

Sound Committee Noise Monitoring Comparisons

Submitted by TrackRacket members:

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November 22, 2011

Sound Committee Comparison Charts

Key for color codes

45-50 Quiet, noise in the realm of normal living

50-55 Tolerable

55-60 Annoying

60-65 Intrusive, comes in through closed doors and windows and heard over TV's, etc.

65-70 Intolerable

70-75 TDL

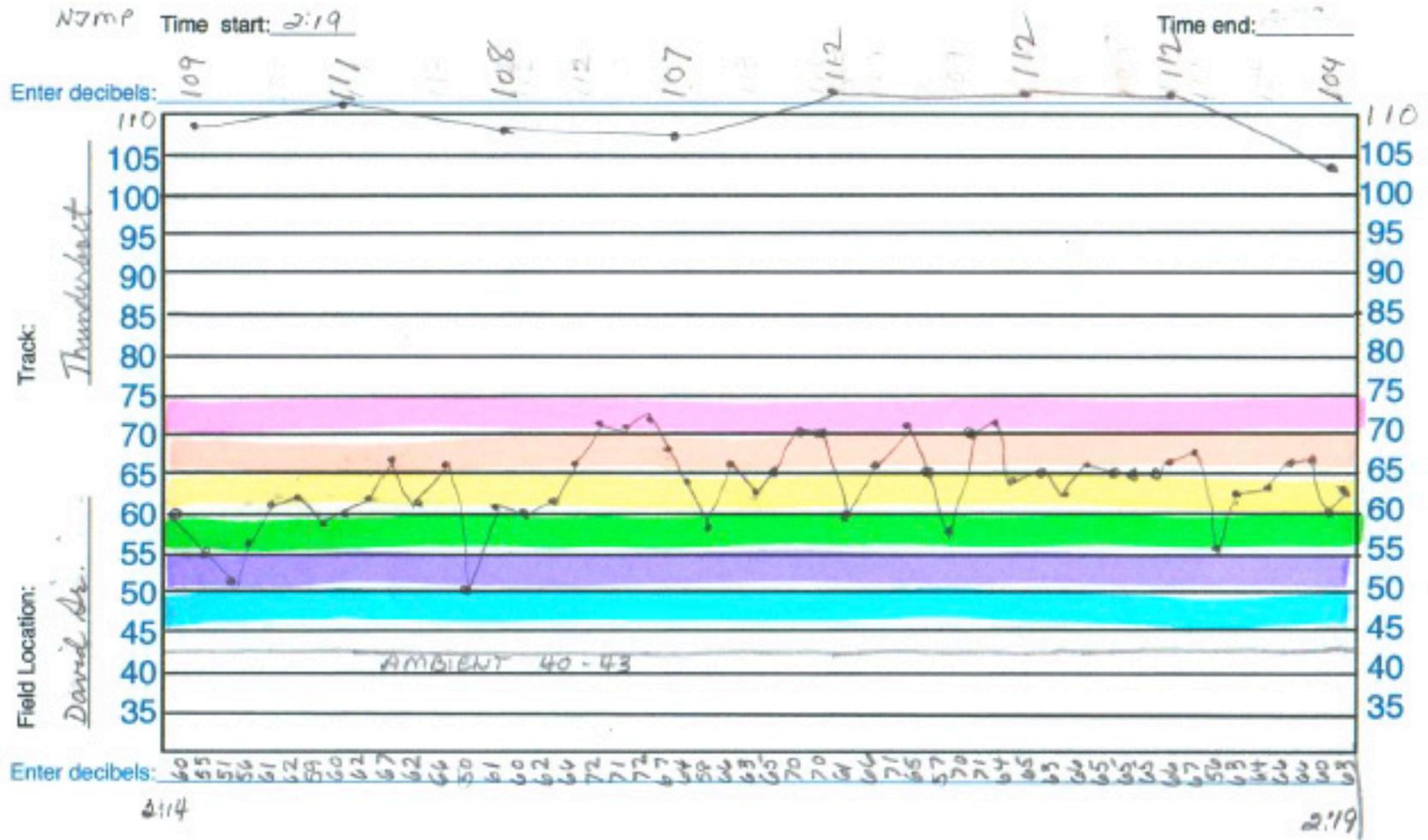
