4	50.6	52.1	22.2	1323.2
Wednesday	19.2	23.8	23.8	26.8	37.6	28.4	42.9	58.3	78.2	82.8	80.5	72.1	67.5	89.7	79.7	72.1	75.9	62.9	68.2	74.4	57.5	74.4	48.3	33.0	1377.7
Thursday	30.7	28.4	23.0	22.2	29.9	36.8	35.3	46.0	79.7	76.7	85.9	77.4	63.6	75.1	70.5	54.4	76.7	56.0	68.2	49.8	41.4	51.4	40.6	29.1	1248.9
Friday	35.3	31.4	26.8	26.1	31.4	28.4	39.1	65.9	79.7	78.2	70.5	69.0	65.2	79.0	63.6	47.5	63.6	58.3	60.6	59.8	59.8	57.5	59.0	52.9	1307.9
Saturday	51.4	31.4	29.1	38.3	28.4	27.6	39.9	52.9	61.3	75.9	76.7	70.5	85.1	64.4	55.2	70.5	67.5	63.6	67.5	64.4	46.8	42.9	45.2	36.0	1292.6
Sunday	29.9	33.7	19.9	23.8	22.2	30.7	29.1	38.3	55.2	85.1	72.1	51.4	62.1	59.8	58.3	55.2	49.1	60.6	50.6	53.7	43.7	46.8	44.5	44.5	1123.9
TOTAL	222.3	224.6	184.0	210.1	210.8	202.4	253.0	374.1	493.7	565.0	552.0	496.0	479.9	526.7	466.9	442.4	479.9	422.4	439.3	424.0	368.0	375.7	340.4	264.5	9018.03

Daily Total
322.1

G4 NHS Non PSIAM Non Attends

Weekday	Hour																							TOTAL	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	52.2	37.6	15.8	18.2	23.1	17.0	26.7	31.6	44.9	30.4	27.9	38.9	32.8	30.4	19.4	17.0	17.0	31.6	43.7	31.6	43.7	31.6	34.0	26.7	724.9
Tuesday	25.5	30.4	26.7	31.6	21.9	8.5	19.4	25.5	19.4	26.7	10.9	20.6	32.8	32.8	25.5	18.2	17.0	19.4	31.6	31.6	27.9	32.8	31.6	25.5	598.6
Wednesday	20.6	20.6	18.2	14.6	12.1	19.4	19.4	23.1	18.2	36.4	34.0	32.8	14.6	25.5	18.2	25.5	27.9	23.1	31.6	29.1	51.0	48.6	31.6	40.1	636.2
Thursday	35.2	35.2	20.6	12.1	7.3	20.6	29.1	15.8	21.9	34.0	31.6	20.6	14.6	35.2	17.0	27.9	31.6	34.0	38.9	35.2	41.3	20.6	35.2	38.9	654.4
Friday	19.4	23.1	15.8	13.4	7.3	27.9	30.4	27.9	15.8	21.9	23.1	21.9	15.8	27.9	29.1	18.2	27.9	31.6	21.9	49.8	36.4	44.9	44.9	42.5	638.7
Saturday	26.7	32.8	23.1	26.7	18.2	14.6	26.7	15.8	32.8	26.7	32.8	25.5	41.3	40.1	36.4	26.7	32.8	31.6	24.3	40.1	18.2	26.7	30.4	13.4	664.1
Sunday	12.1	10.9	13.4	12.1	10.9	27.9	15.8	23.1	18.2	36.4	38.9	41.3	25.5	46.1	32.8	26.7	21.9	35.2	32.8	41.3	42.5	49.8	35.2	54.6	705.4
TOTAL	191.8	190.6	133.6	128.7	100.8	136.0	167.6	162.7	171.2	212.5	199.1	201.6	177.3	238.0	178.5	171.2	176.1	206.4	224.6	253.8	270.8	245.3	242.8	241.6	4622.33

Daily Total
165.1

London_Ambulance_Service

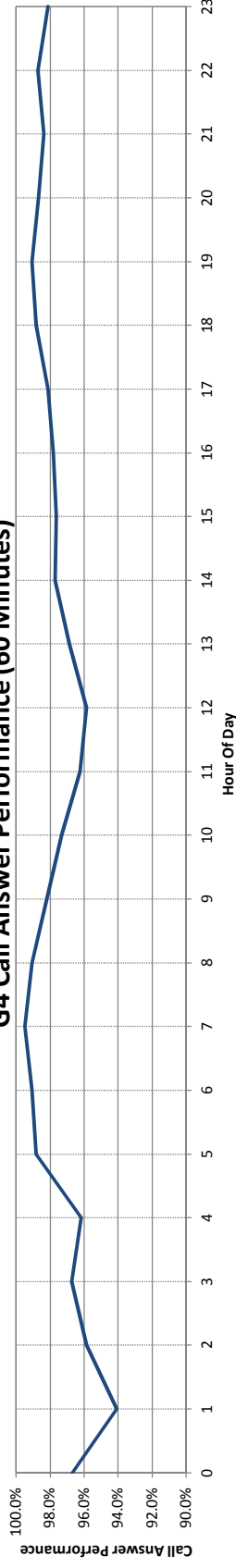
Rostered CTA Agent Requirements by Day by Hour, 2013/14 Demand with 2013/14 Triage Targets - Meal Breaks Included
 Sample Period (18 Jun to 15 Jul 12)

CTA Utilisation	64.3%
CTA Availability	75%

Modelled CTA Agents

Day	Hour of Day																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	7	7	7	7	7	7	7	7	12	12	13	13	12	12	12	12	12	12	12	12	12	12	12	12	250
Tuesday	7	7	7	7	7	7	7	7	12	12	13	13	12	12	12	12	12	12	12	12	12	12	12	250	
Wednesday	7	7	7	7	7	7	7	7	12	12	13	13	12	12	12	12	12	12	12	12	12	12	12	250	
Thursday	7	7	7	7	7	7	7	7	12	12	13	13	12	12	12	12	12	12	12	12	12	12	12	250	
Friday	7	7	7	7	7	7	7	7	12	12	13	13	12	12	12	12	12	12	12	12	12	12	12	250	
Saturday	7	7	7	7	7	7	7	7	12	12	13	13	12	12	12	12	12	12	12	12	12	12	12	250	
Sunday	7	7	7	7	7	7	7	7	12	12	13	13	12	12	12	12	12	12	12	12	12	12	12	250	
Total	49	49	49	49	49	49	49	84	84	91	91	84	84	84	84	84	84	84	84	84	84	84	84	1750	

G4 Call Answer Performance (60 Minutes)



G4 Calls; Modelled Performance

Day	Hour of Day																							Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Monday	92.4%	85.2%	84.8%	90.8%	93.5%	97.4%	97.1%	98.6%	95.6%	92.1%	86.6%	81.0%	79.8%	85.3%	88.1%	91.2%	94.0%	95.7%	97.8%	96.7%	94.6%	95.0%	96.0%	96.6%
Tuesday	92.0%	91.7%	94.7%	93.6%	88.0%	95.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.1%	98.7%	100.0%	100.0%	99.9%	99.6%	98.3%	99.6%	100.0%
Wednesday	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	97.4%	97.4%	98.1%	100.0%	99.8%	99.4%	98.2%	99.1%	99.9%	100.0%	99.9%	97.8%	97.4%	94.2%
Thursday	96.3%	94.6%	98.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%	99.7%	100.0%	100.0%	99.5%	100.0%	100.0%	99.9%	98.1%	99.9%	100.0%	100.0%	99.4%
Friday	100.0%	99.4%	99.8%	100.0%	100.0%	99.9%	98.1%	98.4%	99.1%	98.5%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%
Saturday	97.7%	93.5%	94.8%	97.2%	95.8%	97.3%	98.9%	100.0%	100.0%	100.0%	99.1%	96.0%	94.8%	97.2%	95.9%	94.4%	92.5%	94.2%	98.5%	98.5%	100.0%	100.0%	100.0%	97.4%
Sunday	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%	98.4%	99.1%	98.2%	99.2%	99.8%	100.0%	100.0%	100.0%	100.0%	97.6%	98.3%	98.2%	97.3%
Total	96.7%	94.1%	95.9%	96.7%	96.2%	98.8%	99.1%	99.5%	99.1%	98.2%	97.3%	96.2%	95.9%	96.9%	97.7%	97.7%	97.8%	98.1%	98.8%	99.1%	98.7%	98.4%	98.7%	97.7%

London Ambulance Service NHS Trust

Relief % Calculation for EOC Staff

1. Based on Hours available after relief

			<u>Calculation</u>
Paid Hours per Week			37.5
Assumptions based on hours per week:			
<i>Hours per Day</i>	Based on 5 days per week	5	7.5
Lost Shift Hours:		Factors	Hours per Annum
<i>Paid hours per Year</i>	Based on 52.1429 weeks per year	52.1429	1955.36
Annual Leave Excluding Bank Holidays	Based on Days	30	225.00
Bank Holidays/ Special Days	Based on Days	8	60.00
Sickness	Based as % of Total paid hours - target level	5.50%	107.54
Training	Yearly Training	4.8	36.00
			0.00
			0.00
			0.00
			0.00
			0.00
Maternity/Paternity Paid Leave		0.66%	12.91
Other	Special leave (0.31%), events (0.59%), court (0.05%)	0.95%	18.58
Shift Hours Available			1495.33
<hr/>			
Total Lost Hours			460.03
Relief Required for 1 shift hour			30.8%

- C OPERATIONAL MODELLING (2013/14)**

- C1 Tier 1 and Tier 2 Active Area Cover Points**
 - C1a East**
 - C1b South**
 - C1c West**

- C2 Performance**
 - C2a East**
 - C2b South**
 - C2c West**
 - C2d Indirect Contribution to Red8**

- C3 Resources**
 - C3a East**
 - C3b South**
 - C3c West**

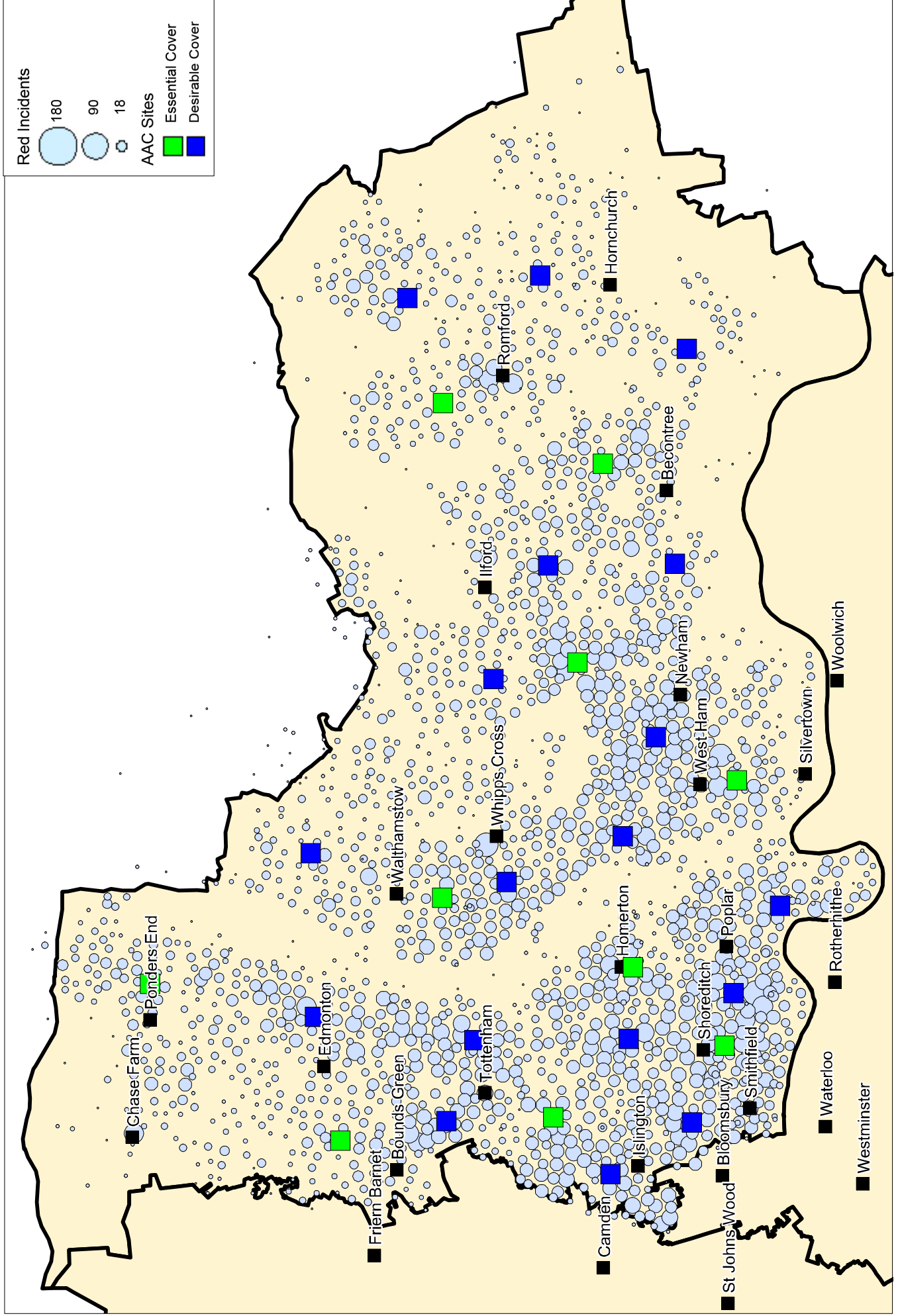
- C4 Resource:Demand Matching**
 - C4a East**
 - C4b South**
 - C4c West**

