

## **NASCC Ice Racing tutorial for rookies**

Club racing on ice is grassroots stuff, open to anyone, and almost any kind of car, from Toyotas to Porsches, so long as the final racing weight is under 2750 pounds for 2WD cars and 3150 pounds for AWD cars, not including driver.

Ice racing is sanctioned by the Western Canadian Motorsports Association (WCMA), and our local Edmonton club, the Northern Alberta Sports Car Club (NASCC), sponsors and organizes Ice Racing around Edmonton's vicinity. You just have to get your competition drivers license, a ride, and the safety gear. If you are planning to get your license and race you should complete both the Winter Driving and Ice Race School form and the Ice Race Registration form.

### **The School and License**

An ice racing license is earned at the Winter Driving and Ice Race School offered by the NASCC in January. An ice racing license is earned at this School, but you can also just take the school for winter driver training.

**6 to 6:30 pm Friday for Registration; 6:30 classroom starts.** The mandatory Friday evening classroom session will be held at Chateau Louis, 11727 Kingsway Avenue NW, Edmonton, in the Conference Centre. The Conference Centre is entered from the back of the Hotel, in a separate building, and we meet in a room on the bottom floor. The classroom session provides technical discussion on taking a corner at speed (turn-in, corner apex and corner exit, slip angle, friction circles and the like), some emphasis on aspects of competition (safety, flags, the rolling start), and a little information about car preparation.

**9 am Saturday Track Session at the Lake:** The evening session is followed by an on track session on the Saturday, at a lake that is usually identified 48-72 hours in advance (The last few years it has been at Roy's Lake near Stony Plain). It consists of various exercises. 1: Braking, accelerating, turning - pylon type course, 2: low speed ice driving - short twisting course, 3. full track - regular highway speed driving with instructor in the car. (These vary depending on ice conditions) You will be in your car most of the day.

### **Registration**

The preferred method of registration and payment is using the MotorsportReg website that lists all or Club events and membership options.

<http://www.motorsportreg.com/>

In the Find Events search bar type "NASCC" and all our current events and membership options will show up.

You can also use the same Registration form for the winter driving school and for racing. If you are taking the school and not racing, simply fill in only the relevant information: your name, address, email, phone, etc, the make, model and year of the car you will take the school in, and on page two, sign up for the school only. We are a bit inconsistent in the name of the form, but year to year it is approximately the Ice Racing/Winter Driving School Registration form. It can be downloaded from the NASCC.ab.ca website, under the Racing then Form and Downloads menu bars, usually from December onward. Download and send in the Winter Driving/Ice Race School form to the mail or email address on the form.

### **What you need:**

*Vehicle:* Bringing your new race car to the on-track session is a good idea, but bringing any car will do. Installing a seat for your instructor is important though, if the car is race prepared, and if you can't install a seat you must instead bring a car your instructor can sit in.

*Requirements on-track:* You require a vehicle, meals, warm clothes - you will be standing outside on occasion and should dress in layers, so you can adapt to conditions. You will need a helmet – motorcycle in a pinch, but to race you need a Snell SA 2010 or SA 2015 approved helmet, not a motorcycle helmet, so you might as well just get one in advance if you

are planning to race. The SA 2005 is good until the end of 2018, so is not worth buying now. (If you will not be racing you can get away with a motorcycle helmet.) Your car should be empty of material that may fly around. Ballast if used must be bolted securely (No tie down straps or sand bags allowed).

*Cost in 2018:* \$200 for School Registration with an early bird discount of \$30 until mid December, \$70 for NASCC membership, \$45 to the WCMA for the Ice Race license. See the Rookie package info below for another pricing option.

*The Ride:* Getting a ride is a big step, and there are a lot of choices to make. STEP 1 is READ THE SUPPLEMENTARY ICE RACING REGULATIONS, (found on the NASCC Website, Racing – Ice Racing menu) in which the class specifications, tire specifications, and car regulations are provided. In addition there are specific sub-regulations for spec car classes.

For 2018 we have Chevette, Miata and Neon spec classes. These classes utilize a stock car equipped with a roll cage and tires specific to each spec class. You can convert a car by stripping out the interior, adding a roll cage and whatever modifications the racing class you join will allow. Or, to start out, you can buy an already prepared race car.

Prepared race cars can be found on the WCMA, NASCC, Calgary Sports Car Club, Winnipeg Sports Car Club and the BC sports car club sites. You can also check NASCC Facebook pages and forums such as Straightpipe, or even Kijiji and eBay Motors. One thing to keep in mind is that race cars do not sell fast, and so whatever you choose, you will want to be happy with it, or be able to modify it until you are happy.