#2

Sound Committee Comparison Chart

Date: 7-22-11 Club/Event: GRAND AM

Wind direction: w/sw

Field Location distance from track: _____



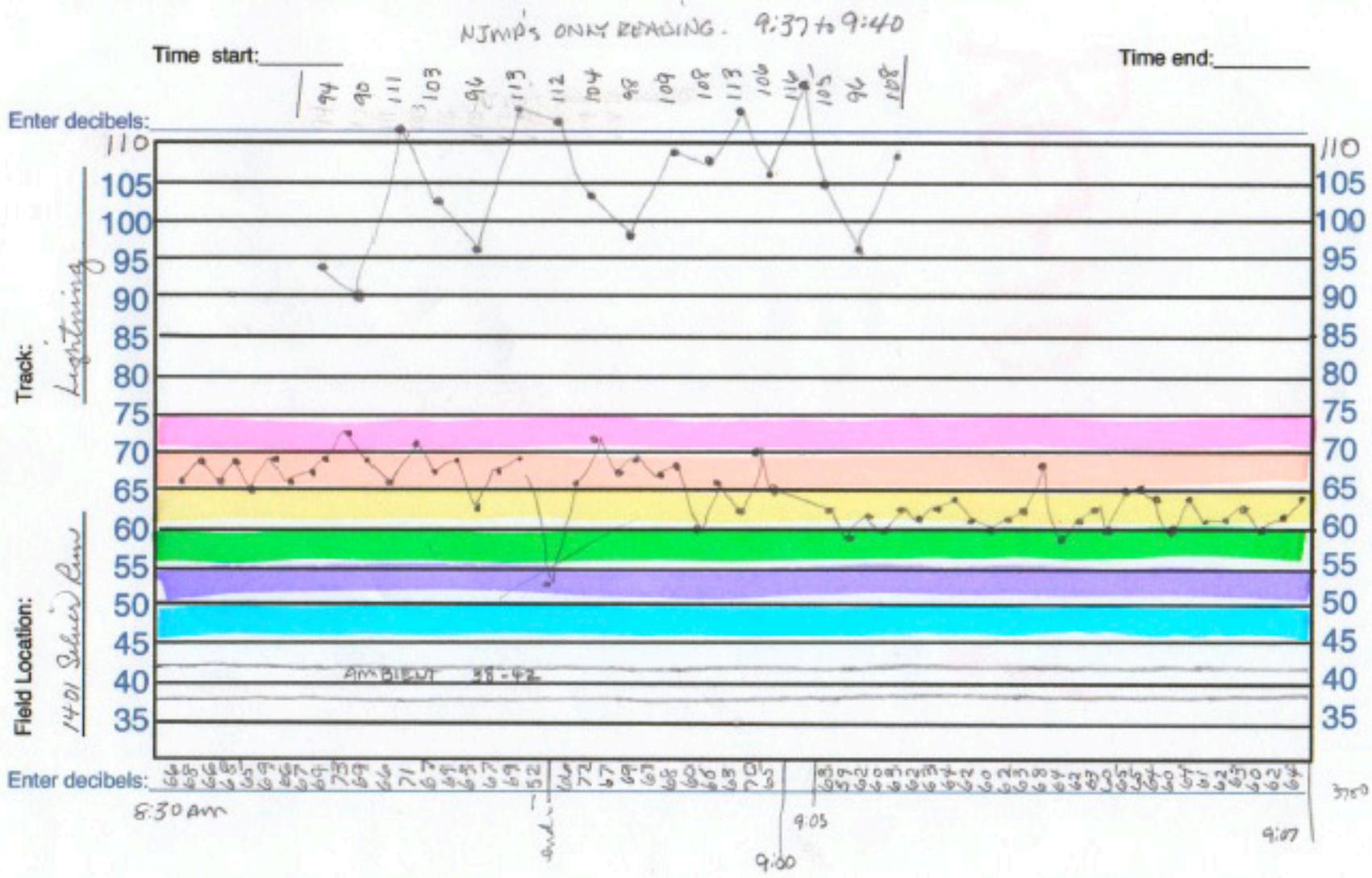
A13

Sound Committee Comparison Chart

Date: 10-22-11 Club/Event: SJR SCCA

Wind direction: NW

Field Location distance from track: 5,000 FT



Sound Committee Comparison Chart

#14

Date: 10-30-11 Club/Event: NASA

Wind direction: _____

