

# Shakedown Stage: Passing the Initial Hurdle

## *Michigan International Speedway*

Don Taylor, Sr. Advisor, Competition Rules

## Location

- Location has not been officially announced
- Should not be discussed publicly
- Teams are under NDA



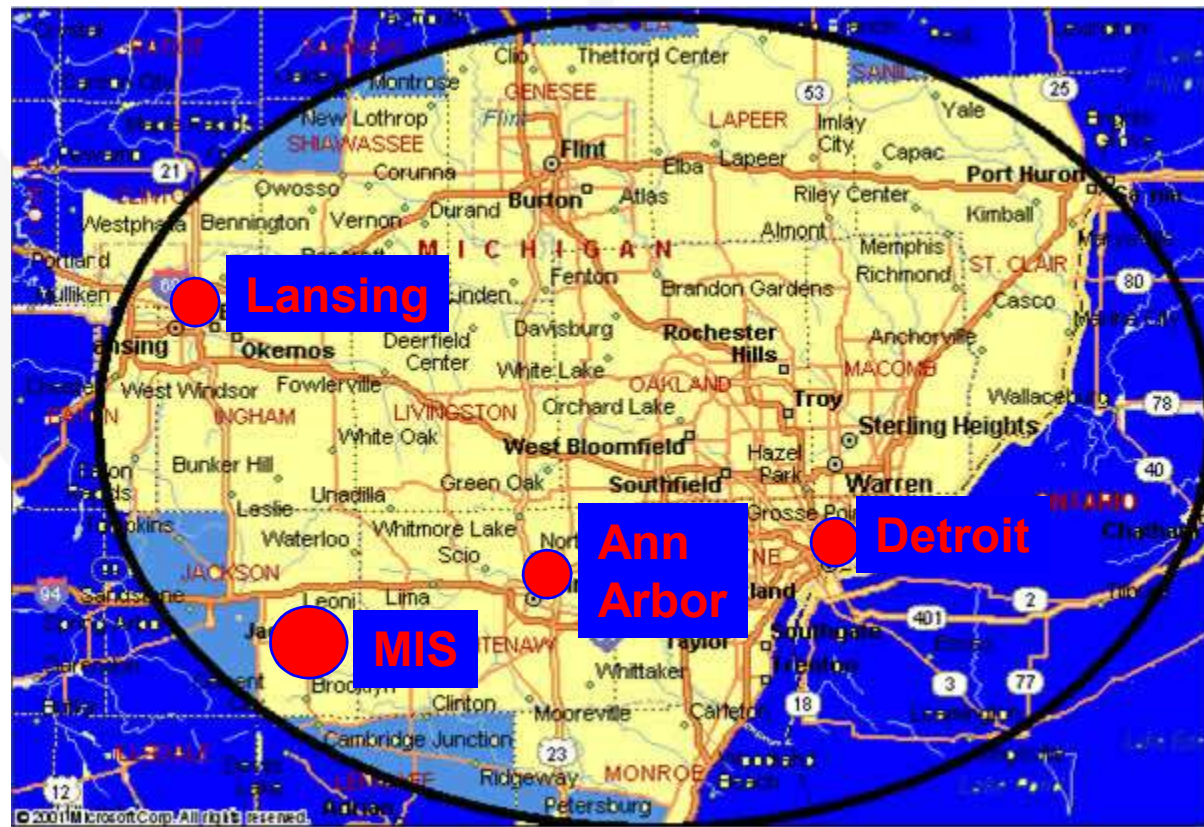
## Location

# Michigan International Speedway!



## Location

Where is Michigan International Speedway?



# MIS



## MIS Facilities



## MIS Facilities and Logistics

- Information regarding lodging in the area will be provided later
- Registration will be in garage or suite
- Exact arrival dates are not yet determined, possibly on a Sunday
- Teams will arrange and pay for their own transportation and lodging

## Shakedown Stage is First Vehicle Stage

### OPPORTUNITY to evaluate vehicle

- Timeframe: April 26 - May 8, 2010
- Mandatory for all qualified vehicles to attend
- Vehicles will be scheduled in waves to minimize team down time
- Duration each wave: 4 to 7 days, depending on vehicles, weather
- First time to see some of the vehicles; lengthy inspection process
- Vehicles need to pass all parts of technical inspections before moving to Dynamic Safety Testing

## All Vehicles Must Pass Technical Inspection

- All Vehicles checked for safety and compliance with specifications, as approved in Design Stage and as provided in Technical Deliverables
- **Mechanical Inspection** – all vehicle systems thoroughly checked
- **Electrical Inspection** – all HV and LV checked, including safety systems and chargers
- **DAS Inspection** – installed and all signals functioning
- Checklists to be used by inspectors provided to Teams in advance
- No vehicles can move on to Dynamic Safety Testing without completely passing all parts of the Technical Inspections

## All Drivers Must Have Qualifications

### Driver Qualifications

*“To further increase safety for drivers, officials, and spectators, we will require that all drivers have professional training, as evidenced by a sanctioned racing license or attendance at a 2-day performance driving course from a reputable organization (Bondurant, Skip Barber, SCCA, BMW, Porsche or the equivalent).”*



