eVTOL Sim Requirements

1. The Sim shall simulate 20 vehicles.
2. The Sim shall run for a minimum of 3 simulated hours.
3. The Sim shall have a minimum of 3 battery chargers.
4. The Sim shall have a minimum of 1 vehicle of each type.
5. The Sim shall report the average flight time of each vehicle type.
6. The Sim shall report the average distance traveled of each vehicle type.
7. The Sim shall report the average charging time of each vehicle type.
8. The Sim shall report the total number of faults of each vehicle type.
9. The Sim shall report the total number of passenger miles flown of each vehicle type.

eVTOL Vehicle Type Requirements

1. The Vehicle shall set a maximum cruise speed.
2. The Vehicle shall set a maximum battery capacity.
3. The Vehicle shall set a battery charge time.
4. The Vehicle shall set an energy usage rate.
5. The Vehicle shall have a maximum passenger capacity.
6. The Vehicle shall set a fault probability.
7. The Vehicle shall calculate distance traveled at each sim time step.
8. The Vehicle shall update the battery level at each sim time step.
9. The Vehicle shall calculate time at the charging station at each sim time step.
10. The Vehicle shall calculate the time in flight at each time step.
11. The Vehicle shall count the number of faults.
12. The Vehicle shall count the number of passenger miles flown.