

Why Not Try Radio Tapes?

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If you don't produce radio tapes because you lack staff or a fully-equipped studio, you are missing out on a lot of free publicity. In Connecticut I have gotten the Experiment Station on the state's most powerful radio station using a minimum of equipment.

There is no secret to doing this—I do the same thing that the audio-visual people do, but I do it in a different way. All it takes is the proper tape recorder, tape editing equipment, and know-how. You'll have to supply the first two items, but I can help supply the third.

Producing a radio tape is like writing a news release. You must first have something to say, then you put it in a form that can be used by the media. With a radio tape, the main difference is that instead of editing words on paper, you must edit sounds on recording tape.

If you're thinking that you can't learn how to edit tape, or that you need a \$2,000 Ampex machine to do it, you're wrong. I'm basically a print journalist, and I make my tapes with less than \$200 worth of equipment.

The recorder is the most expensive piece of equipment. I'm going to mention the one I have for two reasons: first, it records well enough to allow tapes to be used directly on-the-air by a 50,000 watt station that is strict about the technical quality of tapes, and second because it has some special features that make it easy to use.

Tapes to be edited must be recorded on old-fashioned reels rather than on cassettes. Now that I've eliminated about 90 percent of the tape recorders on the market, how do you select your recorder from the few that are suitable for this task? The easiest way would be to purchase a Sony TC-106A like the one I have, but any other machine will do if it meets the following specifications:

It must have a removable cover that allows access to the playback head and the amplifier must stay on when the recorder is in pause or stop.

I doubt that you will find this last feature on many recorders because most manufacturers use a muting circuit to shut off the playback head when the recorder is in pause, fast forward, or rewind. In fact, my recorder had such a feature, but I eliminated it by studying the schematic and cutting one wire. If you get the Sony, you should be able to accomplish this safely as I did, but for other machines, you should have a competent repairman do the job. Be aware that once this is done, the warranty is likely to be voided. While making this modification, the repairman can point out the playback head. It is vital to know which it is. On the Sony there are two heads; one erases, the other is a combination record/playback head. It is the playback head, which is on the right, that you will use.

In making recordings remember that you need a strong signal on the tape, so use the automatic level control or the recorder's meter to get the proper level. Half of your tape will be "blank" when played back on the full-track recorders that most radio stations use, so make sure that the tapes have sufficient gain to overcome the ambient noise.

You will always record on one side of the tape and at 7½ inches per second. The speed is crucial because many radio stations will not accept tapes recorded at lower speeds and because you will need all the tape you can get when you start editing. It is false economy to reuse tape.

At this point you may think that your tapes will not need editing. If only that were true! There are few tapes that can't be improved by some editing, and many that would be worthless without good editing. This is because many people often fail to speak in complete sentences, often pause in the middle of a sentence to compose thoughts, and say, "ahhhhh" or stutter far more than they realize. Although we tolerate this in ordinary conversation, all of this can be described by one word: dull. If station management thinks that the tape is dull, they won't put it on the air because they will be afraid of driving listeners away.

To edit tape, you will need four items in addition to the recorder: splicing tape, a single-edged razor blade, a grease or china marking pencil, and an editing block. Again, I am going to mention a brand name, but in this case, I'm not sure that there is anything else suitable. I use the EDITall® S-2 block. This consists of a short piece of aluminum which has a groove in it for tape, and two cutting slots, one at 45 degrees and the other at 90 degrees. Although this may seem primitive, and your neighborhood hi-fi store may try to sell you an automatic or semi-automatic splicer, don't succumb. This one is perfect for the task. I attached the splicing block to the recorder near the heads so that I do not have to move the tape far to make my cuts.

I'll explain how you will be using this equipment so that it will be easier to visualize what happens when you are editing the tape. The razor blade is for cutting tape—not fingers, thus the necessity for a single-edged blade. The grease pencil is for marking the spot where you will make splices, and the splicing tape is for joining the cut pieces of tape. Use only splicing tape because it is slightly narrower than recording tape and has a special adhesive that will not bleed onto the heads and gum up the works of your recorder.

The first thing to do is to listen to your tape, checking for even level, and for unnecessary pauses, stammering, or that universal expression used to fill a void: "Ahhhhh." Bear in mind that dead air is worse than white space in a newspaper, and most stations are paranoid about using anything that contains dead air. Also, remember the difference between hot air and dead air. Hot air is audio that lacks content . . . dead air is content that lacks audio. Both are annoying. The goal is to produce a tape without either.

There are two things you should keep in mind when you are editing tapes. The first is that you can often remove whole phrases without affecting the meaning or sound of a sentence, just as you can on paper. The problem is that the change must be done skillfully; it must not affect the meaning of the sentence, nor should it be obvious to the listener. The second thing is that you may often be editing a tape to bring it to say, five minutes, or, in my case, to 90 seconds, so sometimes ruthless editing is indicated.

The first runthrough of a tape is important because if you find too many things wrong, you may want to re-record it rather than attempt major surgery. If you have to do too much editing, or there is something radically wrong with the way words are expressed, a re-take is mandatory. I find that interviews with station scientists often sound better after one "practice" tape has been discarded. Planning questions and practicing answers before turning the recorder on will speed editing because you'll have fewer spots to fix.

