CLAIMS:

1. An emergency responder detection system for an aircraft, comprising:

at least one electric propeller unit (EPU);

at least one battery pack configured to supply high voltage power to the at least one EPU, the battery pack including a battery management system;

at least one low voltage wire connected to the at least one battery pack;

wherein the battery management system is configured to: receive aircraft movement information; detect that the movement information indicates a potential crash; detect a loss of current in the at least one low voltage wire; and blow a battery pack fuse to disconnect supply of the high voltage power.

2. The system of claim 1, wherein the battery management system blows the battery pack fuse to disconnect supply of the high voltage power upon determining the potential crash occurred prior to the loss of current in the at least one low voltage wire.

3. The system of claim 1 or 2, wherein the battery management system is further configured to:

receive a mode of the aircraft from a flight control system of the aircraft;

determine a false crash detection based on detecting the aircraft movement information indicates a potential crash, detecting no loss of current in the at least one low voltage wire, and detecting the aircraft was in a ground mode at the time of the potential crash; and

receive new aircraft movement information after determining the false crash detection.

4. The system of any of claims 1-3, wherein the movement information is aircraft acceleration information received from an accelerometer on the aircraft.

5. The system of claim 4, wherein the potential crash is detected based on the aircraft acceleration exceeding a threshold.

6. The system of any of claims 1-5, further comprising at least two battery packs, wherein each battery pack comprises the battery management system, a connection to the at least one low voltage wire, and the battery pack fuse.

7. The system of claim 6, wherein one of the battery management systems blows all the battery pack fuses for the at least two battery packs upon determining the potential crash occurred prior to the loss of current in the at least one low voltage wire.

8. The system of any of claims 1-7, wherein the at least one low voltage wire is routed through a tail of the aircraft.

9. The system of any of claims 1-5, further comprising:

at least two battery packs, wherein each battery pack comprises the battery management system and the connection to the at least one low voltage wire; and

wherein the at least one low voltage wires for the at least two battery packs are bundled together and routed through a tail of the aircraft.

10. The system of any of claims 1-9, wherein the battery pack fuse is a pyro-technical fuse.

11. A system for an aircraft battery management, comprising:

a battery management system including one or more processors, wherein the one or more processors are configured to:

receive aircraft movement information of an aircraft;

detect that the movement information indicates a potential crash;

detect a loss of current in the at least one low voltage wire; and

blow a battery pack fuse of at least one battery pack configured to supply high voltage power to disconnect supply of the high voltage power by the at least one battery pack.

12. The system of claim 11, wherein the battery management system blows the battery pack fuse to disconnect the high voltage power supply upon determining the potential crash occurred prior to the loss of current in the at least one low voltage wire.

13. The system of claim 11 or 12, wherein the battery management system is further configured to:

receive a mode of the aircraft from a flight control system of the aircraft;

determine a false crash detection based on detecting the aircraft movement information indicates a potential crash, detecting no loss of current in the at least one low voltage wire, and detecting the aircraft was in a ground mode at the time of the potential crash; and

receive new aircraft movement information after determining the false crash detection.

14. The system of any of claims 11-13, wherein the movement information is aircraft acceleration information received from an accelerometer on the aircraft.

15. The system of any claim 14, wherein the potential crash is detected based on the aircraft acceleration exceeding a threshold.

16. The system of any of claims 11-15, further comprising at least two battery packs, wherein each battery pack comprises the battery management system, a connection to the at least one low voltage wire, and the battery pack fuse.

17. The system of claim 16, wherein one of the battery management systems blows all the battery pack fuses for the at least two battery packs upon determining the potential crash occurred prior to the loss of current in the at least one low voltage wire.

18. The system of any of claims 11-17, wherein the at least one low voltage wire is routed through a tail of the aircraft.

19. The system of any of claims 11-15 further comprising: at least two battery packs, wherein each battery pack comprises the battery management system and a connection to the at least one low voltage wire; and wherein the at least one low voltage wire for the at least two battery packs are bundled together and routed through a tail of the aircraft.

20. The system of any of claims 11-19, wherein the battery pack fuse is a pyro-technical fuse.

21. A method for aircraft battery management, comprising:

receiving, by a battery management system, aircraft movement information of an aircraft;

detecting, by the battery management system, that the movement information indicates a potential crash;

detecting, by the battery management system, a loss of current in at least one low voltage wire; and

blowing, by the battery management system, a battery pack fuse of at least one battery pack configured to supply high voltage power to disconnect supply of the high voltage power by the at least one battery pack.

22. The method of claim 21, further comprising blowing the battery pack fuse to disconnect supply of the high voltage power upon determining the potential crash occurred prior to the loss of current in the at least one low voltage wire.

23. The method of claim 21 or 22, further comprising:

receiving, by the battery management system, a mode of the aircraft from a flight control system of the aircraft;

determining, by the battery management system, a false crash detection based on detecting the aircraft movement information indicates a potential crash,

detecting no loss of current in the at least one low voltage wire, and detecting the aircraft was in a ground mode at the time of the potential crash; and

receiving, by the battery management system, new aircraft movement information after determining the false crash detection.

24. The method of any of claims 21-23, wherein the movement information is aircraft acceleration information received from an accelerometer on the aircraft.

25. The method of any of claims 21-24, wherein the potential crash is detected based on the aircraft acceleration exceeding a threshold.

26. The method of any of claims 21-25, further comprising the battery management system communicating with a second battery management system.

27. The method of claim 26, wherein the at least one battery pack comprises a first battery pack and a second battery pack configured to supply the high voltage power, wherein the battery management system blows all battery pack fuses for the first and second battery packs upon determining the potential crash occurred prior to the loss of current in the at least one low voltage wire.

28. The method of any of claims 21-27, wherein the battery pack fuse is a pyro-technical fuse.