- C5 Utilisation by Complex**

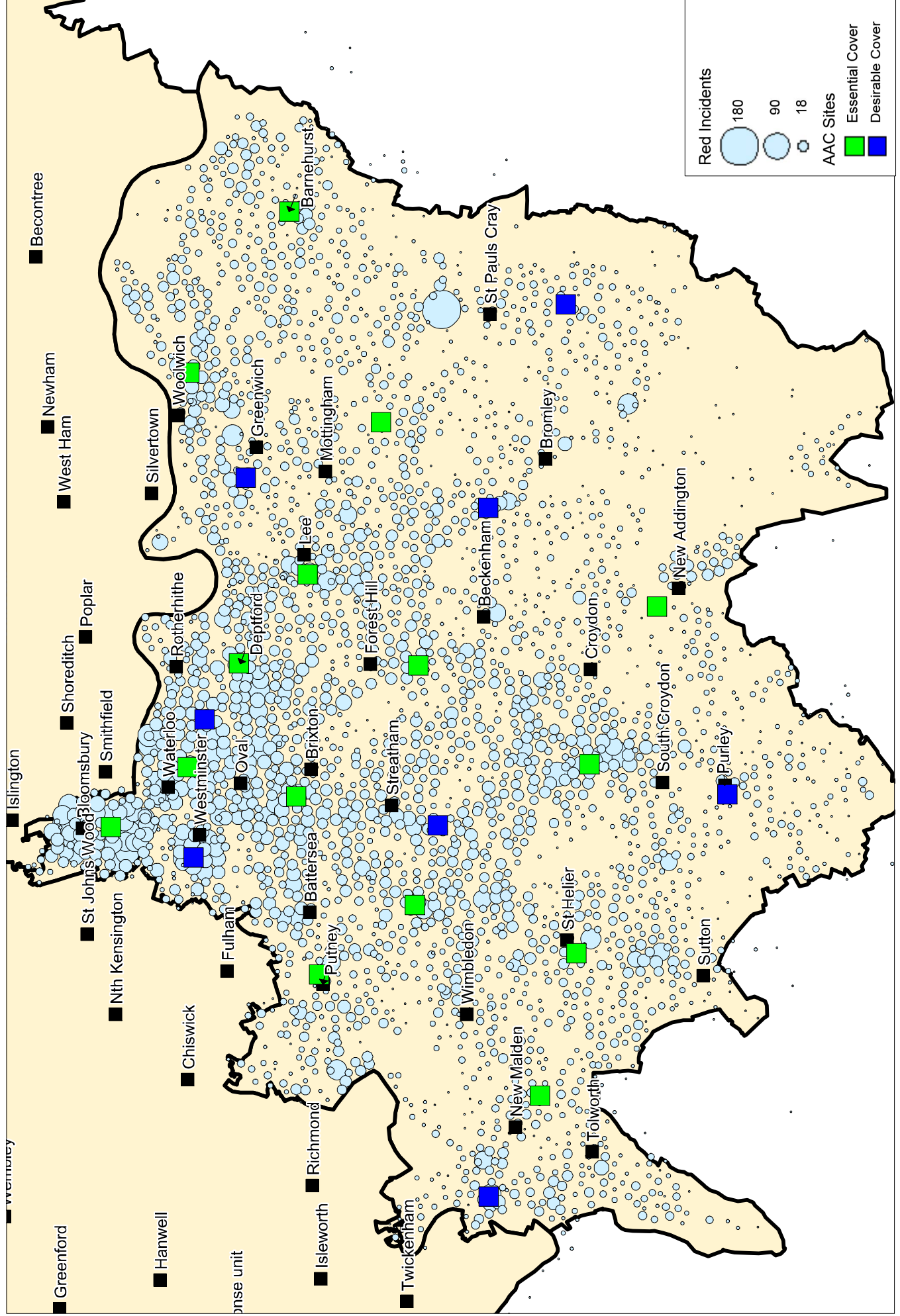
- C6 Operational Staff Relief Rate**

- C7 Parameters Compared**

EAST AREA REVISED ACTIVE AREA COVER



SOUTH AREA REVISED ACTIVE AREA COVER



EAST PERFORMANCE

		EAST 2013/14									
MP	RED-8	RED-19	RED-19T	Green1-20	Green1-45	Green2-30	Green2-60	Green3-60	Green4-60		
1	78.3%	98.8%	94.8%	91.8%	100.0%	92.7%	99.9%	99.0%	89.1%		
2	82.0%	99.1%	97.9%	94.7%	100.0%	91.0%	100.0%	99.6%	95.8%		
3	82.0%	99.5%	97.8%	82.9%	99.9%	86.7%	99.9%	99.4%	89.4%		
4	77.2%	99.1%	98.0%	90.6%	100.0%	88.3%	100.0%	99.8%	84.0%		
5	79.3%	99.3%	96.8%	89.9%	99.9%	92.6%	99.9%	99.7%	89.6%		
6	86.0%	99.4%	96.9%	94.9%	100.0%	98.0%	100.0%	99.7%	92.4%		
7	76.4%	98.7%	96.2%	82.3%	99.9%	83.4%	99.8%	98.5%	86.1%		
8	82.1%	98.9%	97.4%	87.7%	100.0%	83.6%	99.9%	98.9%	86.0%		
9	82.7%	99.3%	97.3%	93.4%	100.0%	92.7%	99.9%	99.1%	91.4%		
Overall	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%		

SOUTH PERFORMANCE

MP	SOUTH 2013/14									
	RED-8	RED-19	Red 1-19T	Green1-20	Green1-45	Green2-30	Green2-60	Green3-60	Green4-60	
1	80.2%	98.8%	97.8%	95.3%	100.0%	98.9%	100.0%	99.9%	93.8%	
2	80.8%	98.5%	97.7%	94.6%	100.0%	98.4%	100.0%	99.5%	92.9%	
3	80.8%	99.2%	98.8%	96.0%	100.0%	99.4%	100.0%	100.0%	96.1%	
4	68.3%	98.0%	96.7%	86.0%	99.9%	93.2%	100.0%	99.7%	85.2%	
5	67.5%	98.0%	96.5%	94.8%	100.0%	96.3%	100.0%	100.0%	93.6%	
6	81.3%	99.2%	96.9%	97.6%	100.0%	99.8%	100.0%	100.0%	96.1%	
7	87.8%	99.6%	99.8%	95.9%	100.0%	99.0%	100.0%	100.0%	96.5%	
8	82.6%	99.3%	99.5%	88.2%	100.0%	94.8%	100.0%	100.0%	90.4%	
9	81.7%	99.4%	99.3%	99.7%	100.0%	99.9%	100.0%	100.0%	99.9%	
Overall	80.0%	98.9%	98.2%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	

WEST PERFORMANCE

WEST 2013/14									
MP	RED-8	RED-19	RED-19T	Green1-20	Green1-45	Green2-30	Green2-60	Green3-60	Green4-60
1	77.6%	98.3%	96.7%	94.7%	100.0%	93.5%	100.0%	99.7%	90.0%
2	82.4%	98.8%	97.4%	94.1%	100.0%	91.7%	100.0%	99.7%	92.9%
3	81.6%	98.9%	97.6%	87.9%	99.9%	88.8%	99.9%	99.6%	87.1%
4	73.8%	98.9%	97.7%	86.3%	100.0%	89.1%	100.0%	99.9%	83.7%
5	76.4%	97.8%	96.0%	87.1%	98.9%	93.7%	100.0%	99.9%	89.2%
6	81.0%	98.2%	96.6%	96.1%	100.0%	97.8%	100.0%	99.9%	91.9%
7	78.3%	98.6%	96.8%	86.1%	99.9%	85.1%	99.9%	99.3%	82.1%
8	73.9%	98.5%	97.0%	75.7%	99.0%	87.3%	99.9%	99.6%	85.3%
9	85.3%	99.0%	98.2%	98.2%	100.0%	93.5%	100.0%	99.7%	95.0%
Overall	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%

London Ambulance Service EAST
EAST RED8 Performance by Contributing Vehicle
 3-Month Sample (May to July 2011 excluding 08/06/2011)

EAST Area Summary

	Vehicle Type	Vehicle Type Description	VT	Modelling Period									Total
				1	2	3	4	5	6	7	8	9	
Planned Resources	AF	Front Line Ambulance	D	32.8%	31.9%	30.9%	31.0%	34.3%	48.1%	26.8%	27.0%	35.5%	32.9%
	AS	Sector Support Ambulance	D	1.1%	1.3%	1.4%	1.6%	2.1%	1.7%	1.3%	1.5%	1.3%	1.4%
	CF	Front Line Car	F1	34.8%	37.8%	38.0%	40.6%	39.9%	31.0%	32.9%	37.8%	35.6%	36.0%
	BF	Front Line Bike	F2	2.7%	1.9%	0.5%	0.0%	0.2%	0.9%	1.4%	0.0%	2.4%	1.7%
	CL	Team Leader Car	F3	0.0%	0.1%	0.3%	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%	0.1%
	AE	EMT1 Ambulance	I	0.5%	0.5%	0.2%	0.1%	0.2%	0.1%	0.3%	0.4%	0.6%	0.4%
	AW	White Base Ambulance	I	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Indirect Resources	YF	DEFIB	DEFIB	3.9%	2.4%	1.3%	1.3%	1.6%	1.6%	2.2%	0.9%	1.4%	2.4%
	CD	Front Line Push bike	Z	1.6%	0.9%	0.0%	0.0%	0.0%	0.8%	0.2%	0.0%	0.6%	0.8%
	XF	DSO Car	DSO	0.2%	0.2%	0.4%	0.6%	0.1%	0.1%	0.2%	0.4%	0.1%	0.2%
	CC	Front Line Other	FLO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	CJ	ECP Car	ECP	0.2%	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
	AJ	St John Car	PA	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
	CM	St John Ambulance	PA	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
	AI	Manager Car	M	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
	AP	Private Ambulance	PA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	xx	PTS Ambulance	PTS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		Other Other	Z										
All Vehicles				78.0%	77.5%	73.3%	75.3%	78.5%	84.4%	65.5%	68.2%	78.0%	76.0%

London Ambulance Service
SOUTH RED8 Performance by Contributing Vehicle
 3-Month Sample (May to July 2011 excluding 08/06/2011)

SOUTH Area Summary

	Vehicle Type	Vehicle Type Description	VT	Modelling Period									Total
				1	2	3	4	5	6	7	8	9	
Planned Resources	AF	Front Line Ambulance	D	36.9%	36.5%	35.0%	36.2%	40.2%	51.1%	32.3%	27.7%	34.1%	36.5%
	AS	Sector Support Ambulance	D	0.4%	1.0%	1.3%	2.2%	0.6%	0.4%	0.3%	0.1%	0.5%	0.7%
	CF	Front Line Car	F1	30.0%	33.5%	35.0%	37.2%	33.9%	25.1%	32.1%	35.2%	31.7%	31.9%
	BF	Front Line Bike	F2	2.6%	1.9%	0.4%	0.0%	0.1%	1.6%	1.0%	0.0%	2.6%	1.6%
	CL	Team Leader Car	F3	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%
	AE	EMT1 Ambulance	I	0.7%	0.3%	0.2%	0.3%	0.3%	0.1%	0.4%	0.4%	1.1%	0.5%
	AW	White Base Ambulance	I	0.2%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%
Indirect Resources	YF	DEFIB	DEFIB	4.8%	3.7%	2.1%	1.6%	1.5%	2.2%	2.9%	2.1%	2.9%	3.2%
	CD	Front Line Push bike	Z	0.9%	0.7%	0.0%	0.0%	0.0%	0.3%	0.2%	0.0%	1.1%	0.5%
	XF	DSO Car	DSO	0.2%	0.1%	0.3%	0.3%	0.2%	0.1%	0.3%	0.3%	0.5%	0.2%
	CC	Front Line Other	FLO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
	CJ	ECP Car	ECP	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
	AJ	St John Car	PA	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%
	CM	St John Ambulance	PA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
	AI	Manager Car	M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	AP	Private Ambulance	PA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	xx	PTS Ambulance	PTS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		Other Other	Z	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	All Vehicles				76.8%	78.0%	74.3%	77.9%	76.8%	81.1%	69.9%	66.1%	74.7%

London Ambulance Service
WEST RED8 Performance by Contributing Vehicle
 3-Month Sample (May to July 2011 excluding 08/06/2011)

