What Mat Suppliers don't tell you:

1. **Missed Tag Detects (MTD):** Mats use multiplexers. This means only one antenna on a mat row is "on" at a time. Most mats have 4 antennas in the array. This means 3/4 of the mat RF is "off" at any one time.

2. **MTD:** The Earth that mats lay on, ground out UHF signals, causing less power to read tags.

3. **MTD:** Mats use polarized antennas which means the tag reads in only one direction. An arm over the bib will block the signal.

4. **Low Power:** Long antenna cables that must travel the mat to the Pelican Box reduces RF energy at the antenna by 30%. When batteries are used they have 33% less voltage than Orbiter batteries.

5. **Detuning:** Constantly winding and unwinding cables causes delicate copper inside to fray and be detuned. Useful life of the mat is reduced.

6. **MTD:** Null holes between antenna segments.

7. **Manual Backup** such as "Time Machine" is needed.

8. **1/2 the power:** Two mats = 1 watt of power over the line. Two Orbiters = 2 watts of power. Orbiter is always "on" across the entire line. RF lobes over lap.

< The latest innovation is a Roll Out Mat. Multiple rows of mats are recommended creating a fuzzy finish. They claim it takes a minute to set up, but this does not count the connectors, obsolete plastic pelican box, and computer connection.

<Heavy like a keg, and muddy too. Since the edges flair up, also a trip hazard. Clean up work to put away after a race.

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**Orbiter is easy & less expensive. The only company that rents successfully to first time users.**

Not all Side Antennas are the same as there are many parts, cables, and flaws with other side antennas. Only Orbiter side antennas are easy to use and time accurate. According to USAF Orbiter is 1/100th of a second accurate. Because of our Patents, we are Unique. Only at Orbiter has all these features.

2. **Easy software "Anyone Can Time A Race.”** Call and let us show you how in 10 minutes.
3. **Condition Monitoring** Software allows you to monitor Orbiters from afar. Just like NASA mission control.
4. **No plastic pelican time box is needed.** We made this heavy box obsolete with Thread Safe Software.
5. **Twice the power.** Our Circular Polarized antenna reaches around a blocking runners arm to read a bib.
6. **No back up system is needed** when an Orbiter SLING is used. Back up is needed with mats due to MTD.
7. **Orbiter software has stable "Reprocessing", "Cloning", and "Resume".** Reprocessing saves events.

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