Report of the Ad Hoc Racetrack Committee

By

John R. LaCourse
Chairman, Ad Hoc Racetrack Committee

December 28, 2011

Summary

The Ad Hoc Racetrack Committee was established by the Select Board on November 8, 2010 to discuss and revise the current racetrack ordinance. Members of the Committee included Racetrack Management (Watson), the Lee Police Chief (Murch), the Lee Fire Chief (Hoyt), a selectman (LaCourse), member's of ARC (Lelio, Kahn, Cedarholm, and Loureiro), a citizen (Collins), and at times visitors (Red and Judy MacDonald and Conway). The Committee met eight times from January 3, 2011 to December 1, 2011. During this period members of the Committee, primarily Lelio and Murch, collected sound data over the entire racing season. The Committee agreed with Chairman LaCourse to focus their efforts on Article 21A and not to review the entire ordinance. The committee concluded that Section 21A of the Lee Racetrack Ordinance was extremely weak on methodology of measurement which would hinder enforcement. Furthermore, the sound data supported leaving the 97 dB level in the present ordinance as the maximum level. Therefore, after much deliberation and data review the committee recommended the following paragraph replace the existing Section 21A of the ordinance. The replacement paragraph provides a consistent method of measurement allowing equitable enforcement.

"Sound levels resulting from any activities at the racetrack operation shall not exceed 97.0 decibels using the A scale (dBA), and Fast Response setting. Sound levels shall be measured at any racetrack property line. Measurements shall be taken using a properly calibrated sound meter which is mounted 36 inches above the ground on a tripod, and pointed directly towards the racetrack surface. Any sound measurement that exceeds 97.0 dBA, regardless of the duration, shall be a violation."

It was further decided that the Select Board would determine the type and degree of penalty for violation and that the Racetrack would be given the next racing season (2012) to come into compliance.

In support of our recommendations and to ensure that all data, minutes, and briefings are held in one document, the Committee has attached three sets of materials.

- Development Brief (Page 3)
- Meeting Minutes (Page 8)
- Sound Data (externally attached)

1. **Background**

   a. **History of Lee USA Speedway and Lee Racetrack Ordinance**

      i. **1964:** First tri-oval dirt track opened at site
      ii. **1965:** Track first paved. New England Super Modified Racing Association begins racing on new paved track
      iii. **1977:** Town adopts first Lee Racetrack Ordinance
      iv. **1978:** New England Super Modified Racing Association (NESMRA) pulls out of Lee to race instead at Star Speedway
      v. **1979:** Track closes due to poor attendance and sporadic racing schedule with loss of NESMRA
      vi. **1980-1983:** Track not in operation
      vii. **1982:** New owners affiliated with Star Speedway purchase track
      viii. **1983:** New oval track is laid out
      ix. **1984:** New oval track is paved, re-opens in July
      x. **1984-1986:** Track runs "special" racing events, no weekly series
      xi. **1986:** MacDonald family buys track in November
      xii. **1987:** Weekly racing series begin again for first time since 1978
      xiii. **1989:** Town amends Lee Racetrack Ordinance to add exhaust noise restrictions (Section 21A) and codify 21 race maximum in Ordinance. From 1989 Town Meeting minutes: "Selectman Dennis pointed out that the racetrack has become more of an issue in the last two years than in the preceding 33 years which he has lived in town. The reason is that the new automobiles are noisier and the new track owner is running more races in an effort to operate a competitive business. He has run all of the 21 races which have been permitted. He would like to operate the busiest and nicest track in New England and to bring in cars such as those on the Canadian/American tour, the Coors and Bud Tours. These are expensive high power, noisier cars. It is hoped, (Selectman Dennis) explained, that the proposed regulations will be a step towards controlling the operations at the Speedway."
      xiv. **1992:** Town amends Lee Racetrack Ordinance to allow 2 more races (total of 23) and 3 rain dates, and also to redefine "completed race event" as minimum 5 heats OR races
      xv. **1998:** Town amends Lee Racetrack Ordinance to allow flea markets and race safety testing
      xvi. **2006:** Town amends Lee Racetrack Ordinance to allow 23 races and 23 rain dates
      xvii. **2010:** Lee USA Speedway sues Town over Saturday racing schedule. Lawsuit is later settled with court agreement
      xviii. **2011:** Ad Hoc Racetrack Committee established by Town Select Board to research and recommend rewrite of Section 21A of the Lee Racetrack Ordinance.

b. Section 21A of the Lee Racetrack Ordinance

i. "No vehicle, as defined in section 1 of this ordinance, shall be operated on the racetrack unless equipped with a muffler that meets or exceeds manufacturers specifications to reduce noise below the 97 dB level."

ii. Town Select Board believes Section 21A as currently written is too vague to be properly enforced. Examples: where and how is 97 dB to be measured, what dB scale is to be used?

c. Tamarack Development history

i. 20 out of 22 of the Tamarack Development homes were built AFTER maximum exhaust noise safeguards were codified via Town ordinance (Section 21A of the Lee Racetrack Ordinance).

d. NH State Law regarding Regulation of Racetracks

i. RSA 31:41-a Motor Vehicle Race Tracks

1. Towns shall have the power to make bylaws relating to the regulation and licensing of motor vehicle race tracks within the limits of the town, and may fix fees not to exceed $100 annually for the operation of such race tracks, and failure to observe such bylaws shall constitute a violation and any fines collected hereunder shall inure to such uses as said towns may direct. For the purposes of this section, a motor vehicle shall be defined as any self-propelled vehicle, except tractors, activated by an internal combustion engine and not operated exclusively on stationary tracks.
2. Revisions:1967, 149:1. 1973, 531:6, eff. Oct. 31, 1973 at 11:59 pm

ii. RSA 31:42 Regulation By Selectmen

1. Prior to adoption of bylaws by a town under RSA 31:41, 41-a or 41-d, the selectmen may regulate the operation of open-air motion picture theatres, motor vehicle race tracks or coin operated amusement devices within the limits of the town and fix reasonable fees for such operation. Such regulations made by the selectmen shall be effective only until the next annual town meeting. Nothing herein contained shall be deemed to prohibit the town from adopting bylaws in accordance with RSA 31:41, 41-a, or 41-d, at any special town meeting, which shall supersede any regulations made by the selectmen.
2. Revisions :1949, 252:1, par. 32-c. RSA 31:42. 1967, 149:2. 1981, 517:2, eff. Aug. 28, 1981.

e. Examples of other NH Towns' Exhaust Noise Regulations

i. Effingham NH Racetrack Ordinance

1. Section 20:
    a. No vehicle as defined in Section 1 shall be operated on the racetrack unless equipped with a muffler that meets or

exceeds manufacturers specifications to reduce noise set at limit of 85 DBA at ½ throttle or 4000 RPM whichever is greater at a distance of 50 feet from tailpipe.

b. Any person operating a motor vehicle racetrack shall allow town officials, or their designated representatives, to conduct from time to time, at said persons expense, such noise level test or readings that may be deemed appropriate and necessary by the selectmen or their authorized agents.

2. Section 22:
   a. A. Any violation of this ordinance shall be punishable by a civil penalty. Each violation of a provision of this ordinance shall constitute a separate offense.
      i. 1st violation: $1000.00
      ii. 2nd violation: $1000.00
      iii. 3rd violation: Lose one race day
      iv. 4th violation: Lose racetrack license for the remainder of the race year and be up for evaluation before the Board of Selectmen or their authorized agents for a new license to operate the track.

ii. Tamworth NH Noise Ordinance

1. Section 2: Noise Limitations and Monitoring
   a. (A) Sound levels generated by any Private Driving Instruction and Exhibition Facility shall not exceed a maximum value of 69 dBA at any point on or beyond the property line of the Facility. A maximum value is an instantaneous maximum as measured with sound level meter slow response. Sound measurements shall be performed in a manner consistent with then current professional measurement standards, methods and procedures.
   b. (B) Between 6:00 PM and 8:00 AM Monday through Saturday, and between 6:00 PM Saturday through 12:00 PM on Sunday, sound generated by any Private Driving Instruction and Exhibition Facility shall not exceed a maximum value of 61 dBA at any point on or beyond the property line of the Facility. A maximum value is an instantaneous maximum as measured with sound level meter slow response. Sound measurements shall be performed in a manner consistent with then current professional measurement standards, methods and procedures.
   c. (C) During operation of the Private Driving Instruction and Exhibition Facility, the operator of the Facility shall monitor the sound level to insure compliance with this ordinance. Sound monitoring shall be performed in a manner consistent with then current professional

measurement standards, methods and procedures. All data from such monitoring shall be made available to the Town promptly upon request of the Board of Selectmen.

d. (D) The Town, acting through its Board of Selectmen or designee, shall have the right to monitor sound levels generated by the Private Driving Instruction and Exhibition Facility at any point on or beyond the property line of the Facility. Sound monitoring shall be performed in a manner consistent with then current professional measurement standards, methods and procedures.

2. Section 3: Violations
3. Each violation of this ordinance shall be punishable by a civil penalty of $1,000. Each day or fraction thereof of any violation of a provision of this ordinance shall constitute a separate offense.

f. Examples of other Town of Lee Noise Ordinances not related to racetracks

i. Small Wind Energy Systems (Article XXI:A) section, D.1.a

1. Sound Level: The small wind energy systems shall not exceed 60 decibels using the A scale (dBA), as measured at the site property line, except during short-term events such as wind storms and utility outages.
2. Any person who fails to comply with any provision of this ordinance or a building permit issued pursuant to this ordinance shall be subject to enforcement and penalties as allowed by NH RSA 676:17.

g. Town of Lee Select Board Guidance- public statements regarding Lee Racetrack Ordinance Section 21a exhaust noise limits (Select Board Meeting Minutes, Sept 13 2010)

i. "Chairman LaCourse makes clear that they are not looking to increase the 97db, it would be nice to decrease it."
ii. "Selectmen Griswold states; it is important for the record that this Board is not in any way looking to increase the level of sound out there. He wants to make it clear that 97db or lower is the threshold."
iii. "Chairman LaCourse reiterates that some of the letters (from the public) suggest the Board is willing to increase the db level, he states that is the last thing they want to do, they would like the db's to go lower."

2. 2011 Sound Data Set

a. The Ad Hoc data collection team collected 723 sound data points from April 17 to October 23, 2011. Main collection locations were the Tamarack Development Green Common Area (surveyor pin set 265' from Lee USA Speedway property line); a site on the Lee USA Speedway/Tamarack Development property line (existing surveyor pin 90' from track surface, in a gully 15-20' below track

surface grade); and a location within the Lee USA Speedway complex 100' from track surface and perpendicular to the exit of Turn 4.

b. Note: initial attempts to measure exhaust noise at the tail pipe (static measurements) were discontinued because several racing divisions feature cars without clutches or neutral gearing- these cars must be moving whenever their engines are in operation, or they will stall.
c. Of the four weekly series racing classes (Small Block Supers, Late Model Sportsman, Iron Man and Hobby stocks), Small Block Supers were the loudest: 100 dBA average max reading measured 100' from track surface. Late Model Sportsman were next at 98 dBA average max reading measured 100' from track surface.
d. Thirteen non-weekly or touring racing divisions were measured. Of the thirteen divisions measured, the five with the highest average max readings measured at 100' were: PASS Super Late Model 103 dBA; MRS Series 103 dBA; NEMA Midget 101 dBA; PASS Super Modified 100 dBA; and ISMA Large Block Supers 99 dBA.

3. Proposed Section 21a Revised Language

a. Sound levels resulting from any activities at a racetrack operation shall not exceed 97.0 decibels using the A scale (dBA), and Fast Response setting, as measured at any of the racetrack's property lines. Measurements are to be taken using a properly calibrated, tripod mounted sound meter pointed directly towards the racing track surface. Maximum sound levels measuring greater than 97.0 dBA registered during any measurement duration will be considered a violation. Each violation will result in the racetrack operation being fined $500 and/or the immediate cessation of racing for that date, at the discretion of the Town of Lee or its agents." Should violations, as defined above, occur at three racetrack events during a particular race season, the Town of Lee may cancel, or suspend a portion of, the then-current race season or impose such other penalties as it deems appropriate.

b. Rationale:
    i. Above rewrite preserves original LRO Section 21A 97 dB threshold.
    ii. Property line measurements are supported by other NH municipal ordinances. A property line is easily identifiable and can be made accessible.
    iii. The new language does not bar any racing division from competing on racetracks in the town of Lee. It allows racetracks in Lee maximum flexibility to utilize sound mitigation devices (mufflers, barriers, etc.) as necessary to ensure excessive exhaust noise is contained on the track property.