WEST Area Summary

	Vehicle Type	Vehicle Type Description	VT	Modelling Period									Total	
				1	2	3	4	5	6	7	8	9		
Planned Resources	AF	Front Line Ambulance	D	32.1%	34.8%	32.6%	31.2%	37.8%	49.9%	28.2%	27.1%	32.5%	33.5%	
	AS	Sector Support Ambulance	D	0.6%	0.9%	1.0%	1.9%	1.8%	0.4%	0.7%	1.0%	0.2%	0.8%	
	CF	Front Line Car	F1	33.1%	34.1%	36.6%	37.4%	34.6%	26.6%	33.3%	33.7%	35.5%	33.8%	
	BF	Front Line Bike	F2	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%	
	CL	Team Leader Car	F3	2.0%	1.5%	1.6%	2.4%	1.8%	0.7%	1.3%	1.2%	2.2%	1.7%	
	AE	EMT1 Ambulance	I	0.5%	0.2%	0.2%	0.3%	0.0%	0.1%	0.3%	0.0%	0.0%	0.6%	0.3%
	AW	White Base Ambulance	I	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Indirect Resources	YF	DEFIB Front Line Push bike	DEFIB	5.9%	4.4%	1.7%	2.5%	2.7%	3.3%	3.5%	2.0%	3.5%	4.2%	
	CD	DSO Car	Z	1.4%	1.2%	0.4%	0.0%	0.7%	2.2%	0.5%	0.0%	1.6%	1.1%	
	XF	Front Line Other	DSO	0.5%	0.5%	0.4%	0.5%	0.1%	0.1%	0.4%	0.6%	0.3%	0.4%	
	CC	ECP Car	FLO	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.3%	
	CJ	St John Car	ECP	0.3%	0.2%	0.4%	0.0%	0.0%	0.1%	0.9%	0.9%	0.4%	0.0%	
	AJ	St John Ambulance	PA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	CM	Manager Car	PA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	AI	Private Ambulance	M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	AP	PTS Ambulance	PA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	xx	Other Other	PTS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
All Vehicles			Z	76.5%	78.0%	75.0%	76.2%	79.7%	83.5%	69.3%	66.5%	76.9%	76.3%	

EAST 2013/14 DEPLOYMENTS

DCA

	Hour																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	52	52	39	39	39	35	54	54	77	77	83	83	83	83	83	83	83	83	83	77	77	74	66	66	1577
Tuesday	52	52	39	39	39	35	54	54	77	77	83	83	83	83	83	83	83	83	83	77	77	74	66	66	1577
Wednesday	52	52	39	39	39	35	54	54	77	77	83	83	83	83	83	83	83	83	83	77	77	74	66	66	1577
Thursday	52	52	39	39	39	35	54	54	77	77	83	83	83	83	83	83	83	83	83	77	77	74	66	66	1577
Friday	52	52	39	39	39	35	54	54	77	77	83	83	83	83	83	83	83	83	83	73	73	70	70	70	1573
Saturday	70	50	50	50	50	35	54	54	69	69	69	69	69	69	69	69	69	69	69	73	73	70	70	70	1494
Sunday	70	50	50	50	50	35	54	54	69	69	69	69	69	69	69	69	69	69	69	73	73	70	66	66	1486
Total	400	360	295	295	295	245	378	378	523	523	553	553	553	553	553	553	553	553	527	527	506	470	470	10861	

FRV

	Hour																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	19	19	19	19	19	17	23	23	29	29	30	30	30	30	30	30	30	30	30	29	29	28	26	26	611
Tuesday	19	19	19	19	19	17	23	23	29	29	30	30	30	30	30	30	30	30	30	29	29	28	26	26	611
Wednesday	19	19	19	19	19	17	23	23	29	29	30	30	30	30	30	30	30	30	30	29	29	28	26	26	611
Thursday	19	19	19	19	19	17	23	23	29	29	30	30	30	30	30	30	30	30	30	29	29	28	26	26	611
Friday	19	19	19	19	19	17	23	23	29	29	30	30	30	30	30	30	30	30	30	27	27	26	26	26	605
Saturday	26	19	19	19	19	17	23	23	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	584
Sunday	26	19	19	19	19	17	23	23	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	584
Total	147	133	133	133	133	119	161	161	199	199	204	204	204	204	204	204	204	204	197	197	190	182	182	4217	

SOUTH 2013/14 DEPLOYMENTS

DCA

	Hour																							Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Monday	64	64	50	50	50	44	44	71	71	97	97	108	108	108	108	108	108	108	108	97	97	94	84	84
Tuesday	64	64	50	50	50	44	44	71	71	97	97	108	108	108	108	108	108	108	108	97	97	94	84	84
Wednesday	64	64	50	50	50	44	44	71	71	97	97	108	108	108	108	108	108	108	108	97	97	94	84	84
Thursday	64	64	50	50	50	44	44	71	71	97	97	108	108	108	108	108	108	108	108	97	97	94	84	84
Friday	64	64	50	50	50	44	44	71	71	97	97	108	108	108	108	108	108	108	108	98	98	95	95	2047
Saturday	95	64	64	64	64	44	44	71	71	99	99	99	99	99	99	99	99	99	99	98	98	95	95	2052
Sunday	95	64	64	64	64	44	44	71	71	99	99	99	99	99	99	99	99	99	99	98	98	95	84	84
Total	510	448	378	378	378	308	308	497	497	683	683	738	738	738	738	738	738	738	738	682	682	661	610	610

FRV

	Hour																							Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Monday	16	16	16	16	16	14	14	22	22	25	25	33	33	33	33	33	33	33	33	25	25	24	23	23
Tuesday	16	16	16	16	16	14	14	22	22	25	25	33	33	33	33	33	33	33	33	25	25	24	23	23
Wednesday	16	16	16	16	16	14	14	22	22	25	25	33	33	33	33	33	33	33	33	25	25	24	23	23
Thursday	16	16	16	16	16	14	14	22	22	25	25	33	33	33	33	33	33	33	33	25	25	24	23	23
Friday	16	16	16	16	16	14	14	22	22	25	25	33	33	33	33	33	33	33	33	24	24	23	23	23
Saturday	23	16	16	16	16	14	14	22	22	24	24	24	24	24	24	24	24	24	24	24	24	23	23	23
Sunday	23	16	16	16	16	14	14	22	22	24	24	24	24	24	24	24	24	24	24	24	24	23	23	23
Total	126	112	112	112	112	98	98	154	154	173	173	213	213	213	213	213	213	213	213	172	172	165	161	161

WEST 2013/14 DEPLOYMENTS

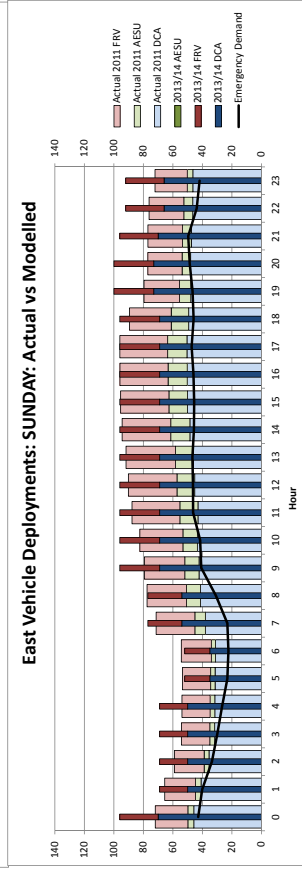
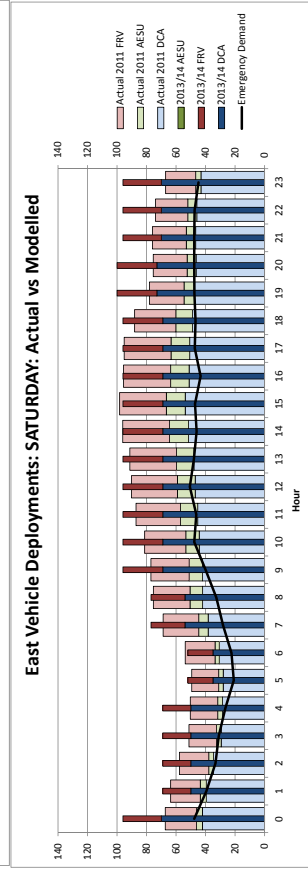
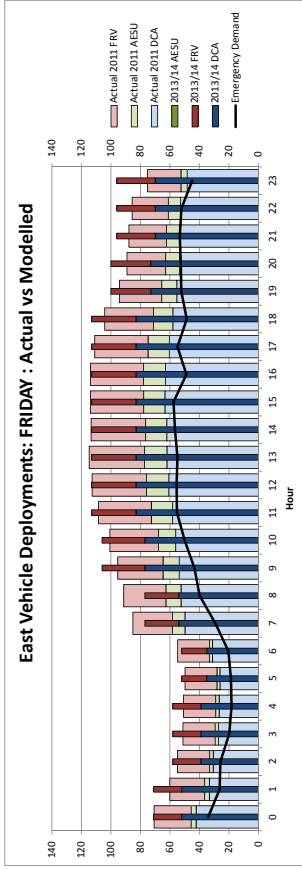
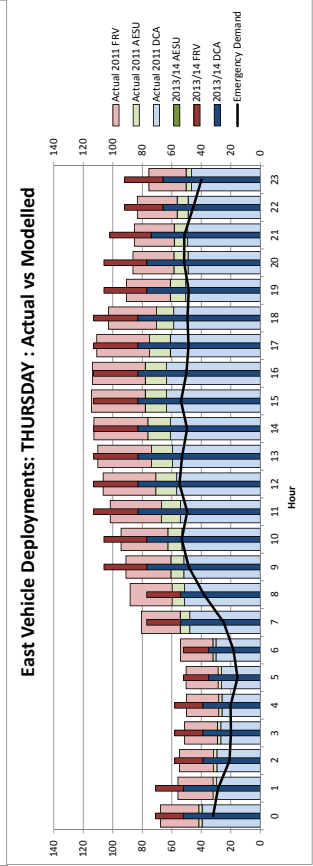
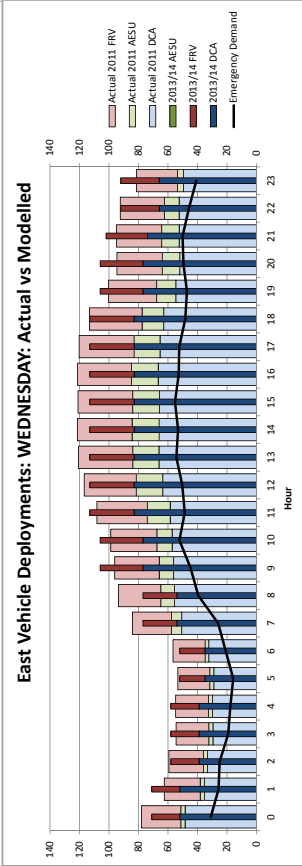
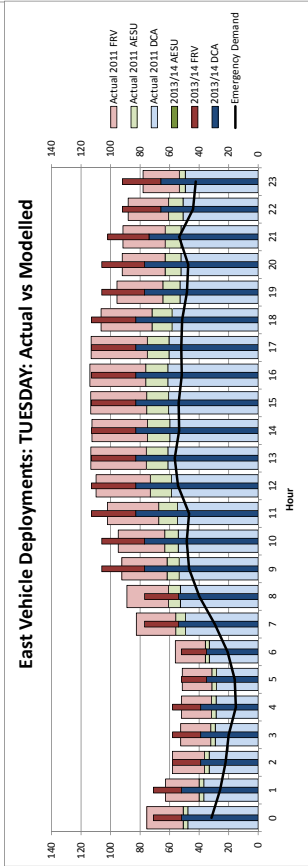
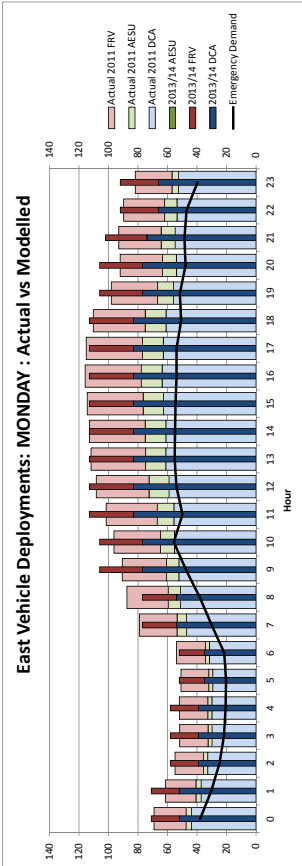
DCA

	Hour																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	53	53	38	38	38	34	34	53	53	81	81	90	90	90	90	90	90	90	90	81	81	77	65	65	1645
Tuesday	53	53	38	38	38	34	34	53	53	81	81	90	90	90	90	90	90	90	90	81	81	77	65	65	1645
Wednesday	53	53	38	38	38	34	34	53	53	81	81	90	90	90	90	90	90	90	90	81	81	77	65	65	1645
Thursday	53	53	38	38	38	34	34	53	53	81	81	90	90	90	90	90	90	90	90	81	81	77	65	65	1645
Friday	53	53	38	38	38	34	34	53	53	81	81	90	90	90	90	90	90	90	90	74	74	70	70	70	1634
Saturday	70	48	48	48	48	34	34	53	53	74	74	74	74	74	74	74	74	74	74	74	74	70	70	70	1534
Sunday	70	48	48	48	48	34	34	53	53	74	74	74	74	74	74	74	74	74	74	74	74	70	65	65	1524
Total	405	361	286	286	286	238	238	371	371	553	553	598	598	598	598	598	598	598	598	546	546	518	465	465	11272

