

WEOS(FM) Fits Needs With Telos

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GENEVA, N.Y. Remote broadcasting has always stretched the talents and patience of most broadcasters, whether they be the engineering staff or the talent. Tons of equipment, wires, and failures were — and in many cases still are — the norm.

POTS frequency extension created a more compact format, but the costs and size of the equipment, as well the setup, left a lot to be desired.

Enter ISDN — great quality and isolated bi-directional audio over one pair of copper wires. It seems too good to be true.

However, most of the equipment had to have add-ons in the form of mixers, headphone amps and the like, in order to facilitate the remote.

In some cases, with the amount of hardware needed for a simple remote growing out of control, I was back at square one.

Express testing

A few years ago, I received a phone call from Steve Church, president of **Telos**. We already were Zephyr users, and were satisfied with their performance.

His query: If you could have a combined mixer and codec in one package, what would you like to see?

We talked for about an hour. Not too long after this, a new ISDN animal came onto the market — the ZephyrExpress.

This compact box seemed to answer all the demands one had regarding remotes: ISDN, stereo, with mic inputs and all the guts that could be taken on a plane in a carry-on. Again, it seemed too good to be true.

We received a ZephyrExpress to put through the motions as beta tester.

Being a small public radio station that also has a commitment to our licensees for sports coverage, we have a variety of remote situations: stereo, mono, local, split feeds, and national feeds. We had relied on RPU for most of our mono work locally, and added ISDN for stereo feeds.

When out on the road, the choices are ISDN or POTS. How would the

Each pot — whether an input or monitor mix — has a button that enables not only the pot, but how it is assigned: either to left, right or both. Being a stereo mixer, panning of both the inputs and monitors is possible.

Telos included an extensive manual and the LCD menu screen is easy to read, with includes a comprehensive on-line help feature on the unit. All parameters



The ZephyrExpress

ZephyrExpress fit into this mix of equipment?

When we opened the box, the first thing I thought was, "Is this all?" The ZephyrExpress consists simply of a small, lightweight black and teal case and an external power supply. Upon closer examination, however, we found that Telos packed a lot into that case.

Intuitive features

The front panel contains controls for two stereo mic/line inputs and one stereo line input. There are two discrete monitor mixes controlled from the front panel with separate send and receive levels for each of the two monitor sources.

Balancing out the panel are the telephone keypad for dialing and a menu-selector knob. They also added a front monitor jack on the front panel.

are selected, changed, and stored by using the selector knob.

The beauty of the unit is that setups for multiple sites can be recalled and loaded, and it is simple to load them on your own. The unit is very intuitive and logically laid out. In a matter of minutes, you can be on the air and, I would dare to say, without reading the manual.

Many of the "hidden" features come to life in the menus — level pads for the mic and line pots; phantom power on the mic inputs; monitor pan assignments and much more.

Probably its most important feature is the Safe mode. This is great for sending the ZephyrExpress out on a remote, with headsets and the talent, and letting them plug it in with a minimum of difficulty.

In Safe mode, certain parameters such

as SPIDs and switch types cannot be changed. This allows some anxiety relief for the engineering staff.

The ins and outs

The actual hookup is simple. All connectors are on the back and easily identifiable: mic and line inputs, monitor outs, and separate return audio outs.

The unit has built-in both the ISDN "U" and "S" interface, so you can use it with or without its built-in NT-1. Remote control ports and the like round out the back panel.

In addition to Layer 3, Layer 2, and G.722 transmission modes for ISDN, the ability to call a POTS line is also available.

How handy is this? You could be doing the broadcast feed on one B channel, and calling the studio phone on the other, with *no* extra phone equipment. Additionally, this can also be used as a POTS-based backup feed of the program, should something happen at the studio end of the remote with the ISDN; alternatively it can serve as a POTS feed to another entity.

The power supply uses a 4-pin XLR connector that gives a solid, reliable cord connection. There is plenty of cord on both ends of the power supply so it can be tucked out of the way.

The quality of the feed is excellent. The mic pre-amps are very quiet and the headroom is unbelievable. We have yet to really overload the unit.

The first lady and lacrosse

During the celebration of the 150th anniversary of the Women's Rights Movement in Seneca Falls, N.Y., WEOS originated 10 hours of live national feeds, additional production feeds and interviews from the various sites.

This included the opening speech by Hillary Rodham Clinton to the world, with two separate discrete feeds to different uplinks. All the while, the ZephyrExpress baked in the direct sunlight in 95-degree heat with no problems.

Other Zephyr uses have included live concert broadcasts along our beau-

tiful lakefront, visiting speakers, and live sports. This includes distribution of the international radio feed for the NCAA of its Men's Lacrosse Championships.

Even in some of the roughest situations, it has never presented us with problems.

Drop kick it

Speaking of rough situations, we possibly put the ZephyrExpress through one of its rougher tests. After baking it in the sun, freezing it in the cold, and putting it through a day of near monsoon rain, at one site, we were setting up to broadcast a lacrosse game, where there was no press box.

The ZephyrExpress was sitting on the top of the bleacher section, about 40 feet off the ground when one of my students

bumped into it, and sent it flying to the ground below.

We watched in horror as the ZephyrExpress hit the cement, bounced and landed in the grass adjacent to it. After assuring the student she still had a job, I sent her to the car to bring our backup rack mount Zephyr, and retrieve the ZephyrExpress.

Upon examination, we discovered a scuff mark and a grass stain on a corner of the unit, but nothing else *seemed* wrong. So, we plugged it in. Just as in the old Timex commercials, it took a licking and kept on ticking.

Though I would not recommend you try this at home, it really showed me how durable the ZephyrExpress is and why it is a very handy remote tool.

Our talent loves the unit.

We use many students and community

volunteers, and all are quite comfortable taking the unit out to remote sites, due to its simplicity and reliability.

In many situations, the ZephyrExpress is all we need; we just pack it in a small bag along with headsets and carry it to the remote site. If more inputs are needed, a small 12-input mini-mixer is a great add-on and provides everything we could need to do 99 percent of our remote broadcasts.

If there are any complaints, they are minor. Further advancements in DSP technology should allow Telos to provide the same audio horsepower with less heat and circuit boards, and eliminate the external power supply.

I would love to see one more mic input, but this omission is no doubt a tradeoff for having the stereo capabilities

Even in some of the roughest situations, the ZephyrExpress has never presented us with problems.

within such a compact package, and I do not want to give this up.

Adding an external mixer for the few occasions we need it is fine.

All in all, the ZephyrExpress is something that was really needed for the broadcast community.

We find it invaluable in our production toolbox, and in many cases, it is like the Swiss Army knife, providing so much in such a small package. It has made our life easier, and helped us produce more programming as a result.

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