Ad Hoc Race-Track Committee Minutes
December 1, 2011
8th Meeting

1. Attendees: LaCourse (chair), Murch, Lelio (recorder), Collins, Kahn, Cedarholm, Loureiro, and 3 representatives from Lee USA Speedway: Red and Judy MacDonald (current principals), and Russ Conway (former principal)

2. LaCourse opened the meeting by thanking the Ad Hoc team for the data collection efforts this past racing season. He asked Lelio to present a summary of the sound data set collected thru October 23, 2011. Most of the discussion on the sound data set centered on how and where measurements were taken. Lelio stated that measurements were primarily taken at 3 locations, which he pointed to on maps: a survey pin in the Tamarack Green Common area, a survey pin on the Lee USA/Tamarack property line, and a location in the track facility 100 feet from the racing track surface, perpendicular to the exit of turn 4. Lelio further stated that the property line survey pin location was a difficult location to access (due to steep grading) and sound measurements at that location might not be representative of all locations along the property line because that particular survey pin is approximately 20 feet below the grade of the track surface.

3. Conway stated that based on his extensive racetrack experience, he is sure that there are other ways that could be considered to reduce exhaust noise that Lee USA Speedway has not considered, including modifying tailpipe exhaust angles to direct the noise downwards.

4. LaCourse explained that the goal of the committee was and is to recommend new Section 21A language which will make racing noise level maximums enforceable by the Town. He welcomed any and all efforts by Lee USA Speedway personnel to reduce exhaust noise. He explained the rationale behind enforcing exhaust standards at the property line, citing other examples of legislation which use the property line as a point of demarcation (racetrack ordinances, wind turbine ordinances, related noise abatement studies). He also noted that due to the lack of transmissions in some racing divisions, it is impossible to measure exhaust noise at each individual car exhaust pipe.

5. LaCourse read the proposed rewrite of section 21A of the Lee Racing Ordinance into the meeting minutes: **Sound levels resulting from any activities at the racetrack operation shall not exceed 97.0 decibels using the A scale (dBA), and Fast Response setting. Sound levels shall be measured at any racetrack property line. Measurements shall be taken using a properly calibrated, tripod mounted sound meter pointed directly towards the racing track surface. Any sound measurement that exceeds 97.0 dBA, regardless of the duration, shall be a violation.** LaCourse advised the group that any penalty language for violations would be addressed separately by the Select Board, and would not be discussed at the Ad Hoc meeting. He further advised that the Town does not intend to penalize a racetrack for violations during the 2012 racing season, but would instead expect the track to use this period to meet the exhaust noise measurement standard.

6. Collins suggested that a specification be added to the rewrite language delineating the distance that the sound meter be mounted from the ground. Lelio suggested mounting the meter 36 inches off the ground, as that was the standard used for the measurements that he recorded this year. Group agreed.

7. Conway stated he will call his friend at Paris Speedway to find out how they measure exhaust noise.

8. R MacDonald asked why there was an effort now to enforce 97 dB noise standards. Collins stated that although a 97 dB maximum is currently in the Lee Racing Ordinance, there is no specific information on where or how exhaust noise is to be measured, and so that is what the committee is trying to correct. Conway stated that wind and vegetation affect noise levels. Collins agreed but stated that vegetation only deflects high frequencies, and low frequencies are the ones that travel long distances. R MacDonald stated that NH law allows motorcycles to run 106 dB. Murch explained that the NH motorcycle exhaust noise standard is a tail pipe measurement, and that if he were to measure exhaust noise at racecar tail pipes, those readings would be louder than 106 dB.

9. J MacDonald asked if there would be exceptions to the 97 dB rule for the louder racing divisions. R MacDonald stated that they need those races to bring in fans and balance the books, as the weekly series races do not cover costs. He contrasted Epping's approach to regulating racetracks with Lee's approach (more venues allowed, no noise restrictions). General discussion ensued regarding property rights of racetracks vs property rights of other property owners in Lee. LaCourse steered discussion back to the original committee mandate, stating that the racetrack noise regulations in Lee already exist, they have been in the Ordinance since 1989, and this committee's charge is only to rewrite the language to make those regulations enforceable. LaCourse asked the MacDonalds how many racing event dates would need exemptions from a 97 dB rule. Kahn stated her opposition to having more than one maximum noise standard, as it would not be in keeping with the existing single noise standard that is already in the Ordinance. R MacDonald stated, you people never had a problem with the noise at the speedway until we wanted to go Saturday nights. Lelio responded, yes I agree that really got peoples' attention.

10. Conway asked which of the abutting houses was closest to Lee USA Speedway. No one was sure whether the closest house was in the Tamarack development or just across route 125 from the track. Conway stated that if measurements are taken, they should be taken on abutting properties, not on the property line. He suggested that measurements could be taken at a picnic table near the fire pond in the Tamarack Rd development.

11. Conway stated that if Lee USA Speedway were required to meet 97 dB at the property line for all races, it would go out of business, because the touring divisions would not be able to race there. Lelio stated that the proposed property line measurement standard does not prevent any racing division from racing at Lee. He suggested that the track might have to investigate sound mitigation barriers in order for the loudest cars to meet the standard. Conway reiterated that Lee USA Speedway would go out of business if the 97

dB standard were enforced for those touring divisions that are the loudest. He stated the MacDonalds have always tried to work with the Town over this issue. Conway stated that he had heard enough from this meeting, and that he was leaving. He suggested that the MacDonalds sue the Town in Federal Court. Conway then left the meeting. LaCourse thanked him for his participation and contributions.

12. R MacDonald again asked why measurements should be taken at the property line instead of on abutting properties. J MacDonald asked why there weren't any measurements taken at abutters' homes. Lelio stated that the committee decided early on where to take measurements, and they centered primarily on the locations described above. Cedarholm pointed out that the committee began to gather sound data specifically to help determine the original intent of the 97 dB standard, and it quickly became clear that the 97 dB standard wasn't designed to be applied to abutter's home sites. Loureiro stated that measurement of sound at the property line was consistent with most Land Use legislation in NH. LaCourse cited water runoff and wind turbine noise regulations as additional Land Use legislative examples.

13. R MacDonald stated that although they can regulate exhaust pipe placement and muffler rules for the weekly racing divisions, the Speedway has little control over the large touring divisions. He gave an example of the ACT series, a 50 car racing event occurring early in the season. These cars run exhaust pipes thru their side doors, an arrangement that is not conducive to limiting exhaust noise. Lelio suggested sound mitigation barriers might help with those events. R MacDonald asked if measurements would be taken at one specific point on the property line, and if so he could build a barrier there. Lelio stated that noise coming from the south and east sides of the Lee USA Speedway seem to have the most impact on Lee residents, and insisted that any point on the property line be a potential measurement location. LaCourse stated that it would be up to Chief Murch to determine the various locations for property line measurements during enforcement.

14. LaCourse suggested there was sufficient consensus on the committee to move forward with proposing the new language to the Select Board, as follows: **Sound levels resulting from any activities at the racetrack operation shall not exceed 97.0 decibels using the A scale (dBA), and Fast Response setting. Sound levels shall be measured at any racetrack property line. Measurements shall be taken using a properly calibrated sound meter which is mounted 36 inches above the ground on a tripod, and pointed directly towards the racing track surface. Any sound measurement that exceeds 97.0 dBA, regardless of the duration, shall be a violation.** LaCourse again reiterated that any discussion of penalties would occur solely at the Select Board level.

15. Lelio asked if this new language would go the deliberative body for vote in March 2012. LaCourse confirmed that was correct. Murch then suggested that there might be an alternative approach: since this is not a zoning change, the Select Board may actually be able to implement this new language without going to the deliberative body. Murch will confirm whether this approach is in fact possible. In either case, LaCourse will present new language to Select Board at their next regularly scheduled meeting. LaCourse thanked the attendees for their participation.

Ad Hoc Race-Track Committee Minutes
September 8, 2011
7th Meeting

1. Attendees: LaCourse, Watson, Murch, Lelio, Hoyt, Collins, Kahn, Cedarholm
2. Lelio presented data collected through August 26, 2011. Loudest regular weekly division has been Small Block Super Modifieds. Loudest touring divisions to date have been NEMA Midgets, Large Block Super Modifieds, and PASS division Super Late Model and Super Modified classes.
3. LaCourse thanked the data collectors, and stated that committee probably now has sufficient data to understand noise levels during racing. He suggested it is now time to propose a rewrite of Section 21A of the Lee Racing Ordinance in order to make it more enforceable. To that end, he proposed for discussion purposes only the following language: "No event shall be allowed to continue when the average maximum noise level is above 97 dB when measured 100 feet from the outside edge of the track surface during anytime during the event." LaCourse mentioned that since not all cars can be measured statically due to transmission designs, it would be better to propose on-track measurements at a specified distance. Group agreed. Lelio stated that he supported LaCourse's language because it preserves the <97 dB threshold already written in to the ordinance. Lelio also read from minutes of 1989 Town Meeting, noting that the original intent of Section 21A of the Ordinance was to respond to an increase in loud racing divisions that were coming in to race at Lee USA Speedway.
4. Watson stated that former Chief Burke used to measure sound 100' over the property line (on abutter's property), and he thinks this is a better place to enforce the standard.
5. Watson said the track is considering only running 12 weekly events for next year, and 5 special events, down from the regular 23. Watson said they must run 16 weekly events to retain WHALEN sanction, but they are considering doubling up events on some nights. Waltson would like max noise thresholds exceptions to LaCourse's language for special touring events, including Large Block Supers. Kahn did not support providing noise threshold exceptions, and stated that any rewrite of Section 21A should include one threshold for all racing divisions. Group reviewed data and identified five divisions that might not reach a max 97 dB threshold: Small Block Supers, Large Block Supers, NEMA Midgets, PASS Super Late and PASS Super Modifieds.
6. LaCourse submitted revised language for discussion purposes: "No event shall be allowed to continue when the average maximum noise level is above 97 dB when measured 100 feet from the outside edge of the track surface during anytime during the event except for five (5) identified events where the average maximum noise level shall not exceed 102 dB." Group was split on whether having two thresholds was keeping in spirit with the original Section 21A language.
7. The topic of enforcement was raised. Collins suggested that track be shut down when max thresholds were violated. Watson was concerned about public safety in the event that the track was shut down due to noise violations. Murch suggested that levying fines would be a sufficient deterrent when violations occurred.
8. Watson stated that it cost the track $21,000 to open the facility for a racing event, which is why the track is considering fewer events next season. Watson also provided

LaCourse with information on racing schools that the track would like to run in the future.

9. LaCourse and Murch will work on additional Section 21A rewrite language for the group to review prior to the next meeting. LaCourse will schedule the next meeting date and advise the group.
10. Cedarholm stated that a sound containment barrier on the south end of the track property might contain much of the exhaust noise and allow the track to continue hosting the louder racing divisions. Watson agreed that the track could provide a barrier, and that it probably would help with noise spillover.

Ad Hoc Race-Track Committee Minutes
June 8, 2011
6th Meeting

1. Attendees: LaCourse, Murch, Collins, Kahn, Lelio, Watson, Cedarholm
2. LaCourse distributed meeting minutes which included sound data sets thru May 13 2011. The first two pages of data were collected on the Lee USA Speedway/Tamarack property line, the second two pages of data were collected at a survey pin in Tamarack Green Area.
3. Group reviewed the sound data. Collins suggested that group review standard deviation of the data sets in the future.
4. Lelio indicated that there were still some holes in the data set that he and Cedarholm have been building, most notably concerning special touring divisions (Prostocks, Large Block Super). He also noted that it would be good to have additional data for all divisions once the tree canopy has fully leafed out. Collins noted that vegetation would probably have an increased attenuating affect on high rather than low frequency sound waves.
5. Murch presented police dept data, taken at 100' and at the tail pipe. His data set also included the first Prostock sound measurements of the season. Murch explained that the LPD gave out two warnings to owners/drivers of cars that were not properly muffled. He also mentioned that it only takes one or two cars that are improperly muffled to significantly increase noise levels in any particular heat or race.
6. Group discussed feasibility of taking simultaneous measurements at tail pipe, 100' away, and at the Tamarack area green pin. Group felt this might be difficult due to other track noise that is present when measuring tail pipe output, but agreed to try. Group wondered why ACT and SMS racing divisions did not register the same noise levels at the Tamarack Green Area pin, as the car engines and exhaust manifolds are very similar. Murch pointed out that each division does run different mufflers.
7. Cedarholm asked about tail pipe measurements for SMS cars. Murch and Watson pointed out that since these cars do not have starter motors and must be push started, static readings are not possible. Watson noted that NEMA (new england midget association) and Big Block Super Mods also present this same problem. Group discussed this issue as it relates to the J1169 tail pipe measurement procedure.
8. Next meeting is scheduled for Sept 8 2011, 7 pm. Data collection at all locations will continue in the meantime.

