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Solar technology to help timing and scoring By BARRY FOSTER

It was 50 years ago that Race promoter Alec Ulmann ushered in the new "electronic era" by announcing that the scorekeeping for the 1960 12 Hours of Sebring would be tabulated by a RAMAC 305 computer.

While Ulmann and his crew were thrilled to be able to bring lap times and race positions to the fans in "a matter of minutes," timing and scoring now involves more than just lap times. Those keeping track of the Race actually have equipment throughout Sebring's 3.72-mile circuit. They can instantly record all manner of statistics including segment times, speed traps, pit times and pit speeds.

One of the major challenges has been how to power the units that record those times.

"There is rarely an electrical outlet where we need it. Most of the other series either place a small gas-powered generator at each location, or lug heavy car batteries out there. It's a real pain because you have to carry fuel out there every day, or bring batteries back and re-charge them or maintain a second set of batteries," said Lynda Polk, the chief of timing for the International Motorsports Association. "It's a lot of tiresome effort."

It was then officials came across **Solis Energy's HotSpot** system.

Designed for lighting, entertainment and other applications, the units are very compact compared to present system and appeared to be compatible with the ALMS equipment. The Hotspot technology had just been released to consumers at the end of last year and is a new design - made for such things as recharging power tools to outdoor lighting.

"The Sebring application is a bit unique," admitted Solis Energy President Robert Reynolds. "We had to outfit the units to match their plugs and put in a bit larger battery - but the core is pretty much the same. It's a rugged unit."

IMSA timing and scoring officials tested the equipment over last month's two-day winter test at Sebring and the results were positive enough that they'll utilize it on a limited basis at the Mobil 1 12 Hours of Sebring presented by Tequila Patron.

In 1960, Ulman looked at the computer as heralding "a new era of strategy in sports car racing" because for the first time, drivers would know their official standing while the Race still was in progress. The RAMAC computer was designed to supplant dozens of individual scorers who kept track of their cars lap by lap.

But as advanced as it was for its time, the human element still was involved. As cars completed a lap, an operator had to trigger a clock, which then would print out the car's time in hundredths of a second.

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That information then would be placed on an IBM card and transmitted IBM data transceivers along telephone lines to the RAMAC, which was located next to the press section. Reports were issued about every 30 minutes. The data then was given to pit crews and newsmen.

Ulmann told reporters the computer could "store up to five million characters on 50 whirling discs," and could retrieve information in "less than a second."

The idea was that shortly after the Race, a lap-by-lap report would be printed out with vital statistics and each car's performance. It took a crew of 50 IBM techs to assemble the million dollar machine, which was kept under armed guard at the Sebring airport. Special electric lines for the set-up were installed by Florida Power crews. Reportedly, it took up two entire pit stalls.

Conversely, ALMS officials say their switch to solar will be saving them time, money and effort.

Current plans are to get rid of quite a few of the heavy car batteries, and carry one Solar Hotspot for each trackside location, saving both weight and space in the truck, man-hours each night to bring batteries in and put them on the charger, man-hours each morning putting them back out, the cost of replacing batteries every year and the effort of recycling the old ones. Initially they will be installed about eight trackside locations.

If all works well throughout the year, the program will be expanded.

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