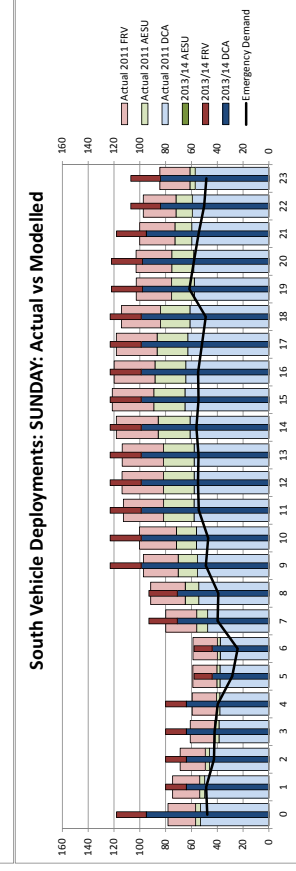
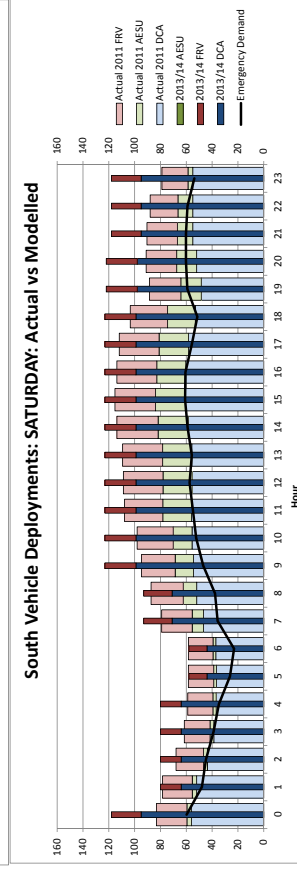
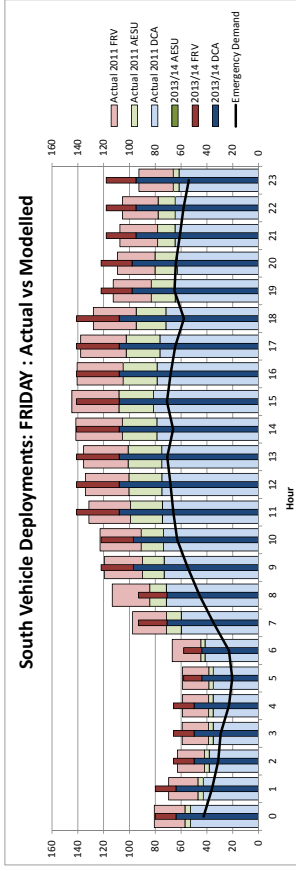
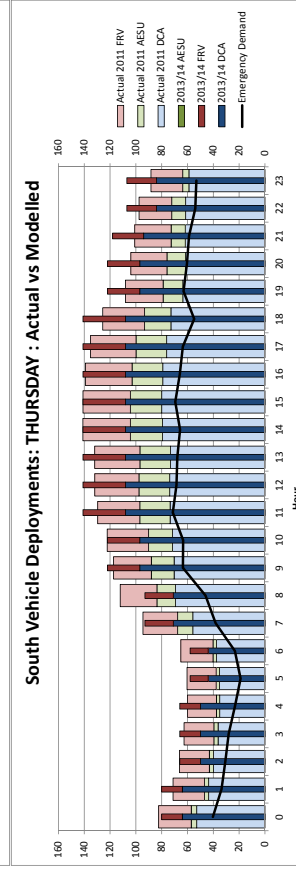
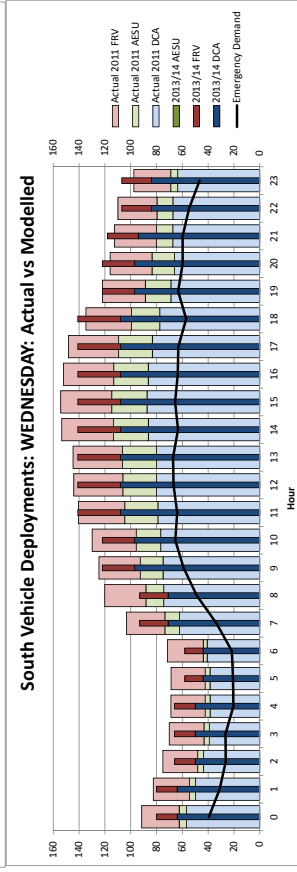
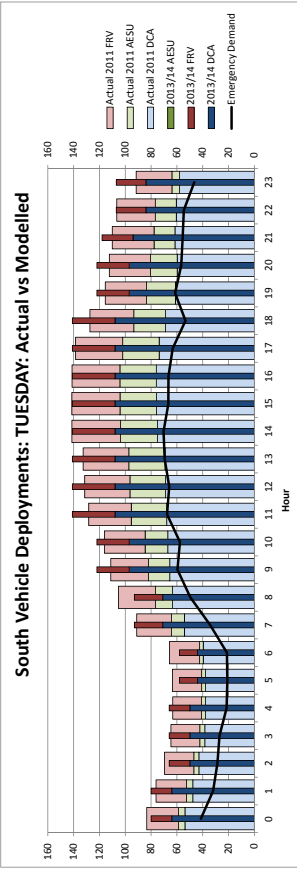
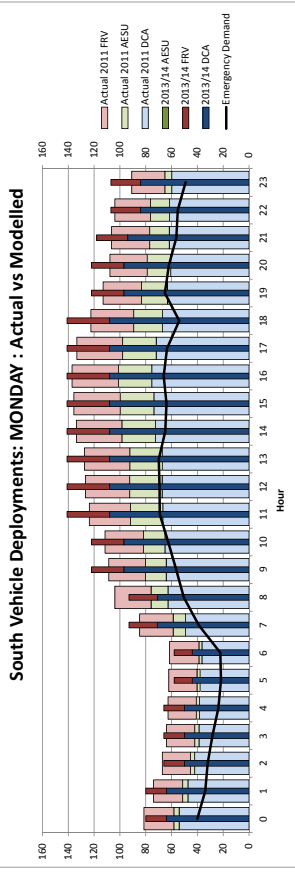
FRV

	Hour																							Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
Monday	16	16	14	14	14	14	12	17	17	24	27	28	28	28	28	28	28	28	28	27	27	24	24	24	538
Tuesday	16	16	14	14	14	14	12	17	17	24	27	28	28	28	28	28	28	28	28	27	27	24	24	24	538
Wednesday	16	16	14	14	14	14	12	17	17	24	27	28	28	28	28	28	28	28	28	27	27	24	24	24	538
Thursday	16	16	14	14	14	14	12	17	17	24	27	28	28	28	28	28	28	28	28	27	27	24	24	24	538
Friday	16	16	14	14	14	14	12	17	17	24	27	28	28	28	28	28	28	28	28	27	27	26	26	26	542
Saturday	26	16	16	16	16	14	12	17	17	22	25	25	25	25	25	25	25	25	25	27	27	26	26	26	530
Sunday	26	16	16	16	16	14	12	17	17	22	25	25	25	25	25	25	25	25	25	27	27	24	24	24	526
Total	132	112	102	102	102	98	84	119	119	164	185	190	190	190	190	190	190	190	190	189	189	172	172	3750	

Resource Demand Matching: Actual 2011 Resources Against Modelled 2013/14 Requirement
2013/14 Projected Demand

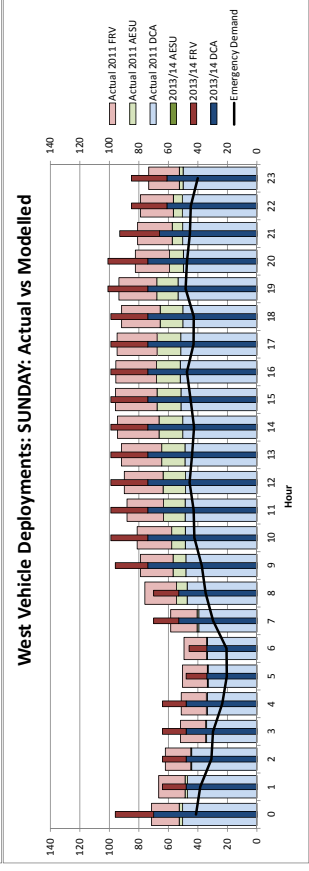
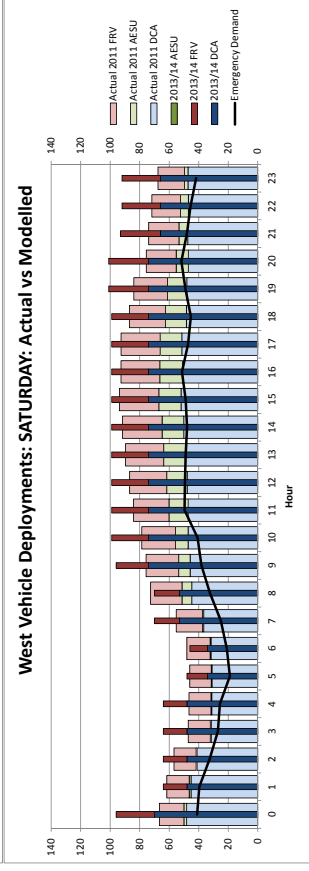
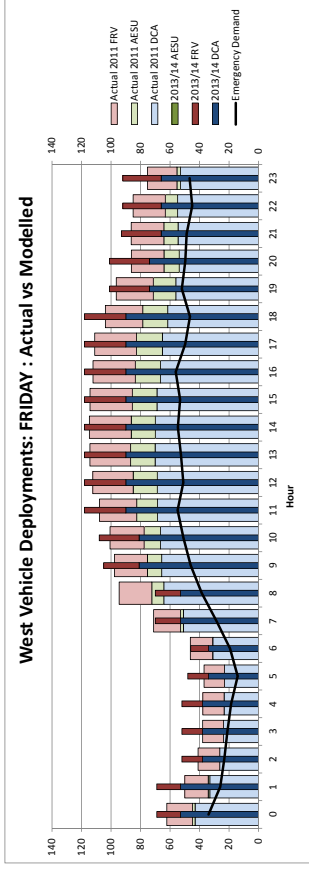
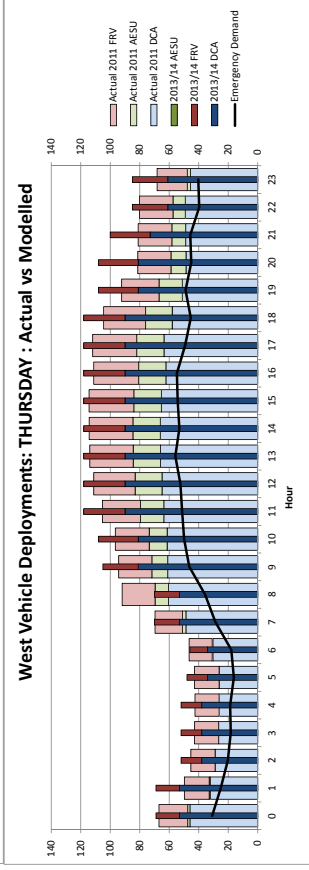
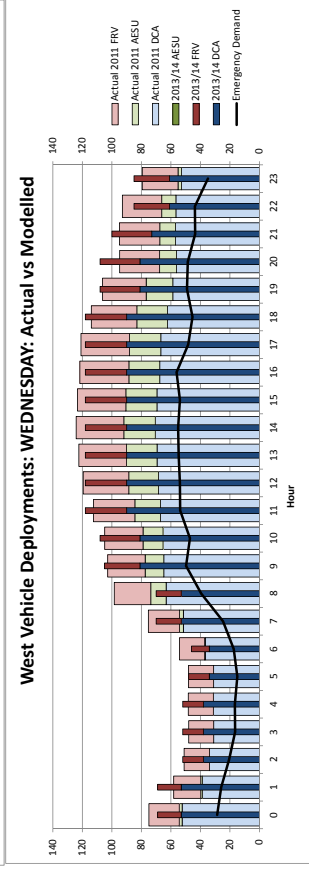
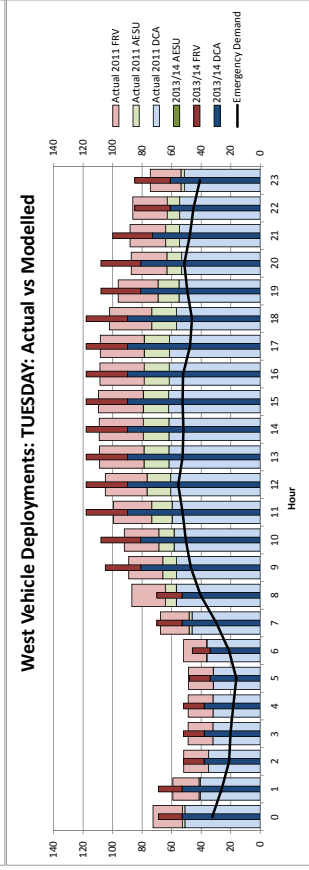
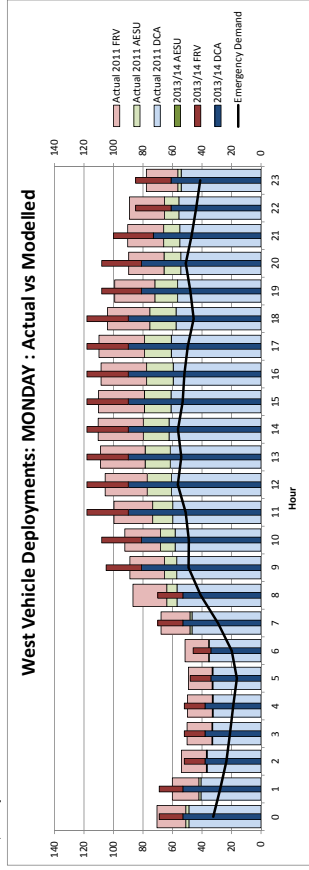


