

American Solar Challenge Timing & Scoring Reference

The following information is reference material regarding timing and scoring methodology for the American Solar Challenge. This information is supplemental to the event regulations and does not supersede them.

- **Stage Start Time**
 - Teams are released by Stage Officials based on Assigned Start Times separated by 1-minute intervals (teams not ready can be bumped to the back of the line and everyone else's Start Release Times shifted ahead accordingly).
 - If the team leaves at or after their Start Release Time, then the team's Official Stage Start Time is the earlier of their Assigned Start Time or Start Release Time.
 - If a team leaves before their Start Release Time (when they are released by Stage Officials), then the team's Official Stage Start Time is their Actual Start Time and Driving Outside of the Event Day penalties apply.
- **Checkpoint Arrival Time**
 - A team's Official Checkpoint Arrival Time is recorded by Checkpoint Officials based on their entry at an open Checkpoint.
 - If a team doesn't enter a Checkpoint during its open hours, they do not get an Official Checkpoint Arrival Time.
 - If a team trailers to an open Checkpoint, their most recent Route Step driven on solar power and the time that the solar car is loaded on the trailer will be recorded by the team's Observer. Furthermore, the team needs to notify the Checkpoint Officials when their solar car has entered the Checkpoint location by Trailer. This time of notification will be logged as their Trailer Arrival Time and their Official Checkpoint Arrival Time will be the Checkpoint Driving Resumption Time.
 - If a trailering team fails to reach the next Checkpoint along the Tour before it closes, they must continue trailering to the next open Checkpoint or trailer to the Stage finish prior to battery impound time on the final day of the Stage.
 - The Checkpoint Close Time is not adjusted based on the staggered Official Stage Start Time for teams.
- **Checkpoint Release Time**
 - Checkpoint Driving Resumption Time
 - If a team trailers to an open Checkpoint and wishes to continue driving the next Base Leg, their Checkpoint Release Time will be the Driving Resumption Time.
 - Teams that trailer to an open Checkpoint are exempt from serving the Checkpoint Hold Time.
 - Checkpoint Earliest Release Time
 - If the Checkpoint has a published Earliest Release Time, no teams are released to proceed along the next Base Leg of the Tour before this time.
 - If a team doesn't run Loops, their Checkpoint Release Time will be when they finish serving their Checkpoint Hold Time.

- If a team runs Loops, their Checkpoint Release Time will be when they finish serving their 15 minute Loop Hold Time after the successful completion of their final valid Loop.
- Driving Outside of the Event Day penalties apply for teams who depart before their Checkpoint Release Time (when they are released by Checkpoint Officials to proceed along the next Base Leg).
- **Checkpoint Close Time**
 - If a team has Hold Time after the Checkpoint closes, they must finish serving this Hold Time before they continue driving the next Base Leg.
 - If a team is at a Checkpoint when their Grace Period starts, they must declare their End of Day at the Checkpoint location.
 - If a team has any remaining Hold Time after declaring End of Day, it will be served after their next morning start time. In this case, the team should consult with Timing Officials to be clear on when they can resume driving the next day.
- **Checkpoint Departure Time**
 - If a team finishes serving Hold Time at or after the Checkpoint Close Time, their Official Checkpoint Departure time will be their Checkpoint Release Time. Otherwise, if a team doesn't have Hold Time after the Checkpoint closes but departs to proceed along the next Base Leg after the Checkpoint Close Time, their Official Checkpoint Departure Time is the Checkpoint Close Time. In all other cases, their Official Checkpoint Departure Time is their Actual Departure Time recorded by Checkpoint Officials.
 - If multiple solar cars are trying to leave the Checkpoint at the same time, priority will be given based on the earliest Official Checkpoint Arrival Time. For teams that trailered to the checkpoint, departure priority will be determined by the earliest Trailer Arrival Time based on when Checkpoint Officials were notified of the solar car's arrival by Trailer.
 - If a team doesn't have an Official Checkpoint Arrival Time, they also don't get an Official Checkpoint Departure Time.
- **Overnight Stop Time**
 - For days not ending at a Stage Finish, the nominal End of Day time is 6:00 pm with a Grace Period of up to 15 minutes early or 30 minutes late to allow teams time to find a safe place to stop.
 - The Actual Overnight Stop Time and most recent Route Step driven past when the team declares End of Day is to be recorded by the team's Observer.
 - It is possible that the overnight stop location could be in a Loop.
 - If a team stops before the start of the Grace Period, their Official Overnight Stop Time will be set to 15 minutes before the nominal End of Day time.
 - If a team stops within or after their Grace Period, their Official Overnight Stop Time will be their Actual Overnight Stop Time.
 - Driving Outside of the Event Day penalties apply for teams that continue to drive beyond their 30-minute Grace Period.

