

ELECTRICAL SYSTEMS**ELECTRICAL FAILURE SIMULATION**

Name _____

Class _____

Working with a partner, use a flight simulator to complete the following scenario.

SCENARIO

1. Select a general aviation aircraft, such as a Cessna 172.
2. Start the simulator and use a checklist to start the engine of the aircraft.
3. It's not necessary to fly the simulator for this activity.
4. From the failures menu, select each available electrical failure in turn. Possibilities include alternator, battery, and the entire electrical system.
5. After selecting the failure, note the instrument indications. The instruments available will depend on how the selected aircraft is configured and may include:
 - a. Ammeter
 - b. Loadmeter
 - c. Voltmeter
 - d. Warning lights
6. For each abnormal indication, explain the cause.
7. See what other systems, such as flaps and landing gear, are affected by the failure.

Answer the following questions for each failure mode used:

1. What was the nature of the failure you used (e.g., alternator failure)?
2. What instrument indications showed there might be a problem?
3. What other systems were affected?
4. What might have caused this type of failure during an actual flight?
5. What steps would you take if this happened to you during an actual flight?