Getting to the track. If your car is still roadworthy you can license and insure it and drive it to the race track. If it does not survive the weekend you can get help getting home from the other competitors. You can also flat tow the car, with all four wheels on the ground, using one of those A-frame tow bars available from places like ABC Muffler and Hitch or Princess Auto, but you have to know if the differential will handle being spun by the tow. However, if all four wheels are on the ground the car must be licensed for the road, even though you are towing it. You can use a tow dolly, which puts two wheels on the dolly, in which case the car does not need to be licensed, although the dolly renter may still require it to be licensed. You can also use a car hauling trailer, either open or enclosed. A tow dolly can be rented from U-Haul or Budget, and trailers are rented by trailer companies listed in the yellow pages. Used trailers are often a good bargain, but you have to store it somewhere. Tow dollies are more easily stored, but are not that great a bargain compared to the price of a trailer.

## **Race Classes**

Choosing a racing class is important. In ice racing the classes are largely defined by the tires: Rubber to ice classes are just that, conventional snow tires, while Limited Stud, Neon and AWD can use studded rally tires such as Black Rockets or purpose built bolted tires.

The two Chevette class's (CH & CHSS) run Street Stud DOT tires. Chevette is a specified class with specific car preparation and tire regulations. The car must be stock with no performance modifications allowed. This is to ensure equal competition and low cost of entry. Availability of cars to build on the used market is limited. If you are interested in getting into this class it is best to network with NASCC members, as several may have race cars or stock cars for sale. Many parts are no longer available from standard auto parts stores but places like rockauto.com , rareparts.com, northerautoparts.com and ebay.com can provide parts.

**YOU MUST READ THE CHEVETTE REGULATIONS, THE NASCC SUPPLEMENTAL REGULATIONS AND THE CURRENT WCMA TECHNICAL REGULATIONS TO UNDERSTAND WHAT IS ALLOWED IN PREPARING YOUR CAR.**

*Miata's on Ice (MI)* is a new spec class introduced for 2016. This class was created to offer a spec RWD class based on cars that are plentiful on the used market. Spec class racing in a Miata is intended to provide as level a playing field as possible between the cars, making it a drivers series. Very limited car modifications are allowed, and the manufacturer or after market performance parts available for Miata's are not allowed. MI uses a specific Street Stud winter tire that is defined in the class supplemental regulations. These regulations can be found on the NASCC web site, Racing-Ice Racing page. Preparation requirements are minimal, but take note of special roll cage requirements defined to improve safety when ice racing with a fiberglass top. **YOU MUST READ THE MIATAS ON ICE REGULATIONS, THE NASCC SUPPLEMENTAL**

## REGULATIONS AND THE CURRENT WCMA TECHNICAL REGULATIONS TO UNDERSTAND WHAT IS ALLOWED IN PREPARING YOUR CAR.

*No-Stud class (NS)* Non-stud has very few restrictions on cars or tire choices, except that the tires must be DOT approved and the cars must have had a racing weight of 2750 pounds or less, a wheelbase of 110 inches or less, and can not be a tube frame vehicle, a truck, SUV, Jeep, ATV or other non-street-car-like vehicle. There are specifications about the roll cages provided in the WCMA regulations, and the Ice Racing Supplemental Regulations define where and how much reinforcing, alteration of the cars frame, Safety Equipment and other modifications are allowed or required. The drive train is essentially free in NS. Bridgestone Blizzaks are the most popular tire choice in NS. YOU MUST READ THE NASCC SUPPLEMENTAL REGULATIONS AND THE CURRENT WCMA TECHNICAL REGULATIONS TO UNDERSTAND WHAT IS ALLOWED IN PREPARING YOUR CAR.

Starting in 2017 there has been changes to studded tire racing. Bolted Tire requirements are given in the Ice Racing Supplemental Regulations. There are three types of studded tires allowed.

*Neon Class racing (NE)* uses the bolted tire specification and a stock SOHC Neon. Specifics for the class are given in the Spec Neon Regulations, found on the NASCC website. Spec class racing in a Neon is intended to provide as level a playing field as possible between the cars, making it a drivers series. Very limited car modifications are allowed, and the manufacturer or after market performance parts available for Neon's are not allowed. (Eg ACR models and their parts are not allowed). YOU MUST READ THE SPEC NEON RULES, THE NASCC SUPPLEMENTAL REGULATIONS AND THE CURRENT WCMA TECHNICAL REGULATIONS TO UNDERSTAND WHAT IS ALLOWED IN PREPARING YOUR CAR.

*Limited Stud (LS)* must follow the car preparation rules in the Ice Racing Supplemental Regulations. YOU MUST READ THE NASCC SUPPLEMENTAL REGULATIONS AND THE CURRENT WCMA TECHNICAL REGULATIONS TO UNDERSTAND WHAT IS ALLOWED IN PREPARING YOUR CAR. (Links are on the NASCC site.)