Resource Demand Matching: Actual 2011 Resources Against Modelled 2013/14 Requirement
2013/14 Projected Demand



Resource Demand Matching: Actual 2011 Resources Against Modelled 2013/14 Requirement

2013/14 Projected Demand



UTILISATION BY COMPLEX (2013/14)

DCA

Complex	Day	Eve	Night
Chase Farm	70.1%	69.6%	56.2%
Edmonton	78.8%	79.0%	69.7%
Homerton	78.2%	79.0%	69.6%
Islington	75.5%	77.0%	67.9%
Newham	75.6%	77.4%	68.4%
Romford	72.0%	72.3%	60.3%
Silvertown	75.3%	75.7%	66.0%
Whipps Cross	77.7%	77.8%	70.7%
Barnehurst	66.0%	68.4%	57.5%
Bromley	69.5%	71.7%	64.7%
Croydon	70.5%	72.2%	59.9%
Deptford	68.7%	69.3%	64.2%
Greenwich	71.9%	75.0%	65.7%
New Malden	67.8%	72.0%	61.0%
Oval	73.2%	74.0%	71.3%
St Helier	72.1%	74.2%	64.0%
Waterloo	74.3%	74.5%	70.3%
Wimbledon	71.1%	74.3%	64.9%
Camden	72.3%	72.5%	59.2%
Friern Barnet	71.6%	73.8%	61.7%
Fulham	72.2%	74.1%	64.1%
Hanwell	75.5%	77.6%	68.4%
Hillingdon	69.5%	71.7%	59.8%
Isleworth	71.2%	74.1%	60.5%
Pinner	72.0%	74.4%	64.7%
St John's Wood	77.4%	78.7%	66.9%

Max	78.8%	79.0%	71.3%
Average	72.7%	74.2%	64.5%
Min	66.0%	68.4%	56.2%

FRV

Complex	Day	Eve	Night
Chase Farm	48.6%	50.6%	34.9%
Edmonton	56.7%	59.1%	44.1%
Homerton	52.9%	55.1%	46.4%
Islington	47.3%	52.1%	39.2%
Newham	54.6%	57.0%	50.7%
Romford	45.6%	47.2%	38.6%
Silvertown	53.8%	56.4%	49.8%
Whipps Cross	54.2%	56.2%	49.7%
Barnehurst	39.6%	32.9%	29.7%
Bromley	47.3%	37.5%	28.6%
Croydon	45.6%	35.9%	31.6%
Deptford	51.3%	45.9%	54.3%
Greenwich	52.0%	43.3%	51.1%
New Malden	44.3%	34.9%	30.6%
Oval	57.0%	54.2%	
St Helier	52.0%	44.4%	45.4%
Waterloo	59.7%	56.3%	59.1%
Wimbledon	50.6%	44.4%	
Camden		46.0%	
Friern Barnet	49.6%	54.9%	39.3%
Fulham	52.2%	52.3%	47.5%
Hanwell	58.3%	59.4%	52.2%
Hillingdon	52.0%	52.8%	48.7%
Isleworth	50.2%	52.1%	44.4%
Pinner	49.7%	52.2%	40.0%
St John's Wood	54.9%	55.4%	49.7%

Max	59.7%	59.4%	59.1%
Average	51.2%	49.6%	43.7%
Min	39.6%	32.9%	28.6%

London Ambulance Service NHS Trust

Relief % Calculation for A&E Operational Staff

Based on Hours available after relief

Calculation

Paid Hours per Week			37.5
Assumptions based on hours per week:			
<i>Hours per Day</i>	Based on 5 days per week		7.5
Lost Shift Hours:			
			Hours per Annum
<i>Paid hours per Year</i>	Based on 52.1429 weeks per year		1955.36
Annual Leave Excluding Bank Holidays	Based on Days - 30 days (calculated average)		225.00
Bank Holidays/ Special Days	Based on Days - 8 days		60.00
Sickness	Based as % of Total paid hours - target level	5.50%	107.54
Training	Based on statutory and mandatory requirements		50.25
			0.00
			0.00
			0.00
			0.00
			0.00
Maternity/Paternity Paid Leave	18687 hours over 6 months	0.66%	12.91
Other	Special leave (0.31%), events (0.59%), court (0.05%)	0.95%	18.58
Shift Hours Available			1481.08
<hr/>			
Total Lost Hours			474.28
Relief Required for 1 shift hour			32.0%

Time in lieu needs to be allocated for 20 per cent of crew shifts that do not get a rest break - this effectively raises the 32% to a 33% relief factor. This has not been directly taken into account in the staffing projections and will need to be absorbed as a further efficiency.

Parameters Compared

Item	Base validated	2013/14	Change
Demand (total incidents/day responded to by a vehicle)			
R1	38.6	48.7	25.9%
R2	989.5	1303.7	31.8%
G1	154.6	151.5	-2.0%
G2	698.9	711.9	1.9%
G3	393.4	330.7	-15.9%
G4	604.3	525.8	-13.0%
ALL	2879.4	3072.2	6.7%
Resources (vehicle hrs per week)			
DCA	26471.0	36350.0	37.3%
FRV(car & bike)	14337.0	11926.0	-16.8%
AESU	5416.0	0.0	-100.0%
staff hrs/wk	78111.0	84626.0	8.3%
Performance (modelled)			
Red 8-min	76.0%	79.9%	3.9%
Time at Hospital (total in mins)			
	32.3	30.3	-2
Time at Scene (mins)			
DCA convey	28.0	28.0	0
DCA no convey	44.0	44.0	0
FRV convey	37.0	37.0	0
FRV no-convey	36.0	36.0	0
Conveyance			
R1	46.8%	46.8%	0.0%
R2	81.8%	81.8%	0.0%
G1	75.9%	75.9%	0.0%
G2	76.8%	76.8%	0.0%
G3	62.4%	65.0%	2.6%
G4	75.0%	81.0%	6.0%
Multiple Attendance Ratio			
R1	2.21	2.00	-0.21
R2	1.80	1.60	-0.20
G1	1.34	1.10	-0.24
G2	1.25	1.05	-0.20
G3	1.16	1.00	-0.16
G4	1.16	1.00	-0.16
ALL	1.43	1.29	-0.14

Base validated 2011/12 base

2013/14 2013/14 required

D SENSITIVITY MODELLING (2013/14)

D1 Demand Variation

D2 Sensitivity Modelling – Individual Factors

D2a 111 Achieves National Business Case

D2b Reduction in MPS Activity

D2c Reduction in Cat A Growth

D2d Further Triage Increase

D2e No Triage Increase

D2f No additional front-line hours (a)

D2g No additional front-line hours (b)

D2h Further Hospital Turnaround Improvement

D2i No Hospital Turnaround Improvement

D2j Job Cycle Time Reduction

D3 Sensitivity Modelling – Combined Factors

D3a Reduced Cat A Growth; Decreased Hospital Turnaround

D3b Increased Cat A Growth; Increased Incident Growth

D4 Control Sensitivity Modelling – Increased Performance for All Hours

London Ambulance Service
Analysis of Daily Totals
 1/12/11 to 30/11/12

2013 Mean Daily Ttl:

<i>DOH A</i>	<i>Total</i>
1352.4	3072.2

 NB 1/1/12 and 3/10/12 removed

2012 Demand

OVERALL

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1160.0	50.94%	888	1389	1292	1345
Total	2925.6	51.34%	2480	3321	3111	3207

Mon

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1189.0	50.47%	1059	1387	1297	1352
Total	2967.4	49.44%	2753	3186	3115	3181

Tue

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1115.3	54.47%	924	1342	1228	1288
Total	2905.8	49.48%	2680	3218	3080	3170

Wed

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1107.9	55.87%	888	1296	1243	1277
Total	2926.3	50.55%	2737	3256	3092	3203

Thu

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1153.7	44.02%	929	1389	1287	1350
Total	2937.1	48.57%	2668	3257	3089	3227

Fri

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1170.6	50.10%	1006	1318	1287	1306
Total	2996.3	54.26%	2765	3321	3171	3252

Sat

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1191.2	52.50%	983	1353	1298	1352
Total	2924.8	49.64%	2703	3152	3109	3144

Sun

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile
A	1191.7	57.44%	978	1319	1303	1318
Total	2817.6	60.43%	2480	3075	2998	3061

London Ambulance Service
Analysis of Daily Totals
 1/12/11 to 30/11/12

2013 Mean Daily Ttl:

DOH A	Total
1352.4	3072.2

NB 1/1/12 and 3/10/12 removed

2013 Projected Demand

OVERALL

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1352.4	50.94%	1035	1619	1505.8	1568.5	76.55%	119.74%	111.34%	115.98%
Total	3072.2	51.34%	2604	3487	3266.8	3367.4	84.77%	113.52%	106.33%	109.61%

Mon

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1386.2	50.47%	1235	1617	1512.3	1576.6	91.29%	119.57%	111.82%	116.58%
Total	3116.1	49.44%	2891	3346	3271.2	3340.3	94.10%	108.90%	106.48%	108.73%

Tue

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1300.3	54.47%	1077	1565	1432.2	1502.2	79.66%	115.69%	105.90%	111.07%
Total	3051.4	49.48%	2814	3379	3234.7	3328.4	91.61%	110.00%	105.29%	108.34%

Wed

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1291.7	55.87%	1035	1511	1448.6	1488.2	76.55%	111.73%	107.11%	110.04%
Total	3073.0	50.55%	2874	3419	3247.0	3363.5	93.55%	111.29%	105.69%	109.48%

Thu

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1345.1	44.02%	1083	1619	1500.7	1573.9	80.09%	119.74%	110.97%	116.38%
Total	3084.3	48.57%	2802	3420	3244.0	3389.1	91.20%	111.33%	105.59%	110.32%

Fri

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1364.7	50.10%	1173	1537	1500.0	1522.7	86.73%	113.62%	110.92%	112.59%
Total	3146.5	54.26%	2904	3487	3330.3	3414.8	94.51%	113.52%	108.40%	111.15%

Sat

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1388.8	52.50%	1146	1577	1513.4	1576.2	84.74%	116.64%	111.90%	116.55%
Total	3071.4	49.64%	2838	3310	3265.0	3301.9	92.39%	107.74%	106.28%	107.48%

Sun

Category	Average Daily	% Days > Average	Min	Max	95th %ile	99th %ile	Min	Max	95th %ile	99th %ile
A	1389.4	57.44%	1140	1538	1518.6	1536.0	84.31%	113.71%	112.29%	113.58%
Total	2958.9	60.43%	2604	3229	3147.7	3214.4	84.77%	105.11%	102.46%	104.63%

111 AT NATIONAL BUSINESS CASE LEVEL

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
EAST												
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%	
111 change	82.0%	99.3%	98.3%	92.5%	100.0%	92.1%	100.0%	99.8%	94.2%	70.0%	51.3%	
Difference	1.8%	0.3%	1.7%	2.0%	0.0%	1.2%	0.1%	0.6%	4.0%	-4.6%	-0.3%	
SOUTH												
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%	
111 change	83.6%	99.4%	99.1%	96.9%	100.0%	99.1%	100.0%	100.0%	96.6%	63.8%	43.2%	
Difference	3.6%	0.5%	1.4%	1.7%	0.0%	0.7%	0.0%	0.1%	2.0%	-6.3%	-1.9%	
WEST												
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%	
111 change	83.2%	99.1%	98.7%	93.4%	99.9%	92.9%	100.0%	100.0%	92.0%	66.1%	50.6%	
Difference	3.7%	0.6%	1.6%	1.8%	0.1%	1.0%	0.0%	0.3%	1.8%	-6.8%	-2.2%	
LAS												
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.1%	100.0%	99.6%	91.9%	72.3%	49.5%	
111 change	83.0%	99.3%	98.7%	94.4%	100.0%	95.1%	100.0%	99.9%	94.4%	66.4%	48.0%	
Difference	3.1%	0.5%	1.6%	1.8%	0.0%	1.0%	0.0%	0.3%	2.5%	-5.9%	-1.5%	

