

TECHNICAL PERSONNEL-BUY THEM, STEAL THEM OR RAISE YOUR OWN

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ABSTRACT:

A look at the need for trained technical personnel and some methods used to get them. This paper covers advertising, recruiting, interviews and the problems with testing. It covers union employee testing and training, along with some sample questions. Employee incentives are discussed, along with technical schools and home study courses.

One of the biggest problems facing the CATV industry today is a shortage of trained technical personnel. It is a situation that is steadily growing worse and, unless steps are taken, will eventually face you all.

To help alleviate the problem, at least temporarily, most companies have resorted to three basic methods of filling their technical personnel needs. Those three ways are:

- a. To buy them. Simply offering more money, benefits and/or titles than the person is presently getting. This will work well until another company offers them even more.
- b. To steal them. Contracting people who work for other companies and offering them jobs. This is usually combined with buying, in that you offer them bigger titles or salaries. This method has the same inherent problems as buying people.
- c. Raising your own. This is by far the most used and most successful method. It simply means hiring someone that you feel has the other necessary qualifications but lacks technical training. This can be an expensive method, depending on the amount and quality of training that you provide. I feel that it is money well spent, since you also get some other benefits not possible through either buying or stealing.

Even if your company subscribes to the "Raise Your Own" theory, there will be times when you simply cannot afford the time to train someone or you immediately need someone with special skills or experience. In these cases, you will probably want to do some advertising,

usually in trade magazines or newspapers, or use some other method of recruiting.

In the companies in which I have been employed, we have tried a great many ways of filling our needs for experienced help. We have tried the trade journals, newspapers, specialized CATV schools, employment agencies, and even some buying and stealing. A lot of our efforts have been less than totally successful. We have learned quite a few things not to do, and even a few that work.

The poorest ads that we have ever run are the "blind ads". I'm sure all of you have seen these, and maybe have even run some of them. They usually consist of three or four lines, barely telling that a job is available somewhere, in some company, doing something, for some salary. On the handouts, I have a typical blind ad, shown in figure 1, that was taken from a trade journal. I changed the box number, just in case the person who inserted it is here. As you can see, this ad does not really tell you anything.

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CHIEF TECHNICIAN  
Needed immediately, five years experience and first class license required. Salary commensurate with ability. Reply in confidence to Box C-123.

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Blind ads can even severely limit your responses, especially from the more intelligent technicians. Smart people who are looking to change jobs just don't answer blind ads. There is too much danger that the ad was placed by their own company and responding to it could be quite embarrassing. There is only one real benefit that can come from a blind ad. You can find out if any of your own people are stupid enough to answer it and get rid of them.

Along these same lines, companies who don't include their names in their ads are also missing out. If you are not proud enough of your company to use it's name, how can you expect a stranger to want to work for you? With today's shortage of trained people, it doesn't bother me at all to admit that we could use more good people.

The most productive ads that I have run have contained a great deal of information about the job and the job benefits. In figure 2, you will see

a recent ATC ad. In my opinion, this is a good ad, not just because my boss ran it, but because there is a lot of information there. I can't give you the exact numbers of responses to it, but I can tell you that they were quite gratifying.

**Chief Engineers**

American Television and Communications Corporation offers a growth opportunity for experienced cable TV engineers who want to become part of the company's aggressive management team.

ATC is seeking people to fill chief engineering positions in several of its major metropolitan area systems located in the East and Southeast.

Assume overall technical responsibility for modern cable facilities featuring

- 500+ miles of active plant
- operational pay-TV
- active two-way services

Solid technical experience and demonstrated administrative ability will make you qualified for top salary/benefit-package and future growth.

Send your resume and salary requirements to:

Larry Janes  
 Director, Field Engineering  
 American Television & Communications  
 20 Inverness Place East  
 Englewood, Colorado 80110

An Equal Opportunity Employer

FIGURE 2

The following is information that I feel even basic ads should contain, if they are expected to produce results.