You can pick out items to edit in two ways. Many editors get a transcript of the tape, and mark sections to be omitted. I don't do that because it would take too much time to do the transcript, and also because I learned tape editing in the newsroom of a public radio station and had to do it against a deadline. I suggest that you try to get along without a transcript because your skills will develop much faster without this crutch.

So, we come to your first cut. I'll run through the mechanics of it, then I'll tell you how you find the place to make the cuts. If you are using anything other than the EDITall block, there may be some variation, but the principles are the same.

Splices consist of two pieces of tape joined and splicing tape to hold them together. The tape must be shiny side up. The cut is made using a razor blade in a diagonal slot. For practice, take a 12 inch piece of tape, and push the tape into the grooves of the block. The tape will be slightly bowed. Take a razor blade and make a slice in the tape using the diagonal slot as a guide. This must be a clean cut, so you must hold the blade firmly in the slot. It always works best if the blade is on an angle, rather than horizontal.

After you have made this cut, you will have two pieces of tape, each having a diagonal end. Slide these apart, and you will see that the tape will move in the grooves. Slide them back together so that the two ends are touching, but not overlapping. Now, cut $\frac{1}{2}$ - $\frac{3}{4}$ inch of splicing tape (I use a dispenser, rather than scissors), and place the middle of this tape squarely over the spot where the two ends come together. I usually move these ends away from the slots to get a firmer surface upon which to work. After you have put the splicing tape down, burnish it with your fingernail. You can now splice tape.

Fortunately, all splicing is this easy—you are always joining two pieces of tape in this manner. The diagonal cut is mandatory because it gives strength and also means that there is less chance of hearing the splice.

Now we get to the hard part—the art of editing. Notice, I used the word art. Splicing is like a science, but good editing is an art. The best way to learn is by doing, so record a short section of tape with the famous phrase: “The quick brown fox jumped over the lazy dog’s back.” Before you go any farther, remove the cover and expose the playback head.

Now, the hard work: Let’s change that to “The brown fox jumped over the dog’s back.” If you speak as I do, you’ll have about 36 inches of tape from the point where the sentence starts to the point where it ends. Now, you have to listen to it to hear what you are going to take out and to make sure that the sentence will still make sense after the words are gone. You will notice that the sentence will make sense, but its meaning will be altered.

Next, you start the tape. When you get to the word “quick”, stop the recorder and move the tape backwards by hand until you hear what you think is the beginning of the word. Place a vertical mark on the tape on a line that runs through the middle of the playback/record head. Now, turn the takeup reel by hand until you come to the end of the word. Put another vertical mark here. I always check by starting the tape at the first mark and listening until the second mark is reached to make sure the marks are in the correct spots. Then, gently lift the tape from the heads and put a portion with a mark on it into the slots of the EDITall. Now take your razor blade and make a diagonal cut just like the one you made with the blank tape. You now have two pieces of tape. Slide the tape so that the second mark is centered on the diagonal slot and make another cut. Now you have three pieces of tape. Discard the piece that was between the two marks, slide the two ends of the tape together so that the diagonal cuts are just touching, and apply a piece of splicing tape, making sure that you burnish it to make the bond semi-permanent. You are now a tape editor. To remove the spliced tape from the block, lift one end and slide it toward the other end, then re-thread the tape past the heads and hand tighten it on the reels.

Play the tape, and you should hear “The brown fox jumped over the lazy dog’s back.” Now it is time to make the second cut. following the same procedure as before, locate the beginning and end of the word “lazy”, mark the spots, remove and discard the word, and splice the tape together. You should now have a piece of tape about 30 inches long that will play back “The brown fox jumped over the dog’s back.”

If it didn’t work the first time, remember, tape editing is an art. You will develop speed and skill with practice. If it came out right, you can now attack longer tapes, practicing such things as removal of unwanted pauses and unwanted “ahhhh’s”. Removal of the “ahhhh’s” is difficult because it often is hard to find the spot where an “ahhhh” ends and where the next wanted word begins. Sometimes you can get to within ¼th inch of the spot and be forced to guess. I usually guess right so the listener is not aware of the doctoring.

In the six months or so that I have been editing interview tapes here, I have developed my skills to the point where I make few errors. As a matter of fact, when the director reviews these tapes, he sometimes seems to have more fun watching the splices go by and trying to find a bad splice than he has listening to the tape. I recommend that you confine your editing to removing sections, rather than rearranging or inserting parts, at least until you can do deletions skillfully.

Tape editing is a rewarding skill to add to your blue pencil and Liquid Paper—priceless tools of the print editor's trade. It can be rewarded with play over a radio station, and you know that the listener hears the message.

Although I haven't gone into tape duplication, it is obvious that all you need is two recorders and a connecting cable to get instant copies for distribution, or you may want to send this work to a commercial studio for a few dollars a reel.

Good luck with your tape editing, it's a lot of fun, and it leads to a lot of good publicity among a "captive" audience.