13/14 Base: 61,500 calls per year
 111 change: a 2% decrease in 999 activity

REDUCTION IN MPS ACTIVITY

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
EAST												
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%	
MPS change	81.3%	99.2%	97.6%	91.7%	100.0%	91.6%	100.0%	99.7%	93.0%	72.8%	50.6%	
Difference	1.1%	0.2%	1.1%	1.2%	0.0%	0.7%	0.1%	0.5%	2.7%	-1.8%	-1.0%	
SOUTH												
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%	
MPS change	81.2%	99.1%	98.3%	95.9%	100.0%	98.8%	100.0%	100.0%	95.8%	69.1%	43.9%	
Difference	1.2%	0.2%	0.7%	0.7%	0.0%	0.3%	0.0%	0.1%	1.3%	-1.0%	-1.3%	
WEST												
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%	
MPS change	80.6%	98.8%	97.7%	92.2%	99.9%	92.3%	100.0%	99.8%	90.9%	71.3%	52.0%	
Difference	1.0%	0.2%	0.6%	0.6%	0.0%	0.4%	0.0%	0.1%	0.8%	-1.5%	-0.8%	
LAS												
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.1%	100.0%	99.6%	91.9%	72.3%	49.5%	
MPS change	81.0%	99.0%	97.9%	93.4%	100.0%	94.6%	100.0%	99.8%	93.4%	70.9%	48.5%	
Difference	1.1%	0.2%	0.8%	0.8%	0.0%	0.5%	0.0%	0.2%	1.5%	-1.4%	-1.0%	

13/14 Base: current MPS assumption
MPS change: 50% reduction in MPS activity

LOWER CAT A GROWTH

	Performance										Utilisation		
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV		
EAST													
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%		
Cat A change	81.9%	99.3%	97.8%	92.1%	100.0%	91.8%	100.0%	99.7%	93.4%	72.0%	49.8%		
Difference	1.7%	0.2%	1.3%	1.5%	0.0%	0.9%	0.1%	0.5%	3.2%	-2.6%	-1.8%		
SOUTH													
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%		
Cat A change	81.6%	99.2%	98.5%	96.1%	100.0%	98.9%	100.0%	100.0%	96.0%	68.0%	43.6%		
Difference	1.6%	0.3%	0.8%	0.9%	0.0%	0.4%	0.0%	0.1%	1.4%	-2.1%	-1.5%		
WEST													
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%		
Cat A change	81.2%	98.8%	97.9%	92.5%	99.9%	92.4%	100.0%	99.9%	91.3%	70.6%	51.3%		
Difference	1.6%	0.3%	0.8%	0.9%	0.0%	0.5%	0.0%	0.2%	1.2%	-2.3%	-1.6%		
LAS													
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.1%	100.0%	99.6%	91.9%	72.3%	49.5%		
Cat A change	81.6%	99.1%	98.1%	93.7%	100.0%	94.8%	100.0%	99.9%	93.8%	70.0%	47.9%		
Difference	1.6%	0.3%	1.0%	1.1%	0.0%	0.6%	0.0%	0.3%	1.8%	-2.3%	-1.6%		

13/14 Base: 12% Cat A increase from 12/13; overall growth at +3.2% from 12/13 to 13/14 excluding 111 demand
 Cat A change: 6% Cat A increase from 12/13; Green demand unchanged from 13/14 base position;
 overall growth at 0.9% from 12/13 to 13/14 excluding 111 demand

TRIAGE VOLUMES INCREASE

Performance											Utilisation	
RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV		

EAST

13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	90.2%	74.6%	51.6%
Triage change	81.6%	99.3%	98.0%	92.2%	100.0%	91.9%	100.0%	93.8%	71.5%	51.5%
Difference	1.4%	0.2%	1.5%	1.7%	0.0%	1.0%	0.1%	3.5%	-3.1%	-0.1%

SOUTH

13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	94.6%	70.0%	45.1%
Triage change	81.7%	99.3%	98.7%	96.3%	100.0%	98.9%	100.0%	96.3%	67.2%	45.1%
Difference	1.7%	0.4%	1.0%	1.1%	0.0%	0.5%	0.0%	1.7%	-2.8%	-0.1%

WEST

13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	90.1%	72.9%	52.8%
Triage change	81.2%	98.9%	98.2%	92.7%	99.9%	92.5%	100.0%	91.5%	69.9%	52.7%
Difference	1.6%	0.3%	1.1%	1.0%	0.0%	0.6%	0.0%	1.4%	-3.0%	-0.1%

LAS

13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.1%	100.0%	91.9%	72.3%	49.5%
Triage change	81.5%	99.2%	98.3%	93.9%	100.0%	94.8%	100.0%	94.0%	69.4%	49.4%
Difference	1.6%	0.3%	1.2%	1.3%	0.0%	0.7%	0.0%	2.1%	-2.9%	-0.1%

13/14 Base: Triage volumes as agreed for 13/14

Triage change: G3 36% suitable; 30% no send G4 49% suitable; 35% no send; NHSD increase by 220/day

TRIAGE VOLUMES AT BASE LEVEL

	Performance										Utilisation		
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV		
EAST													
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%		
Triage original	78.4%	98.6%	92.8%	87.2%	99.9%	88.5%	99.8%	97.9%	75.7%	78.0%	51.9%		
Difference	-1.8%	-0.5%	-3.7%	-3.4%	-0.1%	-2.3%	-0.1%	-1.4%	-14.5%	3.4%	0.2%		
SOUTH													
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%		
Triage original	75.7%	97.0%	90.3%	87.5%	99.8%	94.1%	100.0%	98.7%	69.0%	74.6%	45.3%		
Difference	-4.3%	-1.9%	-7.3%	-7.7%	-0.2%	-4.3%	0.0%	-1.2%	-25.6%	4.6%	0.2%		
WEST													
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%		
Triage original	78.2%	98.0%	95.3%	90.2%	99.8%	90.9%	99.9%	99.3%	86.5%	75.4%	52.9%		
Difference	-1.4%	-0.6%	-1.8%	-1.4%	0.0%	-1.0%	-0.1%	-0.4%	-3.7%	2.5%	0.1%		
LAS													
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.1%	100.0%	99.6%	91.9%	72.3%	49.5%		
Triage original	77.3%	97.8%	92.6%	88.2%	99.8%	91.3%	99.9%	98.6%	76.5%	75.9%	49.7%		
Difference	-4.3%	-1.9%	-7.3%	-7.7%	-0.2%	-4.3%	0.0%	-1.2%	-25.6%	4.6%	0.2%		

13/14 Base: Triage volumes as agreed for 13/14

Triage original: Triage proportion as at original validated base; other assumptions as for 13/14

NO RESOURCE INCREASE (a)

	Performance											Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV		
EAST													
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%		
No new resources	76.6%	98.9%	97.6%	91.3%	100.0%	91.4%	99.9%	99.3%	46.7%	78.0%	51.9%		
Difference	-3.6%	-0.2%	1.1%	0.8%	0.0%	0.5%	0.0%	0.0%	-43.6%	3.4%	0.3%		
SOUTH													
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%		
No new resources	76.4%	98.6%	98.2%	95.7%	100.0%	98.6%	100.0%	99.9%	48.0%	73.8%	52.3%		
Difference	-3.5%	-0.3%	0.5%	0.5%	0.0%	0.2%	0.0%	0.0%	-46.6%	3.8%	7.2%		
WEST													
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%		
No new resources	75.4%	98.2%	97.3%	91.4%	99.8%	91.9%	99.9%	99.4%	45.4%	77.0%	58.2%		
Difference	-4.1%	-0.3%	0.2%	-0.3%	-0.1%	-0.1%	-0.1%	-0.2%	-44.7%	4.1%	5.4%		
LAS													
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.0%	100.0%	99.6%	91.9%	72.3%	49.5%		
No new resources	76.2%	98.6%	97.7%	93.0%	99.9%	94.3%	100.0%	99.5%	46.8%	76.1%	54.0%		
Difference	-3.7%	-0.3%	0.6%	0.3%	0.0%	0.2%	0.0%	-0.1%	-45.1%	3.8%	4.5%		

13/14 Base: 72700 DCA deployed staff hours per week

11926 FRV deployed staff hours per week

Total deployed hours per week = 84626

No new resources 72700 minus 3394 = 69306 DCA deployed staff hours per week

11926 minus 3394 = 8532 FRV deployed staff hours per week

Total deployed hours per week = 77838

NO RESOURCE INCREASE (b)

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
	EAST											
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%	
No new resources	70.0%	98.3%	96.7%	89.9%	99.9%	90.6%	99.9%	99.2%	89.8%	74.6%	63.0%	
Difference	-10.2%	-0.8%	0.1%	-0.7%	0.0%	-0.3%	0.0%	0.0%	-0.4%	0.0%	11.4%	
SOUTH												
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%	
No new resources	70.1%	98.1%	97.6%	95.0%	100.0%	98.3%	100.0%	99.8%	93.9%	70.1%	59.6%	
Difference	-9.8%	-0.8%	0.0%	-0.2%	0.0%	-0.1%	0.0%	-0.1%	-0.7%	0.1%	14.4%	
WEST												
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%	
No new resources	67.3%	97.7%	97.2%	91.0%	99.8%	91.7%	99.9%	99.6%	89.9%	72.0%	65.8%	
Difference	-12.2%	-0.8%	0.1%	-0.6%	0.0%	-0.2%	-0.1%	-0.1%	-0.2%	-0.9%	13.0%	
LAS												
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.0%	100.0%	99.6%	91.9%	72.3%	49.5%	
No new resources	69.2%	98.0%	97.2%	92.1%	99.9%	94.0%	99.9%	99.6%	91.5%	72.1%	62.5%	
Difference	-10.7%	-0.8%	0.1%	-0.5%	0.0%	-0.2%	0.0%	-0.1%	-0.5%	-0.2%	13.0%	

13/14 Base: 72700 DCA deployed staff hours per week
 11926 FRV deployed staff hours per week
 Total deployed hours per week = 84626

No new resources 72700 DCA deployed staff hours per week
 11926 minus 6788 = 5138 FRV deployed staff hours per week
 Total deployed hours per week = 77838

TIME AT HOSPITAL - FURTHER REDUCTION

Performance											Utilisation	
RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV		

EAST

13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.2%	90.2%	74.6%	51.6%
TaH original	81.4%	99.3%	97.8%	92.0%	100.0%	91.8%	99.7%	93.3%	72.0%	51.6%
Difference	1.1%	0.2%	1.3%	1.4%	0.0%	0.9%	0.5%	3.0%	-2.6%	0.0%

SOUTH

13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	99.9%	94.6%	70.0%	45.1%
TaH original	81.3%	99.2%	98.5%	96.0%	100.0%	98.9%	100.0%	95.9%	67.9%	45.1%
Difference	1.3%	0.3%	0.8%	0.8%	0.0%	0.4%	0.1%	1.3%	-2.1%	0.0%

WEST

13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	99.7%	90.1%	72.9%	52.8%
TaH original	80.8%	98.9%	98.0%	92.0%	99.9%	91.8%	99.9%	91.0%	70.7%	53.2%
Difference	1.2%	0.3%	0.9%	0.3%	0.0%	-0.1%	0.2%	0.9%	-2.2%	0.4%

LAS

13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.0%	99.6%	91.9%	72.3%	49.5%
TaH original	81.2%	99.1%	98.1%	93.5%	100.0%	94.6%	99.9%	93.6%	70.0%	49.6%
Difference	1.2%	0.3%	1.0%	0.9%	0.0%	0.6%	0.0%	1.7%	-2.3%	0.1%

TaH: Total time at hospital

13/14 Base: TaH reduced by 2 minutes from original validated base

TaH original: TaH reduced by a further 2 minutes from original validated base

TIME AT HOSPITAL - NO REDUCTION

	Performance										Utilisation		
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV		
EAST													
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%		
TaH original	78.4%	98.6%	93.2%	87.4%	99.9%	88.5%	99.8%	97.6%	78.4%	78.0%	51.9%		
Difference	-1.8%	-0.5%	-3.3%	-3.1%	-0.1%	-2.3%	-0.1%	-1.6%	-11.8%	3.4%	0.3%		
SOUTH													
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%		
TaH original	76.2%	97.4%	91.8%	89.7%	99.9%	95.1%	100.0%	98.8%	75.8%	74.3%	45.3%		
Difference	-3.8%	-1.6%	-5.8%	-5.5%	-0.1%	-3.3%	0.0%	-1.1%	-18.8%	4.3%	0.2%		
WEST													
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%		
TaH original	77.9%	98.0%	95.2%	89.9%	99.8%	90.8%	99.9%	99.1%	86.6%	75.7%	52.9%		
Difference	-1.6%	-0.5%	-1.9%	-1.8%	-0.1%	-1.2%	-0.1%	-0.6%	-3.6%	2.8%	0.1%		
LAS													
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.0%	100.0%	99.6%	91.9%	72.3%	49.5%		
TaH original	77.4%	98.0%	93.3%	89.0%	99.8%	91.8%	99.9%	98.5%	80.0%	75.9%	49.7%		
Difference	-2.5%	-0.9%	-3.8%	-3.6%	-0.1%	-2.3%	-0.1%	-1.1%	-11.9%	3.5%	0.2%		

TaH: Total time at hospital

13/14 Base: TaH reduced by 2 minutes from original validated base

TaH original: Original Validated Base TaH; other assumptions as for 13/14

TIME AT SCENE REDUCED BY 5 MINS

Performance											Utilisation	
RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV		

EAST

13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	90.2%	74.6%	51.6%
TaS change	84.0%	99.5%	98.7%	93.3%	100.0%	92.4%	100.0%	94.7%	67.2%	46.8%
Difference	3.8%	0.4%	2.2%	2.8%	0.0%	1.6%	0.1%	4.4%	-7.4%	-4.8%

