



WELCOME!

With just six weeks to go, I know you're in the final panic of getting your cars together. The organizers are in their final panic too, digging the jumps and laying in the infrastructure. We are really looking forward to bringing you back to our course, and really looking forward to some great days of Baja SAE competition!

THE SITE

Our Competition site is the test facility for the National Center for Asphalt Technology (NCAT), and is a working engineering test site. We are extraordinarily fortunate that NCAT's governing consortium allows us to hold a Baja Competition in what is, essentially, their laboratory. They do this out of their interest in engineering education and their faith in the Baja program. We hope that you will return their favor with your professional behavior and concern for our host's best interests. Also, since it is a functioning test facility, be alert and aware of your surroundings. Footing is mostly loose, rocky, and unsettled. Obstacles and equipment, apparent and not, are lying about. So take care for your personal safety, and for the safety of those around you.

OPENING

The gates will open at noon on Thursday, 16 April. We strongly encourage you to arrive Thursday afternoon to get settled and get your paddock set up. On Thursday you can also register (avoiding the long lines), get an engine check (and the sticker that goes with it) and a frame check (this will automatically move you up in the Tech Inspection line).

PADDOCKS

There are two paddock spaces: the Lower Paddock and the Upper Paddock. Cars numbered 51 to 100 will use the Upper Paddock (gravel) and enter the site from the North Gate. Cars numbered 1 to 50 (and 101) will use the Lower Paddock (paved) and enter the site from the Main Gate. See the paddock locations on the site map posted to the Competition website. Alternately, Google Earth "1600 Lee Road 151, Opelika, AL". The Upper Paddock is the red clay rectangle. The Lower Paddock is the paved rectangle just east of the buildings.

PADDOCK PARKING

Please enter the site through the appropriate gate and follow directions to the paddocks. You will get one Paddock Vehicle Pass for your hauler. Road vehicles without Paddock Vehicle Passes are not allowed in the paddocks, period, even for drop-off. Vehicles without passes must park in Spectator Parking. Vehicles dropping off people or gear may

enter the Main Gate and stop at Headquarters. From here, a short footpath leads to either paddock.

Paddock Residence

We strongly encourage you to leave your trailer in place throughout the Competition. You will be allowed to stay all night (there will be security). Paddocks will have limited area lighting, but will not have electrical power.

Registration

Once parked in the paddocks, dropped off at the main gate, or otherwise arrived, all teamers must go immediately to the Headquarters tent and register. Everyone on site must sign the SAE waiver and wear a wristband. All teamers must stop at the Headquarters Tent, register, and be banded.

Radios

Please note the radio frequency policy posted on the Competition website. NCAT has a wireless network, our IT folks are trying some fun stuff (you'll see!), and we'd hate for there to be any interference. We will be conducting an experiment with FM PA (in parallel with conventional PA), so you might want to bring an FM radio (though this is not necessary).

Fuel

Please note the refueling policy posted on the Competition website. Baja cars may not be refueled in the paddocks. All Baja car fueling must be done in the refueling area in the Hot Pits. Fueling of generators in the paddocks must conform to the posted policy.

Parking

Spectators, visitors, and friends may park in Spectator Parking, entering through the South Gate. Everyone on site must sign the SAE waiver and wear a wristband. Spectators, visitors, and friends must stop at the Staff/Spectator Registration Tent in the Spectator Parking Area, register, and be banded.

Food

Starting Friday morning, we expect to have good food service, but unfortunately we cannot offer this to you for free. Most of you had sponsor issues this year (as in, lack thereof). The Organizers ran into the same thing. Many companies that helped us out in the past have had to hold off. Red Bull's loss is particularly sad, as they threw a great party in 06. Thanks to our steadfast friends at Honda, lunch on Saturday is still free. We are still hoping to find sponsorship for lunch on Friday – we'll have to get back to you on this one. We will not be able to provide any free dinners.

Food for Sale

We can't make it free, but at least we can make food easy to get. We expect to have Chick-Fil-A, Chappy's Deli, Marble Slab, and Toomer's Coffee on site Friday, Saturday, and Sunday for breakfast, lunch, and snacks. For dinner on Friday and Saturday, we

expect another vendor to cook good food at a good price, available right next to the paddocks. It's up to the individual food vendors, but I expect they'll want cash.