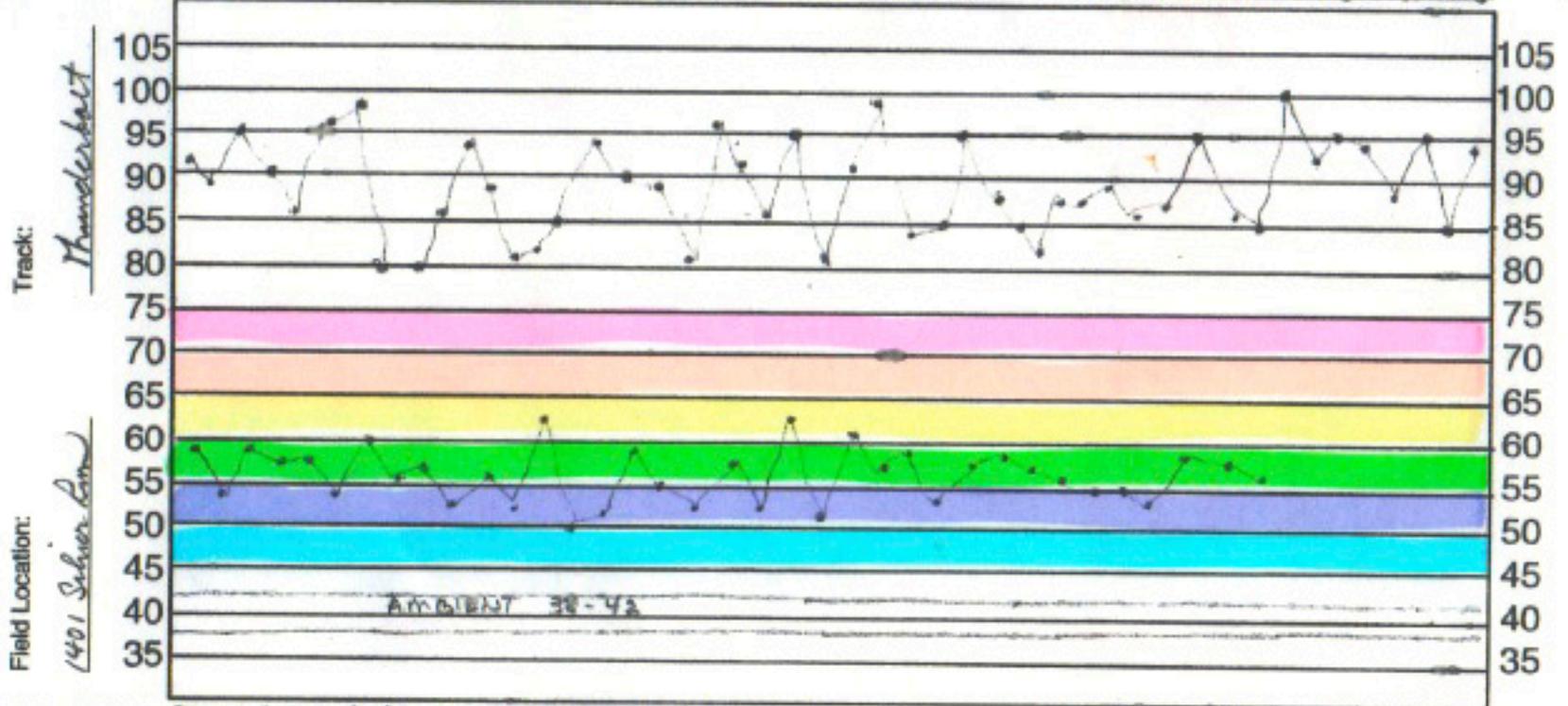
Field Location distance from track: 6,900 Ft

Time start: 1:08

Time end: 1:52

Enter decibels: 92 89 95 90 86 96 98 80 80 86 94 88 81 82 85 94 80 89 82 86 92 86 95 82 92 98 84 84 95 87 85 83 87 87 87 89 86 87 95 86 85 100 93 95 94 88 95 84

42.83
90 ambient



Enter decibels: 58 54 59 57 57 54 60 56 57 53 56 53 53 50 52 57 55 53 57 53 53 52 61 57 59 54 57 58 57 56 53 56 58 58 57 56 20.26 57