1. Job title and job description.
2. Geographical location of the job.
3. Experience required.
4. Education and licensing required.
5. Salary range and special benefits.
6. Name of your company.
7. Name of the person to contact.
8. Your phone number and address.

The ad in figure 3 shows my recommended advertising format. This a fictitious ad, so don't try to respond to it.

**CHIEF TECHNICIAN**

Immediate opening in our Busytown, IL. system. New, 2 way, microwave, data, fiber-optics. Supervise entire technical staff. Min. 5 years exp. and 2nd class license. Salary over \$14,000. Full benefits and education assistance. Call John Doe, (123)456-7890 or send resume and salary history to American Television and Communications Corp., 7300 N. Busy St. Busytown, IL., 09876

AN EQUAL OPPORTUNITY EMPLOYER

FIGURE 3

I think you will agree that you would respond to this ad more readily than to the ad in figure 1. This one costs a few dollars more, but I feel that it is money well spent.

When you get the responses to your ad, the really hard part starts. You have to interview the applicants, if they seem to meet your requirements, and select the one you feel is best suited to the job.

The actual interview questions will vary with each company and with each position to be filled. The best way for me to be sure to cover everything is to have a list of questions, prepared or revised especially for this job, and just follow it as much as possible.

If your company requires written testing of prospective employees, be very careful. One of the quickest ways to get your company into court these days is to let an applicant know that they have failed your written tests. There are hundreds of educators working today to come up with a legally fair method of grading tests. To be fair, a test must take into account the applicant's background, education, opportunities, ethnic heritage and even their parent's backgrounds. Unless you are a lot braver than I am, this is one can of worms you don't want to open.

The sample questions and answers shown in figure 4 will give you an idea of some testing problems. Believe it or not, these and similar answers must be considered correct and have actually appeared on our tests. Some of the answers may appear to be wrong or even stupid, but if you think so, don't ever let a good lawyer get you into court on them. He will eat you alive in front of a non-technical judge and jury.

If any of you have systems where the employees belong to a labor union, you are probably already aware of some testing problems. Most of the union contracts have very well defined job classifications and training requirements. In order for an employee to move into a higher job classification, some training and testing is usually required. When written tests are required, make sure that they exactly follow the job classification requirements and that you have documented proof that the employee has been given training in these areas. Before giving the tests to the employees, the tests and answers, copies of the descriptions, copies of training documentation, and copies of the union contract should all be reviewed by at least one educator and a good labor attorney for their written opinions. This is commonly known by the initials C.Y.A.

A problem that we have with union employee training is that you must pay him for any time spent studying. In order to document the training and studying, we set aside two (2) hours each week for this purpose and require attendance by the entire technical staff. The chief engineer or chief technician is then responsible for all

lesson material presentation, lesson assistance and records keeping. The results to date have been very good. This same procedure could also be used to good advantage in the non-union systems, with even better results. Getting our technical people, trainees as well as experienced, to become enrolled in and to complete continuing education courses can be a problem. Everyone now seems to feel that training is beneficial to the employee and to the company, but few can agree on how to proceed.

One way that is being tried is by use of incentives. Again, the companies cannot agree on the best incentive plan. Listed below are three incentive plans that are in use.

- a. Educational Assistance. This covers course prepayment and/or course cost reimbursement for employees who take job oriented courses from company approved schools. The amounts and procedures vary with each company.
- b. Monetary Incentives. Some companies automatically increase their employee's salary by five (5) or six (6) cents per hour for each course completed with satisfactory grades. This doesn't sound like much, but it amounts to more than a hundred dollars each year for each course, in addition to normal pay increases. Other companies offer a one-time bonus for each course completed or license grade achieved.
- c. Promotion Assurances. These companies promise promotions to course graduates, when and if openings occur. This is not a particularly good plan, since there is no immediate inducement to take or complete the course. Promotion from within the ranks should be standard procedure, not just as an inducement to study.