Ad Hoc Race-Track Committee Minutes
April 27, 2011
5th Meeting

1. Attendees: Collins, LaCourse, Cedarholm, Murch, Watson, Lelio
2. Lelio thanked LaCourse for posting the committee minutes on Town website. LaCourse stated his view that although this ad hoc committee is a closed meeting in that it is not open to public comment, it is open to any members of the public who would like to attend and observe.
3. Group reviewed sound data collected by Lelio and Murch on 4/17/11. Two observations were raised: Murch and LaCourse stated that based on the tailpipe sound data that was recorded on 4/17/11, the 97 dB limit as measured at the tailpipe seems to be an unrealistic standard that the racing teams will not be able to meet. Lelio stated that 76 dB average readings taken in Tamarack during racing on the same day indicate the presence of a serious noise issue (100x louder than the target), given the ad hoc committee's initial goal of ensuring noise levels in abutting neighborhoods during racing match WHO's 55 dB residential neighborhood maximum standards.
4. Group discussed whether future measurements should continue to be taken at the tailpipe using the J1169 standard. Group decided to continue using the J1169 measurement procedure because it is a nationally recognized measurement procedure for automobiles, it facilitates repeatable measurement conditions, and the procedure helps to identify specific cars which fail to meet exhaust noise standards.
5. Murch stated that he and his team will have to wear hearing protection for future tailpipe measurements. Lelio indicated that per OSHA, permanent hearing damage occurs after 14 seconds of exposure to 118 dB levels, the highest sound readings measured on 4/17/11.
6. Collins asked whether Murch inspects vehicle mufflers at the tailpipe measurement station, and LaCourse asked whether one can visually inspect and identify the particular mufflers that each car is running. Murch replied that he does inspect mufflers by looking under the car. Collins suggested that if mufflers can be identified, that info should also be included in the data field.
7. Collins suggested that group make an attempt to coordinate on track and abutting property measurements, so that abutting property measurements are also accompanied with the following additional information: racing division that is currently on track, and number of cars that are currently operating on track. He also suggested that we take some simultaneous tail pipe and abutting property sound measurements on various racing division cars, using radios to coordinate between the measurement stations. Collins asked about the weather data on Lelio sample set- per Lelio this information came from the NOAA Nottingham website. Lelio will confirm whether wind direction means that wind is coming from that direction, or blowing in that direction.
8. LaCourse asked group to continue to take tail pipe and abutting measurements, with the goal of getting sound data on all car divisions, including all weekly and special touring divisions. Lelio suggested that abutting property sound data be gathered on Test and Tune days, too.

9. LaCourse stated that as the season progresses, he expects measurements to show sound levels decreasing as steps are taken by racing teams (better mufflers, etc.). Watson also suggested that racing teams will get better at adhering to the sound standards as the season progresses.
10. Lelio asked Murch if there were any other issues he found with using the J1169 measurement procedure. Murch replied that the biggest obstacle was that drivers were nervous about having their cars measured, and so were reluctant to rev their engines to the required 3/4 max RPM. He plans to ask a second officer to watch each car's RPM tach during future measurements in order to insure cars are measured at proper RPM levels. Watson concurred with this procedure.
11. Murch told group that as he gathers future sound data, he will send it out to the committee via email.
12. Watson invited the group to visit the track to see how sound data is collected, and view track operations. In response to a question by Cedarholm, Watson explained the free admission policy for Lee residents to the group.
13. Next meeting is Wednesday, June 8th, 7 pm at the Town Hall.

Ad Hoc Race-Track Committee Minutes
March 31, 2011 Meeting (Modified April 18, 2011)
4th Meeting

1. The Committee agreed upon the protocol submitted by Chief Murch with minor modifications. The protocol for measurement is provided below in its entirety.
"No person shall operate a motor vehicle on the racing surface which has a measured noise level of more than 97 decibels on the decibel meter on the A scale when measured 20 inches from the exhaust pipe at a 45 degree angle and at a height of 8 inches off the ground while the engine is operating at 75% of its maximum rated revolutions per minute (RPMs).
Measurements shall be taken in accordance with the Society of Automotive Engineers specification SAE J1169 Surface Vehicle Standards.
Vehicles found to be in violation of the above stated provision will not be allowed on the racing surface until such time as a properly equipped muffler has been installed, the vehicle has been retested and the vehicle is found to meet the 97-decibel limit in accordance with this provision."

2. The Committee also agreed that the test will be done on the similar surface as the racing surface and at a specified area outlined for vehicle entry. A sound meter on a tripod would be stationed at the proper distance to make the measurement.

3. The Committee recommended that addition sound meters be purchased to be used at the Chief's discretion for measuring sound at identified areas at trackside and/or on abutters' property.

4. The Committee agreed that this protocol would start with the upcoming 2011 racing season.

5. Be it known that the intent of testing during this racing season is to gather data such as abutter sound intensities at the same time as vehicle testing, abutter

sound intensities during races, sound intensities at identified sites for yearly comparisons.

6. Be it known that Chief Murch has full discretion as to the time, dates and the number of measurements with the proviso that enough data recordings are made to establish a baseline.
7. Next Meeting: April 27, Town Hall, 7 PM.

January 31, 2011
3rd Meeting

1. Committee decided to adopt the 55 dB noise threshold as an initial goal for noise levels at residential properties abutting the racetrack during racing sessions.
2. Chief Murch recommended that exhaust sound testing of individual cars be done in the ramp area just prior to the "bridge".
3. Ad Hoc Race-Track Committee Minutes March 31, 2011(Modified April 18, 2011)
4. Chief Murch said that he is initially planning to document all conversations with racing teams regarding muffler sound readings.
5. Robin suggested that the Town purchase 2-3 more sound meters and secure volunteers who might be willing to take sound readings at abutting properties during races.

Next steps:

- Chief Murch will draft a procedure for measuring individual race vehicle
- exhaust noise.
- Andy will ask Allan Dennis to help make copies of the racetrack site maps
- for committee members.
- Andy will work with Dave to verify distances from the track surface to
- abutting property lines.
- Next meeting: February 14, 2011 7 pm Town Hall

January 17, 2011
2nd Meeting

1. The Committee decided that measurement at the boundary lines were most likely not a valid means for enforcement of 21A. Members learned that dB readings were affected by a variety of physical conditions such as humidity and wind direction. As a result the Committee will now focus on measurement at the tailpipe.
2. Discussion was held on different mufflers and exhaust pipe arrangements.
3. Methods for reducing noise in general were discussed. Some options included sheathing the stands, requiring tailpipes to exhaust down at the track, and modifying the PA system.
4. Conditional agreement among committee members included the following. 1) The next racing season will be a transitional season in that measurements will be made at the boundary lines and at certain identified residences to determine db

ranges. 2) Measurements will be made at the tailpipe with detailed instructions for measurement so that the Chief of Police can implement 21A. 3) The Committee will work as an oversight committee throughout the racing season to bring forth a modified ordinance for the 2012 legislative meeting. 4) The goal is to determine a dB reading at the tailpipe that brings the noise at the boundary lines and at residences more acceptable to abutters and allows a mutually beneficial racing season for all concerned. 5) And finally, measurements should be made at benchmark stations at the boundary lines every year and kept for yearly comparisons.

Action Items: The Committee will look into mufflers and tailpipe arrangements

- that reduce noise and existing law that speaks to measurement.
- Next Meeting: January 31, 2011, 7 PM, Town Hall

January 3, 2011
1st Meeting: Organizational Meeting
Ad Hoc Race-Track CommitteeMinutes March 31, 2011(Modified April 18, 2011)

1. Reviewed Committee Charge, Racetrack Ordinance, Noise Ordinance, and Superior Court Agreement
2. Discussed BOS Recommendations: Do not rewrite entire ordinance, Focus on area 21A, Use as a "Guide Small Wind Energy Systems Ordinance"
3. Established next meeting date: January 17, 2011 at 7 PM
4. Action Items: After discussion the committee decided to study two areas of measurement for enforcement, at the tail pipe and at the boundary lines.
5. LaCourse and Collins focused on the boundary lines and Lelio and Loureiro focused on the tail pipe.
6. Chief Murch was assigned to study the impact of these measurement areas on implementing 21A.

TOWN OF LEE AD HOC RACETRACK COMMITTEE
RACETRACK SOUND MEASUREMENT DATA COLLECTED THROUGH OCTOBER 23, 2011

WEEKLY RACING DIVISIONS:

RACING CLASS	SM BLK SUPER	LATE MOD SPORT	IRON MAN	HOBBY STOCKS	TRACK CLOSED
TAMARACK GREEN AREA 265' OFF PROP LINE:					
AVERAGE DB READING DURING RACING	77	72	63	68	<50
MAX DB READING REC DURING RACING	88	82	73	80	61
100' FROM TRACK SURFACE, TURN 4:					
AVERAGE MAX DB READING DURING RACING	100	98	87	89	NA
PROPERTY LINE 90' FROM TRACK SURFACE:					
AVERAGE DB READING DURING RACING	82	76	67	NA	58
MAX DB READING REC DURING RACING	90	85	80	NA	70

SPECIAL RACING DIVISIONS:

RACING CLASS	PASS SUPER LATE	PASS SPORT MAN	PASS SUP MOD	CLASSIC LITE	ACT LATE MOD	NEMA LITE	PRO STK SUP LATE	ALLISON LEGACY
TAMARACK GREEN AREA 265' OFF PROP LINE:								
AVERAGE DB READING DURING RACING	NA	NA	NA	70	75	75	74	69
MAX DB READING REC DURING RACING	NA	NA	NA	79	82	80	82	80
100' FROM TRACK SURFACE, TURN 4:								
AVERAGE MAX DB READING DURING RACING	103	96	100	NA	NA	96	98	93
PROPERTY LINE 90' FROM TRACK SURFACE:								
AVERAGE DB READING DURING RACING	NA	NA	NA	75	NA	NA	NA	NA
MAX DB READING REC DURING RACING	NA	NA	NA	81	NA	NA	NA	NA

RACING CLASS	NEMA MDGT	LARGE BLOCK SUPER	STAR CARS	MOD RACING SERIES	LMS SUPER STREET			
TAMARACK GREEN AREA 265' OFF PROP LINE								
AVERAGE DB READING DURING RACING	78	79	71	78	73			
MAX DB READING REC DURING RACING	87	87	78	87	82			
100' FROM TRACK SURFACE, TURN 4								
AVERAGE MAX DB READING DURING RACING	101	99	NA	103	NA			
PROPERTY LINE 90' FROM TRACK SURFACE								
AVERAGE DB READING DURING RACING	NA	NA	NA	NA	NA			
MAX DB READING REC DURING RACING	NA	NA	NA	NA	NA			

NOTES:
NA INDICATES DATA IS NOT AVAILABLE.
THE PROPERTY LINE REFERENCE LOCATION IS APPROX 15-20 FEET BELOW THE LEVEL OF THE TRACK SURFACE.
THIS SUMMARY PAGE ONLY INCLUDES COLLECTION LOCATIONS WITH 20 OR MORE DATA POINTS.

LUSA/TAMARACK PROP LINE
SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB

LOCATION: 3RD IRON ROD IN FROM RTE 125
90 FT FROM TRACK SURFACE
RECORDER: A.LELIO

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING TRACK

DATE	TIME	WIND DIR (FROM)	WIND SPD: SUSTAINED, GUST (MPH)	TEMP (F)	RELATIVE HUMIDITY %	ESTIMATED % LEAF COVERAGE	READINGS				
							DURATION (SECS)	AVERAGE dB	MAX dB	0: TRACK CLOSED 1: NO RACING, IDLING & SPEAKER ONLY 2: NO RACING, BUT CARS ON TRACK (FLAG) 3: FULL RACING	RACING CLASS
4/29/11	7:13 PM	-	CALM	63	45	5	30	60	70	0	
4/29/11	7:15 PM	-	CALM	63	45	5	30	53	65	0	
4/29/11	7:17 PM	-	CALM	63	45	5	30	58	66	0	
4/29/11	7:19 PM	-	CALM	63	45	5	30	56	70	0	
4/29/11	7:21 PM	-	CALM	63	45	5	30	61	70	0	
5/13/11	8:07 PM	SE	8	59	56	30	30	74	80	3	CLLITE H1
5/13/11	8:08 PM	SE	8	59	56	30	30	76	80	3	CLLITE H1
5/13/11	8:09 PM	SE	8	59	56	30	30	75	81	3	CLLITE H1
5/13/11	8:10 PM	SE	8	59	56	30	30	76	80	3	CLLITE H1
5/13/11	7:35 PM	SE	8	59	56	30	30	67	75	3	IRON H
5/13/11	7:36 PM	SE	8	59	56	30	30	69	76	3	IRON H
5/13/11	7:37 PM	SE	8	59	56	30	30	65	73	3	IRON H
5/13/11	7:39 PM	SE	8	59	56	30	30	67	77	3	IRON H
5/13/11	7:40 PM	SE	8	59	56	30	30	67	80	3	IRON H
5/13/11	7:41 PM	SE	8	59	56	30	30	68	77	3	IRON H
5/6/11	8:35 PM	-	CALM	64	23	10	30	85	89	3	SMS F
5/6/11	8:36 PM	-	CALM	64	23	10	30	85	89	3	SMS F
5/13/11	7:46 PM	SE	8	59	56	30	30	81	88	3	SMS H1 9
5/13/11	7:47 PM	SE	8	59	56	30	30	82	90	3	SMS H1 9
5/13/11	7:48 PM	SE	8	59	56	30	30	81	88	3	SMS H1 9
5/13/11	7:53 PM	SE	8	59	56	30	30	82	90	3	SMS H2 8
5/13/11	7:54 PM	SE	8	59	56	30	30	82	88	3	SMS H2 8
5/13/11	7:55 PM	SE	8	59	56	30	30	82	87	3	SMS H2 8
5/13/11	7:56 PM	SE	8	59	56	30	30	80	87	3	SMS H2 8
5/6/11	8:50 PM	-	CALM	64	23	10	30	78	83	3	SPRT F