1:08 1:52

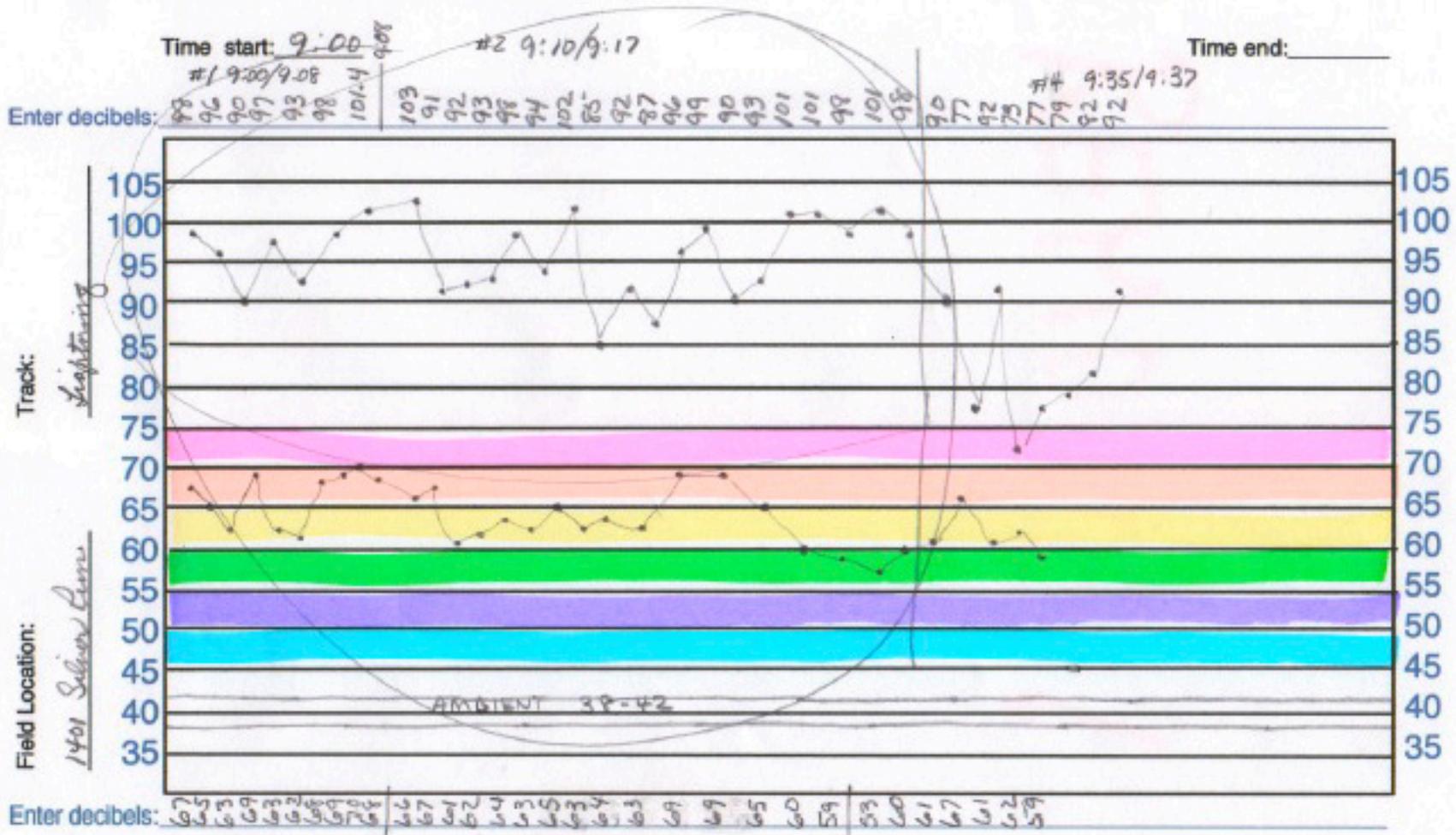
#12

Sound Committee Comparison Chart

Date: 10-15-11 Club/Event: METRO PCA

Wind direction: W

Field Location distance from track: 5000 ft.



