

# Aircraft Back Up Avionics Power in Case of Lightning Strike

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**Article Rating: NA**

**Submitted by: articlediner on 2006-11-24 and viewed 45 times.**

**Total Word Count: 445**

**Author Rating:**

## **Sample of Content:**

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## **Content:**

During inclement weather aviation becomes much more serious. When you are flying in bad weather you must rely on your instruments instead of looking outside. During intensive storms it is possible to be hit with lightning, which could instantly fry all your electronic equipment. If you cannot see and have no instruments you could easily become disoriented and feel the effects of vertigo.

So many of these new instruments are flat panel displays with LED panels. Therefore the instrument panel containing the essentials could be run off the rumble of the engine and the bumpy-ness of the air from the bad weather. By using the vibrational energy from the aircraft's engine and harmonic resonance we can save the energy from the alternator and thus save fuel.

In an emergency we could additionally use the bumpy air to power up the landing lights. These energy needs would work using electromagnetic induction technology to charge a capacitor instead of the headlights working off a battery or alternator. Currently there are some nifty micro-flashlights being used which you can buy which use a similar technique and are available thanks to the Everlite Flashlight technology research lab. These smaller flashlights work by shaking them for about thirty seconds and shine for about 6 minutes and they shine quite bright since they use a very bright LED light. Here is a link to this home use flashlight:

[http://www.modernoutpost.com/gear/details/ee\\_shakelight.html](http://www.modernoutpost.com/gear/details/ee_shakelight.html)

Here is a quick movie you can watch online to see how this technology works.

[http://www.modernoutpost.com/gear/movies/ee\\_forever.MPG](http://www.modernoutpost.com/gear/movies/ee_forever.MPG)

I propose we use the engine rumble and bumpy air light the aircraft interior lights in the cockpit and the landing lights in emergencies. Additionally the LED instruments in case of lightning strikes and at minimum the artificial HSI. Generally you have to wait thirty seconds for the aircraft engine's oil pressure to come up and you would be going thru your checklist anyway. This does not mean that the aircrafts strobes, cockpit or landing lights would not be hooked up to the regular system, only that you would not be asking for any juice, thus the alternator does not have as much drag on the engine and saves fuel consumption. Once the engine comes up to oil pressure the aircraft can then taxi out and each bump in the taxiway keeps the lights running and once airborne the air buffets would do the same. If they get too dim from too smooth taxiway, yah, we wish, then the system would revert back to the battery or normal system. Perhaps this is a good way to save fuel and potentially save lives? Think on this.

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## **About the Author:**

Lance Winslow