CLOTHING

While we're giving you good value for money, there will be Baja SAE Alabama 2009 specialty teeshirts (different from the complimentary Solid Works teeshirt), embroidered Columbia windbreakers, and BSA09 golf shirts available for sale at this site:

https://tpg.auburn.edu/ustores/web/store_cat.jsp?STOREID=8&CATID=79 (the site takes FOREVER to load – go get a snack). If you order online by 1 April, we will deliver at the Competition. Then, we will continue taking orders until 10 May, when we will shut down, make a final production run, and mail your merchandise (we'll have to charge for shipping). Teeshirts will also be available at the Competition for sale without preorder – cash or credit card. The organizers are not making a penny from these sales – we just want you to have the opportunity to get some cool stuff.

FRIDAY & TECH INSPECTION

Friday is Static Day. As in all Baja Competitions, the progression will be: 1) Engine Check by Briggs & Stratton; 2) Tech Inspection by Honda; and 3) Brake Test by War Eagle Motorsports. In that order. Engine Check and Tech Inspection will take place under tents between the two paddocks. We will be experimenting with a 'take-a-number' system for Tech Inspection – to be described in a future web post. Brake Test will be in the nearby Hot Pit area, and will be on asphalt.

DESIGN

Design Judging by Polaris will also take place on Friday. A Design schedule will be posted soon – teams must show up for Design Judging at their scheduled time. There will be Design Finals, and Polaris is offering something new: the Design Review will be objective, and a design judge will point out the reasoning behind each finalist's selection.

COST

Cost Judging by Honda will be finished up with reviews and inspections throughout the day on Friday. Cars that need to be inspected will be called for.

PRACTICE TRACK

A Practice Track will be available to cars with complete three-part tech stickers (Engine, Tech, Brakes). This will be in the Endurance Funnel, up the Endurance course from the Hot Pits. The Practice Track will be in the bed of the former pond (visible on Google Earth by its gravel banks). The Practice Track will also be open on Saturday.

STILL NO WATER

At this point, I would like to apologize to you again for not being able to provide a water event. After the risks we ran and the miseries we bore to build that pond in 06, it breaks our hearts to find that in 09 we no longer have a viable water supply. It's not just the drought – that's only half of the problem. The water table (as held by cracks and caverns in the underlying marble strata) is thought to have been drawn down by a local quarry's massive pumping operation. It has been quietly dawning that this might be the root cause

for the large sinkholes that have been developing around our site. There are lawsuits and resultant restrictions on information and discussion, but it seems that this might be why our creeks won't run, and why we had trouble discovering the true situation for so long. We are embarrassed and deeply disappointed to have to back down on offering water, but we would have felt much worse if we had kept to our intent, asked you to design for water, and then had to back down on the day.

SATURDAY

Saturday will be another busy day, with four short dynamic events: Acceleration; Traction (formerly "Log Pull"); Maneuverability; and Suspension (formerly "Suspension and Traction"). Acceleration and Traction are both in the Endurance Starting Funnel, now independently accessible to teams (down the Endurance course from the Hot Pits) and spectators (down a new path from the NCAT buildings). Maneuverability and Suspension are on the Hill at the west end of the site. All four events will be open all day, and they may be run in any order. All short events will use the "Control Zone" concept for movement of cars into and through the event course. Please review the Control Zone policy posted on the Competition website.

ACCELERATION

Acceleration will be two-by-two, drag race style. We have a light tree and photo gates. The surface is field grass on slightly rutted clay.

TRACTION

We continue to make strides in the field of Baja SAE Traction Event technology. Expect a straight haul over a variety of surfaces. A wide variety. The pull article will be something like a weighted pickup truck or tractor on a long tow cable; only the Baja car will be on the special surfaces. Look at the diagram on <http://forums.bajasae.net>.

FUNNEL SPECTATORS

Spectators in the Funnel must stay behind the spectator control snow fence that runs all along the south side.

TRANSPORTATION TO THE HILL

The Hill (Maneuverability and Suspension) is a long way from the paddocks, but it is a great piece of ground, and we think the exciting Suspension course we built there is worth the need for transportation. To get to the Hill, a fleet of five hay wagons will run all day on Saturday and Sunday, circling counter-clockwise around the NCAT asphalt track. Hay wagons are for people and gear. Baja cars may follow the hay wagons. The basic Baja rule - walking speed everywhere except on an event course - is specifically amended to allow a Baja car to directly follow a hay wagon at the hay wagon's speed. Baja cars may not pass any moving hay wagon, under threat of severe point penalty or disqualification. Spectators, visitors, and friends are welcome on the hay wagons. The hay wagons will stop at: Headquarters; Endurance Grandstand Area (Sunday only); the Hill; and Spectator Parking. Competitors, spectators, visitors, and friends must not walk on the hay wagon path, and are required to stay on the shoulder of the asphalt track.