LUSA/TAMARACK PROP LINE
SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB

LOCATION: 3RD IRON ROD IN FROM RTE 125
90 FT FROM TRACK SURFACE
RECORDER: A.LELIO

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING TRACK

5/6/11	8:51 PM	-	CALM	64	23	10	30	77	85	3	SPRT F
5/6/11	8:56 PM	-	CALM	64	23	10	30	78	83	3	SPRT F
5/6/11	8:57 PM	-	CALM	64	23	10	30	76	82	3	SPRT F
5/6/11	8:58 PM	-	CALM	64	23	10	30	77	83	3	SPRT F
5/6/11	8:59 PM	-	CALM	64	23	10	30	77	81	3	SPRT F
5/6/11	9:02 PM	-	CALM	64	23	10	30	77	82	3	SPRT F
5/6/11	8:46 PM	-	CALM	64	23	10	30	75	82	3	SPRT F
5/13/11	7:58 PM	SE	8	59	56	30	30	75	81	3	SPRT H1
5/13/11	7:59 PM	SE	8	59	56	30	30	75	81	3	SPRT H1
5/13/11	8:00 PM	SE	8	59	56	30	30	74	80	3	SPRT H1
5/13/11	8:01 PM	SE	8	59	56	30	30	73	79	3	SPRT H2
5/13/11	8:03 PM	SE	8	59	56	30	30	74	80	3	SPRT H2
5/13/11	8:04 PM	SE	8	59	56	30	30	74	81	3	SPRT H2

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

							DURATION (SECS)	AVERAGE dB	MAX dB	0: TRACK CLOSED 1: NO RACING, IDLING & SPEAKER ONLY 2: NO RACING, BUT CARS ON TRACK (FLAG) 3: FULL RACING	RACING CLASS, H=HEAT 1 F=FINAL, # OF CARS
DATE	TIME	WIND DIR (FROM)	WIND SPD: SUSTAINED, GUST (MPH)	TEMP (F)	RELATIVE HUMIDITY %	ESTIMATED % LEAF COVERAGE	READINGS				
4/29/11	7:03 PM	-	CALM	63	45	5	30	<50	55	0	
4/29/11	7:05 PM	-	CALM	63	45	5	30	<50	54	0	
4/29/11	7:07 PM	-	CALM	63	45	5	30	<50	61	0	
4/29/11	7:09 PM	-	CALM	63	45	5	30	<50	54	0	
4/29/11	7:11 PM	-	CALM	63	45	5	30	<50	58	0	
4/17/11	3:28 PM	W	14,24	57	55	0	120	55	62	1	
4/17/11	3:40 PM	W	14,24	57	55	0	60	58	68	1	
4/17/11	4:01 PM	W	14,24	57	55	0	60	58	68	1	
4/17/11	4:11 PM	W	14,24	57	55	0	30	53	63	1	
5/13/11	7:14 PM	SE	8	59	56	30	30	55	62	1	
5/13/11	7:15 PM	SE	8	59	56	30	30	54	61	1	
5/13/11	7:25 PM	SE	8	59	56	30	30	51	65	1	
5/13/11	7:26 PM	SE	8	59	56	30	30	53	56	1	
4/17/11	4:52 PM	W	14,24	57	55	0	30	64	70	2	ACT F
8/5/11	8:21 PM	SE	7	73	69	100	30	64	72	2	CLLITE H1-10
8/19/11	7:47 PM	-	CALM	74	62	100	30	63	69	2	MTRCYCLES
8/19/11	7:48 PM	-	CALM	74	62	100	30	63	68	2	MTRCYCLES
4/17/11	4:46 PM	W	14,24	57	55	0	60	76	82	3	ACT F
4/17/11	4:48 AM	W	14,24	57	55	0	60	77	81	3	ACT F
4/17/11	4:50 PM	W	14,24	57	55	0	60	75	79	3	ACT F
4/17/11	4:55 PM	W	14,24	57	55	0	60	74	82	3	ACT F
4/17/11	5:05 PM	W	14,24	57	55	0	30	75	80	3	ACT F
4/17/11	4:42 PM	W	14,24	57	55	0	30	76	80	3	ACT F
4/17/11	5:01 PM	W	14,24	57	55	0	30	75	80	3	ACT F
10/22/11	2:50 PM	VAR	5	58	51	20	30	69	74	3	ALL LEG H1-8

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

10/22/11	2:51 PM	VAR	5	58	51	20	30	69	75	3	ALL LEG H1-8
10/22/11	2:49 PM	VAR	5	58	51	20	30	68	80	3	ALL LEG-H1-9
8/5/11	8:17 PM	SE	7	73	69	100	30	67	74	3	CLLITE H1-10
8/5/11	8:18 PM	SE	7	73	69	100	30	67	77	3	CLLITE H1-10
8/5/11	8:22 PM	SE	7	73	69	100	30	72	79	3	CLLITE H1-10
8/5/11	8:23 PM	SE	7	73	69	100	30	73	78	3	CLLITE H1-10
8/5/11	8:24 PM	SE	7	73	69	100	30	73	77	3	CLLITE H1-10
5/13/11	8:15 PM	SE	8	59	56	30	30	68	75	3	CLLITE H2
5/13/11	8:16 PM	SE	8	59	56	30	30	70	76	3	CLLITE H2
10/22/11	4:08 PM	VAR	5	58	51	20	30	71	80	3	HOB H1-10
10/22/11	4:09 PM	VAR	5	58	51	20	30	71	76	3	HOB H1-10
10/22/11	4:10 PM	VAR	5	58	51	20	30	72	78	3	HOB H1-10
8/19/11	7:33 PM	-	CALM	74	62	100	30	67	73	3	HOB H1-7
8/19/11	7:34 PM	-	CALM	74	62	100	30	67	72	3	HOB H1-7
8/19/11	7:35 PM	-	CALM	74	62	100	30	67	73	3	HOB H1-7
8/19/11	7:36 PM	-	CALM	74	62	100	30	67	74	3	HOB H1-7
8/5/11	8:55 PM	SE	7	73	69	100	30	69	74	3	HOB H1-8
8/5/11	8:56 PM	SE	7	73	69	100	30	69	74	3	HOB H1-8
8/5/11	8:57 PM	SE	7	73	69	100	30	69	75	3	HOB H1-8
10/22/11	4:13 PM	VAR	5	58	51	20	30	70	79	3	HOB H2-10
10/22/11	4:14 PM	VAR	5	58	51	20	30	70	76	3	HOB H2-10
10/22/11	4:15 PM	VAR	5	58	51	20	30	71	76	3	HOB H2-10
10/22/11	4:16 PM	VAR	5	58	51	20	30	71	76	3	HOB H2-10
8/19/11	7:38 PM	-	CALM	74	62	100	30	67	75	3	HOB H2-7
8/19/11	7:39 PM	-	CALM	74	62	100	30	67	74	3	HOB H2-7
8/19/11	7:40 PM	-	CALM	74	62	100	30	67	74	3	HOB H2-7
8/19/11	7:43 PM	-	CALM	74	62	100	30	68	75	3	HOB H3
10/22/11	4:18 PM	VAR	5	58	51	20	30	71	80	3	HOB H3-9
5/13/11	8:19 PM	SE	8	59	56	30	30	69	75	3	HOBB H1
5/13/11	8:20 PM	SE	8	59	56	30	30	68	73	3	HOBB H1
5/13/11	8:21 PM	SE	8	59	56	30	30	68	73	3	HOBB H1
5/13/11	8:23 PM	SE	8	59	56	30	30	65	74	3	HOBB H2
5/13/11	8:24 PM	SE	8	59	56	30	30	67	73	3	HOBB H2
5/13/11	8:25 PM	SE	8	59	56	30	30	68	74	3	HOBB H2

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

6/10/11	7:58 PM	S	6	69	61	90	30	68	75	3	HOB-H-10
6/10/11	7:59 PM	S	6	69	61	90	30	68	75	3	HOB-H-10
6/10/11	8:00 PM	S	6	69	61	90	30	68	75	3	HOB-H-10
6/10/11	8:02 PM	S	6	69	61	90	30	68	76	3	HOB-H-10
6/10/11	8:03 PM	S	6	69	61	90	30	66	74	3	HOB-H-10
6/10/11	8:06 PM	S	6	69	61	90	30	67	73	3	HOB-H-5
6/10/11	8:07 PM	S	6	69	61	90	30	66	73	3	HOB-H-5
6/10/11	8:08 PM	S	6	69	61	90	30	67	72	3	HOB-H-5
6/10/11	8:09 PM	S	6	69	61	90	30	65	72	3	HOB-H-5
5/13/11	8:40 PM	SE	8	59	56	30	30	65	73	3	IRON F 11
5/13/11	8:41 PM	SE	8	59	56	30	30	66	73	3	IRON F 11
5/13/11	8:42 PM	SE	8	59	56	30	30	65	73	3	IRON F 11
5/13/11	8:43 PM	SE	8	59	56	30	30	65	72	3	IRON F 11
5/13/11	8:44 PM	SE	8	59	56	30	30	66	73	3	IRON F 11
5/6/11	8:10 PM	-	CALM	64	23	10	30	65	71	3	IRON H
7/15/11	7:55 PM	S	7	77	40	100	30	61	68	3	IRON H1-8
7/15/11	7:56 PM	S	7	77	40	100	30	61	67	3	IRON H1-8
7/15/11	7:57 PM	S	7	77	40	100	30	61	67	3	IRON H1-8
6/10/11	8:51 PM	S	6	69	61	90	30	61	69	3	IRON-F-7
6/10/11	8:52 PM	S	6	69	61	90	30	62	69	3	IRON-F-7
6/10/11	8:53 PM	S	6	69	61	90	30	62	71	3	IRON-F-7
6/10/11	8:45 PM	S	6	69	61	90	30	64	73	3	IRON-F-9
6/10/11	8:46 PM	S	6	69	61	90	30	64	72	3	IRON-F-9
8/19/11	8:04 PM	-	CALM	74	62	100	30	78	86	3	LBS H1-5
8/19/11	8:05 PM	-	CALM	74	62	100	30	78	86	3	LBS H1-5
8/19/11	8:06 PM	-	CALM	74	62	100	30	78	84	3	LBS H1-5
8/19/11	8:02 PM	-	CALM	74	62	100	30	79	87	3	LBS H1-6
8/19/11	8:13 PM	-	CALM	74	62	100	30	78	85	3	LBS H2-7
8/19/11	8:14 PM	-	CALM	74	62	100	30	79	84	3	LBS H2-7
8/19/11	8:15 PM	-	CALM	74	62	100	30	79	85	3	LBS H2-7
8/19/11	8:24 PM	-	CALM	74	62	100	30	79	87	3	LBS H3-6
8/19/11	8:25 PM	-	CALM	74	62	100	30	81	87	3	LBS H3-6
8/19/11	8:26 PM	-	CALM	74	62	100	30	81	86	3	LBS H3-6
7/15/11	8:36 PM	S	7	77	40	100	30	71	78	3	LM SPORT F