These are a few of the ways you can encourage your people to study. You should give a great deal of thought to setting up an incentive plan, if you don't presently have a good one.

One of my first assignments when I moved to Denver was to investigate and evaluate the available home study courses and to recommend the ones which would be of most benefit to our technical employees. After a lot of research and study, I don't really feel that there is any one "best" course for everyone. Each course studied has both good and bad points and there are needs and applications for each course. The real solution seems to be in correctly matching the employee to a course which is right for them. This means that you must be familiar with the employee's prior education, experience and also with their ambitions and expectations. In a small company, this is not a real problem but in the larger ones, it really is a challenge. To help me to become familiar with our employee's history and ambitions, I have come up with what I call an "Employee Profile Sheet."

It is quite large so I didn't bring copies, but I will be happy to discuss it later with anyone who is interested or will send copies if you request them. In essence, it just gets some information about the employee that we can't get from personnel records. It can also be used to help determine when an employee is ready for promotion or transfer.

Those of you who have taken any kind of home study course are aware of the inherent problems in this type of education. In order to write a course of this type, the writer must assume that the student has absolutely no knowledge of anything technical. If that assumption is not made, at least part of the students will be left out, since they really are not technically knowledgeable. On the other hand, students who do have some electronics training or knowledge will be bored to the point of dropping out of the course. Selecting the proper course to match the student can help to overcome this problem.

The most frequent complaints that I get on home study courses are that they don't explain the lessons very well and that the math is too hard. These are all problems dealing with basic electronics. Once a student really understands the basic theory and the math fundamentals, we rarely hear another complaint. I have discussed this with representatives from the schools that we regularly use. Their suggestions have universally been to enroll the student in a good basic electronics night course at a local technical school before or during the home study course. This has proven to be an excellent method. The questions which arise during the home study course can usually be easily answered by the technical school teacher. There seems to be very little subject duplication, and what there is just helps to reinforce the students grasp of the subject.

For those of you who have people who wish to proceed onward to a BSEE degree, there is now a home study course which will help them to get it. It will require some resident school credits, but most communities have enough night classes either at a technical college or at high schools to cover these.

There are also a small but growing number of local technical schools which regularly offer a two year CATV course. With the success that these schools have in placing their graduate students into systems, better than 98% within 6 months after graduation, I think we can look for many more states to add CATV courses. As I understand it, their biggest problem is in getting qualified teachers who know and can teach all phases of CATV.

One way that you and I can help to bring up the quality of the education at the schools, and the numbers of such courses offered, is to volunteer our help as technical advisors. You will be amazed at how quickly the educators will accept

and use your help and advice. You also get first pick of the graduate students.

There can be a problem with this. They may offer you a job as a CATV instructor. If you accept, we are right back where we started-looking for good, trained technical personnel.

I thank you.

#### FIGURE 4

##### SOME SAMPLE QUESTIONS AND THEIR "CORRECT" ANSWERS:

Q-1. Name three (3) types of cables used in CATV systems.

- A-1. .750, .500 and .412
- A-2. Aerial, underground and drop
- A-3. Comm-Scope, Cerro and General
- A-4. Air, Solid and Foam
- A-5. Jacketed, bare, flooded
- A-6. Small, medium and large

Q-2. What would you normally expect to find in a CATV "headend"?

- A-1. Signals
- A-2. Processors and modulators
- A-3. Air Conditioner
- A-4. Electronic equipment
- A-5. Electrical equipment
- A-6. Mice

Q-3. How can you determine if an antenna is bad?

- A-1. By checking them out
- A-2. By comparing them with a test antenna
- A-3. By replacing them. If the new one works, the old one is bad.
- A-4. If no signals come out when the TV station is on
- A-5. I can't. I have never been taught how.
- A-6. By climbing the tower or pole and testing them.

Are you starting to get the idea? Believe it or not, most of these answers have appeared on our tests. Legally, each of them is correct.