SOUTH

13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	94.6%	70.0%	45.1%
TaS change	83.9%	99.4%	99.1%	96.9%	100.0%	99.2%	100.0%	96.5%	63.6%	41.5%
Difference	4.0%	0.5%	1.5%	1.7%	0.0%	0.7%	0.0%	2.0%	-6.4%	-3.7%

WEST

13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	90.1%	72.9%	52.8%
TaS change	83.6%	99.1%	98.7%	93.5%	99.9%	92.9%	100.0%	92.0%	66.2%	48.6%
Difference	4.0%	0.6%	1.6%	1.8%	0.1%	1.0%	0.0%	1.8%	-6.7%	-4.2%

LAS

13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.1%	100.0%	91.9%	72.3%	49.5%
TaS change	83.8%	99.4%	98.9%	94.7%	100.0%	95.2%	100.0%	94.6%	65.5%	45.3%
Difference	3.9%	0.5%	1.7%	2.1%	0.0%	1.1%	0.0%	2.6%	-6.8%	-4.2%

13/14 Base: Time at Scene (TaS) as at validated base position

TaS change 5 minutes reduction in time at scene

DECREASED CAT A GROWTH: COMBINED 2013/14 EFFICIENCIES WITH/WITHOUT NEW RESOURCES

13/14 Base 13/14 Efficiency	Base demand and parameter assumptions for 2013/14 with required resources 6% Increase in Cat A demand; Further -2 mins Tah
13/14 Base & 13/14 Efficiency	72700 DCA deployed staff hours per week 11926 FRV deployed staff hours per week Total deployed hours per week = 84626
Base validated total deployed hrs (1)	(resource saving achieved with FRVs only) 72700 DCA deployed staff hours per week 11926 minus 6788 = 5138 FRV deployed staff hours per week Total deployed hours per week = 77838
Base validated total deployed hrs (2)	(resource saving achieved with both DCAs and FRVs) 72700 minus 3394 = 69306 DCA deployed staff hours per week 11926 minus 3394 = 8532 FRV deployed staff hours per week Total deployed hours per week = 77838

Comments applicable to BOTH (1) and (2)
CCG targets are not met in every CCG
Targets would not be met at peak demand periods
R1-8 target is not met
Assumes 2 operating tiers

DECREASED CAT A GROWTH: COMBINED 2013/14 EFFICIENCIES WITH/WITHOUT NEW RESOURCES

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
EAST												
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%	
13/14 Efficiency	82.6%	99.4%	98.4%	92.8%	100.0%	92.2%	100.0%	99.9%	94.3%	69.5%	50.0%	
Base validated total deployed hrs (1)	75.1%	99.1%	98.4%	92.5%	100.0%	92.1%	100.0%	99.8%	94.2%	69.8%	61.4%	
Base validated total deployed hrs (2)	75.1%	98.5%	96.3%	89.8%	100.0%	90.4%	99.9%	99.0%	89.7%	70.6%	51.6%	

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
SOUTH												
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%	
13/14 Efficiency	82.5%	99.3%	98.8%	96.9%	100.0%	99.1%	100.0%	100.0%	96.7%	66.0%	43.7%	
Base validated total deployed hrs (1)	76.6%	99.1%	98.9%	96.5%	100.0%	99.0%	100.0%	100.0%	96.4%	66.0%	58.2%	
Base validated total deployed hrs (2)	73.7%	98.0%	96.8%	94.3%	99.9%	97.9%	100.0%	99.8%	93.4%	70.6%	51.6%	

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
WEST												
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%	
13/14 Efficiency	81.9%	99.0%	98.3%	92.9%	99.9%	92.6%	100.0%	99.9%	91.7%	69.0%	51.5%	
Base validated total deployed hrs (1)	71.9%	98.6%	98.4%	92.6%	99.9%	92.6%	100.0%	99.9%	91.7%	68.8%	64.7%	
Base validated total deployed hrs (2)	71.5%	96.9%	94.2%	88.3%	99.7%	89.8%	99.8%	98.2%	85.7%	75.6%	57.1%	

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
LAS												
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.0%	100.0%	99.6%	91.9%	72.3%	49.5%	
13/14 Efficiency	82.3%	99.2%	98.5%	94.4%	100.0%	94.9%	100.0%	99.9%	94.4%	68.0%	48.0%	
Base validated total deployed hrs (1)	74.7%	98.9%	98.6%	94.0%	100.0%	94.8%	100.0%	99.9%	94.3%	68.0%	61.2%	
Base validated total deployed hrs (2)	73.5%	97.8%	95.9%	91.0%	99.9%	93.0%	99.9%	99.1%	89.9%	72.1%	53.3%	

INCREASED CAT A GROWTH: COMBINED 2013/14 EFFICIENCIES WITH/WITHOUT NEW RESOURCES

	Performance										Utilisation	
	RED8	RED 19	RED 19T	G1-20	G1-45	G2-30	G2-60	G3-60	G4-60	DCA	FRV	
EAST												
13/14 Base	80.2%	99.0%	96.6%	90.5%	100.0%	90.9%	99.9%	99.2%	90.2%	74.6%	51.6%	
Cat A change	78.8%	98.8%	95.4%	89.3%	99.9%	89.9%	99.8%	98.6%	86.7%	76.2%	53.3%	
Add resources	80.0%	99.1%	96.4%	90.2%	99.9%	90.5%	99.9%	99.0%	90.1%	75.3%	52.7%	
Diff(Change - Base)	-1.4%	-0.2%	-1.1%	-1.2%	-0.1%	-1.0%	-0.1%	-0.6%	-3.5%	1.6%	1.6%	
SOUTH												
13/14 Base	80.0%	98.9%	97.7%	95.2%	100.0%	98.4%	100.0%	99.9%	94.6%	70.0%	45.1%	
Cat A change	78.9%	98.7%	96.9%	94.4%	100.0%	97.9%	100.0%	99.7%	92.1%	70.7%	46.5%	
Add resources	79.9%	99.0%	97.9%	95.5%	100.0%	98.6%	100.0%	99.9%	95.3%	69.8%	46.5%	
Diff(Change - Base)	-1.0%	-0.2%	-0.8%	-0.8%	0.0%	-0.5%	0.0%	-0.2%	-2.5%	0.7%	1.4%	
WEST												
13/14 Base	79.6%	98.5%	97.1%	91.6%	99.8%	91.9%	100.0%	99.7%	90.1%	72.9%	52.8%	
Cat A change	78.8%	98.4%	96.8%	91.3%	99.8%	91.6%	99.9%	99.5%	89.6%	73.5%	54.2%	
Add resources	79.4%	98.5%	97.9%	95.5%	100.0%	98.6%	100.0%	99.9%	95.3%	73.0%	53.9%	
Diff(Change - Base)	-0.8%	-0.1%	-0.3%	-0.3%	0.0%	-0.3%	0.0%	-0.2%	-0.5%	0.6%	1.4%	
LAS												
13/14 Base	79.9%	98.8%	97.1%	92.6%	99.9%	94.1%	100.0%	99.6%	91.9%	72.3%	49.5%	
Cat A change	78.9%	98.6%	96.4%	91.8%	99.9%	93.6%	99.9%	99.3%	89.8%	73.3%	51.0%	
Add resources	79.8%	98.9%	97.5%	93.8%	100.0%	96.1%	100.0%	99.6%	93.8%	72.5%	50.7%	
Diff(Change - Base)	-1.1%	-0.2%	-0.8%	-0.8%	0.0%	-0.6%	0.0%	-0.3%	-2.2%	0.9%	1.5%	

13/14 Base: 12% Cat A increase from 12/13; overall growth at +3.2% from 12/13 to 13/14 excluding 111 demand

Cat A change 18% Cat A increase from 12/13; overall growth at +3.5% from 12/13 to 13/14 excluding 111 demand

Add resources Additional resources to maintain 13/14 Base performance:

Additional DCA deployed vehicle hours/wk 142

Additional FRV deployed vehicle hours/wk 169

Total additional staff hrs/wk 453

Total additional staff (32% relief) 18.4

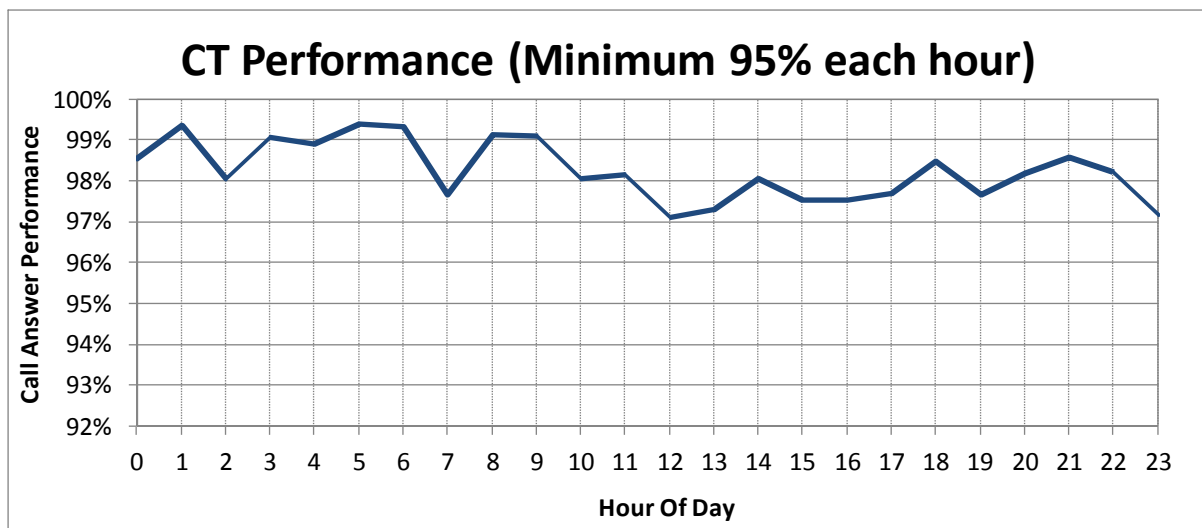
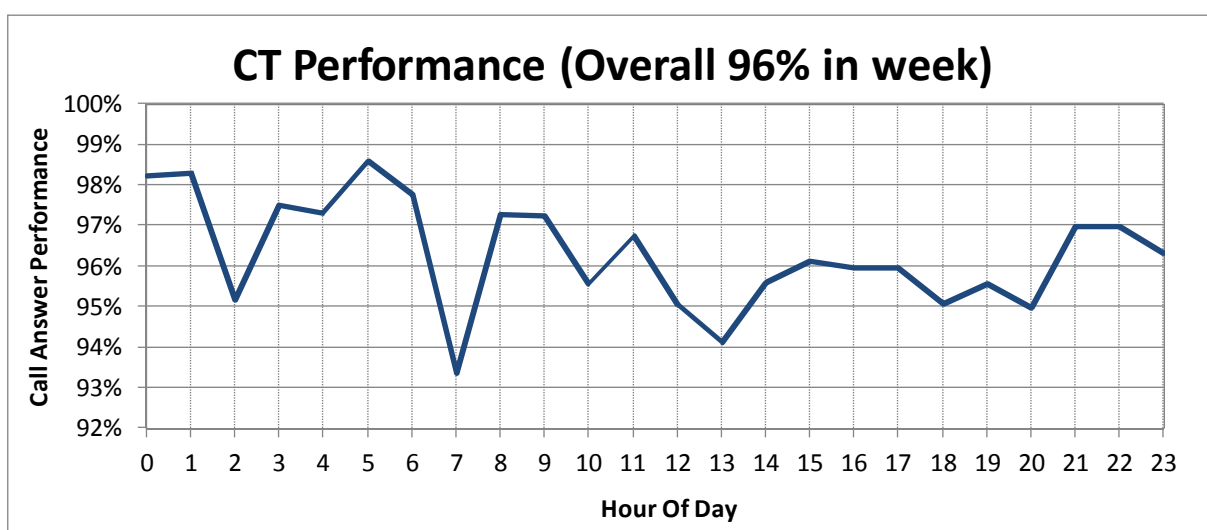
London Ambulance Service

Impact on CT Staff for Meeting Performance over ALL Hours of the Week

Sample Period: 18 Jun to 15 Jul 12

Financial Year (Demand)	13/14	
Staff Required (Hours Per Week)	4209	4490
Weekly Performance	96.2%	98.2%
Minimum Performance (Hour)	86.2%	95.0%

N.B. Staffing Levels include Meal Breaks



E RATIONALE FOR CLINICAL RECOMMENDATIONS

E1 Responses at Different Call Categories

E2 Timings to Respond to Calls

E3 Future Assumptions

RATIONALE FOR CLINICAL RECOMMENDATIONS TO ORH REPORT

The ORH Steering Group received Clinical Guidance on the assumptions and recommendations from Dr Fionna Moore (LAS Medical Director), Dr Andrew Steeden (Clinical Director, NHS NWL and Chair of LAS Clinical Quality Group) and Dr Fenella Wrigley (LAS Deputy Medical Director)

This document outlines the clinical rationale for some of the assumptions made in the modelling. It is recognised there will need to be a phased implementation over 2013-14.