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

7/15/11	8:39 PM	S	7	77	40	100	30	72	78	3	LM SPORT F
7/15/11	8:40 PM	S	7	77	40	100	30	73	78	3	LM SPORT F
7/15/11	8:41 PM	S	7	77	40	100	30	73	78	3	LM SPORT F
7/15/11	8:42 PM	S	7	77	40	100	30	74	77	3	LM SPORT F
7/15/11	8:44 PM	S	7	77	40	100	30	72	78	3	LM SPORT F
7/15/11	8:45 PM	S	7	77	40	100	30	74	78	3	LM SPORT F
7/15/11	8:46 PM	S	7	77	40	100	30	73	77	3	LM SPORT F
7/15/11	8:47 PM	S	7	77	40	100	30	73	76	3	LM SPORT F
7/15/11	8:48 PM	S	7	77	40	100	30	73	77	3	LM SPORT F
7/15/11	8:48 PM	S	7	77	40	100	30	73	77	3	LM SPORT F
7/15/11	8:48 PM	S	7	77	40	100	30	72	78	3	LM SPORT F
7/15/11	8:48 PM	S	7	77	40	100	30	72	78	3	LM SPORT F
7/15/11	7:24 PM	S	7	77	40	100	30	68	76	3	LM SPORT H
7/15/11	7:25 PM	S	7	77	40	100	30	69	77	3	LM SPORT H
7/15/11	7:26 PM	S	7	77	40	100	30	70	76	3	LM SPORT H
7/15/11	7:27 PM	S	7	77	40	100	30	70	75	3	LM SPORT H
7/15/11	7:22 PM	S	7	77	40	100	30	70	78	3	LM SPORT H
10/22/11	2:59 PM	VAR	5	58	51	20	30	74	80	3	LM SPORT H1-10
10/22/11	3:00 PM	VAR	5	58	51	20	30	75	80	3	LM SPORT H1-10
10/22/11	3:01 PM	VAR	5	58	51	20	30	74	82	3	LM SPORT H1-10
10/22/11	3:02 PM	VAR	5	58	51	20	30	74	82	3	LM SPORT H1-10
10/22/11	2:55 PM	VAR	5	58	51	20	30	74	82	3	LM SPORT H1-13
8/5/11	8:44 PM	SE	7	73	69	100	30	72	77	3	LM SPORT H1-8
8/5/11	8:45 PM	SE	7	73	69	100	30	71	76	3	LM SPORT H1-8
8/5/11	8:46 PM	SE	7	73	69	100	30	69	76	3	LM SPORT H1-8
10/22/11	3:05 PM	VAR	5	58	51	20	30	74	82	3	LM SPORT H2-13
10/22/11	3:06 PM	VAR	5	58	51	20	30	74	81	3	LM SPORT H2-13
10/22/11	3:07 PM	VAR	5	58	51	20	30	74	80	3	LM SPORT H2-13
10/22/11	3:08 PM	VAR	5	58	51	20	30	74	82	3	LM SPORT H2-13
8/5/11	8:50 PM	SE	7	73	69	100	30	67	76	3	LM SPORT H2-7
8/5/11	8:51 PM	SE	7	73	69	100	30	70	76	3	LM SPORT H2-7
8/5/11	8:52 PM	SE	7	73	69	100	30	71	78	3	LM SPORT H2-7
6/10/11	7:46 PM	S	6	69	61	90	30	69	78	3	LM SPORT H-6
6/10/11	7:47 PM	S	6	69	61	90	30	69	77	3	LM SPORT H-6

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

6/10/11	7:48 PM	S	6	69	61	90	30	69	76	3	LM SPORT H-6
6/10/11	7:49 PM	S	6	69	61	90	30	69	75	3	LM SPORT H-6
10/22/11	3:54 PM	VAR	5	58	51	20	30	73	80	3	LMS SS H1-13
10/22/11	3:55 PM	VAR	5	58	51	20	30	73	80	3	LMS SS H1-13
10/22/11	3:56 PM	VAR	5	58	51	20	30	75	82	3	LMS SS H1-13
10/22/11	3:57 PM	VAR	5	58	51	20	30	74	80	3	LMS SS H1-13
10/22/11	4:03 PM	VAR	5	58	51	20	30	71	81	3	LMS SS H2-13
10/22/11	4:04 PM	VAR	5	58	51	20	30	71	77	3	LMS SS H2-13
10/22/11	4:05 PM	VAR	5	58	51	20	30	71	80	3	LMS SS H2-13
10/22/11	3:15 PM	VAR	5	58	51	20	30	77	84	3	MRS H1-11
10/22/11	3:24 PM	VAR	5	58	51	20	30	77	85	3	MRS H1-8
10/22/11	3:25 PM	VAR	5	58	51	20	30	77	84	3	MRS H1-8
10/22/11	3:26 PM	VAR	5	58	51	20	30	76	84	3	MRS H1-8
10/22/11	3:27 PM	VAR	5	58	51	20	30	77	82	3	MRS H1-8
10/22/11	3:30 PM	VAR	5	58	51	20	30	76	84	3	MRS H2-11
10/22/11	3:34 PM	VAR	5	58	51	20	30	78	85	3	MRS H2-11
10/22/11	3:35 PM	VAR	5	58	51	20	30	80	86	3	MRS H2-11
10/22/11	3:36 PM	VAR	5	58	51	20	30	79	87	3	MRS H2-11
10/22/11	3:37 PM	VAR	5	58	51	20	30	78	85	3	MRS H2-11
10/22/11	3:41 PM	VAR	5	58	51	20	30	77	84	3	MRS H3-10
10/22/11	3:42 PM	VAR	5	58	51	20	30	78	85	3	MRS H3-10
10/22/11	3:43 PM	VAR	5	58	51	20	30	78	85	3	MRS H3-10
10/22/11	3:44 PM	VAR	5	58	51	20	30	78	84	3	MRS H3-10
10/22/11	3:45 PM	VAR	5	58	51	20	30	77	84	3	MRS H3-10
7/15/11	7:33 PM	S	7	77	40	100	30	75	80	3	NEMALT H1
7/15/11	7:34 PM	S	7	77	40	100	30	75	80	3	NEMALT H1
7/15/11	7:35 PM	S	7	77	40	100	30	73	80	3	NEMALT H1
8/19/11	7:20 PM	-	CALM	74	62	100	30	73	80	3	NEMALT H1-7
8/19/11	7:23 PM	-	CALM	74	62	100	30	74	80	3	NEMALT H1-7
8/19/11	7:24 PM	-	CALM	74	62	100	30	75	80	3	NEMALT H1-7
8/19/11	7:25 PM	-	CALM	74	62	100	30	76	80	3	NEMALT H1-7
7/15/11	7:39 PM	S	7	77	40	100	30	73	80	3	NEMALT H2
7/15/11	7:40 PM	S	7	77	40	100	30	73	80	3	NEMALT H2
7/15/11	7:43 PM	S	7	77	40	100	30	74	80	3	NEMALT H2

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

7/15/11	7:44 PM	S	7	77	40	100	30	73	80	3	NEMALT H2
8/19/11	7:27 PM	-	CALM	74	62	100	30	76	80	3	NEMALT H2-7
8/19/11	7:28 PM	-	CALM	74	62	100	30	75	80	3	NEMALT H2-7
8/19/11	7:29 PM	-	CALM	74	62	100	30	76	80	3	NEMALT H2-7
7/15/11	8:07 PM	S	7	77	40	100	30	77	86	3	NEMMGT H1-6
7/15/11	8:08 PM	S	7	77	40	100	30	78	87	3	NEMMGT H1-6
7/15/11	8:03 PM	S	7	77	40	100	30	76	83	3	NEMMGT H1-9
7/15/11	8:13 PM	S	7	77	40	100	30	77	84	3	NEMMGT H2
7/15/11	8:14 PM	S	7	77	40	100	30	78	83	3	NEMMGT H2
7/15/11	8:15 PM	S	7	77	40	100	30	79	84	3	NEMMGT H2
10/22/11	2:26 PM	VAR	5	58	51	20	30	74	81	3	PROSTCK-H1-10
10/22/11	2:27 PM	VAR	5	58	51	20	30	74	80	3	PROSTCK-H1-10
10/22/11	2:28 PM	VAR	5	58	51	20	30	75	82	3	PROSTCK-H1-10
10/22/11	2:29 PM	VAR	5	58	51	20	30	73	82	3	PROSTCK-H1-10
10/22/11	2:31 PM	VAR	5	58	51	20	30	74	80	3	PROSTCK-H2-11
10/22/11	2:32 PM	VAR	5	58	51	20	30	75	80	3	PROSTCK-H2-11
10/22/11	2:33 PM	VAR	5	58	51	20	30	74	80	3	PROSTCK-H2-11
10/22/11	2:34 PM	VAR	5	58	51	20	30	73	79	3	PROSTCK-H2-11
10/22/11	2:41 PM	VAR	5	58	51	20	30	73	80	3	PROSTCK-H3-12
10/22/11	2:42 PM	VAR	5	58	51	20	30	76	80	3	PROSTCK-H3-12
10/22/11	2:43 PM	VAR	5	58	51	20	30	76	79	3	PROSTCK-H3-12
10/22/11	2:44 PM	VAR	5	58	51	20	30	75	80	3	PROSTCK-H3-12
6/10/11	7:53 PM	S	6	69	61	90	30	58	64	3	QUAD-H-8
6/10/11	7:54 PM	S	6	69	61	90	30	58	66	3	QUAD-H-8
5/6/11	8:29 PM	-	CALM	64	23	10	30	80	86	3	SMS F
5/6/11	8:31 PM	-	CALM	64	23	10	30	81	88	3	SMS F
5/6/11	8:32 PM	-	CALM	64	23	10	30	81	87	3	SMS F
5/6/11	8:33 PM	-	CALM	64	23	10	30	81	86	3	SMS F
5/13/11	8:54 PM	SE	8	59	56	30	30	80	83	3	SMS F 16
5/13/11	8:57 PM	SE	8	59	56	30	30	79	86	3	SMS F 16
5/13/11	8:58 PM	SE	8	59	56	30	30	80	86	3	SMS F 16
5/13/11	8:59 PM	SE	8	59	56	30	30	81	87	3	SMS F 16
8/19/11	8:44 PM	-	CALM	74	62	100	30	80	86	3	SMS F-15
8/19/11	8:45 PM	-	CALM	74	62	100	30	80	84	3	SMS F-15

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

8/19/11	8:46 PM	-	CALM	74	62	100	30	80	83	3	SMS F-15
8/19/11	8:47 PM	-	CALM	74	62	100	30	80	84	3	SMS F-15
8/19/11	8:51 PM	-	CALM	74	62	100	30	80	86	3	SMS F-15
8/19/11	8:52 PM	-	CALM	74	62	100	30	80	83	3	SMS F-15
8/19/11	8:33 PM	-	CALM	74	62	100	30	80	85	3	SMS F-16
8/19/11	8:35 PM	-	CALM	74	62	100	30	79	85	3	SMS F-16
8/19/11	8:39 PM	-	CALM	74	62	100	30	79	86	3	SMS F-16
5/6/11	7:40 PM	-	CALM	64	23	10	30	69	74	3	SMS H
5/6/11	7:43 PM	-	CALM	64	23	10	30	72	79	3	SMS H
5/6/11	7:45 PM	-	CALM	64	23	10	30	71	76	3	SMS H
5/6/11	8:01 PM	-	CALM	64	23	10	30	68	76	3	SMS H
5/6/11	7:31 PM	-	CALM	64	23	10	30	78	84	3	SMS H
5/6/11	7:33 PM	-	CALM	64	23	10	30	76	82	3	SMS H
5/6/11	7:59 PM	-	CALM	64	23	10	30	71	75	3	SMS H
8/5/11	8:28 PM	SE	7	73	69	100	30	76	86	3	SMS H1
8/5/11	8:34 PM	SE	7	73	69	100	30	76	85	3	SMS H1
8/5/11	8:35 PM	SE	7	73	69	100	30	77	82	3	SMS H1
8/5/11	8:36 PM	SE	7	73	69	100	30	75	86	3	SMS H1
8/19/11	7:07 PM	-	CALM	74	62	100	30	77	86	3	SMS H1-7
8/19/11	7:08 PM	-	CALM	74	62	100	30	77	82	3	SMS H1-7
8/19/11	7:09 PM	-	CALM	74	62	100	30	77	81	3	SMS H1-7
8/19/11	7:10 PM	-	CALM	74	62	100	30	76	81	3	SMS H1-7
7/15/11	8:21 PM	S	7	77	40	100	30	76	85	3	SMS H1-8
7/15/11	8:22 PM	S	7	77	40	100	30	76	83	3	SMS H1-8
7/15/11	8:23 PM	S	7	77	40	100	30	76	84	3	SMS H1-8
7/15/11	8:24 PM	S	7	77	40	100	30	76	83	3	SMS H1-8
7/15/11	8:28 PM	S	7	77	40	100	30	77	86	3	SMS H2-7
7/15/11	8:29 PM	S	7	77	40	100	30	77	85	3	SMS H2-7
7/15/11	8:30 PM	S	7	77	40	100	30	77	84	3	SMS H2-7
8/5/11	8:42 PM	SE	7	73	69	100	30	76	86	3	SMS H2-8
8/5/11	8:40 PM	SE	7	73	69	100	30	76	86	3	SMS H2-8
8/5/11	8:41 PM	SE	7	73	69	100	30	76	86	3	SMS H2-8
8/19/11	7:13 PM	-	CALM	74	62	100	30	78	85	3	SMS H2-8
8/19/11	7:14 PM	-	CALM	74	62	100	30	78	83	3	SMS H2-8