## Pre-Event Dynamic Safety Testing

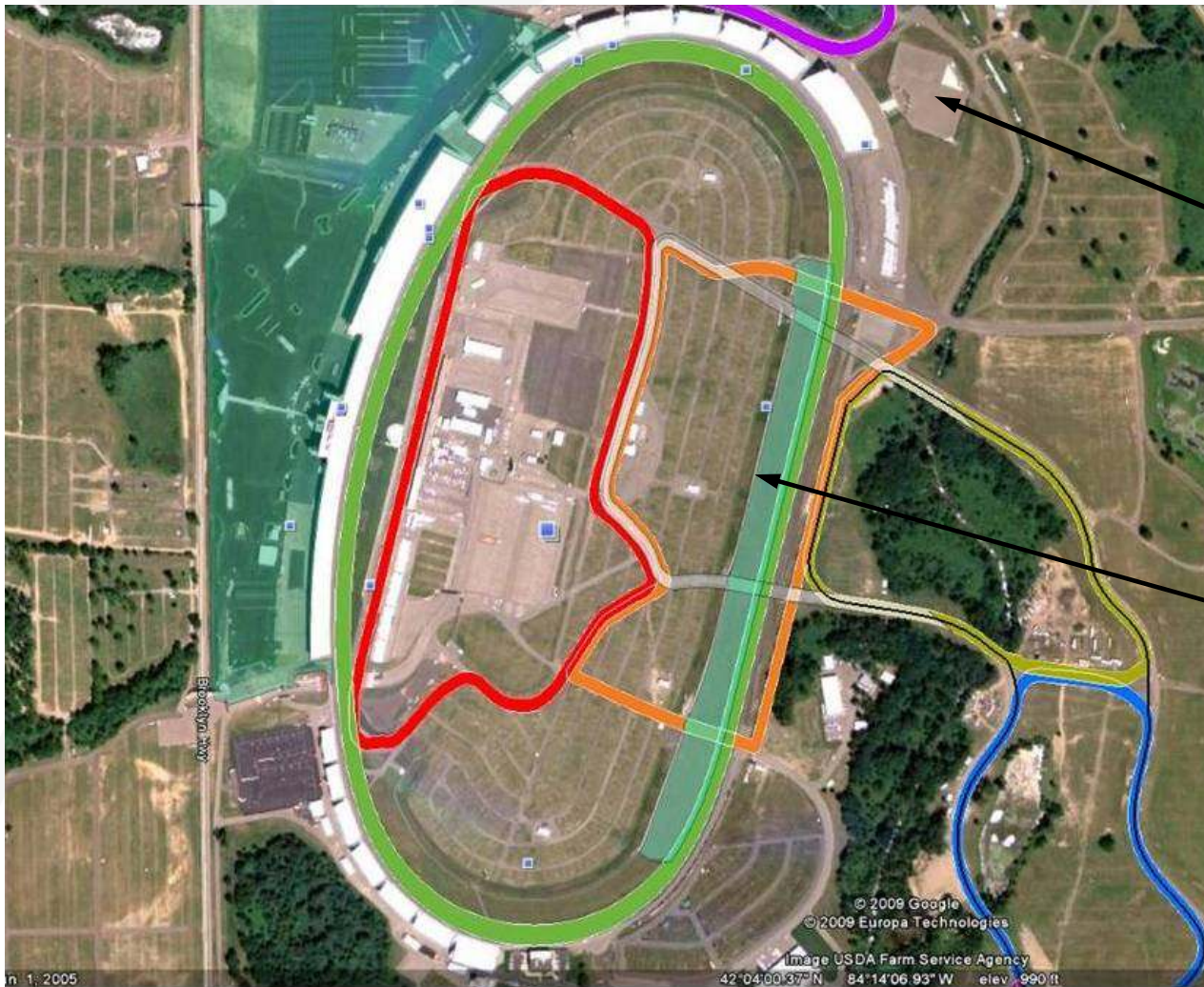
Dynamic safety tests designed in cooperation with Consumers Union

All vehicles must meet minimums for on-track tests:

- **Braking Test** – Stop from 60 MPH in less than 170', without knocking over cones in a 12 foot wide lane
- **Low Speed Stability Test** – 30 MPH slalom
- **Double Lane Change Maneuver** – 50 MPH
- **Acceleration** – 0-60 MPH in 15s Mainstream Class and in 18s for Alternative Class
- **Skid Pad** – 0.7G on 300' circle



## Dynamic Safety Testing



Potential skid pad

Likely location for  
most Dynamic  
Safety tests

## Range and Efficiency Combined Test

- Run on MIS oval
  - 200 mile range test for Mainstream, 100 miles for Alternative
  - 60 MPH average speed including periodic stops
  - Maximum time to complete based on 55 MPH average speeds
- DAS data will be broadcast during this and all stages
- Efficiency measured for reference purposes, but will not count towards Grand Prizes
- Vehicles will be refueled and charged after test
- Teams depart and apply what they have learned