

# Bulletproofing your site, Part 2

BY DAN ROACH

While there can be no substitute for “fundage” when it comes to securing your sites against disasters, there are all kinds of preparations you can make that will help when disaster strikes. And some of these don’t have to cost very much to implement.

For now, let’s concentrate on the first part of the problem we identified last time—staying on the air during a natural disaster.

Most off-air time involves hydro outages or telco line failures, so the obvious places to reinforce your operation are with standby transmitters, standby generators, and STL systems that allow you to bypass telco problems. These can all be high-cost items, but sometimes there’s an alternative that is not cost-prohibitive.

If you can’t afford automatic backup power at the studios, perhaps a manual backup power system is practical. I have seen viable studio backup power systems consisting of a 3-kW pull-start generator in a box in the station parking lot, with a manual transfer switch to connect power to the racks and control rooms as needed.

It’s important that everyone understand that this is a stop-gap solution. It obviously is not effective against a short-term power outage, as it will take time for someone to find the key and work the controls. But it could be very handy in an extended outage.

One thing we have all learned is that

it is unrealistic to expect utilities to show up and help you anytime soon when there is a crisis. They will have their own problems. It’s also not realistic to try shopping for a generator once the lights go out. You need to plan for this kind of thing in advance.

If you’re using an RPU system for remotes, maybe it’s practical to install a couple of extra antennas at studio and transmitter sites, so it could be quickly repurposed as an emergency STL.

If studio back-up power just isn’t going to happen, how about back-up audio? One nice thing about telco program lines is that the phone company supplies reliable standby power for them as a matter of course. A properly-programmed iPod with a repeat transformer to patch into the program line, either at the studio or the transmitter site, is a viable source of backup audio, whether or not there is studio power, and it can keep you on the air.

Cost? Less than \$200 complete.

Add a mic mixer, or even a minidisk recorder, a couple of microphones, headphones and radio receivers, and you have a kit that will allow you to broadcast live from either a powerless studio or a powered transmitter site. And you’ve still spent less than \$500, even less if you have any old gear available (who needs mic mixers at remotes anymore?).

Maybe you want to add some flashlights and other essentials, and put it all



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in a sealed box, secure and complete until it’s needed. Or maybe an iPod and a program switcher at the transmitter site are all that you require.

We would all like back-up transmitter sites, but here again they may appear cost-prohibitive at first glance. But in smaller or medium markets, an FM exciter and an antenna on a stub of a tower at the studio can be a viable alternative. This may cost you less than \$15K to implement, even from scratch. That’s pretty cheap insurance.

Again, if you just can’t afford back-up studio power, have a look at your telephone system. Your PABX has an unpowered fallback position that will allow direct connection of the trunk lines to old-fashioned unpowered telephones. You just need to make sure that the phones in question are in the areas you want them, so your newsroom can take and make calls during an outage. Cost? \$0.

Some stations are blessed with management that values reliability of service, and there is no substitute for proper backup systems already in place. With adequate redundancy, your station can confidently weather the storms, even when things get nasty. But even with a limited budget, there are some small measures you can take ahead of time that will help you stay on the air if disaster strikes your plant.

Next time, some final thoughts and tips on preparing for the unexpected.



Jim Goessinger, Manager of Sales and Marketing - Broadcast & Post Production Division, is pleased to announce the following appointment:

**ALAN ENGLISH** to the position of **Technology Sales Representative, Edmonton**

Alan joins Applied Electronics with a broadcast electronics background along with extensive technical experience. Alan is based in our Edmonton office and will be focusing on further development and promotion of Applied Electronics’ presence in the broadcast and post production market in the Prairie Provinces.

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