- **Morning Start Time**
 - Solar cars are to continue from the same location where they declared End of Day the night before at a nominal time of 9:00 am to be corrected based on the previous day's Official Overnight Stop Time.
 - The Actual Morning Start Time is to be recorded by the team's Observer.
 - If the team leaves before their Corrected Start Time their Official Morning Start Time is their Actual Morning Start Time.
 - If the team leaves at or after their Corrected Start Time their Official Morning Start Time is their Corrected Start Time.
 - Driving Outside of the Event Day penalties apply for teams that begin driving before their Corrected Start Time.
- **Stage Finish Time**
 - A team's Official Stage Finish Time is recorded by Stage Officials based on their entry at a Stage Finish.
 - A team's Stage Close Time is adjusted based on their staggered Official Stage Start Time.
 - In special circumstances, Timing Officials may communicate additional adjustments to a team's Stage Close Time to ensure that all teams receive the same available Tour hours each day.
 - If in doubt, a team should verify their Stage Close Time with Timing Officials on the final day of the Stage.
 - All Hold Time expires after a team's Stage Close Time.
 - If a team fails to arrive at a Stage Finish before their Stage Close Time or trailers to the Stage Finish, their Official Stage Finish Time will be their Stage Close Time. In either case, the team will be considered to have trailered. The most recent Route Step driven on solar power prior to the team's Stage Close Time and the time that the solar car is loaded on the trailer will be recorded by the team's Observer. Furthermore, the team needs to notify the Stage Officials when their solar car has entered the Stage Finish location by Trailer.
 - Failure to Impound penalties apply for trailering teams that fail to arrive at the Stage finish prior to battery impound time on the final day of the Stage.
- **Loop Start Time**
 - For Checkpoints with an available Loop, teams can start running Loops after they finish serving their Checkpoint Hold Time if the Checkpoint Loop Close Time hasn't passed and so long as they are not within their End of Day Grace Period (in which case they would need to wait to start running Loops until after their next morning start time).
 - For Stage Points with an available Loop, teams can start running Loops after they finish serving their 45 minute Stage Hold Time if their Stage Finish Time hasn't passed.
 - For teams that complete at least one valid loop, their Official Loop Start Time will be when they began their first loop from the Checkpoint/Stage Point.
 - If a team decides not to run Loops or fails to complete at least one valid Loop, they do not get an Official Loop Start Time.

- If multiple solar cars are trying to start a Loop at the same time, priority will be given based on the earliest Official Checkpoint Arrival Time or Official Stage Finish Time.
- If a team begins a Loop before finishing serving their prior Hold Time or trailers their solar car during the Loop, that Loop is invalidated.
- **Loop Finish Time**
 - A team's Official Loop Finish Time will be the actual finish time of the last valid Loop they complete before the published Checkpoint Loop Close Time or their Stage Close Time.
 - If a team decides not to run Loops or fails to complete at least one valid Loop, they do not get an Official Loop Finish Time.
- **Segment Distance Driven**
 - For each Base Leg of the Tour that a solar car successfully completes, the published distance of that Base Leg will be added to the Team's Segment Distance Driven.
 - If a team drives past an open Checkpoint without stopping, they must return to that Checkpoint or they won't receive any credit for distance driven beyond that point.
 - If a team drives past a closed Checkpoint without stopping, they can still be considered to have successfully completed the preceding Base Leg of the Tour provided they weren't trailering their solar car on that Base Leg.
 - For each Base Leg where a team has trailered their solar car, only the distance up to the last Tour Route Step they successfully completed will be counted towards their Segment Distance Driven.
 - If a team Trailered on a Segment, they will not be eligible to start any additional loops on that Segment.
 - For each valid Loop that a solar car completes, the published distance of that Loop will be added to the team's Segment Distance Driven.
 - Partially completed Loops are considered invalid and will not count towards Segment Distance Driven.
- **Official Distance**
 - A team's Official Distance is the sum of Segment Distance Driven minus Deductions.
 - Deductions consist of Penalties and Protest Filing Fees which are assessed in Miles.
- **Official Elapsed Time**
 - A team's Official Elapsed Time is the sum of Elapsed Segment Times minus Overnight Stop times minus Hold Times minus Trailering Durations.
 - Elapsed Segment Times are calculated based on the elapsed time between Official Start and Official Stop times during each Segment.
 - For teams that trailer, the Trailering Duration is from their solar car's Load On Trailer Time to their next Official Checkpoint Arrival Time or Stage Finish Time.