IMSA’S CAREFUL TECH BALANCING ACT
THIS IS NOT YOUR FATHER’S “BOP”
The toughest job in motorsports isn’t making the call on whether to pit or stay out, or fending off a quicker rival late in a race. It is making the technical rules and establishing what competitors grumpingly refer to as “Balance of Performance” (BoP).

It is certainly a thankless job and, as Geoff Carter, IMSA WeatherTech SportsCar Championship Senior Series and Technical Manager, explains - this is not your father’s “BoP.”

To see the full interview including, “How teams sandbag”, go to www.michelinalley.com
WHAT IS BoP, OR “BALANCE” OF PERFORMANCE? WHAT IS THE PURPOSE?
Our Balance of Performance programs started 10-12 years ago to allow different platforms and equipment to compete on a more equal basis.

WHAT IS THE PROCESS?
We test the cars before they begin competition. The GT Le Mans cars are also tested at Ladoux, the Michelin technical center in France where ACO does its tests. All of the GTLMs also went to the Windshear wind tunnel in North Carolina to assess aero lift over drag.

We also took engines from each GTLM and GT Daytona manufacturer to the NASCAR R&D dyno to measure power and torque. We try to adjust to make all cars the same weight and have comparable power and torque.

HOW DO YOU ADJUST PERFORMANCE?
Our main tools are vehicle mass, air restrictors, different aero, RPM and RPM specific boost levels.

DO YOU HAVE A TARGET RANGE?
For the GT cars our target is to get the cars within 0.3 percent, so on a 100 second lap they would be within 3 tenths of a second. We also look for a stratification between the classes.

WHAT CAN YOU SEE NOW THAT SURPRISED THE TEAMS?
If teams try to give themselves a “push to pass” capability we can see that in the sector times and the exhaust gas temperatures.

WHAT ABOUT DIFFERENCES FROM TRACK-TO-TRACK?
We rate tracks as low-, medium- and high-speed or high-downforce tracks. We basically take every lap from the green flag at Daytona in January to the checkered flag at Petit Le Mans at Road Atlanta and make that into one very big lap. That helps us see the similarities in tracks.

Except for the elevation changes, Long Beach is very much like Monterey.

Daytona and Road America have very similar percentages of full throttle laps. We don’t balance for each track. That would be very time consuming and produce micro-balancing.

DO YOU BRING THE FAST GUYS BACK TO THE FIELD OR SPEED UP THE OTHERS?
It depends on the situation. Is it on the low end or the high end? We try to determine where the “outlier” is. Speeding cars up costs money. It is a difficult balance.

HOW DO YOU MANAGE TURBOCHARGED CARS IN DIFFERENT WEATHER AND ELEVATIONS?
We set the turbo boost based on atmosphere and elevation. We set the final boost on the afternoon before the race based on atmospheres.

IF A TEAM HAS AN ESPECIALLY QUICK DRIVER, DOES IT IMPACT THE ADJUSTMENT?
We don’t balance the drivers, we balance the cars, but cars don’t drive themselves.

HOW DOES THE 2016 BoP PROCESS COMPARE TO PRIOR YEARS?
Years ago, the BoP was not very well understood from the Competitor/manufacturer standpoint. It wasn’t transparent. It appeared to be working from a black hole with the only data being from timing and scoring. One person was overwhelmed trying to do it all. Now, with series-mandated scrutineering loggers, improved analytic programs, better communications and transparency; the phone rings 80 percent less. We now have six people, plus support from Bosch.

HOW DO YOU GAUGE SUCCESS?
One team principal said that if we walk into a room and there is a negative buzz and everyone is a little bit unhappy then you are probably about right.

You learn to deliver “bad news,” meaning that we are adjusting someone’s performance.
If history is a fair indicator, there comes a key moment in every season, championship, or race where a situation or result builds or breaks a team's momentum, and a driver's confidence rises or falls in the final races in the title fight.

For many teams and drivers in the 2016 IMSA WeatherTech SportsCar Championship that point may well arrive here at Canadian Tire Motorsport Park, the mid-point of the 11 race season.

The momentum see-saw

Last year, it was the CORE autosport Porsche North America factory GT Le Mans team with drivers Patrick Pilet and Nick Tandy that saw its fortunes turn around with a victory here at CTMP.

Seemingly snake bit in the first half of the 2015 season with just a single podium in the first five races, Pilet and Tandy started their Porsche on a roll here that saw them win four of the final five races and claim the series GTLM manufacturer, team, and driver championships.

Corvette Racing’s Jan Magnussen and Antonio Garcia, who dominated the first half of the 2015 season, taking wins at Daytona and Sebring, were on the other end of that momentum see-saw.

A stone caught in the throttle linkage during qualifying at Le Mans put Magnussen heavily into the wall. They arrived at the next stop in a backup car and a third place here at CTMP was their last podium of the 2015 season.

Riding the Big Mo

“Momentum is a funny thing,” said Chris Baker, director of motorsports, Michelin North America.

“Sometimes you can get away with a little problem or a mistake. Maybe the caution flag comes out at just the right time, or a competitor has a problem, and other times you run well, but just can’t buy a break.