Results of Comparison Monitoring, July 22 to November 4, 2011

Numbers correlate to Sound Committee Comparison Charts

Event	Field Location	Trackside	Field
1) Grand Am	David Dr.	108 w/peaks to 114	65 w/peaks to 72
2) Grand Am	David Dr.	108 w/peaks to 112	65 w/peaks to 72
2a) Grand Am	David Dr.	109 w/peaks to 113	64 w/peaks to 73
3) Absolute Cycles and Drivers Club	1401 Silver	*95 w/peaks to 106	55 w/peaks to 67
4) SJR SCCA	David Dr.	90 w/peaks to 101	55 w/peaks to 61
4a) SJR SCCA	David Dr.	90 w/peaks to 97	60 w/peaks to 67
5) Jersey Shore Porsche	2535 Cedar	*102 w/peaks to 106	58 w/peaks to 66
6) Jersey Shore Porsche	1401 Silver	*100 w/peaks to 110	60 w/peaks to 73
7) Production Open Wheel	1401 Silver	95 w/peaks to 103	67 w/peaks to 71
8) Sportbike Championship	David Dr.	67 w/peaks to 79	53 w/peaks to 56
8a) Absolute Cycles	Porreca Cul	78 w/peaks to 98	56 w/peaks to 63
9) SVRA	Hogbin Rd.	*106	58 w/peaks to 64
10) SVRA	David Dr.	*100 w/peaks to 106	58 w/peaks to 63
10a) SVRA	David Dr.	*100 w/peaks to 106	58 w/peaks to 63
10b) SVRA	David Dr.	*100 w/peaks to 106	58 w/peaks to 64
10c) SVRA	Bogden Rd	*100 w/peaks to 106	61 w/peaks to 64
10d) SVRA	Bogden Rd	*100 w/peaks to 108	60 w/peaks to 67
11) SVRA	1401 Silver	*100 w/peaks to 110	63 w/peaks to 69
11a) SVRA	Deborah Woods	*106 w/peaks to 110	64 w/peaks to 69
11b) SVRA	Deborah Woods	*110 w/peaks to 115	72 w/peaks to 77
12) Metro PCA	1401 Silver	96 w/peaks to 102	65 w/peaks to 70
12a) Metro PCA	1401 Silver	88 w/peaks to 103	58 w/peaks to 66
13) SJR SCCA	1401 Silver	105 w/peaks to 116	65 w/peaks to 73
13a) SJR SCCA	1401 Silver	105 w/peaks to 116	62 w/peaks to 68
14) NASA	1401 Silver	90 w/peaks to 100	57 w/peaks to 63

*Inverse Square Law in effect

Sound Committee Chart Correlations

<u>Chart #</u>	<u>Observations</u>
1.	Lines up pretty well with Inverse Square Law, 65 average residence / 107 track. Limiting track to 105 dB would be approximately 65 average at David Drive. Winds no aligned well with reading location.
2.	Same as chart #1
2A	Low to mid 60's average at residence, track was 100 average, same as above
3.	no comparison
4.	Low to mid 50's at residence versus approximately 93 average at track, lines up well with noise law if sound limit at track was 95 dB
4A	Low to mid 60's average at residence with track readings of 90-95 dB.
5.	No comparison
6.	no comparison
7.	About a 67 average at residence with cars peaking to 70. At track 95 average with cars peaking to 100
8.	No comparison
8A	No comparison
9.	No comparison
10.	No comparison
10A	No comparison
10B	No comparison
10C	No comparison
10D	No comparison, one loud car peaking measurements to mid to upper 60's
11.	No comparison
11A	No comparison, louder cars as day went on
11B	No comparison, loudest cars at 5:10 race pushing readings to mid to upper 70's at resident equal distance. Sound was ridiculously loud.
12.	Low to mid 60's average at residence, mid to upper 90's at track. Setting limit at track to 95 would bring residential readings to below 65.
12A	Upper 50's average at residence, upper 80's at track
13.	Times do not match up, difficult for accurate comparison. Mid to upper 60's early then low 60's late at residence, 105 dB average at track. Reducing sound at track to <100 would reduce residential noise to <65
13A	Same as 13
14	Mid to upper 50's average at residence and about 90 average at track with the exception of one loud car. Lowering peaks to 95 would bring noise to <60.