TAMARACK AREA SOUND MEASUREMENTS
ACCURACY: +/- 2 dB @ 114 dB
RECORDER: A.LELIO

LOCATION: YELLOW IRON ROD
TAMARACK GREEN AREA
265' FROM LUSA PROP LINE

RADIO SHACK METER 33-255
SETTING: A SCALE, FAST RESP
TRIPOD MOUNT 3' HIGH, FACING LUSA PROP LINE

8/19/11	7:15 PM	-	CALM	74	62	100	30	77	83	3	SMS H2-8
8/19/11	7:16 PM	-	CALM	74	62	100	30	76	82	3	SMS H2-8
6/10/11	8:28 PM	S	6	69	61	90	30	75	81	3	SMS-H-6
6/10/11	8:29 PM	S	6	69	61	90	30	75	81	3	SMS-H-6
6/10/11	8:16 PM	S	6	69	61	90	30	77	84	3	SMS-H-7
6/10/11	8:17 PM	S	6	69	61	90	30	78	83	3	SMS-H-7
6/10/11	8:18 PM	S	6	69	61	90	30	77	82	3	SMS-H-7
6/10/11	8:23 PM	S	6	69	61	90	30	76	85	3	SMS-H-7
8/5/11	8:10 PM	SE	7	73	69	100	30	72	77	3	STAR MOD H1-8
8/5/11	8:11 PM	SE	7	73	69	100	30	72	78	3	STAR MOD H1-8
8/5/11	8:12 PM	SE	7	73	69	100	30	71	77	3	STAR MOD H1-8
8/5/11	8:14 PM	SE	7	73	69	100	30	70	77	3	STAR MOD H2
8/5/11	8:15 PM	SE	7	73	69	100	30	71	76	3	STAR MOD H2

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

DATE	TIME	WIND DIR (FROM)	WIND SPD: SUSTAINED, GUST (MPH)	TEMP (F)	RELATIVE HUMIDITY %	ESTIMATED % LEAF COVERAGE	READINGS				
							DURATION (SECS)	AVERAGE dB	MAX dB	0: TRACK CLOSED 1: NO RACING, IDLING & SPEAKER ONLY 2: NO RACING, BUT CARS ON TRACK (FLAG) 3: FULL RACING	RACING CLASS, H=HEAT 1 F=FINAL, # OF CARS
4/17/11	12:19 PM	W	14-24	57	55	0			85	1	
4/17/11	12:22 PM	W	14-24	57	55	0			94	2	ACT
4/17/11	12:25 PM	W	14-24	57	55	0			97	2	ACT
4/17/11	12:28 PM	W	14-24	57	55	0			96	2	ACT
4/17/11	12:30 PM	W	14-24	57	55	0			96	2	ACT
7/15/11	9:55 PM	S	7	77	40	100			98	2	NEMA MGT F-13
7/15/11	9:55 PM	S	7	77	40	100			98	2	NEMA MGT F-13
7/15/11	10:00 PM	S	7	77	40	100			98	2	NEMA MGT F-13
4/17/11	5:20 PM	W	14-24	57	55	0			96	3	ACT-F
4/17/11	5:22 PM	W	14-24	57	55	0			97	3	ACT-F
4/17/11	5:25 PM	W	14-24	57	55	0			97	3	ACT-F
4/17/11	3:48 PM	W	14-24	57	55	0			93	3	ALL LEG-F-10
4/17/11	3:50 PM	W	14-24	57	55	0			94	3	ALL LEG-F-10
8/19/11		-	CALM	74	62	100			91	3	HOBBY H1
8/19/11		-	CALM	74	62	100			90	3	HOBBY H1
4/17/11	3:08 PM	W	14-24	57	55	0			93	3	HOBBY-F-13
4/17/11	3:10 PM	W	14-24	57	55	0			93	3	HOBBY-F-13
4/17/11	3:15 PM	W	14-24	57	55	0			94	3	HOBBY-F-13
5/13/11	8:22 PM	SE	8	59	56	30			91	3	HOBBY-H-5
5/13/11	8:22 PM	SE	8	59	56	30			91	3	HOBBY-H-5
5/13/11	8:22 PM	SE	8	59	56	30			89	3	HOBBY-H-5
5/13/11	8:22 PM	SE	8	59	56	30			89	3	HOBBY-H-5
5/13/11	8:22 PM	SE	8	59	56	30			89	3	HOBBY-H-5
5/13/11	8:22 PM	SE	8	59	56	30			90	3	HOBBY-H-5
5/13/11	8:22 PM	SE	8	59	56	30			88	3	HOBBY-H-5

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4

SOUND MEASUREMENTS RECORDER: LPD

5/13/11	8:22 PM	SE	8	59	56	30			89	3	HOBBY-H-5
5/13/11	8:22 PM	SE	8	59	56	30			89	3	HOBBY-H-5
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:22 PM	SE	8	59	56	30			89	3	HOBBY-H-6
5/13/11	8:22 PM	SE	8	59	56	30			88	3	HOBBY-H-6
5/13/11	8:22 PM	SE	8	59	56	30			88	3	HOBBY-H-6
5/13/11	8:22 PM	SE	8	59	56	30			88	3	HOBBY-H-6
5/13/11	8:22 PM	SE	8	59	56	30			87	3	HOBBY-H-6
5/13/11	8:22 PM	SE	8	59	56	30			88	3	HOBBY-H-6
5/13/11	8:22 PM	SE	8	59	56	30			87	3	HOBBY-H-6
5/13/11	8:00 PM	SE	8	59	56	30			89	3	HOBBY-H-8
5/13/11	8:00 PM	SE	8	59	56	30			90	3	HOBBY-H-8
5/13/11	8:00 PM	SE	8	59	56	30			90	3	HOBBY-H-8
5/13/11	8:00 PM	SE	8	59	56	30			88	3	HOBBY-H-8
5/13/11	8:00 PM	SE	8	59	56	30			88	3	HOBBY-H-8
7/15/11	7:55 PM	S	7	77	40	100			88	3	IRON H1-8
7/15/11	7:56 PM	S	7	77	40	100			86	3	IRON H1-8
7/15/11	7:57 PM	S	7	77	40	100			87	3	IRON H1-8
7/15/11	7:57 PM	S	7	77	40	100			87	3	IRON H1-8
7/15/11	7:57 PM	S	7	77	40	100			89	3	IRON H1-8
7/15/11	7:58 PM	S	7	77	40	100			86	3	IRON H1-8
8/19/11	8:05 PM	-	CALM	74	62	100			101	3	LBS H1-5
8/19/11	8:05 PM	-	CALM	74	62	100			100	3	LBS H1-5
8/19/11	8:05 PM	-	CALM	74	62	100			99	3	LBS H1-5
8/19/11	8:06 PM	-	CALM	74	62	100			99	3	LBS H1-5
8/19/11	8:06 PM	-	CALM	74	62	100			99	3	LBS H1-5
8/19/11	8:06 PM	-	CALM	74	62	100			97	3	LBS H1-5
8/19/11	8:06 PM	-	CALM	74	62	100			99	3	LBS H1-5

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

8/19/11	8:01 PM	-	CALM	74	62	100			101	3	LBS H1-6
8/19/11	8:01 PM	-	CALM	74	62	100			100	3	LBS H1-6
8/19/11	8:01 PM	-	CALM	74	62	100			99	3	LBS H1-6
8/19/11	8:13 PM	-	CALM	74	62	100			98	3	LBS H2-7
8/19/11	8:13 PM	-	CALM	74	62	100			98	3	LBS H2-7
8/19/11	8:14 PM	-	CALM	74	62	100			97	3	LBS H2-7
8/19/11	8:14 PM	-	CALM	74	62	100			98	3	LBS H2-7
8/19/11	8:14 PM	-	CALM	74	62	100			97	3	LBS H2-7
8/19/11	8:14 PM	-	CALM	74	62	100			98	3	LBS H2-7
8/19/11	8:14 PM	-	CALM	74	62	100			97	3	LBS H2-7
8/19/11	8:15 PM	-	CALM	74	62	100			98	3	LBS H2-7
8/19/11	8:15 PM	-	CALM	74	62	100			97	3	LBS H2-7
8/19/11	8:24 PM	-	CALM	74	62	100			100	3	LBS H3-6
8/19/11	8:24 PM	-	CALM	74	62	100			101	3	LBS H3-6
8/19/11	8:24 PM	-	CALM	74	62	100			101	3	LBS H3-6
8/19/11	8:25 PM	-	CALM	74	62	100			99	3	LBS H3-6
8/19/11	8:25 PM	-	CALM	74	62	100			99	3	LBS H3-6
8/19/11	8:25 PM	-	CALM	74	62	100			99	3	LBS H3-6
8/19/11	8:26 PM	-	CALM	74	62	100			99	3	LBS H3-6
8/19/11	8:26 PM	-	CALM	74	62	100			99	3	LBS H3-6
8/19/11	8:26 PM	-	CALM	74	62	100			100	3	LBS H3-6
7/15/11	8:36 PM	S	7	77	40	100			95	3	LM SPORT F
7/15/11	8:37 PM	S	7	77	40	100			96	3	LM SPORT F
7/15/11	8:37 PM	S	7	77	40	100			93	3	LM SPORT F
7/15/11	8:40 PM	S	7	77	40	100			94	3	LM SPORT F
7/15/11	8:40 PM	S	7	77	40	100			95	3	LM SPORT F
7/15/11	8:41 PM	S	7	77	40	100			93	3	LM SPORT F
7/15/11	8:41 PM	S	7	77	40	100			93	3	LM SPORT F
7/15/11	8:42 PM	S	7	77	40	100			93	3	LM SPORT F
7/15/11	8:42 PM	S	7	77	40	100			93	3	LM SPORT F
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			99	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			99	3	LM SPORT F-17

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			98	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			99	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			98	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			99	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			98	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			98	3	LM SPORT F-17
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			101	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			99	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			99	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			100	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			99	3	LM SPORT F-25
10/23/11		VAR	5	58	51	20			104	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			104	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			104	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			104	3	MRS F-24
10/23/11		VAR	5	58	51	20			102	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			104	3	MRS F-24
10/23/11		VAR	5	58	51	20			104	3	MRS F-24
10/23/11		VAR	5	58	51	20			105	3	MRS F-24
10/23/11		VAR	5	58	51	20			104	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
10/23/11		VAR	5	58	51	20			103	3	MRS F-24
7/15/11	9:08 PM	S	7	77	40	100			103	3	NEMA LT F-16
7/15/11	9:08 PM	S	7	77	40	100			103	3	NEMA LT F-16
7/15/11	9:08 PM	S	7	77	40	100			101	3	NEMA LT F-16
7/15/11	9:10 PM	S	7	77	40	100			102	3	NEMA LT F-16
7/15/11	9:11 PM	S	7	77	40	100			102	3	NEMA LT F-16
7/15/11	9:15 PM	S	7	77	40	100			102	3	NEMA LT F-16
7/15/11	9:15 PM	S	7	77	40	100			102	3	NEMA LT F-16
7/15/11	9:16 PM	S	7	77	40	100			104	3	NEMA LT F-16
7/15/11	9:16 PM	S	7	77	40	100			103	3	NEMA LT F-16
8/19/11	7:20 PM	-	CALM	74	62	100			103	3	NEMA LT H1-7
8/19/11	7:23 PM	-	CALM	74	62	100			102	3	NEMA LT H1-7
8/19/11	7:23 PM	-	CALM	74	62	100			103	3	NEMA LT H1-7
8/19/11	7:23 PM	-	CALM	74	62	100			102	3	NEMA LT H1-7
8/19/11	7:24 PM	-	CALM	74	62	100			98	3	NEMA LT H1-7
8/19/11	7:24 PM	-	CALM	74	62	100			101	3	NEMA LT H1-7
8/19/11	7:24 PM	-	CALM	74	62	100			103	3	NEMA LT H1-7
8/19/11	7:28 PM	-	CALM	74	62	100			101	3	NEMA LT H2-7
8/19/11	7:28 PM	-	CALM	74	62	100			100	3	NEMA LT H2-7
8/19/11	7:28 PM	-	CALM	74	62	100			100	3	NEMA LT H2-7
8/19/11	7:28 PM	-	CALM	74	62	100			100	3	NEMA LT H2-7
8/19/11	7:29 PM	-	CALM	74	62	100			100	3	NEMA LT H2-7
8/19/11	7:29 PM	-	CALM	74	62	100			98	3	NEMA LT H2-7
8/19/11	7:29 PM	-	CALM	74	62	100			99	3	NEMA LT H2-7
8/19/11	7:29 PM	-	CALM	74	62	100			100	3	NEMA LT H2-7
7/15/11	7:39 PM	S	7	77	40	100			97	3	NEMA LT-H2
7/15/11	7:40 PM	S	7	77	40	100			99	3	NEMA LT-H2
7/15/11	7:40 PM	S	7	77	40	100			97	3	NEMA LT-H2