1. Responses at different call categories

- a. **Red 1:** a minimum of 2 resources.
This will ensure adequate numbers of clinicians are present to maintain good chest compressions in the event of the patient being in cardiac arrest. This will help to ensure the best possible outcome for this group of patients, both when resuscitation is undertaken on scene and if the patient is conveyed to hospital.
- b. **Red 2:** Nearest response; if solo response backed by DCA.
These patients have, through MPDS, been identified as suffering from a potentially life-threatening illness or injury. Due to the nature of telephone triage it is acknowledged that MPDS necessarily over-triages some cases but that these patients require an urgent face-to-face assessment. Sending the nearest vehicle will ensure that the patient receives this urgent face-to-face assessment – this category of patient has a high conveyance to hospital rate and therefore in the event a solo responder attends it is necessary for an ambulance to attend as well.
- c. **C1 and C2 ; DCA dispatched**
These patients require a face-to-face assessment. Many of these patients will be in a public place and it is necessary to ensure the assessment is carried out in with appropriate equipment and maintaining the privacy and dignity of the patient. As these patients require a face-to-face assessment where there is a delay an FRV should be dispatched to make an on-scene assessment. By reducing the utilisation of FRVs to the C1 and C2 calls it will ensure capacity for the Red 1 calls.
- d. **C3 and C4 calls; no automatic dispatch**
These calls will have undergone a review or full assessment prior to dispatching a resource and by sending an ambulance alone there will be a reduction in multiple attendances and therefore improved availability of resources.
- e. There should be no change in the arrangements for dispatch of specialist units eg LAA, HART

2. Timings to respond to calls (see Figures 2 and 3)

- a. The response timings for each category were based on:
 - i. National guidance for Red 1 and 2, C1 and C2
 - ii. Other telephone assessment time targets for C3 and C4
- b. In agreeing the rationale it was assumed that the capacity to undertake enhanced telephone assessment and manage the lower acuity calls without automatic dispatch of a resource would be enhanced.
- c. The clinical rationale for the timings was to
 - i. Reduce long delays particularly for lower acuity calls
 - ii. Ensure equity of response for all patient groups including vulnerable groups, such as the elderly and patients with mental health problems who have, at times, waited longer than other groups as they rarely present with immediately life-threatening conditions
 - iii. Support the vision for healthcare for Londoner's by ensuring lower acuity patients are managed without conveyance to Emergency Departments
 - iv. To ensure no patient is left waiting for an ambulance for a long time whilst suffering pain or mental or physical distress

3. Future Assumptions (see Fig 13, page 23)

In making the assumptions for the five years to 17/18 the future assumptions the following were considered:

- a. Incident reduction – the reduction in incidents will not be seen until 2015-16
 - i. 111 in London is planned to go-live across London by the end of March 2013. Other sites have taken 6-9 months to reach a steady state in outcome and in particular the numbers of calls transferred to the ambulance service.
 - ii. The new Clinical Commissioning Groups are being formed and take up responsibility in April 2013. Feedback from the Clinical Quality Group indicates that the expansion of UCC and ACPs is unlikely to be seen until 2014 – 15. There are expected to be increased financial incentives for GPs to manage more patients within primary care which will support the development of ACPs and UCCs.
 - iii. Public behaviour will take more than 12 months to change – it will be dependent on public understanding their options and where to access urgent as opposed to emergency care.
 - iv. Given the uncertainty around 111 and CCGs it is recommended that a review takes place early 2014 to review the assumptions made.
- b. HCP (GP) referrals should reduce as more community based services become available however rationalisation of specialist emergency services on to fewer sites may result in a greater number of HCP inter-hospital referrals if a clinical transfer service to support reconfiguration is not commissioned.
- c. The overall conveyance rate will be an extrapolation of the trend already seen over the past 3 years – it should be noted however that as greater numbers of lower acuity incidents are managed by enhanced telephone assessment and managed without dispatch of a resource the conveyance rate of those patients who do receive a resource for a face-to-face assessment will increase. Further improvement in non-conveyance is dependent on having adequate clinical support (both in the field and remotely by telephone) and there needs to be investment in the development and deployment of clinical team leaders.
- d. Time at Hospital
 - i. There is concern clinically about the ability to achieve these targets whilst maintaining standards of care, quality of care and infection control standards.
 - ii. It is anticipated that the reduction in time at hospital may result in an increase in on-scene time as crews complete their paperwork prior to leaving for hospital – this would be particularly concerning for the seriously ill or injured where time to definitive treatment needs to be reduced, It is recommended that pre-alert (blue calls) should be excluded from the monitoring of hospital turn around time.
- e. Calls resolved by telephone assessment and referral
 - i. This is dependent on the Clinical Hub / CTA having adequate capacity to manage these calls
 - ii. The increase is a reflection of the increasing maturity of the clinical hub over 5 years and the availability of an up-to-date and fully populated DOS.

From 15-16 it is expected that patients with urgent needs will access 111 rather than 999 so the number of suitable calls available for LAS enhanced telephone assessment will reduce.

F CONTROL AND OPERATIONAL MODELLING (FUTURE YEARS)

F1 Call-taker Modelling Results for Future Years

F2 Summary of Future Years Operational Modelling

London Ambulance Service

CT Results Summary

Sample Period: 18 Jun to 15 Jul 12

	Current (All 999 Phone Calls)	Future Years				
	12/13	13/14	14/15	15/16	16/17	17/18
Financial Year (Demand)						
Daily Demand	4547	4819	5060	5263	5421	5583
Staff Hours Per Week	4295	4209	4375	4506	4608	4735
Performance	96.1%	96.2%	96.3%	96.0%	96.1%	96.2%

Target: Achieve 96% Calls Answered in 5 Seconds.

N.B. Staffing Levels Assume an Even Distribution of Meal Breaks Throughout the Week

Operational Modelling Summary

Increase in Resources to maintain 13/14 target performance

	Vehicle Hrs/Wk		Staff	
	DCA	FRV	Hrs/Wk	Staff
14/15	398	208	1004	35.3
15/16	164	526	854	30.1

LAS-wide Summary

Demand & Params	Resources	Performance										Vehicle Hrs/Wk		Utilisation	
		R8	R19	R19T	G1-20	G1 45	G2-30	G2 60	G3-60	G4-60	DCA	FRV	DCA	FRV	
13/14	13/14	79.9%	98.8%	97.1%	92.7%	99.9%	94.1%	100.0%	99.6%	91.9%	36350	11926	72.3%	49.5%	
14/15	14/15	79.9%	98.8%	97.3%	92.9%	99.9%	94.1%	99.9%	99.6%	92.3%	36748	12134	72.4%	52.6%	
15/16	15/16	79.9%	98.8%	97.2%	92.7%	99.9%	93.9%	99.9%	99.4%	92.1%	36912	12660	72.0%	52.5%	
16/17	15/16	78.3%	98.3%	96.1%	91.4%	99.9%	93.0%	99.9%	98.8%	89.2%	36912	12660	74.0%	55.4%	
17/18	15/16	75.8%	97.7%	93.5%	88.4%	99.7%	90.8%	99.7%	97.3%	80.9%	36912	12660	75.8%	56.7%	

Note: No modelling was undertaken for additional resource requirements in 16/17 and 17/18

G GLOSSARY

GLOSSARY

Item	Description
<i>AAC</i>	Active Area Cover. The LAS's mobilisation policy which allows control room staff to request DCAs and FRVs to deploy to pre-defined optimum locations and areas whilst awaiting their next call.
<i>Activation time</i>	'Time call connected to the ambulance control room' to 'vehicle mobile' - covers three processes: call answering, vehicle despatch and vehicle mobilisation.
<i>AESU</i>	A&E Support Units (AESUs) are manned by non-paramedic crews. Typically these respond to lower acuity incidents.
<i>CAD</i>	Computer Aided Dispatch system.
<i>Call Connect</i>	The time at which a call is connected to the control room. This is the point the phone starts to ring, not call pick up.
<i>Call -taker</i>	Individual who answers telephone calls and processes 999 calls through initial triage.
<i>Call-back</i>	Where a patient is phoned by staff in CTA or the Clinical Hub.
<i>Calls</i>	A unique event resulting in an action by the LAS. This action could be to respond, pass to triage, close the calls as a duplicate etc. A call is normally a telephone call (999), but could also be a 'running call', a direct link from the MPS etc.
<i>Cancellation en route</i>	When a vehicle is assigned to an incident and has begun travelling to that incident (has mobilised to it) and is then stood down from responding before reaching scene.
<i>Cat A</i>	Historic term for the life-threatening calls. In the context of this report this is the same as Red.
<i>Cat C</i>	Historic term for non-life-threatening calls. In the context of this report this is the same as Green.
<i>CCG Targets</i>	Each CCG (Clinical Commissioning Group) should achieve at least 72% Red 8 on a rolling 3-month basis.
<i>Clinical Hub</i>	Also referred to as CHUB. The control function which is responsible for managing and triaging Green 3 calls. Any Red call-back functions and assisting crews on scene is also undertaken here. Normally, Green 1, 2 and 4 calls are not taken
<i>Clinical Triage</i>	Process where certain calls (mainly Green 3 and Green 4) are assessed in the control room by phone to determine whether a vehicle needs to be dispatched.
<i>Clock Start</i>	The time at which the response clock starts for a given incident. For a Red1 call this is call connect, for a Red2 call this is the first of 60 seconds after call connect, chief complaint being established or a vehicle being assigned.
<i>Conveyance Rates</i>	The proportion of incidents resulting in one or more patients being transported by an ambulance vehicle.
<i>CTA</i>	Clinical Telephone Advice. The control function which is responsible for managing and triaging Green 4 calls.
<i>DCA</i>	Double-Crewed Ambulances (DCAs) are fully equipped A&E ambulances able to respond to all incident categories. Currently normally crewed by two paramedics or a paramedic and a technician
<i>Deployment</i>	Vehicle on the road able to respond to incidents.
<i>Dispatcher</i>	Person who allocates vehicles to incidents, manages crews' breaks and dynamic deployment.
<i>EOC</i>	The LAS's Emergency Operations Centre (EOC) is responsible for call-taking and vehicle despatch all resources. Also referred to as ambulance control.

<i>Establishment</i>	The total number of funded staff.
<i>ETA</i>	Estimated time of arrival.
<i>FRV</i>	Fast Response Vehicles (FRVs) are single-manned emergency response vehicles manned by a Paramedic or Technician in London.
<i>Green call</i>	Presenting conditions which are not immediately life threatening. Green calls are divided into Green 1 to Green 4 with Green 4 containing the least serious cases.
<i>HCP</i>	Health Care Professional.
<i>Hospital Turnaround Time</i>	'Time arrived at hospital' to 'time clear' as recorded on the CAD, covering two processes: handing over the patient and ambulance crew becoming available. These time stamps are normally sent through the MDTs.
<i>Incident</i>	A unique event resulting in a vehicle response.
<i>Job Cycle Time</i>	The time period from a vehicle being mobilised to respond to an incident to being available again.
<i>MAR</i>	Multiple Attendance Ratio. The number of vehicle responses divided by the number of incidents.
<i>MDT</i>	Mobile Data Terminal
<i>Meal Breaks</i>	A period of time around the middle of a shift when the crew is unavailable to respond to incidents whilst taking a meal.
<i>MPS</i>	Contacts made to the control centre by the Metropolitan Police.
<i>MTS</i>	Manchester Triage System used in the Clinical Hub.
<i>NHS 111</i>	NHS 111 is a new service for cases where medical advice is required but it's not a 999 emergency.
<i>NHSD</i>	NHS Direct. This is being phased out in favour of 111 and will cease to operate on 21st March 2013.
<i>Phone Calls</i>	A telephone call about an event which may or may not result in an action by the LAS.
<i>PSIAM</i>	Triage software used in the CTA.
<i>Red 8</i>	The proportion of Red calls responded to within 8-minutes (The overall Red target is 75% from Clock Start). This is a Department of Health national performance target which each ambulance service in England is required to achieve on an annual basis. The Red 1 target is 75% from Call Connect and Red 2 is 75% from Clock Start.
<i>Red call</i>	Presenting conditions which may be immediately life threatening. Divided into Red 1 (cardiac and other extremely life threatening conditions) and Red 2. Target is 75% in 8 minutes for both (see Red 8 above).
<i>Relief Rate Allowance</i>	An allowance made for planned (eg, training) and unplanned (eg, sickness) absences. The relief rate is calculated as the number of hours expected absence during the year divided by the number of paid hours per year less the expected absence hours per year.
<i>Response Performance</i>	The percentage of incidents which receive their first response within the reporting standard.
<i>Responses</i>	The arrival at scene of a vehicle to an incident. There may be multiple responses per incident (see MAR).
<i>Roster</i>	Allocation of shifts by hour and day into a cycle that gives an average of 37.5 hours per week.
<i>Tiers</i>	The number of distinct types of front-line responder. In the context of this report a 3-tier system has DCAs, AESUs and FRVs. A 2-tier system has DCAs and FRVs only.
<i>Utilisation</i>	Occupied time (time spent on jobs – the sum of JCTs) divided by total available time (elapsed time on duty) (Meal Breaks are assumed to be within available time in the calculations in this report).