Ambient Daytime Noise Levels for Receptor Locations

David Drive-	40 to 43
Porreca Drive Cul de Sac-	40-43
2535 Cedar Street-	45 to 53 (depending on traffic)
1401 Silver Run Road-	38 to 42
1421 Silver Run Road-	39 to 46
Deer Management Area #1-	41 to 45
Deer Management Area #2-	38 to 41
818 Hogbin Road-	38 to 42
Laurel Lakes-	38 to 41
Bogden Soccer Fields-	45 to 47

NJMP/TR Joint Monitoring Days

Date	Day	Track/Field	Time	Notes
July 22	Friday	NJMP/TR	-----	No readings from NJMP
July 29	Friday	NJMP/TR	?	
Aug 19	Friday	NJMP/TR	9 to 10	
Aug 24	Wednesday	NJMP/TR	9 to 10	
Aug 26	Friday	NJMP/TR	9 to 10	
Sept 17	Saturday	NJMP/TR	3 to 4	
Sept 4	Sunday	TR/TR	2 to 4	
Sept 23	Friday	NJMP/TR	10 to 11	Rescheduled due to rain
Sept 24	Saturday	NJMP/TR	10 to 11	
Sept 29	Thursday	NJMP/TR	?	Rescheduled due to rain
Sept 30	Friday	NJMP/TR	9:30 to 10:30	
Oct 1	Saturday	NJMP/TR	3 to 3:30	
Oct 15	Saturday	TR/TR	9 to 10	
Oct 22	Saturday	NJMP/TR	9 to 10	
Oct 29	Saturday	NJMP/TR	10 to 11	Rescheduled due to rain
Oct 30	Sunday	NJMP/TR	10 to 11	
Nov 4	Saturday	NJMP/TR	9 to 10	Rescheduled to the 5 th
Nov 5	Sunday	NJMP/TR	9 to 10	

DISTANCE AND ELEVATIONS OF SOUND MONITORING LOCATIONS

LOCATION	DISTANCE FROM CLOSES PART OF NJMP		ELEVATION
818 Hogbin Rd.	11,000ft	Thunderbolt	70ft
Deer Management Area,	9,600ft	Thunderbolt	75ft
2535 Cedar Street	4,500ft	Thunderbolt	81ft
David Dr. off Porreca Dr.	6,160ft	Thunderbolt	67ft
	5,600ft	Lightning	67ft
Porreca Dr. Cul de sac	6.000ft	Thunderbolt	81ft
	3,780ft	Lightning	81ft
1401 Silver Run Rd.	6,900ft	Thunderbolt	75ft
	5,000ft	Lightning	75ft
Dividing Creek Rd.	6,900ft	Thunderbolt	42ft
	5,000ft	Lightning	42ft
Battle Rd. Preserve	7,300ft	Thunderbolt	36ft
	8,000ft	Lightning	36ft
Bogden Rd. Soccer field parking lot Used only for Thunderbolt recording	5,400ft	Thunderbolt	67ft
Liberty Village	13,000ft	Thunderbolt	19ft
	8,500ft	Lightning	19ft

Noise - Inverse Square Law

In free-field conditions, sound is known to decrease at a rate of 6 dB for each doubling of distance. For example, a sound at 106 dB at 50 feet would decrease to 100 dB at 100 feet. This does not take into account elevation, reflections, foliage.

Noise level (dB) / Distance (feet)

90/ 50
84/ 100
78/200
72/ 400
66/ 800
60/ 1600
54/ 3200
48/ 6400

Noise level (dB) / Distance (feet)

106 / 50
100 / 100
94 / 200
88 / 400
82 / 800
76 / 1600
70 / 3200
64 / 6400

Noise level (dB) / Distance (feet)

95 / 50
89 / 100
83 / 200
77 / 400
71 / 800
65 / 1600
59 / 3200
53 / 6400

Noise level (dB) / Distance (feet)

110 / 50
104/ 100
98/ 200
92/ 400
86/ 800
80/ 1600
74/ 3200
68/ 6400

Noise level (dB) / Distance (feet)

100 / 50
94 / 100
88 / 200
82 / 400
76 / 800
70 / 1600
64 / 3200
58 / 6400

Noise level (dB) / Distance (feet)

115/ 50
109/ 100
103/ 200
97/ 400
91/ 800
85/ 1600
79/ 3200
73/ 6400