“You think that you can do nothing right and suddenly you can do nothing wrong.”

In 2014, Magnussen and Garcia, the 2013 series champions, took the GTLM class victory here at CTMP, but went hatless the rest of the year after a mid-season balance of performance adjustment and Magnussen was injured at VIR.
Canada’s Kuno Wittmer, the runner-up here at CTMP with co-driver Jonathan Bomarito, took the 2014 GTLM class driver’s title for Viper with six podiums, including a pair of victories, in the final seven races.

**FINDING AN EDGE**

Here at CTMP, the circuit presents a series of challenges that typically reward those with the best handling cars and a full measure of confidence on a very fast, challenging circuit.

During a race, veteran team managers sometimes refer to “the point of control.” Asking that they not be identified, they suggest that it often appears during the second stint of the race.

“If you can run a strong second stint, then you can help control the pace of the race and either lead or be in an attack position,” said one manager.

Gaining and maintaining any advantage in the fiercely competitive WeatherTech Championship GTLM class is exceptionally difficult.

Three of the CTMP GTLM entries here swept the GTE-Pro (GTLM equivalent) podium recently at Le Mans.


In the first four WeatherTech Championship GTLM class races of 2016, the Corvette Racing squad of Oliver Gavin and Tommy Milner has victories at the Rolex 24 At Daytona and the Mobil 1 Twelve Hours of Sebring and a second place finish at Long Beach.

Pilet and Tandy took the controversial win at Long Beach after their Porsche teammates knocked Milner’s Corvette aside at the hairpin on the penultimate lap.

Briscoe and Westbrook delivered the first win for Ford at Monterey. BMW Team RLL has poles at Sebring and Long Beach.

And, here at CTMP, someone will look to discover the key moment that will lead to a championship run. But, in the most competitive class on the international scene, they are going to expect a very big fight.
This weekend’s Mobil 1 SportsCar Grand Prix at the Canadian Tire Motorsport Park kicks off the second half of the 2016 IMSA WeatherTech SportsCar Championship with teams and drivers competing flat out from here all the way to the season finale at Road Atlanta in October.

**BROTHER ACT**

The defending CTMP race champions, Ricky and Jordan Taylor, already have 2016 WeatherTech Championship race wins at Long Beach and Belle Isle (Detroit). The Florida brothers will be looking for another aboard Pop’s, Wayne Taylor, Daytona Prototype here at CTMP.

**MAPLE SYRUP MAGIC!**

The Porsche North America team and drivers Patrick Pilet and Nick Tandy took the 2015 GTLM class honors here at Canadian Tire Motorsport Park then proceeded to win three of the next four races and the championship.

Kuno Wittmer, the popular 2014 GTLM champion is here as a proud BMW factory driver and ambassador. The mega fit Montreal native is the reserve driver with BMW Team RLL and currently drives at the longer races.

**WHERE’S KUNO?**

**2016 SCHEDULE**

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<th>Date</th>
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<tr>
<td>Jan. 30-31</td>
<td>Daytona International Speedway</td>
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<td>March 19</td>
<td>Sebring International Raceway</td>
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<td>Oct. 1</td>
<td>Road Atlanta</td>
<td>All classes</td>
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**FAST FACTS**

- **Watch us now on FOX**

  Don’t miss the 2016 IMSA WeatherTech SportsCar Championship as the series competes at the Mobil 1 SportsCar Grand Prix at Canadian Tire Motorsport Park.

  **Saturday, July 9 (All times EDT)**
  Qualifying
  3:40 p.m. – 5:10 p.m. IMSA.com (Live)
  (IMSA App)

  **Sunday, July 10**
  11:00 a.m. FOX Sports 1

  Watch online on www.FOXSportsGo.com, or download the FOX Sports Go app.

**2ND HALF KICK OFF**

- **Watch online on www.FOXSportsGo.com, or download the FOX Sports Go app.**
“Staying in the present allows expectation and reality to do their best at finding cross-over.”

**CANADA POWER!**

While there were three American flags over the GTE-Pro class podium at Le Mans, they came with a big assist from the Larry Holt-led Multimatic in Markham, Ontario which helped develop and build the Ford GTs that claimed first and third in Ford's historic return.

**PERFECT TIMING**

The 2016 WeatherTech Championship 10-hour Petit Le Mans season finale is set for Road Atlanta on October 1 and the big awards banquet on October 3. That means Toronto Maple Leafs fans will have plenty of time to regroup for the start of the Leafs' Centennial season and year two of the Babcock era, which begins October 12.

**GET THE AX**

Heading into last weekend’s race at Watkins Glen, the defending WeatherTech Championship Prototype champs, Joao Barbosa and Christian Fittipaldi, were still looking for their first win of the 2016 season. The consistency of their Action Express team still had them tied with the Taylor Brothers as the AX men make another championship bid.

**MORE FOR CORE**

Speaking of timing, Porsche Motorsports recently announced the renewal of its agreement with CORE autosport to continue to run its race operations in the WeatherTech Championship. Led by team owner Jon Bennet and head honcho Morgan Brady, CORE fields a pair of GTLM class factory Porsche 911 RSRs for Porsche North America. They are the defending team, manufacturer and driver champions.