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

7/15/11	7:44 PM	S	7	77	40	100			98	3	NEMA LT-H2
7/15/11	7:45 PM	S	7	77	40	100			96	3	NEMA LT-H2
7/15/11	7:45 PM	S	7	77	40	100			95	3	NEMA LT-H2
7/15/11	7:45 PM	S	7	77	40	100			95	3	NEMA LT-H2
5/13/11	8:10 PM	SE	8	59	56	30			89	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			89	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			89	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			90	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			88	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			87	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			90	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			88	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			85	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			86	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			87	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			86	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			90	3	NEMA LT-H-9
5/13/11	8:10 PM	SE	8	59	56	30			86	3	NEMA LT-H-9
7/15/11	9:48 PM	S	7	77	40	100			105	3	NEMA MGT F-14
7/15/11	9:48 PM	S	7	77	40	100			103	3	NEMA MGT F-14
7/15/11	9:49 PM	S	7	77	40	100			105	3	NEMA MGT F-14
7/15/11	9:49 PM	S	7	77	40	100			104	3	NEMA MGT F-14
7/15/11	9:49 PM	S	7	77	40	100			102	3	NEMA MGT F-14
7/15/11	9:50 PM	S	7	77	40	100			101	3	NEMA MGT F-14
7/15/11	9:50 PM	S	7	77	40	100			103	3	NEMA MGT F-14
7/15/11	9:50 PM	S	7	77	40	100			101	3	NEMA MGT F-14
7/15/11	8:08 PM	S	7	77	40	100			103	3	NEMA MGT H1-6
7/15/11	8:08 PM	S	7	77	40	100			103	3	NEMA MGT H1-6
7/15/11	8:09 PM	S	7	77	40	100			102	3	NEMA MGT H1-6
7/15/11	8:09 PM	S	7	77	40	100			101	3	NEMA MGT H1-6
7/15/11	8:09 PM	S	7	77	40	100			102	3	NEMA MGT H1-6
7/15/11	8:09 PM	S	7	77	40	100			101	3	NEMA MGT H1-6
7/15/11	8:10 PM	S	7	77	40	100			100	3	NEMA MGT H1-6
7/15/11	8:03 PM	S	7	77	40	100			104	3	NEMA MGT H1-9

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

7/15/11	8:04 PM	S	7	77	40	100			103	3	NEMA MGT H1-9
7/15/11	8:14 PM	S	7	77	40	100			99	3	NEMA MGT H2
7/15/11	8:14 PM	S	7	77	40	100			98	3	NEMA MGT H2
7/15/11	8:15 PM	S	7	77	40	100			99	3	NEMA MGT H2
7/15/11	8:15 PM	S	7	77	40	100			97	3	NEMA MGT H2
7/15/11	8:15 PM	S	7	77	40	100			97	3	NEMA MGT H2
7/15/11	8:15 PM	S	7	77	40	100			96	3	NEMA MGT H2
7/15/11	8:16 PM	S	7	77	40	100			97	3	NEMA MGT H2
7/15/11	8:16 PM	S	7	77	40	100			97	3	NEMA MGT H2
7/12/11	8:30 PM								102	3	PASS MODIF F-10
7/12/11	8:32 PM								101	3	PASS MODIF F-10
7/12/11	8:33 PM								99	3	PASS MODIF F-10
7/12/11	8:33 PM								99	3	PASS MODIF F-10
7/12/11	8:34 PM								99	3	PASS MODIF F-10
7/12/11	8:44 PM								99	3	PASS MODIF F-10
7/12/11	9:51 PM								97	3	PASS SPORT F-16
7/12/11	9:52 PM								96	3	PASS SPORT F-16
7/12/11	9:53 PM								97	3	PASS SPORT F-16
7/12/11	9:25 PM								99	3	PASS SPORT F-19
7/12/11	9:26 PM								98	3	PASS SPORT F-19
7/12/11	9:26 PM								97	3	PASS SPORT F-19
7/12/11	9:27 PM								96	3	PASS SPORT F-19
7/12/11	9:27 PM								97	3	PASS SPORT F-19
7/12/11	9:28 PM								97	3	PASS SPORT F-19
7/12/11	9:28 PM								97	3	PASS SPORT F-19
7/12/11	7:51 PM								92	3	PASS SPORT H1-8
7/12/11	7:51 PM								92	3	PASS SPORT H1-8
7/12/11	7:49 PM								95	3	PASS SPORT H1-9
7/12/11	7:49 PM								94	3	PASS SPORT H1-9
7/12/11	7:54 PM								98	3	PASS SPORT H2-9
7/12/11	7:55 PM								97	3	PASS SPORT H2-9
7/12/11	7:56 PM								97	3	PASS SPORT H2-9
7/12/11	10:48 PM								102	3	PASS SUP LATE F-17
7/12/11	10:49 PM								103	3	PASS SUP LATE F-17

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

7/12/11	10:49 PM								103	3	PASS SUP LATE F-17
7/12/11	10:50 PM								103	3	PASS SUP LATE F-17
7/12/11	10:50 PM								103	3	PASS SUP LATE F-17
7/12/11	10:57 PM								105	3	PASS SUP LATE F-17
7/12/11	10:57 PM								106	3	PASS SUP LATE F-17
7/12/11	10:58 PM								105	3	PASS SUP LATE F-17
7/12/11	10:58 PM								104	3	PASS SUP LATE F-17
7/12/11	10:59 PM								104	3	PASS SUP LATE F-17
7/12/11	10:59 PM								104	3	PASS SUP LATE F-17
7/12/11	10:59 PM								105	3	PASS SUP LATE F-17
7/12/11	11:00 PM								104	3	PASS SUP LATE F-17
7/12/11	7:38 PM								100	3	PASS SUP LATE H1-10
7/12/11	7:39 PM								101	3	PASS SUP LATE H1-10
7/12/11	7:42 PM								101	3	PASS SUP LATE H2-10
7/12/11	7:43 PM								101	3	PASS SUP LATE H2-10
7/12/11	7:44 PM								98	3	PASS SUP LATE H2-10
7/12/11	7:45 PM								99	3	PASS SUP LATE H2-10
8/26/11	9:10 PM								101	3	PROSTK-F-12
8/26/11	9:10 PM								101	3	PROSTK-F-12
8/26/11	9:10 PM								101	3	PROSTK-F-12
8/26/11	9:10 PM								98	3	PROSTK-F-12
8/26/11	9:11 PM								98	3	PROSTK-F-12
8/26/11	9:11 PM								98	3	PROSTK-F-12
8/26/11	9:11 PM								99	3	PROSTK-F-12
8/26/11	9:11 PM								98	3	PROSTK-F-12
8/26/11	9:11 PM								98	3	PROSTK-F-12
8/26/11	9:12 PM								97	3	PROSTK-F-12
8/26/11	9:12 PM								98	3	PROSTK-F-12
6/3/2011	9:44 PM								96.7	3	PROSTK-F-15
6/3/2011	9:44 PM								97.6	3	PROSTK-F-15
6/3/2011	9:44 PM								95.6	3	PROSTK-F-15
6/3/2011	9:44 PM								95.6	3	PROSTK-F-15
6/3/2011	9:44 PM								96	3	PROSTK-F-15
6/3/2011	9:44 PM								94.4	3	PROSTK-F-15

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

6/3/2011	9:45 PM								95.4	3	PROSTK-F-15
6/3/2011	9:45 PM								95	3	PROSTK-F-15
6/3/2011	9:45 PM								95.1	3	PROSTK-F-15
6/3/2011	9:46 PM								95	3	PROSTK-F-15
6/3/2011	9:20 PM								98	3	PROSTK-F-16
6/3/2011	9:20 PM								99	3	PROSTK-F-16
6/3/2011	9:20 PM								98	3	PROSTK-F-16
6/3/2011	9:20 PM								97	3	PROSTK-F-16
6/3/2011	9:20 PM								98	3	PROSTK-F-16
6/3/2011	9:20 PM								97	3	PROSTK-F-16
6/3/2011	9:20 PM								97	3	PROSTK-F-16
6/3/2011	9:20 PM								98	3	PROSTK-F-16
6/3/2011	9:20 PM								97	3	PROSTK-F-16
6/3/2011	9:20 PM								96.7	3	PROSTK-F-16
6/3/2011	9:20 PM								98.6	3	PROSTK-F-16
6/3/2011	9:20 PM								97.9	3	PROSTK-F-16
6/3/2011	9:26 PM								97.3	3	PROSTK-F-16
6/3/2011	9:26 PM								96.9	3	PROSTK-F-16
6/3/2011	9:29 PM								99.2	3	PROSTK-F-16
6/3/2011	9:29 PM								98.2	3	PROSTK-F-16
6/3/2011	9:29 PM								98	3	PROSTK-F-16
6/3/2011	9:29 PM								98.2	3	PROSTK-F-16
6/3/2011	9:30 PM								98	3	PROSTK-F-16
6/3/2011	9:30 PM								97.2	3	PROSTK-F-16
6/3/2011	9:30 PM								96.7	3	PROSTK-F-16
6/3/2011	9:30 PM								95	3	PROSTK-F-16
6/3/2011	9:30 PM								96.4	3	PROSTK-F-16
6/3/2011	9:30 PM								95.4	3	PROSTK-F-16
6/3/2011	9:30 PM								95.5	3	PROSTK-F-16
10/22/11	6:28 PM	VAR	5	58	51	20			101	3	PROSTK-F-33
10/22/11	6:28 PM	VAR	5	58	51	20			100	3	PROSTK-F-33
10/22/11	6:28 PM	VAR	5	58	51	20			100	3	PROSTK-F-33
10/22/11	6:28 PM	VAR	5	58	51	20			101	3	PROSTK-F-33
10/22/11	6:28 PM	VAR	5	58	51	20			101	3	PROSTK-F-33

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

10/22/11	6:28 PM	VAR	5	58	51	20			101	3	PROSTK-F-33
10/22/11	6:28 PM	VAR	5	58	51	20			101	3	PROSTK-F-33
10/22/11	6:28 PM	VAR	5	58	51	20			101	3	PROSTK-F-33
8/26/11	7:30 PM								100	3	PROSTK-H1-6
8/26/11	7:30 PM								99	3	PROSTK-H1-6
8/26/11	7:30 PM								99	3	PROSTK-H1-6
8/26/11	7:30 PM								99	3	PROSTK-H1-6
8/26/11	7:31 PM								98	3	PROSTK-H1-6
8/26/11	7:31 PM								99	3	PROSTK-H1-6
8/26/11	7:31 PM								98	3	PROSTK-H1-6
8/26/11	7:32 PM								99	3	PROSTK-H1-6
8/26/11	7:32 PM								99	3	PROSTK-H1-6
8/26/11	7:32 PM								99	3	PROSTK-H1-6
8/26/11	7:33 PM								98	3	PROSTK-H1-6
8/26/11	7:33 PM								98	3	PROSTK-H1-6
8/26/11	7:35 PM								100	3	PROSTK-H2-6
8/26/11	7:35 PM								99	3	PROSTK-H2-6
8/26/11	7:35 PM								98	3	PROSTK-H2-6
8/26/11	7:36 PM								99	3	PROSTK-H2-6
8/26/11	7:36 PM								99	3	PROSTK-H2-6
8/26/11	7:36 PM								99	3	PROSTK-H2-6
8/26/11	7:36 PM								99	3	PROSTK-H2-6
8/26/11	7:37 PM								99	3	PROSTK-H2-6
8/26/11	7:37 PM								98	3	PROSTK-H2-6
8/26/11	7:37 PM								99	3	PROSTK-H2-6
8/26/11	7:38 PM								99	3	PROSTK-H2-6
7/12/11	9:03 PM								101	3	SMS F-10
7/12/11	9:04 PM								100	3	SMS F-10
7/12/11	9:04 PM								101	3	SMS F-10
7/12/11	9:05 PM								99	3	SMS F-10
7/12/11	9:05 PM								99	3	SMS F-10
7/12/11	9:15 PM								101	3	SMS F-10
7/12/11	9:15 PM								99	3	SMS F-10
7/12/11	9:16 PM								99	3	SMS F-10