*All Wheel Drive (AW)* is an open class to run any four wheel drive car on Black Rocket studded rally tires. The vehicle can not be a tube frame vehicle, a truck, SUV, Jeep, ATV or other non-street-car-like vehicle. Unlimited or Race Stud (RS) – This class will not run for 2016. If you are interested in preparing a Race Stud entry please discuss this with NASCC well PRIOR to the race season.

*Unlimited or Race Stud (RS)* – This class has not been run since 2015. If you are interested in preparing a Race Stud entry please discuss this with NASCC well PRIOR to the race season.

### **Safety Equipment**

A variety of Safety items are required on the race car, and these are outlined in the ICE RACING SUPPLEMENTAL REGULATIONS, AND THE WCMA TECHNICAL REGULATIONS. The information below is a guideline only and is not comprehensive, you need to READ the Supplemental Regulations to have accurate information.

*The vehicle items* include, but are not limited to a roll cage, a 5 or 6 point approved race harness, a fire extinguisher, large mud flaps, easily accessible tow points with chains attached, high-mounted brake light indicators and a rear pointed amber fog lamp, competition numbers and class designations, and other items.

*The Driver* requires a fire retardant suit made of Nomex, Proban or similar material, such as an SFI approved race suit, or fire retardant coveralls. Gloves and boots or race shoes are required as well. No polyester, rayon or similar highly flammable synthetic should be worn as any part of your attire. A helmet specific for automotive Motorsports is required, a motorcycle helmet (an M class helmet) is not satisfactory and will not pass technical inspection. Currently (Jan 2017) Snell Foundation approved 2005, 2010 and 2015 SA helmets are accepted, but winter 2018 is the last season for 2005 SA helmets. Safety gear such as coveralls are available at any work clothing shop.

*Racing Safety gear* such as suits, gloves, helmets, shoes, etc is available at several locations including JB Automotive, Mopac, and G&G Racing in Leduc. Generally speaking, G&G has higher quality, but more expensive safety equipment.

### **RACING:**

A TYPICAL RACE SCHEDULE starts in the morning with registration and technical inspection of your car and your safety equipment. (If you fail tech and never enter the race track it is possible to get a refund on registration, once you enter the race track there is no refund for any reason.) There are then a series of rubber and studded practices on the track, followed by a drivers meeting and lunch. Around 12:30 a cycle of race events starts, each having a 10 to 15 minute sprint race. Then the cycle is repeated one or two more times, depending on weather, ice conditions and efficiency of running the classes through the cycles.

#### **GRIDS:**

The very first race of the season cars are gridded on a first come first serve basis, the rest of the day gridding is done based on the order of finishing the previous heat. The beginning of each new Race Day gridding is done based on the points accumulated previously. The grid order may be inverted in Chevette, Miata and Neon classes, and in the top 6 spots in Non-Stud. The Grid Marshal will tell drivers where to line up. Arguing with the Marshals about the grid position is highly frowned upon and can get you disqualified for the day if you are overly vigorous. Complaints about grid order must be brought to the Stewards, who administer the WCMA Sporting Regulations.

#### **RACE CLASSES:**

It is possible to race your car in more than one class, so long as you register for that activity and pay the fees. For example Chevetttes can run in both CH and CHSS. Miatas can run both MI and NS with the same tires or change to rally studs for LS. Neons can easily run in both NE and LS classes without changing their tires. If you are willing to do tire swaps you can run a car in NS and LS. Keep in mind the race cycle mentioned above, in selecting classes you would run in. If you are swapping tires you likely need a crew to do the tire swaps in order to make it back to the grid on time.

#### **FIND OUT MORE:**

If you are undecided about racing consider coming out to watch the races on a weekend, or better, to work as a corner marshal for a weekend. You get a great view of what wheel to wheel racing is all about. If you want advice about what you are getting into come out to some NASCC Club meetings. We meet on the first and third Wednesday of every month, and the club members are always welcoming to new attendees. At the meeting you can also hook up with an experienced racer to help you learn the ropes, and anticipate the challenges of going racing.

#### **The Rookie Package**

You can sign up and pay for the Rookie Package in order to get a discount over the course of the season. There are two options, a single class option and a two class option. These options are shown on the School Registration page and on the Ice Racing Registration page. You will need to complete both pages if you are going ice racing.

The Rookie package fee covers the Ice Race school, club membership, and five race days, in either one class or two classes. (The WCMA license fee of \$45 is not covered.) Refunds will be provided if the club has to cancel races and is not able to set up alternate dates, so that fewer than 5 races are run. Refunds will be provided at drivers request for one race day, if at the end of the season the driver missed one of the race dates. Should a larger number of race days be missed, refunds will be provided only if requested and if advanced notice was provided to the organizers, specifically the Race Director (see NASCC website for identity and contact info)