MANEUVERABILITY

Like it was in 2006, Maneuverability is around trees instead of around cones (mostly), although we have opened things up a bit. Unlike cones, if you hit a tree, well, you've hit a tree. You should make sure you know how to reliably oversteer your car. The surface is mostly loose dirt, with rock fragments (the rock is called Auburn schist – I'm not making this up!)

SUSPENSION

Suspension is a lot worse than it was in 06. You might question whether zip ties are sufficient to attach your skid plate. And spare A-arms might be wise. Our crack off-road vehicle dynamics team has inverted all of the stability equations, and then built new features to excite every one of those bad modes. Pay attention to your damper tuning. Rock falls (down), railroad tie staircases (up), divot fields (like Cookeville, but on an up slope), the big off-camber, the fan (you don't want to know), and of course, Northeastern's Jump (rebuilt). Rescue ATV's will be available to tow the wreckage back to the paddocks.

HILL SPECTATORS

Spectators on the Hill must stay behind the spectator control snow fence on the inside of the fenceline road, and down the north side of the Suspension course.

SUNDAY ENDURANCE

On Sunday, Endurance follows the same course as in 06, but things are cleaned up, cleared out, and moved around. Endurance is way more open than shown on USF's cockpit cam from the October practice. The Endurance obstacles are worse. There won't be any flying through the Rock Garden (you don't have to go west to crawl!), the Cliff is twice as wide, the Sandbox is twice as long (and the sand has settled in some really awful places), the Guardrail Jump is twice as high (whump!), and Skid Road is...well, just don't save weight by leaving out your jounce bumpers. The NCAT Short Line is still there, waiting for you (are you sure you want aluminum rims?). The course will extend into all the steep off-cambers (unlike the October practice). We will run a four hour Endurance Race. The start will be hole shot. Starting line position by Acceleration result.

ENDURANCE ACCESS

The entire Endurance Race area is accessible from the fenceline road, which runs around the property, and a network of access roads connecting the course to the fenceline. Competitors are allowed to follow the side of the course in order to support their car (at the discretion of local course workers), but transits between course blocks must be made by way of the access network. Damaged cars may be repaired by full teams at courseside, at the discretion of the course workers in that block. Damaged cars will be moved to a safe place. Cars may be towed back to the paddocks by rescue ATV's on the access network, as the ATV's become available.

ENDURANCE SPECTATING

Spectators may also travel the fenceline and access road network, but may not step from the end of the access roads out onto the course (the access network is a good way to visit

the outback of the Endurance course). Spectator areas will remain in the Funnel (a few chicanes to see, plus the finish, which is moved to the Funnel from its 06 location outside the Hot Pits) and at the Hill (good action here, plus we'll let you into the Landing Zone at the bottom of the Cliff). Another great spectator area is on the asphalt track opposite Skid Road, the Guardrail Jump, and the NCAT Short Line. People that like broken cars will enjoy this area, which we call the Grandstand (no seating available – bring a lawn chair!). The hay wagons will continue to rotate on Sunday, stopping at: Headquarters; Grandstand Area; the Hill; and Spectator Parking.

AWARDS BANQUET

After Endurance, we want you to smile, pick up, and get out of there. Go clean up. We've got a good awards banquet for you, featuring the same great food we had in 2006, and some of those unique NCAT trophies. The Banquet is on the Auburn campus. See the map on our website. The cost of the banquet is \$9 per person. Tickets must be purchased. Tickets may be purchased at the same site as for the teeshirt, golf shirt, and windbreaker (link above). They may also be purchased on site by cash or credit card. They may also be purchased at the door, but we do not recommend this because of lines and possibly running out.

SEE YA!

That should do it for now. We'll have plenty more information for you later. But for now, good luck building, be sure to do a lot of testing, and don't forget to build spares! The committee of dedicated volunteers, Baja alums and friends, who have been building this Competition all year, are thrilled at the thought of great Baja folks racing great Baja cars at this great Baja site. Good luck, work and drive safely, and we'll see you soon!

Peter Jones
Chief Organizer, Baja SAE Alabama 2009