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

7/12/11	9:16 PM								101	3	SMS F-10
7/15/11	10:15 PM	S	7	77	40	100			102	3	SMS F-15
7/15/11	10:28 PM	S	7	77	40	100			104	3	SMS F-15
7/15/11	10:28 PM	S	7	77	40	100			103	3	SMS F-15
7/15/11	10:29 PM	S	7	77	40	100			103	3	SMS F-15
7/15/11	10:29 PM	S	7	77	40	100			102	3	SMS F-15
7/15/11	10:29 PM	S	7	77	40	100			101	3	SMS F-15
7/15/11	10:29 PM	S	7	77	40	100			101	3	SMS F-15
7/15/11	10:30 PM	S	7	77	40	100			102	3	SMS F-15
7/15/11	10:30 PM	S	7	77	40	100			102	3	SMS F-15
7/15/11	10:30 PM	S	7	77	40	100			101	3	SMS F-15
7/15/11	10:31 PM	S	7	77	40	100			102	3	SMS F-15
7/15/11	10:31 PM	S	7	77	40	100			101	3	SMS F-15
7/15/11	10:31 PM	S	7	77	40	100			101	3	SMS F-15
8/19/11	8:44 PM	W	14-24	57	55	0			100	3	SMS F-15
8/19/11	8:44 PM	W	14-24	57	55	0			100	3	SMS F-15
8/19/11	8:44 PM	W	14-24	57	55	0			99	3	SMS F-15
8/19/11	8:44 PM	W	14-24	57	55	0			98	3	SMS F-15
8/19/11	8:45 PM	W	14-24	57	55	0			100	3	SMS F-15
8/19/11	8:45 PM	W	14-24	57	55	0			99	3	SMS F-15
8/19/11	8:45 PM	W	14-24	57	55	0			100	3	SMS F-15
8/19/11	8:45 PM	W	14-24	57	55	0			99	3	SMS F-15
8/19/11	8:45 PM	W	14-24	57	55	0			98	3	SMS F-15
8/19/11	8:46 PM	W	14-24	57	55	0			99	3	SMS F-15
8/19/11	8:35 PM	W	14-24	57	55	0			102	3	SMS F-16
8/19/11	8:40 PM	W	14-24	57	55	0			99	3	SMS F-16
10/23/11	4:45 PM	VAR	5	58	51	20			105	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			104	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			103	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			103	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			103	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			103	3	SMS F-18

100 FEET FROM RACING SURFACE
SOUND MEASUREMENTS

LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
RECORDER: LPD

10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			103	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			102	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			101	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			100	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			101	3	SMS F-18
10/23/11	4:45 PM	VAR	5	58	51	20			101	3	SMS F-18
7/15/11	8:21 PM	S	7	77	40	100			100	3	SMS H1-8
7/15/11	8:21 PM	S	7	77	40	100			99	3	SMS H1-8
7/15/11	8:22 PM	S	7	77	40	100			99	3	SMS H1-8
7/15/11	8:22 PM	S	7	77	40	100			99	3	SMS H1-8
7/15/11	8:22 PM	S	7	77	40	100			100	3	SMS H1-8
7/15/11	8:23 PM	S	7	77	40	100			99	3	SMS H1-8
7/15/11	8:23 PM	S	7	77	40	100			98	3	SMS H1-8
7/15/11	8:23 PM	S	7	77	40	100			99	3	SMS H1-8
7/15/11	8:23 PM	S	7	77	40	100			98	3	SMS H1-8
7/15/11	8:24 PM	S	7	77	40	100			98	3	SMS H1-8
7/15/11	8:28 PM	S	7	77	40	100			101	3	SMS H2-7
7/15/11	8:29 PM	S	7	77	40	100			100	3	SMS H2-7
7/15/11	8:30 PM	S	7	77	40	100			101	3	SMS H2-7
7/15/11	8:30 PM	S	7	77	40	100			100	3	SMS H2-7
7/15/11	8:30 PM	S	7	77	40	100			99	3	SMS H2-7
7/15/11	8:31 PM	S	7	77	40	100			98	3	SMS H2-7
7/15/11	8:31 PM	S	7	77	40	100			100	3	SMS H2-7
7/15/11	8:31 PM	S	7	77	40	100			100	3	SMS H2-7
7/15/11	8:31 PM	S	7	77	40	100			98	3	SMS H2-7
8/19/11	7:12 PM	-	CALM	74	62	100			98	3	SMS H2-8
8/19/11	7:12 PM	-	CALM	74	62	100			96	3	SMS H2-8
8/19/11	7:13 PM	-	CALM	74	62	100			95	3	SMS H2-8
8/19/11	7:13 PM	-	CALM	74	62	100			96	3	SMS H2-8

100 FEET FROM RACING SURFACE LOCATION: 100' FROM RACING SURFACE, PERPENDICULAR TO EXIT OF TURN 4
SOUND MEASUREMENTS RECORDER: LPD

5/13/11	7:54 PM	SE	8	59	56	30			98	3	SMS-H-8
5/13/11	7:54 PM	SE	8	59	56	30			98	3	SMS-H-8
5/13/11	7:54 PM	SE	8	59	56	30			97	3	SMS-H-8
5/13/11	7:54 PM	SE	8	59	56	30			97	3	SMS-H-8
5/13/11	7:54 PM	SE	8	59	56	30			98	3	SMS-H-8
5/13/11	7:54 PM	SE	8	59	56	30			97	3	SMS-H-8
5/13/11	7:54 PM	SE	8	59	56	30			97	3	SMS-H-9
5/13/11	7:54 PM	SE	8	59	56	30			97	3	SMS-H-9
5/13/11	7:54 PM	SE	8	59	56	30			96	3	SMS-H-9

ON TRACK TAIL PIPE
SOUND MEASUREMENTS

LOCATION: 20" FROM TAILPIPE
45 DEG ANGLE, 8 " OFF GROUND
RECORDER: LPD

DATE	TIME	WIND DIR (FROM)	WIND SPD: SUSTAINED, GUST (MPH)	TEMP (F)	RELATIVE HUMIDITY %	ESTIMATED % LEAF COVERAGE	READINGS				
							DURATION (SECS)	AVERAGE dB	MAX dB	0: TRACK CLOSED 1: NO RACING, IDLING & SPEAKER ONLY 2: NO RACING, BUT CARS ON TRACK (FLAG) 3: FULL RACING	RACING CLASS, CAR #
5/13/11		SE	8	59	56	30			103		HOBBY 65
5/13/11		SE	8	59	56	30			100		HOBBY 66
4/17/11		W	14-24	57	55	0			111		HOBBY 68
5/13/11		SE	8	59	56	30			110		HOBBY 78
4/17/11		W	14-24	57	55	0			119		HOBBY 79
4/17/11		W	14-24	57	55	0			97		IRON 11
5/13/11		SE	8	59	56	30			101		IRON 23
4/17/11		W	14-24	57	55	0			112		IRON 44
5/13/11		SE	8	59	56	30			98		IRON 44
4/17/11		W	14-24	57	55	0			119		IRON 51
5/13/11		SE	8	59	56	30			111		IRON 51
5/13/11		SE	8	59	56	30			92		IRON 87
5/13/11		SE	8	59	56	30			110		LATESPRT 3
5/13/11		SE	8	59	56	30			99		LATESPRT 7
5/13/11		SE	8	59	56	30			102		LATESPRT 83

TAMARACK FIRE POND
SOUND MEASUREMENTS

LOCATION: ON PAVEMENT BESIDE
TAMARACK RD FIRE POND
RECORDER: LPD

DATE	TIME	WIND DIR (FROM)	WIND SPD: SUSTAINED, GUST (MPH)	TEMP (F)	RELATIVE HUMIDITY %	ESTIMATED % LEAF COVERAGE	READINGS				
							DURATION (SECS)	AVERAGE dB	MAX dB	0: TRACK CLOSED 1: NO RACING, IDLING & SPEAKER ONLY 2: NO RACING, BUT CARS ON TRACK (FLAG) 3: FULL RACING	RACING CLASS, H=HEAT 1 F=FINAL, # OF CARS
4/17/11	10:25 AM	W	14-24	57	55	0			43	1	ACT
4/17/11	12:40 PM	W	14-24	57	55	0			70	2	ACT
4/17/11	12:41 PM	W	14-24	57	55	0			71	2	ACT
4/17/11	4:35 PM	W	14-24	57	55	0			75	3	ACT-F-30
7/12/11	10:37 PM								64	2	PASS SUP LATE
7/12/11	10:39 PM								80	3	PASS SUP LATE
7/12/11	10:40 PM								78	3	PASS SUP LATE
7/12/11	10:40 PM								80	3	PASS SUP LATE
7/12/11	10:41 PM								81	3	PASS SUP LATE

TAMARACK GREEN AREA PIN
SOUND MEASUREMENTS

LOCATION: SURVEY PIN IN TAMARACK GREEN AREA, 355' FROM TRACK SURFACE
RECORDER: LPD

DATE	TIME	WIND DIR (FROM)	WIND SPD: SUSTAINED, GUST (MPH)	TEMP (F)	RELATIVE HUMIDITY %	ESTIMATED % LEAF COVERAGE	READINGS				
							DURATION (SECS)	AVERAGE dB	MAX dB	0: TRACK CLOSED 1: NO RACING, IDLING & SPEAKER ONLY 2: NO RACING, BUT CARS ON TRACK (FLAG) 3: FULL RACING	RACING CLASS, H=HEAT 1 F=FINAL, # OF CARS
4/17/11	4:47 PM	W	14-24	57	55	0			84	3	ACT-F-30
4/17/11	4:49 PM	W	14-24	57	55	0			80	3	ACT-F-30
4/17/11	4:51 PM	W	14-24	57	55	0			80	3	ACT-F-30

LEE POLICE DEPT MISC MEASUREMENTS

LOCATION: BLUE BELL NURSERY NORTH RIVER ROAD
RECORDER: LPD

DATE	TIME	WIND DIR (FROM)	WIND SPD: SUSTAINED, GUST (MPH)	TEMP (F)	RELATIVE HUMIDITY %	ESTIMATED % LEAF COVERAGE	READINGS				
							DURATION (SECS)	AVERAGE dB	MAX dB	0: CARS PASSING BY ON NO RIVER ROAD 1: NO RACING, IDLING & SPEAKER ONLY 2: NO RACING, BUT CARS ON TRACK (FLAG) 3: FULL RACING	RACING CLASS, H=HEAT 1 F=FINAL, # OF CARS
7/12/11	10:13 PM								85	0	
7/12/11	10:13 PM								82	0	
7/12/11	10:15 PM								76	0	
7/12/11	10:16 PM								57	1	
7/12/11	10:17 PM								65	3	
7/12/11	10:18 PM								64	3	
7/12/11	10:19 PM								64	3	
7/12/11	10:20 PM								64	3	

DB NOTES:

10 DB Δ= 10X MORE NOISE
13 DB Δ= 20X MORE NOISE
20 DB Δ= 100X MORE NOISE
26 DB Δ= 400X MORE NOISE

TARGET FOR ABUTTING NEIGHBORHOODS IS 55 DB AVERAGE.

TOWN OF LEE AD HOC RACETRACK COMMITTEE
RACETRACK SOUND MEASUREMENT DATA COLLECTED THROUGH OCTOBER 23, 2011

WEEKLY RACING DIVISIONS:

RACING CLASS	SM BLK SUPER	LATE MOD SPORT	IRON MAN	HOBBY STOCKS	TRACK CLOSED
TAMARACK GREEN AREA 265' OFF PROP LINE:					
AVERAGE DB READING DURING RACING	77	72	63	68	<50
MAX DB READING REC DURING RACING	88	82	73	80	61
100' FROM TRACK SURFACE, TURN 4:					
AVERAGE MAX DB READING DURING RACING	100	98	87	89	NA
PROPERTY LINE 90' FROM TRACK SURFACE:					
AVERAGE DB READING DURING RACING	82	76	67	NA	58
MAX DB READING REC DURING RACING	90	85	80	NA	70

SPECIAL RACING DIVISIONS:

RACING CLASS	PASS SUPER LATE	PASS SPORT MAN	PASS SUP MOD	CLASSIC LITE	ACT LATE MOD	NEMA LITE	PRO STK SUP LATE	ALLISON LEGACY
TAMARACK GREEN AREA 265' OFF PROP LINE:								
AVERAGE DB READING DURING RACING	NA	NA	NA	70	75	75	74	69
MAX DB READING REC DURING RACING	NA	NA	NA	79	82	80	82	80
100' FROM TRACK SURFACE, TURN 4:								
AVERAGE MAX DB READING DURING RACING	103	96	100	NA	NA	96	98	93
PROPERTY LINE 90' FROM TRACK SURFACE:								
AVERAGE DB READING DURING RACING	NA	NA	NA	75	NA	NA	NA	NA
MAX DB READING REC DURING RACING	NA	NA	NA	81	NA	NA	NA	NA

RACING CLASS	NEMA MDGT	LARGE BLOCK SUPER	STAR CARS	MOD RACING SERIES	LMS SUPER STREET			
TAMARACK GREEN AREA 265' OFF PROP LINE								
AVERAGE DB READING DURING RACING	78	79	71	78	73			
MAX DB READING REC DURING RACING	87	87	78	87	82			
100' FROM TRACK SURFACE, TURN 4								
AVERAGE MAX DB READING DURING RACING	101	99	NA	103	NA			
PROPERTY LINE 90' FROM TRACK SURFACE								
AVERAGE DB READING DURING RACING	NA	NA	NA	NA	NA			
MAX DB READING REC DURING RACING	NA	NA	NA	NA	NA			

NOTES:
NA INDICATES DATA IS NOT AVAILABLE.
THE PROPERTY LINE REFERENCE LOCATION IS APPROX 15-20 FEET BELOW THE LEVEL OF THE TRACK SURFACE.
THIS SUMMARY PAGE ONLY INCLUDES COLLECTION LOCATIONS WITH 20 OR MORE DATA POINTS.